

75014232

ACINETOBACTER ISOLATES FROM ENVIRONMENTAL SAMPLING IN HOSPITALS.

OHGKE H; STEINKOHL M; KANZ E
 ABT. KRANKENHAUSHYG., INST. MED., MIKROBIOL. IMMUNOL.,
 UNIVERSITAETSKRANKENHAUS EPPENDORF, MARTINISTR. 52, D-2000
 HAMBURG 20.

ZENTRALBL BAKTERIOL MIKROBIOL HYG ABT 1 ORIG B HYG UMWELTHYG
 KRANKENHAUSHYG ARBEITSHYG PRAEV MED 174 (6). 1981 (RECD.
 1982). 509-522. Coden: ZAOMD

Language: GERMAN

By environmental culturing, Acinetobacter was isolated from human sources and wet sites as well as from air and dry surfaces. A. anitratum from patients and hospital personnel, resistance against antibiotics and metal salts was more dominant than in other strains. Acinetobacter strains were more tolerant of dryness than Escherichia coli but less than Micrococcus luteus. By repeated contacts, Acinetobacter spp. were recovered from contaminated surfaces of polyvinyl chloride in significantly higher numbers than from paving tile.

Descriptors: HUMAN ACINETOBACTER-ANITRATUM ESCHERICHIA-COLI MICROCOCCUS-LUTEUS HOSPITAL PERSONNEL AIR WET SITE DRY SURFACE ANTIBIOTIC RESISTANCE METAL SALT POLY VINYL CHLORIDE PAVING TILE

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500); BIOCHEM STUD-GENERAL(10060); MINERALS(10069); PATHOLOGY-THERAPY(12512); PHARMACOL-GENERAL STUDIES(+22002); PHARMACOL-CLINICAL PHARMACOL(22005); BACTERIA-PHYSIOLOGY,BIOCHEMISTRY(+31000); MICROBIDLOG APPARAT,METHS,MEDIA(32000); MED/CLIN MICROBIOL-GEN,METH,TECH(36001); MED/CLIN MICROBIOL-BACTERIOLOGY(+36002); PUB HEALTH-ADMINISTR,STATISTICS(+37010); PUB HEALTH-HEALTH SERV,MEDL CARE(+37012); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); EPIDEMIOLOG-COMMUNICABLE DISEASES(+37052); PUB HEALTH-GENL DISEASE VECTORS(+37057); PUB HEALTH-ANIMATE DIS VECTORS(+37058); PUB HEALTH-INANIMATE DIS VECTORS(+37060); PUB HEALTH MICROBIOL(37400); CHEMOTHERAPY-ANTIBACTERIAL AGENTS(+38504)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); NEISSERIACEAE(05110); HOMINIDAE(86215)

75013043

A ROTATING DISC METHOD TO DETERMINE DRUG DISSOLUTION RATES FROM INERT POLY VINYL CHLORIDE MATRICES.

NICKLASSON M; BRODIN A; GRAFFNER C
 DEP. PHARMACEUTICS, ASTRA LAKEMEDEL AB, S-151 85 SODERTALJE, SWEDEN.

ACTA PHARM SUEC 19 (3). 1982. 211-222. Coden: APSXA

Language: ENGLISH

A rotating disk method using an extrapolation procedure was used to study the influence of some insoluble excipients on the dissolution rate of alaproclate HCl from PVC [polyvinylchloride] matrices. Both initial and matrix controlled release were determined. The matrix controlled release correlated well with dissolution experiments performed

with a rotating paddle method (USP XX). A 1st order rate constant correlated better than a single point estimate (t70%). Correlations to in vivo by using Cp max [maximum plasma concentration after single dose administration] and AUC [area under the curve] were shown.

Descriptors: PLASMA ALAPROCLATE HYDRO CHLORIDE SINGLE POINT ESTIMATE PHARMACO KINETICS

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLECUL PROP,MACROMOLEC(+10506); MOVEMENT(12100); METABOLISM-GENL STUD,METAB PATHW(13002); BLOOD/BODY FLOS-BLOOD,LYMPH STUD(15002); PHARMACOL-GENERAL STUDIES(+2200-2); PHARMACOL-DRUG METAB,METAB STIMU(+22003)

7500R555

A NEW ATTEMPT FOR MYO CARDIAL COOLING DURING CARDIAC SURGERY.

MAETA H; IRIYAMA T; ITOH T; OKAMURA K; IJIMA H; SAKURAI J-I; MITSUI T; HORI M

DEP. SURG., INST. CLIN. MED., UNIV. TSUKUBA.

J JPN ASSOC THORAC SURG 30 (1). 1982. 21-27. Coden: NKZAA

Language: JAPANESE

A combination of the topical myocardial cooling and the cold cardioplegia has now become a routine method for myocardial preservation. Rapid uniform cooling of the heart and keeping myocardium in ideal hypothermia are the most important requirements of myocardial protection during cardiac surgery. A new superfine myocardial thermosensor and a cooling coil which showed good results in clinical use was designed. The superfine myocardial thermosensor (MTS) is made of string-typed thermocouples (chromelalumel) covered with Inconel. It is only 0.25 mm thick and can be inserted into any depth or any part of myocardium. Relationship between the electromotive force and the temperature measured by a mercury thermometer had an excellent correlation at over 7.degree. C. The MTS is fixed firmly enough with only 1 suture to the myocardium and is removable easily and safely under the heart beating. Myocardial cooling coil is made of a vinyl chloride tube (5 mm in diameter) and formed like a basket. The left ventricle is wrapped by this coil and lifted up from the pericardium. This coil is connected to a heat-exchanger and a roller pump. The pericardial cavity is irrigated continuously with cold saline through the coil. Overflowed water is aspirated by another suction tube and flows back to the heat-exchanger. Then myocardial cooling was induced by the flow of saline at 3.degree.-6.degree. C and a flow rate of 300-400 ml/min through this intrapericardial irrigation circuit. Myocardial temperatures monitored by the MTS were maintained at 8 to 15.degree. C, although the rectal temperature was kept at over 25.degree. C. The use of cooling coil enabled the duration of aortic cross clamping to prolong up to 3 h. In the control group without the cooling coil, myocardial temperature was quickly elevated and became unstable. Two out of 25 cases in the control group resulted in myocardial infarction. The protection of myocardium was improved by lifting the left ventricle up from the pericardium, irrigating the pericardial cavity through the cooling coil with cold saline and isolating the heart from heat input by draining the blood through the individual caval cannulation and the left atrial vent. under the continuous monitoring of the myocardial temperature by the MTS.

Descriptors: HUMAN MYO CARDIAL PROTECTION COLD CARDIOPLEGIA HYPO THERMIA AORTIC CROSS CLAMPING MYO CARDIAL THERMO SENSOR

Concept Codes: BIOPHYS-GENERAL BIOPHYS TECH(10504); EXTERN EFF-COLD(10616); ANATOMY/HISTOL-SURGERY(+11105); PATHOLOGY-THERAPY(+12512); CARDIOVASC SYST-GENL STUDS,METHS(14501); CARDIOVASC SYST-HEART PATHOLOGY(+14506); TEMPERATURE-GENL,METHS(+23001); TEMPERATURE-HYPO,HYPERTHERMIA(+23006)

Biosystematic Codes: HOMINIDAE(86215)

75008105

ELECTRICAL CHARGE CONDUCTION MECHANISM OF A POLYMER MEMBRANE ELECTRODE SELECTIVE FOR HYDROPHOBIC CATIONS/W

LUCH J R; STERNSON L A; HIGUCHI T

DEP. PHARM. CHEM., UNIV. KANS., LAWRENCE, KANS. 66045.

ANAL CHEM 54 (9). 1982. 1583-1588. Coden: ANCHA

Language: ENGLISH

A plastic electrode incorporating a poly(vinyl chloride)-dioctylphthalate membrane shows Nernstian response to hydrophobic cations. Magnitude of response is determined by the thermodynamic activity of the ion and its hydrophobicity (i.e., partition coefficient between test solution and membrane phase). Electrodiffusion experiments suggest that the hydrophobic cation itself is capable of carrying charge and is transmitted through the membrane by its selective solvation by confined negative sites in the form of the carbonyl groups of the plasticizer, dioctylphthalate. Potential development is considered to be localized at membrane-solution interfaces.

Concept Codes: BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL STUDIES(10502); BIOPHYS-GENERAL BIOPHYS TECH(+10504)

75008096

STREAMING POTENTIAL INVESTIGATIONS POLYMER THIN FILMS.

VAN WAGENEN R A; COLEMAN D L; KING R N; TRILO P; BROSTROM L
: SMITH L M; GREGONIS D E; ANDRADE J D
DEP. BIDENG., COLL. ENG., UNIV. UTAH, SALT LAKE CITY, UTAH
84112.

J COLLOID INTERFACE SCI 84 (1). 1981. 155-162. Coden:
JCISA

Language: ENGLISH

Streaming potential evaluations were carried out on a wide variety of biopolymer and synthetic polymer thin films supported on glass microscope slides. The film-forming and streaming evaluation techniques are sufficiently accurate to provide reproducible results between different investigators. Films evaluated to date include various silanes, albumins, agarose, and synthetic polymers based on hydroxyethyl methacrylate (HEMA), n-butyl methacrylate (n-BMA), and methyl methacrylate (MMA). The effect of negative and positive charge incorporation upon the streaming potential and thus the zeta potential was studied via incorporation of methacrylic acid (MAA) and both HCl and CH₃Cl salts of dimethylaminoethyl methacrylate (DMAEMA) into the neutral polymer chains of HEMA, n-BMA and MMA via copolymerization. Thin films of polystyrene, polydimethyl siloxane, polyvinyl chloride, and avcothane were also evaluated successfully.

Descriptors: SILANES ALBUMINS AGAROSE HYDROXYETHYL METHACRYLATE N BUTYL METHACRYLATE METHYL METHACRYLATE METHACRYLIC-ACID DI METHYL AMINOETHYL METHACRYLATE POLY STYRENE POLY DI METHYL SILOXANE POLY VINYL CHLORIDE AVCOTHANE SYNTHETIC BIO MATERIALS

Concept Codes: BIOCHEM STUD-GENERAL(*10060); BIOCHEM STUD-PROTEINS, PEPTIDES, AMINO ACID(*10064); BIOCHEM STUD-CARBOHYDR. (*10068); BIOPHYS-MOLECUL PROP, MACROMOLEC(*10506); BIOPHYS-BIOENGINEERING(*10511)

75007410

SORPTION DESORPTION OF VINYL CHLORIDE MONOMER IN POLY VINYL CHLORIDE SELECTED FOOD SIMULANTS SYSTEMS.

KONTOMINAS M; MILTZ J; GILBERT S G
LAB. FOOD CHEM., DEP. CHEM., UNIV. IOANNINA, IOANNINA, GREECE.

J FOOD SCI 47 (4). 1982. 1208-1210. Coden: JFDSA

Language: ENGLISH

Sorption/desorption studies of VCM [vinyl chloride monomer] in the systems PVC [polyvinyl chloride]/VCM/water, PVC/VCM/corn oil in PVC/VCM/heptane were carried out. At low VCM concentrations, classical curves are obtained, where the sorption isotherms are located below their desorption counterparts. Above a certain VCM concentration a crossover exists and an inversion of the curves occurs. It was suggested that the intersection between the curves represents the point where all the active sites in the polymeric matrix are occupied by monomer molecules. The negative values of the total Gibb's free energy and the energy of mixing in the polymer increase with the decrease in monomer concentration, pointing to the possibility that at low enough concentrations

concentrations no migration of VCM into the contained food from a PVC package may occur.

Descriptors: CORN OIL ISOTHERMS FREE ENERGY PACKAGING

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL-(10050); BIOCHEM STUD-GENERAL(*10060); BIOCHEM STUD-LIPIDS(10-066); BIOPHYS-GENERAL STUDIES(10502); BIOPHYS-GENERAL BIOPHYS TECH(10504); EXTERN EFF-PHYSICAL, MECH EFFECTS(10612); MOVEMENT(12100); FOOD TECH-GENL STUDS, METHS(*13502); FOOD TECH-FATS, OILS(13514); FOOD TECH-EVALNS PHYS, CHEM PROPS(*1353-0); FOOD TECH-PREP, PROCESSING, STORAGE(*13532); TOXICOL-FOOD, RESIDS, ADDIT, PRESRV(*22502); PLANT PHYSIOL-CHEM CONSTITUENTS(51-522); AGRONOMY-GRAIN CROPS(52504)

Biosystematic Codes: GRAMINEAE(25305)

75007358

DUST CONTENT IN THE WORKING ENVIRONMENT DURING WORK WITH POLY VINYL CHLORIDE.

NATOV M; VASILEVA S; SHOPOVA TS

HIGH. CHEM.-TECHNOL. INST., SOFIA, BULG.

GIG TR PROF ZABOL O (12). 1981 (RECD. 1982). 7-10.
Coden: GTPZA

Language: RUSSIAN

Dust content at various sections of a polyvinyl chloride processing factory was studied. The dust contained mainly 1- to 5- μ m particles, and the dust content was highest in sections for preparation and in those for additional mechanical processing of the articles. The effect of humidity and temperature on the dust content in the air of workplaces and its effects on workers were studied. Polyvinyl chloride dust content decreased in higher humidity and increased at higher temperatures.

Descriptors: HUMAN HUMIDITY HEAT

Concept Codes: SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); EXTERN EFF-HOT(*10618); EXTERN EFF-HUMIDITY(*10620); PATHOLOGY-GENERAL STUDIES(12502); METABOLISM-GENL STUD, METAB PATHW(13002); TOXICOL-ENVIRONMNTL, INDUSTR(*22506); ENVIRON HEALTH-OCCUPATNL HEALTH(*37013); ENVIRON HEALTH-AIR, WATR, SL POLLN(*37015)

Biosystematic Codes: HOMINIDAE(86215)

75007355

ADIPOGENIC EFFECT OF SOME INDUSTRIAL POISONS.

MAKAROV I A; MAKARENKO K I; DESYATNIKOVA N V

INST. IND. HYG. OCCUP. DIS., GORKI, USSR.

GIG TR PROF ZABOL O (12). 1981 (RECD. 1982). 29-32.

Coden: GTPZA

Language: RUSSIAN

Anthropometric examinations were performed on 676 workers exposed to methyl methacrylate (MMA). 700 workers engaged in the manufacture of vinyl chloride (VC) and 512 mechanics. The basal insulin level was examined in 119 subjects, somatotrophic hormone [STH] level in 123 and prolactin level in 86. MMA and VC produced adipogenic action. The adipogenic effect of VC was more pronounced and was observed in males and females; MMA affected only women. Adipogenic disturbances in workers engaged in chemical industry were due to development of toxicogenic hormonal imbalance; increased insulin and prolactin secretion in the presence of inhibited STH production.

Descriptors: HUMAN MECHANIC METHYL METHACRYLATE VINYL CHLORIDE INSULIN PROLACTIN SOMATOTROPIC HORMONE SEX DIFFERENCE

Concept Codes: GENETICS/CYTOGENET-SEX DIFFERENC(03510); SOCIAL BIOL/HUMAN ECOLOGY(05500); CLIN BIOCHEM-GENL STUDIES(+10006); BIOCHEM STUD-PROTEINS, PEPTIDES, AMINO ACID(100-64); BIOCHEM STUD-LIPIDS(10066); BIOCHEM STUD-STEROLS, STERIODS(10067); PATHOLOGY-COMPARATIVE(12503); METABOLISM-LIPIDS(+13-006); METABOLISM-STEROLS, STERIODS(13008); METABOLISM-PROTEINS, PEPTIDES, AM ACIDS(+13012); ENDOCRINE SYST-PANCREAS(+17008); ENDOCRINE SYST-PITUITARY(+17014); BONE, JNTS, FASC, CONN/ADIP-PATHIOL(+18006); TOXICOL-ENVIRONMNTL, INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR, WATR, SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

75006527

OCCURRENCE AND SIGNIFICANCE OF ACTINOMYCETES IN DRINKING WATER.

DOTT W; WASCHKO-DRANSMANN D

HYGIENE-INST. DER UNIV. BONN, KLINIKGELAENDE 35, D-5300 BONN

1.

ZENTRALBL BAKTERIOL MIKROBIOL HYG ABT 1 ORIG B HYG UMWELTHYG KRANKENHAUSHYG ARBEITSHYG PRAEV MED 173 (3-4). 1981.

217-232. Coden: ZAOMD

Language: GERMAN

Different actinomycetes were found in raw water depending on the origin of the water. The water treatment process influenced the total count and the species distribution. Actinomycetes were also isolated from the slime formed by microbial growth on polyvinyl chloride-C coated walls in reservoirs. The typical earthy-musty odor was produced only by Streptomyces; some Nocardia isolates produced a phenolic odor.

Descriptors: MICROBIAL SLIME STREPTOMYCES NOCARDIA RAW WATER WATER TREATMENT PROCESS POLY VINYL CHLORIDE COATED RESERVOIR WALL EARTHY MUSTY ODOR PHENOLIC ODOR

Concept Codes: ECOLOGY-LIMNOLOGY(+07514); ECOLOGY-WATR RESRCH, FISHERY BIOL(07517); SENSE ORGANS-GENL STUDS, METHS(200-

01); BACTERIOLOGY-GENL, TAXONOM STUDS(+30000); ENVIRON HEALTH-SEWG DISP, SANITAR(37014); ENVIRON HEALTH-AIR, WATR, SL POLLN(+37015); FOOD/INDUS MICRO-BIODEGRAD, DETER(+39006)

Biosystematic Codes: MICROORGANISMS-UNSPECIFIED(01000); ACTINOMYCETES AND RELATED ORGANISMS-UNSPECIFIED(05800); NOCARDIACEAE(05824); STREPTOMYCETACEAE(05828)

24006041

MECHANISTIC ASPECTS OF THE THERMAL FORMATION OF HALOGENATED ORGANIC COMPOUNDS INCLUDING POLY CHLORINATED DI BENZO-P-DIOXINS 3. THERMO DEGRADATION OF ORGANIC METALLICS AND POLYMERS.

CHOUHDHRY G G; HUTZINGER O

LAB. ENVIRON. TOXICOL. CHEM., UNIV. AMSTERDAM, NIEUWE ACHTERGRACHT 166, 1018 WV AMSTERDAM, NETH.

TOXICOL ENVIRON CHEM 5 (2). 1982. 97-152. Coden: TECSD

Language: ENGLISH

Descriptors: POLY VINYL CHLORIDE BENZENE HYDRO CHLORIC-ACID

Concept Codes: BIOCHEM METH-GENERAL(10050); BIOCHEM METH-MINERALS(10059); BIOCHEM STUD-GENERAL(+10060); MINERALS(+10069); BIOPHYS-GENERAL BIOPHYS TECH(10504); EXTERN EFF-HOT(10618); TOXICOL-GENL/EXP STUDS, METHS(+22501); TOXICOL-ENVIRONMNTL, INDUSTR(+22506)

74082380

CHEMICAL CONTROL OF THE PINE GALL MIDGES
THECODIPLOSIS-JAPONENSIS 4. IMPROVEMENT OF THE TRUNK
IMPLANTATION METHODS OF INSECTICIDES.

CHOI S Y; LEE H R; AHN Y J

COLL. OF AGRICULTURE, SEOUL NATIONAL UNIV., SUWEON, KOREA.

SEOUL NATL UNIV COLL AGRIC BULL 6 (2). 1981 (RECD. 1982).

21-32. Coden: NYSTD

Language: KOREAN

A series of experiments were conducted to evaluate insecticides for control of the pine gall midge (*T. japonensis* Uchida et Inouye) and to find more feasible and efficient [insecticide] trunk-implantation methods than the conventional drill-implantation method. Insecticides tested were emulsion concentrates Folimat (omethoate, Ec [emulsifiable concentrate] 50%), Kilval (vamidothion, Ec 40%), Dimecron (phosphamidon, Ec 50%), Metasystox-R (oxydemeton-methyl, Ec 40%) and Salithion (24% Ec). Insecticides were implanted into the tree trunk using 3 different methods; method (A) was the Mauget Injector Unit, method (B) employs a PVC-tube [polyvinyl chloride] and method (C) used the conventional drill. With method A, Folimat was very effective for suppressing gall incidence by the insects, followed by (Kilval) and Dimecron. Implantation of Folimat using method B was most effective in suppression of gall incidence followed by Kilval. Dimecron and Metasystox Salithion was ineffective. Method C results were similar to that of method B. The order of control effectiveness among the methods tested in terms of gall incidence was method C > B > A. The number of larvae in the gall were relatively lower in the plots treated with Folimat by methods B and C. Recovery of holes bored for implanting insecticides were good in methods A and B, while most of the holes drilled by method C were not recovered until Oct. 31. Method B using the PVC-tube, was considered the most feasible and efficient method.

Descriptors: GALL INCIDENCE FOLIMAT KILVAL DIMECRON METASYSTOX R SALITHION MAUGET INJECTOR UNIT POLY VINYL CHLORIDE TUBING DRILLING

Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD APPARATUS(01010); BIOCHEM STUD-GENERAL(10060); EXTERN EFF-PHYSICAL,MECH EFFECTS(10612); TOXICOL-GENL/EXP STUDS,METH-S(+22501); FORESTRY AND FOREST PRODUCTS(+53500); PHYTOPATHOL-DIS BY ANIM PARASITE(+54508); PEST CONTRL GENL/PESTICS/HERBICS(+54600); ECONOM ENTOMOL-TREE,ORN,WO PRODS(+60010); ECONOM ENTOMOL-CHEM PHYS CONTRL(+60016); INVERTEB PHYSIOL-INSECTA-PATHOL(+64078)

Biosystematic Codes: SPERMATOPHYTA-UNSPECIFIED(25000); DIPTERA(75314); ABSTRACTS OF ENTOMOLOGY(96000)

grade poly(vinyl chloride) was implanted in rat gluteal muscle and muscle specimens taken from the implanted and non-implanted sites after 7, 14 and 21 days. In the muscle homogenate taken in suitable solvents, the activities of alkaline phosphatase, acid phosphatase, Ca²⁺ ATPase, leucine aminopeptidase (LAP) and succinic dehydrogenase (SDH) were tested and compared at implanted and nonimplanted sites. Increased activity of acid phosphatase, alkaline phosphatase, LAP and Ca²⁺ ATPase were seen at the implanted site but the SDH activity was reduced. The enzyme activity at both sites was maximum around 14 days and the highest increase in activity at the implant site compared to the control site was observed for alkaline phosphatase and acid phosphatase. After 21 days, the activity decreased gradually. In the case of SDH, the inhibition was more after 14 days and gradually decreased after 21 days.

Descriptors: RAT MUSCLE ALKALINE PHOSPHATASE ACID PHOSPHATASE CALCIUM ATPASE LEUCINE AMINO PEPTIDASE SUCCINIC DEHYDROGENASE

Concept Codes: BIOCHEM STUD-GENERAL(+10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); BIOPHYS-BIOENGINEERING(+10511); ENZYMES-PHYSIOLOGICAL STUDIES(+10808); MUSCLE SYST-PHYSIOL,BIOCHEM(+17504)

Biosystematic Codes: MURIDAE(86375)

74080758

BIO COMPATIBILITY SCREENING OF POLY VINYL CHLORIDE IMPLANTS.

SHARMA R; VASUDEVAN P

INDIANA INST. TECHNOL., NEW DELHI 110, 016, INDIA.

BIOMATERIALS 3 (2). 1982. 109-112. Coden: BIMAD

Language: ENGLISH

The biocompatibility of a polymeric implant was tested by assaying enzyme activity in the tissue homogenate. Medical

R&S 138339

DIALOG File5: BIOSIS Previews 77-83/Jan BA7502:RRM2402(See File55) (c. BIOSIS 1982) (Item 13 of 858) User 3614 25Jan83 1985

74079968

COMPARATIVE TOXICOLOGICAL ASSESSMENT OF PRODUCTS FROM BURNING OF MULTI COMPONENTIAL MATERIALS BASED ON WOOL AND SYNTHETIC FIBERS.

EITTINGON A I; PODDUBNAYA L T; SHASHINA T A; NAUMOVA L S
INST. IND. HYG. OCCUP. DIS., ACAD. MED. SCI. USSR, MOSCOW, USSR.

GIG TR PROF ZABOL O (9). 1981. 50-52. Coden: GTPZA

Language: RUSSIAN

The effect of adding wool to synthetic fibers (kapron, acetochlorine, lavsan, polyvinyl chloride) on the toxicity of products from burning multicomponential materials was studied. Experimental mice were subjected to 5 min of toxic effect in a chamber containing products from burning material. The toxic effect was assessed by death of mice and was expressed in weight of material relative to the volume of the chamber necessary for inducing LD50. Chemical and analytical studies revealed that kapron emitted 47.6 mg HCN and 25 mg CO during burning and wool emitted 8.5 mg HCN and 46.9 CO. The other 3 synthetic materials did not emit HCN in burning. Knowing the individual fiber toxicity, it was supposed that toxicity of multicomponential materials would correspond to the added toxicity of individual fibers in direct proportion to their content percentage. Experimentally determined toxicity parameters for mixed materials (19.5-32.0 mg HCN) were considerably lower than calculated ones. CO emission from mixed fiber materials differed little from those of pure wool. The intensified HCN effect could be due to the combined effect of products from burning N-containing (wool and kapron) and Cl-containing (acetochlorine and polyvinyl chloride) materials, or it could be due to changes of the mechanism and quantity of emission of the highest toxic components from burning of mixed materials.

Descriptors: MOUSE KAPRON ACETO CHLORINE LAVSAN POLY-VINYL CHLORIDE LD-50 HYDROGEN CYANIDE CARBON MON OXIDE

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOPHYS-BIOCYBERNETICS(10515); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-NECROSIS(12510); METABOLISM-GENL STUD,METAB PATHW(13002); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,INDUSTR(+22506)

Biosystematic Codes: MURIDAE(86375)

74073968

AN EXAMINATION OF THE PHYSICAL CHARACTERISTICS LEADING TO ANGIO PLASTY BALLOON RUPTURE.

GERLOCK A J JR; REGEN D M; SHAFF M I
VANDERBILT UNIV. SCH. MED., DEP. RADIOLOGY, 21ST GARLAND AVE., NASHVILLE, TN 37232.

RADIOLOGY 144 (2). 1982. 421-422. Coden: RADLA

Language: ENGLISH

Six polyvinyl chloride and 6 polyethylene angioplasty balloons were inflated 6 times each under laboratory conditions. Outside diameter of the balloons was measured on initial and final inflations; volume was measured by water displacement at each inflation. Three balloons in all were

were constricted with a silk suture around the midportion. Balloons were then intentionally ruptured and the rupture site recorded. The diameters of the polyvinyl chloride balloons increased over 6 inflations, while they remained relatively constant for the polyethylene balloons. Rupture sites were in the area of the balloon that had the greatest outside diameter and the tears were longitudinal.

Descriptors: POLY VINYL CHLORIDE POLY ETHYLENE
Concept Codes: BIOCHEM STUD-GENERAL(10060); EXTERN EFF-PHYSICAL,MECH EFFECTS(+10612); ANATOMY/HISTOL-EXPERIMENTAL(+11104); PATHOLOGY-THERAPY(12512); CARDIOVASC SYST-GENL STUDS,METHS(+14501); CARDIOVASC SYST-BLD VESS PATHOL(+14508)
Biosystematic Codes: VERTEBRATA-UNSPECIFIED(85150)

74073479

PREPARATION AND ELECTRON SPECTROSCOPY FOR CHEMICAL ANALYSIS CHARACTERIZATION OF POLY VINYL CHLORIDE SURFACE GRAFTED WITH HEPARIN COMPLEXING POLY AMIDO AMINE CHAINS.

FERRUTI P; BARBUCCI R; DANZO N; TORRISI A; PUGLISI O; PIGNATARO S; SPARTANO P
IST. CHIMICA INTERMEDI, VIA RISORGIMENTO 4, 40186 BOLOGNA, ITALY.

BIOMATERIALS 3 (1). 1982. 33-37. Coden: BIMAD

Language: ENGLISH

By a simple process poly(amido-amine) chains were grafted on the surface of poly (vinyl chloride). Grafted poly(vinyl chloride) is able to adsorb heparin, providing potentially nonthrombogenic surfaces. The grafting of poly(amido-amine) and the heparin adsorption were studied by ESCA [electron spectroscopy for chemical analysis]. The total amount of grafted poly(amido-amine) depends on the MW of the poly(amido-amine) used in the grafting reaction, but the amount of heparin adsorbed on the grafted material is relatively independent of the length of the poly(amido-amine)-grafted chains.

Descriptors: ANTICOAGULANT PHARMACEUTICAL-ADJUNCT

Concept Codes: GENERAL LABORATORY METHODS(01004); BIOCHEM METH-GENERAL(10050); BIOCHEM METH-CARBOHYDRATES(10058); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-CARBOHYDR.(10068); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); BIOPHYS-BIOENGINEERING(+10511); ANATOMY/HISTOL-REGEN,TRANSPLANT(+11107); PHARMACOL-BLOOD,HEMATO AGENTS(+22008)

74058896

THE INFLUENCE OF HEPARINIZED POLYMERS ON THE RETENTION OF PLATELETS AGGREGABILITY DURING STORAGE.

MORI Y; NAGAOKA S; KIKUCHI T; TANZAWA H

BASIC RESEARCH LABORATORY, TORAY INDUSTRIES, INC., KAMAKURA 248, JPN.

J BIOMED MATER RES 16 (3). 1982. 209-218. Coden: JBMRB

Language: ENGLISH

The change in aggregability of the platelets stored in the storage tube fabricated from a newly developed heparinized hydrophilic polymer (H-RSD) was studied in comparison with plasticized polyvinyl chloride (PVC) which is widely used for blood bags. Rabbit blood was directly withdrawn from the carotid into the storage tube containing an anticoagulant. Then the tube was mechanically sealed with screw cocks and centrifugated to prepare platelet-rich plasma (PRP) in the tube and again mechanically clamped to separate the PRP from the residual precipitate. The PRP was stored in situ in the storage tube at room temperature under agitation. During storage, the change in the aggregability of the PRP induced by ADP was studied and the morphological change in the platelets adhered onto the inner surface of the storage tube was observed by scanning electron microscopy. In the H-RSD tube, the aggregability was completely lost after 1-day storage. The scanning electron microscopic studies demonstrated that the reduction in the aggregability of the stored platelets is closely correlated with the morphological deformation of the platelets adhered onto the surface of the storage tube.

Descriptors: RABBIT ANTICOAGULANT POLY VINYL CHLORIDE BLOOD BAGS ADP

Concept Codes: GENERAL LABORATORY METHODS(01004); GENERAL LABORATORY APPARATUS(01006); MICROSCOPY-CYTOLOG.CYTOCHEM TECH(01054); MICROSCOPY-HISTOL.HISTOCHEM TECH(01056); ELECTRON MICROSCOPY(01058); CYTOLOGY/CYTOCHEM-ANIMAL(02506); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS.PYRM(10062); BIOCHEM STUD-CARBOHYDR.(10068); BIOPHYS-GENERAL BIOPHYS TECH(10504); EXTERN EFF-TEMPERATURE(10614); ANATOMY/HISTOL-MICRO,ULTRAMICRSC(11108); BLOOD/BODY FLDS-GENL STUDS,METHS(+15001); BLOOD/BODY FLDS-BLOOD CELL STUDS(+15004); BLOOD/BODY FLDS-LYMPHAT TISS.RES(+15008); PHARMACOL-BLOOD,HEMATO AGENTS(+22008); TEMPERATURE-GENL,METHS(23001)

Biosystematic Codes: LEPORIDAE(86040)

Language: ENGLISH

Human red blood cell concentrates drawn from normal healthy volunteers with hematocrits of 85 $\pm$ 5 % were stored in the CPDA-1 [citrate, phosphate, dextrose, adenine], CPDA-2 or CPDA-3 anticoagulant at 4.degree. C for 35 days. After liquid storage, the red blood cell concentrates were biochemically treated with 50 ml of a solution containing 100 mM/l pyruvate, 100 mM/l inosine, 100 mM/l phosphate and 5 mM/l adenine (PIPA, solution C), to increase their 2,3 DPG [diphosphoglycerate] and ATP levels which had deteriorated during storage at 4.degree. C. The rejuvenated red blood cells were frozen with 40% wt/vol glycerol in the polyvinyl chloride plastic primary collection bag and were stored at -80.degree. C for up to 3 mo. After thawing, the red blood cells were washed with 50 ml of 12% NaCl and 1.5 to 1.6 l of 0.9% NaCl, 0.2% glucose and 25 meq[equivalent]/l disodium phosphate. The washed red blood cells were stored at 4.degree. C for 24 h prior to autologous transfusion. The CPDA-1-stored red blood cells had a 24 h post-transfusion survival of 82 $\pm$ 7% (n = 6), and the index of therapeutic effectiveness (ITE) was 75 $\pm$ 7% (n = 6). The CPDA-2-stored red blood cells had a survival of 85 $\pm$ 2% (n = 3), with an ITE of 79 $\pm$ 1%. The survival of the CPDA-3-stored red blood cells was 90 $\pm$ 3% (n = 4) and the ITE was 84 $\pm$ 4%. All units had improved O2 delivery capacity, with 2,3 DPG and ATP levels of about 150% of normal after thawing and storage at 4.degree. C for 24 h. Red blood cell concentrates with hematocrit values of 85 $\pm$ 5% can be stored effectively in CPDA-1, CPDA-2 or CPDA-3 at 4.degree. C for 35 days, biochemically modified, freeze-preserved with 40% wt/vol glycerol in the polyvinyl chloride plastic primary collection bag at -80.degree. C, and stored after washing for 24 h at 4.degree. C before transfusion.

Descriptors: ATP 2 3 DI PHOSPHO GLYCERATE POST TRANSFUSION SURVIVAL OXYGEN DELIVERY CAPACITY

Concept Codes: MICROSCOPY-CYTOLOG.CYTOCHEM TECH(01054); CYTOLOGY/CYTOCHEM-HUMAN(+02508); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS.PYRM(10062); BIOCHEM STUD-CARBOHYDR.(10068); MINERALS(10069); EXTERN EFF-COLD(10616); METABOLISM-ENERGY,RESPIRATION(+13003); METABOLISM-CARBOHYDRATES(+13004); MINERALS(+13010); METABOLISM-NUCL ACD,PURNS.PYRM(+13014); BLOOD/BODY FLDS-GENL STUDS,METHS(15001); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(+15002); BLOOD/BODY FLDS-BLOOD CELL STUDS(+15004); TEMPERATURE-CRYOBIOLOGY(+23004)

Biosystematic Codes: HOMINIDAE(86215)

74058790

RED BLOOD CELL CONCENTRATES STORED AT 4 CELSIUS FOR 35 DAYS IN CITRATE PHOSPHATE DEXTROSE ADENINE 1 CITRATE PHOSPHATE DEXTROSE ADENINE 2 OR CITRATE PHOSPHATE DEXTROSE ADENINE 3 ANTI COAGULANT PRESERVATIVE BIOCHEMICALLY MODIFIED AND FROZEN AND STORED IN THE POLY VINYL CHLORIDE PLASTIC PRIMARY COLLECTION BAG WITH 40 PERCENT WEIGHT VOLUME GLYCEROL AT MINUS 80 CELSIUS.

VALERI C R; VALERI D A; GRAY A; MELARAGNO A; DENNIS R C; EMERSON C P

NAVAL BLOOD RESEARCH LAB., BOSTON UNIV. SCH. MED., 615 ALBANY ST., BOSTON, MA. 02118.

TRANSFUSION (PHILA) 22 (2) 1982 102-106 Coden: TRAH

74057987

IDENTIFICATION BY GAS CHROMATOGRAPHY MASS SPECTROMETRY OF VINYL CHLORIDE OLIGOMERS AND OTHER LOW MOLECULAR WEIGHT COMPONENTS IN POLY VINYL CHLORIDE RESINS FOR FOOD PACKAGING APPLICATIONS/x

GILBERT J; SHEPHERD M J; STARTIN J R; WALLWORK M A
MINISTRY AGRIC., FISHERIES, FOOD, FOOD SCI. DIV., HALDIN
HOUSE, QUEEN ST., NORWICH NR2 4SX, GREAT BRITAIN.
J CHROMATOGR 237 (2). 1982. 249-262. Coden: JOCRA

Language: ENGLISH
Material of MW < .apprx. 400-500 was isolated from food grade poly(vinyl chloride) resins by initial soxhlet diethyl ether extraction and subsequent size-exclusion fractionation. Analysis by packed-column gas chromatography using Hall electrolytic conductivity detection showed the presence of a series of chlorinated components which by subsequent gas chromatography-mass spectrometry were tentatively identified as vinyl chloride oligomers. The chlorinated constituents in the extracts were selectively isolated from other low MW components by silica gel chromatography. From low-resolution capillary gas chromatography-mass spectrometry data (together with evidence from hydrogenated extracts) the structures of these oligomers were postulated as being a complete series ranging from trimer to hexamer (and probably to the octamer), each oligomer being represented by species containing a ring or a double bond and each occurring as a number of structural isomers. Other nonchlorinated compounds identified in the resins included mixed phthalates, alkanes, nonylphenol and undecyl dodecanoate, the latter being derived from the polymerization initiator lauryl peroxide.

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100); NUTRITION-MALNUTRITION,OBESITY(13203); NUTRITION-PATHOGENIC DIETS(13216); FOOD TECH-GENL STUDS,METHS(+13502); FOOD TECH-EVALNS PHYS,CHEM PROPS(13530); FOOD TECH-PREP,PROCESSNG,-STORAGE(+13532); TOXICOL-FOOD,RESIDS,ADDIT,PRESRV(+22502)

74057904

BIOLOGICAL EFFECT OF AEROSOLS MADE FROM POLY VINYL CHLORIDE AND EPOXY PLASTICS.

SHAKIBAZYAN G KH; SHEVCHENKO A M; GONCHARUK G A; PUSHKAR M P
; YAVOROVSKY A P

A. A. BOGOMOILETS KIEV MED. INST., KIEV, USSR.
VESTN AKAD MED NAUK SSSR 0 (1). 1981. 58-62. Coden: VAMNA

Language: RUSSIAN

Comprehensive industrial-hygienic, clinical-statistical and experimental studies [rats, mice] identified the main occupational hazards in the manufacture of polyvinyl chloride and epoxy plastics. The pattern and rate of morbidity depended on the working conditions. Composite (vapor-gas-aerosol) mixtures occurring during the manufacture and processing of these plastics may produce sensitizing, fibrogenic, embryotoxic and gonadotoxic effects along with general toxic and irritative ones. The need for developing and applying a

set of measures to prevent the adverse effects of polyvinyl chloride and epoxy formulations on the health of workers was shown.

Descriptors: HUMAN-RAT MOUSE GONADO TOXICITY EMBRYO TOXICITY FIBROSIS ALLERGY OCCUPATIONAL HEALTH

Concept Codes: BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(1-0060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-PROTNS,-PEPTDS,AM ACDS(+13012); REPRODUCT SYST-PATHOLOGY(+16506); BONE,JNTS,FASC,CONN/ADIP-PATHOL(+18006); TOXICOL-ANTIDOTES,PREVENTIVE(+22505); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); DEVELOPMNTL BIOL-PATHOLOGICAL(+25503); DEVELOPMNTL BIOL-EXPERIMENTAL(+25504); DEVELOPMNTL BIOL-GEN MORPHGENSIS(+25508); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(+34508); ALLERGY(+35500); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375); BIOSIS INTERNAL USE(97100)

74056101

PROCEDURE FOR STUDYING THE STRENGTH OF MICRO CAPSULAR ENVELOPES DURING EMULSIFICATION.

BABAK V G; ZIMON A D; NEVEROVA E A; CHLENOV V A
ALL-UNION CORRESP. INST. FOOD INST., MOSCOW, USSR
KHIM-FARM ZH 15 (4). 1981. 110-112. Coden: KHFAZ
Language: RUSSIAN

A procedure was developed for studying the strength of polymer adsorption layers at various interphasic edges under conditions of contact interactions. The resistance of H2O film stabilized by polyvinyl chloride (PVC) adsorption layers during contact of hydrophobic phases (solid and liquid) was studied in relation to PVC concentration in solution and length of adsorption layer aging. This procedure can be used for determining optimal polymer concentration in solution which is essential for stabilizing emulsions or suspensions of microcapsulated drugs.

Descriptors: POLY VINYL CHLORIDE PHARMACEUTICAL-ADJUNCT MICRO ENCAPSULATED DRUGS

Concept Codes: BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); PHARMACOL-GENERAL STUDIES(+22002)

DIALOG File5: BIOSIS Previews, 77-83/Jan 8A7502;RRM2402(See File55) (c. BIOSIS 1982) (Item 21 of 858) User 3614 25Jan83 1988

74050769

INCREASED ACETONE EXHALATION INDUCED BY METABOLITES OF HALOGENATED 1 CARBON AND 2 CARBON COMPOUNDS.

FILSER J G; JUNG P; BOLT H M

ABTEILUNG TOXIKOL., PHARMACKOLOGISCHES INST. UNIV. OBERE ZAHLBACHER STR. 67, D-6500 MAINZ 1, FRG.

ARCH TOXICOL 49 (2). 1982. 107-116. Coden: ARTOD

Language: ENGLISH

Rats were exposed, in a closed desiccator jar chamber, to concentrations of various halogenated C1 and C2 compounds at which the metabolizing capacities were saturated (Vmax conditions). Within the exposure period of 50 h concentrations of the xenobiotic and of exhaled acetone were monitored in the gas phase of the system. The quantitative extent of acetone exhalation was dependent on the individual compound examined. Acetone exhalation was stimulated in the presence of vinyl chloride, vinyl bromide, vinyl fluoride, vinylidene fluoride, cis- and trans-1,2-dichloroethylene, trichloroethylene, perchloroethylene, methylene chloride, chloroform, CCl4 and 1,1,2-trichloroethane. No stimulation of acetone exhalation occurred with 1,1,1-trichloroethane and with the reference hydrocarbon n-hexane. Acetone exhalation was evoked by infusions of fluoroacetate or chloroacetate, 2 anticipated or proven metabolites of some haloethylenes; the infusion rates of which were based on calculations of the metabolic rates of vinylidene fluoride and of vinyl chloride, respectively.

Descriptors: RAT

Concept Codes: BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(1-0060); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PATHOLOGY(+1600-6); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501)

Biosystematic Codes: MURIDAE(86375)

74050661

EXTERNAL RESPIRATION FEATURES OF WORKERS IN POLY VINYL CHLORIDE PRODUCTION BY THE LATEX METHOD.

GLUSHKO L V; NEIKO E M; BABENKO N A

DIV. FAC. THER., IVANO-FRANKOVSK MED. INST., IVANO-FRANKOVSK, USSR.

VRACH DELO 0 (4). 1981. 35-36. Coden: VRDEA

Language: RUSSIAN

A spirometric study of external respiration in 138 male and 88 female polyvinylchloride production workers by the latex method indicated no ventilation disorders of the restrictive and obstructive character. The diffusory membranes of the lungs were in good condition. The high level of oxidation was provided by an adequate strengthening of the external respiration apparatus.

Descriptors: HUMAN

Concept Codes: SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM STUD-GENERAL(10060); BIOPHYS-MEMBRANE PHENOMENA(10508); BIOPHYS-BIOENERGETICS(10510); PATHOLOGY-DIAGNOSTIC(+12504); METABOLISM-GENL STUD,METAB PATHW(13002); RESPIRATORY SYST-GENL

TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)
Biosystematic Codes: HOMINIDAE(86215)

74047851

VINYL CHLORIDE INDUCED HEPATIC LESIONS IN MAN AND RODENTS A COMPARISON.

POPPER H; MALTONI C; SELIKOFF I J
STRATTON LAB. FOR THE STUDY OF LIVER DISEASE, MOUNT SINAI
SCH. OF MED. OF THE CITY UNIV. OF NEW YORK, NY.

LIVER 1 (1). 1981. 7-20. Coden: LIVED

Language: ENGLISH

Histologic sequences in the liver of rodents exposed by inhalation to gaseous vinyl chloride were compared to the lesions in man exposed to the same agent, mainly in vinyl chloride polymerization plants. An identical sequence, starting with circumscribed proliferation of hepatocytes, soon followed by proliferation of a variety of sinusoidal cells and frequently associated with sinusoidal dilatation, progresses to intralobular and more frequently to trabecular angiosarcoma. Predominantly in young animals and rarely in man, hepatocellular carcinoma develops but never cirrhosis. The sequence represents a dynamic process of competition between proliferating hepatocytes and sinusoidal cells, of hepatocytes with fibroplasia, between perisinusoidal fibrosis and sinusoidal dilatation and of proliferation of various sinusoidal cells vs. angiosarcoma. The great similarity in the evolution in man and rodents, rarely encountered in other experimental models, supports the prediction of human cancer from animal experiments. The precursor nodules differ from the nodules commonly observed in hepatocarcinogenesis by coproliferation of sinusoidal cells. The differences in the reactions between man and rodents bespeak a strong fibroblastic reactivity in man. Most important, the precursor lesion of mixed hepatocellular and sinusoidal cell proliferation may be of diagnostic value, being superior to conventional hepatic tests in detection of some initial environmental lesions.

Descriptors: POLYMERIZATION PLANTS HEPATOCYTE SINUSOIDAL CELL CARCINOGEN TRABECULAR ANGIO SARCOMA HEPATO CELLULAR CARCINOMA FIBROPLASIA PERI SINUSOIDAL FIBROSIS SINUSOIDAL DILATATION HISTOLOGY PROLIFERATION

Concept Codes: MICROSCOPY-HISTOL,HISTOCHEM TECH(01056); CYTOLOGY/CYTOCHEM-ANIMAL(02506); CYTOLOGY/CYTOCHEM-HUMAN(02508); BIOCHEM STUD-GENERAL(10060); ANATOMY/HISTOL-MICRO,ULTRAMICRSC(11108); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-DIAGNOSTIC(12504); DIGESTIVE SYST-ANATOMY(14002); DIGESTIVE SYST-PATHOLOGY(+1400-6); RESPIRATORY SYST-GENL STUD,METHS(16001); BONE,JNTS,FASC,C-ONN/ADIP-ANATOMY(18002); BONE,JNTS,FASC,CONN/ADIP-PATHOL(18006); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-0(A-GNS METH(24001); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); DIVELOPMNTL BIOL-GEN MORPHOGENSIS(+25508); LABORATORY ANIMALS-GENL STUDS(28002); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); PLANT PHYSIOL-METABOLISM(51519); PLANT PHYSIOL-CHEM CONSTITUENTS(51522)

Biosystematic Codes: PLANTAE-UNSPECIFIED(11000); HOMINIDAE(-86215); MURIDAE(86375)

74047833

REACTIONS OF VINYL CHLORIDE WITH RNA AND DNA OF VARIOUS MOUSE TISSUES IN-VIVO.

BERGMAN K

TOXICOL. LAB., NATIONAL FOOD ADMINISTRATION, BOX 622, S-751
26 UPPSALA, SWEDEN.

ARCH TOXICOL 49 (2). 1982. 117-130. Coden: ART00

Language: ENGLISH

The irreversible binding of ¹⁴C-vinyl chloride metabolites to RNA and DNA of mouse brain, lung, liver, kidney, spleen, pancreas and testes after a single i.p. injection was studied. Hydrolysates of nucleic acids from selected organs were separated on Aminex A6 for quantitation of alkylation products. Radioactivity in nucleic acids was registered in all organs with the exception of brain. RNA from spleen, pancreas and liver and DNA from spleen and liver contained the highest amounts of radioactivity. In nucleic acids from spleen and pancreas, organs of high metabolic activity, the entire radioactivity was metabolically incorporated as C1-fragments. In RNA of kidney and liver a large part of the radioactivity was present as incorporated C1-fragments but 3,N4-ethenocytidine (in kidney), and 1,N6-ethenoadenosine and 1,N6-ethenoadenine (in kidney and liver) were identified as alkylation products. In liver DNA incorporation of C1-fragments was insignificant, indicating different interactions of vinyl chloride metabolites (C1-fragments and alkylating products) with RNA and DNA. The elution profiles of radioactivity in hydrolysates of liver DNA were dominated by an alkylation product of unknown structure (probably a derivative of deoxyguanosine). Possibly 1,N6-ethenodeoxyadenosine and 1,N6-ethenoadenine were also present in liver DNA. Results were consistent with the ability of vinyl chloride to act as a multipotent carcinogen by alkylation of DNA in several tissues.

Descriptors: BRAIN LUNG LIVER KIDNEY SPLEEN PANCREAS TESTES CARCINOGEN CARBON-14 LABEL INTRA PERITONEAL INJECTION

Concept Codes: RADIATION BIOL-RADTN,ISOTOP TECH(06504); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACID,PURNS,PYRM-(10062); BIOPHYS-GENERAL BIOPHYS TECH(10504); CHORDATE BODY REGNS-ABDOMEN(11314); MOVEMENT(12100); METABOLISM-GENL STUD,METAB PATHW(+13002); METABOLISM-NUCL ACID,PURINS,PYRIM(+1-3014); DIGESTIVE SYST-PATHOLOGY(+14006); BLOOD/BODY FLDS-BLD,LYM,RES PATH(+15006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(+15008); URIN SYST/EXT SECR-PATHOLOGY(+15506); RESPIRATORY SYST-PATHOLOGY(+16006); REPRODUCT SYST-PATHOLOGY(-16506); ENDOCRINE SYST-GONADS,PLACENTA(17006); ENDOCRINE SYST-PANCREAS(+17008); NERVOUS SYST-PATHOLOGY(+20506); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: MURIDAE(86375)

74043361

EFFECT OF REPEATED VINYL CHLORIDE EXPOSURE ON RAT HEPATIC METABOLIZING ENZYMES.

DU J T; TSENG M T; TAMBURRO C H

UNIV. OF LOUISVILLE.

TOXICOL APPL PHARMACOL 62 (1). 1982. 1-10. Coden: TXAPA
Language: ENGLISH

Sprague-Dawley rats were exposed to 2.8% vinyl chloride for 2 (70 h), 4 (140 h) and 6 (210 h) wk to determine the sequential biochemical changes related to the oxidation and detoxification ability of hepatic tissue. Glutathione-S-transferase(s) activity using 1,2-epoxy-(p-nitrophenoxy)propane and p-nitrobenzyl chloride as substrates was elevated 17-24, 28- and 35-42% after 2, 4 and 6 wk of exposure, respectively, suggesting enzyme(s) induction. Reduced glutathione, the major substrate required to conjugate the toxic metabolites of vinyl chloride, was also consistently elevated. The activity of glutathione reductase, the enzyme necessary for the regeneration of reduced glutathione from its oxidized form, also increased following vinyl chloride exposure. Cytochrome P-450, the major protein involved with vinyl chloride metabolism, was reduced after vinyl chloride exposure, confirming reports that vinyl chloride metabolites destroyed P-450. No abnormalities of standard clinical biochemical blood tests of liver function were found during 6 wk of vinyl chloride exposure. The only consistent ultrastructural modification was the dilation of endoplasmic reticulum. The biochemical and ultrastructural alterations reflected early hepatocellular adaptation to vinyl chloride exposure.

Descriptors: GLUTATHIONE REDUCTASE GLUTATHIONE S TRANSFERASE CYTOCHROME P-450

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); BIOCHEM STUD-PORPHYRINS,BILE PIGM(10065); BIOPHYS-BIOENERGETICS(+10510); BIOPHYS-BIOCYBERNETICS(10515); ENZYMES-GEN,COMPAR STUD,COENZYMES(+10802); ENZYMES-CHEM,PHYSICAL STUDIES(+10806); PATHOLOGY-COMPARATIVE(12503); METABOLISM--GENL STUD,METAB PATHW(13002); METABOLISM-PROTNS,PEPTDS,AM ACDS(+13012); METABOLISM-PORPHYRINS,BILE PIGMN(+13013); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-PATHOL-OGY(+14006); BLOOD/BODY FLDS-GENL STUDS,METHS(15001); BLOOD/BODY FLDS-BLD,LYM,RES PATH(+15006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(+15008); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,INDUSTR(22506); IN VITRO STUDS-CELLULR,SUBCELL(32600)

Biosystematic Codes: MURIDAE(86375)

74043339

THE GAS CHROMATOGRAPHIC DETERMINATION OF THIO DI GLYCOLIC-ACID IN URINE.

MANCAS D G

INST. IGIENA SANATATE PUBLICA, IASI.

REV IG BACTERIOL VIRUSOL PARAZITOL EPIDEMIOL PNEUMOFITIZIOL
SER IG 30 (4). 1981 (RECD. 1982). 337-340. Coden: RABID

Language: ROMANIAN

A new method for the gas chromatographic determination of

urinary thiodiglycolic acid, a metabolite of vinyl chloride, was described. The method was based on the separation of the esterified acid in a specially filled column. The sensitivity of the method was approx. 11 mg/l urine. The introduction of this simple and fast follow-up of changes involving vinyl chloride in humans occupationally exposed to this compound was recommended.

Descriptors: HUMAN VINYL CHLORIDE OCCUPATIONAL HEALTH

Concept Codes: CLIN BIOCHEM-GENL STUDIES(+10006); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-DIAGNOSTIC(+12504); METABOLISM-GENL STUD,METAB PATHW(13002); URIN SYST/EXT SECR-GEN STUD,METH(15501); URIN SYST/EXT SECR-PHYSL,BIOCHEM(+15504); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

74042269

EFFECT OF FUNGICIDES ON THE ESTERASE ACTIVITY OF THE FUNGUS ASPERGILLUS-NIGER.

ANISIMOV A A; LINOVITSKAYA V M; SMIRNOV V F; BOCHKAREVA G G;
KRAPIVINA E K

GORKI STATE UNIV., GORKI, USSR.

PRIKL BIOKHIM MIKROBIOL 17 (4). 1981. 605-608. Coden: PBMJA

Language: RUSSIAN

Changes in the activity of esterases of the mycelial fungus A. niger were determined under the influence of fungicides (merthiolate, TPBA [ammonium tetrafluoroborate], trillane, AK-x [monochloroacetamino rosin] and catapine) used to protect PVC [polyvinyl chloride] materials against biological damage. The plastifiers dioctyladipinate, dibutylsebacinate and dioctylsebacinate, which are esters of adipic and sebacic acids, were hydrolyzed by the esterases; dibutyl phthalate and dioctyl phthalate were resistant. The fungicides inhibited in varying degrees the esterase activity in the presence of certain plastifiers.

Descriptors: PHYTO PATHOGEN MONO CHLOROACETAMINO ROSIN AMMONIUM TETRA FLUORO BORATE MERTHIOLATE TRILANE CATAPINE ADIPINIC-ACID SEBACIC-ACID ESTERS DI BUTYL PHTHALATE DIOCTYL PHTHALATE POLY VINYL CHLORIDE DAMAGE

Concept Codes: BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); ENZYMES-PHYSIOLOGICAL STUDIES(+10808); FOOD/INDUS MICRO-FD/BEV SP CNTAM(+39002); PLANT PHYSIOL-ENZYMES(+51518); PHYTOPATHOL-DIS BY FUNGI(+5450-2); PEST CONTRL GENL/PESTICS/HERBICS(+54600)

Biosystematic Codes: DEUTEROMYCETES(15500); ABSTRACTS OF MYCOLOGY(95000)

74031960

CYTO GENETIC EFFECTS OF EPOXY PHENOL FORMALDEHYDE AND POLY VINYL CHLORIDE RESINS IN MAN.

SUSKOV I I; SAZONOVA L A

INST. OF GENERAL GENETICS, ACADEMY OF SCI. OF THE U.S.S.R., MOSCOW 117333 U.S.S.R.

MUTAT RES 104 (1-3). 1982. 137-140. Coden: MUREA

Language: ENGLISH

The cytogenetic analysis of persons occupationally exposed to synthetic resins revealed a true increase in the average frequency of cells with chromosome aberrations: 5.5% for epoxy resin (146 persons), 6.1% for polyvinylchloride (52 persons), and 5.0% for phenolformaldehyde (31 persons). An incidence of 2.4% was observed in the control (74 persons). The average frequency of aberrant chromosomes/cell for all the synthetic resins (0.054-0.065) differed from the control. The average frequency of chromosome breaks/chromosome did not differ significantly from the control. Acentric fragments (single and paired) was the prevalent type of aberration.

Descriptors: OCCUPATIONAL EXPOSURE CHROMOSOME BREAK ACENTRIC FRAGMENT

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(+02508); GENETICS/CYTOGENET-HUMAN(+03508); SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM STUD-GENERAL(10060); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

R&S 138345

74028784

PHYSIOLOGIC AND HYGIENIC EVALUATION OF WORKING CONDITIONS IN POLY VINYL CHLORIDE BASED SYNTHETIC LEATHER MANUFACTURE.

TURBIN E V; ALDYREVA M V; MATYUKHIN V V

INST. IND. HYG. OCCUP. DIS., ACAD. MED. SCI. USSR, MOSCOW, USSR.

GIG TR PROF ZABOL O (8). 1981. 30-35. Coden: GTPZA

Language: RUSSIAN

Similar shifts in the body function occur in male and female primers due to exposure to adverse effects. These shifts were manifested in fatigue by the end of the working day. The earliest and most expressed signs were recorded after 3 h of work in mill and calender operators, checkers and female primers employed in the manufacture of tube pavinol. In the latter workers, exposed to combined effects of phosphate and phthalate plasticizers, more early and expressed changes in physiologic functions were detected than in workers exposed to phthalate alone. The labor of male and female primers, due to physiologic differences in male and female body, was referred to various categories of strain.

Descriptors: HUMAN PRIMER

Concept Codes: SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

R&S 138346

74025728

LIFE SPAN ORAL TOXICITY STUDY OF VINYL CHLORIDE IN RATS.
FERON V J; HENDRICKSEN C F M; SPEEK A J; TIL H P; SPIT B J
INSTITUTE CIVO-TOXICOL. NUTRITION TNO, PO BOX 360, 3700 AJ,
ZEIST, THE NETHERLANDS.
FOOD COSMET TOXICOL 19 (3), 1981, 317-334. Coden: FCTXA
Language: ENGLISH

A lifespan oral toxicity study of vinyl chloride monomer (VCM) was carried out in Wistar rats, using 5 groups each of 60-80 males and 60-80 females. VCM was administered by incorporating polyvinyl chloride (PVC) powder with a high VCM content into the diet or by gastric intubation of a 10% VCM solution in soybean oil. The VCM doses (actual exposures) were 0 (control), 1.7, 5.0 and 14.1 mg/kg body wt per day provided by diets containing PVC powder and 300 mg/kg body wt given by stomach tube as a solution of VCM in oil on 5 days/wk. The death rate was higher in all VCM-treated groups than in controls and increased with increasing VCM doses. The 14.1- and 300-mg/kg treatments were associated with shortened blood-clotting times, slightly increased alpha-fetoprotein levels in the blood serum, liver enlargement and an increased hematopoietic activity in the spleen. A variety of neoplastic and non-neoplastic treatment-related liver lesions was found at each VCM level. The changes varied from swollen and irregularly-shaped mitochondria in hepatocytes to hepatocellular carcinomas and hepatic angiosarcomas. The tumor response of the liver appeared to shift from a predominance of angiosarcomas at the highest dose level via a mixture of angiosarcomas and hepatocellular tumors at the intermediate levels to the exclusive development of hepatocellular tumors at the lowest VCM level. Tumors attributable to VCM exposure and found at other sites included pulmonary angiosarcomas, extrahepatic abdominal angiosarcomas and tumors of the Zymbal glands; these neoplasms occurred at VCM levels of 5.0 mg/kg and above. VCM exposure enhanced the development of abdominal mesotheliomas and of adenocarcinomas of the mammary glands. Orally administered VCM is a carcinogen in rats, and that the no-observed-adverse-effect level in rats was lower than 1.7 mg/kg body weight/day under the rigorous conditions of continuous oral VCM exposure resulting from the release of VCM from PVC powder present in the gastro-intestinal tract.

Descriptors: CARCINOGEN HEPATO CELLULAR CARCINOMA HEPATIC ANGIO SARCOMA PULMONARY ANGIO SARCOMA ABDOMINAL ANGIO SARCOMA ZYMBAL GLAND TUMOR MAMMARY GLAND ADENO CARCINOMA MESOTHELIOMA SOYBEAN OIL

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); BIOCHEM STUD-LIPIDS(10066); BIOCHEM STUD-CARBOHYDR.(10068); ANATOMY/HISTOL-MICRO,ULTRAMICRSC(+11108); CHORDATE BODY REGNS-ABDOMEN(11314); PATHOLOGY-NECROSIS(12510); METABOLISM-CARBOHYDRATES(13004); METABOLISM-PROTNS,PEPTDS,AM ACDS(13012); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+14508); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(15002); BLOOD/BODY FLDS-LYMPHAT TISS,RES(15008); RESPIRATORY SYST-PATHOLOGY(+16006); REPRODUCT SYST-PATHOLOGY(+16506); ENDOCRINE SYST-GENERAL STUDIES(+17002); INTEGUMENT SYST-PATHOLOGY(+18506); DENTAL/ORAL BIOL-GENL STUD,METHS(19001); ROUTES OF IMMUNIZ,INFECT,THER-

AP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEO-PL AGNTS-CARCINOGENS(+24007); DEVELOPMNTL BIOL-GENL,DESCRIPTIVE(25502); PLANT PHYSIOL-CHEM CONSTITUENTS(51522); AGRONOMY-OIL CROPS(52514)

Biosystematic Codes: LEGUMINOSAE(26260); MURIDAE(86375)

R&S 138349

74013496

RELATIONSHIP OF CONCENTRATIONS OF VOLATILE SUBSTANCES RELEASED FROM POLY VINYL CHLORIDE LINOLEUMS AND AMBIENT TEMPERATURE.

VASIL'EVA T S; MAL'TSEV V V
ALL-UNION RES. INST. DES.-CONSTR. INST. POLYM. CONSTR. MATER., MOSCOW, USSR.

GIG SANIT O (6). 1981. 15-17. Coden: GISAA
Language: RUSSIAN

The concentrations of volatile substances (benzene, ethylbenzene, etc.) released from polyvinyl chloride linoleums of various types were studied in relation to ambient temperature. The activation energies of the diffusion of these substances were determined to calculate increases in concentrations of individual substances with rising temperature on the basis of their concentrations at 20.degree. C.

Descriptors: BENZENE ETHYL BENZENE AIR POLLUTION

Concept Codes: GENERAL FIELD APPARATUS(01010); ECOLOGY-GENL STUDIES,METHODS(07502);
ECOLOGY-BIOCLIMATOL,BIOMETEOROL(+07504); BIOCHEM-GASES(10012);
BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060);
EXTERN EFF-TEMPERATURE(+10614); EXTERN EFF-HOT(10618);
TOXICOL-ENVIRONMNTL,INDUSTR(22506);
TEMPERATURE-GENL,METHS(23001);
TEMPERATURE-HYPO,HYPERTHERMIA(23006); ENVIRON HEALTH-AIR,WATR-
SL POLLN(+37015)

74009872

TESTS FOR MUTAGENICITY IN SALMONELLA AND COVALENT BINDING TO DNA AND PROTEIN IN THE RAT OF THE RIOT CONTROL AGENT O CHLOROBENZYLIDENE MALONONITRILE.

VON DANIKEN A; FRIEDERICH U; LUTZ W K; SCHLATTER C
INST. TOXICOL., SWISS FEDERAL INST. TECHNOL., CH-8603 SCHWERZENBACH, SWITZERLAND.

ARCH TOXICOL 49 (1). 1981 (RECD. 1982). 15-28. Coden: ARTOD

Language: ENGLISH

o-Chlorobenzylidene malononitrile (CS) was studied for any genotoxic activity towards Salmonella or mammalian DNA in vivo. CS was synthesized with a [14C]-label at the benzylic carbon atom. It was administered i.p. at a dose level of 13 mg/kg (1 mCi/kg) to young adult male rats. Liver and kidney DNA was isolated after 8, 25 and 75 h. The radioactivity was at (liver, 8 and 75 h) or below (all other samples) the limit of detection of 3 dpm. A possible binding of CS to DNA is at least 105 times lower than the strong hepatocarcinogen aflatoxin B1, and 4000 times lower than vinyl chloride. In contrast to this lack of DNA binding, but in agreement with the chemical reactivity of CS, a binding to nuclear proteins could be detected with specific activities ranging between 50-121 dpm/mg for liver and between 3 and 41 dpm/mg for kidney. Protein binding could well be responsible for its pronounced cytotoxic effects. CS was also tested in the Ames Salmonella/microsome assay. Strains TA 1535, TA 1537, TA 1538, TA 98 and TA 100 were used.

Only with strain TA 100 and only without pre-incubation, a doubling of the number of revertants was detectable at the highest dose levels used, 1000 and 2000 .mu.g CS/plate. With pre-incubation of TA 100 with CS, a slight increase of the number of revertants was seen at 100 and 500 .mu.g/plate, and a subsequent fall below control values at 1000 .mu.g. A check for the number of surviving bacteria revealed a strong bacteriotoxicity of the higher doses of CS so that the calculated mutation frequencies, the number of revertants/number of surviving bacteria, increased with doses up to 500 .mu.g. This toxicity could be counteracted in part by the addition of increasing amounts of rat liver microsomes. Taking into account the rare and low exposure of man, CS will not create a risk for the induction of point mutations or of carcinogenic processes mediated by DNA binding.

Descriptors: HUMAN LIVER KIDNEY AFLA TOXIN B-1 VINYL CHLORIDE GEND TOXIC ACTIVITY POINT MUTATION CARCINOGENIC PROCESS

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(+02506); GENETICS/CYTOGENET-ANIMAL(+03506); GENETICS/CYTOGENET-HUMAN(+03508);
RADIATION BIOL-RADTN,ISOTOP TECH(06504); BIOCHEM STUD-GENERAL-(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); CHORDATE BODY REGNS-ABDOMEN(11314); METABOLISM-PROTNS,PEPTDS,AM ACDS(+13012);
METABOLISM-NUCL ACD,PURINS,PYRIM(+13014); DIGESTIVE SYST-GENL STUDS,METHS(14001); URIN SYST/EXT SECR-GEN STUD,METH(15501); ROUTES OF IMMUNIZ,INFECT,THERAP(22100);
TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); BACTERIAL AND VIRAL GENETICS(+31500);
MED/CLIN MICROBIOL-MYCOLOGY(36008); PLANT PHYSIOL-CHEM CONSTITUENTS(51522)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); DEUTEROMYCETES(15500); HOMINIDAE(86215); MURIDAE(86375)

R&S 138350

74009095

EFFICACY AND MODE OF ACTION OF INSECTICIDE IMPREGNATED EAR TAGS AND LEG BANDS FOR CONTROL OF CATTLE GRUBS HYPODERMA-LINEATUM.

MILLER J A; KUNZ S E; BEADLES M L

U.S. LIVESTOCK INSECTS LAB., AR, SEA, USDA, KERRVILLE, TX 78028.

SOUTHWEST ENTOMOL 6 (3). 1981. 265-268. Coden: SENTD
Language: ENGLISH

In field tests conducted in Texas [USA] in 1979 and 1980, polyvinyl chloride (PVC) ear tags containing dichlorvos (2,2-dichlorovinyl dimethyl phosphate) were as effective as leg bands for the control of the common cattle grub, *H. lineatum* (Villers), in cattle. The mode of action of such treatments was systemic. Leg bands containing fenvalerate (cyano(3-phenoxyphenyl)methyl 4-chloro-.alpha.-(1-methylethyl)benzeneacetate) were ineffective; however, fewer grubs were found in cattle treated with fenvalerate-impregnated ear disks than in untreated controls. If leg bands or ear tags containing a systemic insecticide such as dichlorvos are applied soon after the heel fly season, control of both the horn fly, *Haematobia irritans* (L.), and the common cattle grub can be expected.

Descriptors: HAEMATOBIA-IRRITANS CATTLE POLY VINYL CHLORIDE DICHLORVOS FENVALERATE TEXAS USA

Concept Codes: BIOCHEM STUD-GENERAL(10060); CHORDATE BODY REGNS-HEAD(11304); CHORDATE BODY REGNS-EXTREMITIES(11318); TOXICOL-GENL/EXP STUDS,METHS(+22501); ANIMAL PRODUCTN-GENL STUDS,METHS(+26502); PEST CONTRL GENL/PESTICS/HERBICS(+54600); ECONOM ENTOMOL-ANIMAL PESTS(+60012); ECONOM ENTOMOL-CHEM PHYS CONTRL(+60016)

Biosystematic Codes: DIPTERA(75314); BOVIDAE(85715); ABSTRACTS OF ENTOMOLOGY(96000)

74006832

CHROMATOGRAPHIC DETERMINATION OF THIO DI GLYCOLIC-ACID A METABOLITE OF VINYL CHLORIDE.

DRAMINSKI W; TROJANOWSKA B

INST. OF OCCUPATIONAL MED., DEP. OF METABOLISM OF TOXIC SUBSTANCES, TERESY 8, PL-90-950 LODZ, POLAND.

ARCH TOXICOL 48 (4). 1981. 289-292. Coden: ARTOD

Language: ENGLISH

The determination of thiodiglycolic acid (TDGA) in urine by gas chromatography (GC) was described. The analytical procedure included addition of internal standard (o-phthalic acid), ethyl acetate extraction, evaporation of the solvent and silylation of TDGA with N-trimethylsilyldiethylamine in pyridine (1:1). Results were calculated from the ratio of TDGA and internal standard peak heights. The detection limit of the method was 10 mg/l and the coefficient of variation was $\pm$ 5%. This method could be useful in evaluating worker exposure to vinyl chloride.

Descriptors: HUMAN URINE OCCUPATIONAL HEALTH

Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD APPARATUS(01010); CLIN BIOCHEM-GENL STUDIES(+10006); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GE-

NERAL BIOPHYS TECH(10504); MOVEMENT(12100); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-DIAGNOSTIC(+12504); METABOLISM-GENL STUD,METAB PATHW(13002); URIN SYST/EXT SECR-GEN STUD,METH(15501); URIN SYST/EXT SECR-PHYSL,BIOCHEM(+15504); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)
Biosystematic Codes: HOMINIDAE(86215)

74004280

STABILITY AND COMPATIBILITY OF ANTI TUMOR AGENTS IN GLASS AND PLASTIC CONTAINERS.

BENVENUTO J A; ANDERSON R W; KERKOF K; SMITH R G; LOO T L
 DEP. OF DEVELOPMENTAL THERAPEUTICS, M.D. ANDERSON HOSP. AND
 TUMOR INST., HOUSTON, TX 77030.

AM J HOSP PHARM 38 (12). 1981. 1914-1918. Coden: AJHPA
 Language: ENGLISH

The stability of methotrexate, fluorouracil, cytarabine, dactinomycin, doxorubicin, bleomycin sulfate, mitomycin, mithramycin, vincristine sulfate, vinblastine sulfate, cyclophosphamide, dacarbazine, carmustine and leucovorin calcium in underfilled plastic and glass administration containers was determined. Drugs were reconstituted according to manufacturers' instructions and added to 5% dextrose injection 50 ml in both polyvinyl chloride bags and glass partial-fill bottles. Mitomycin was added to 0.9% NaCl injection 50 ml in both polyvinyl chloride bags and glass partial-fill bottles. All admixtures were stored at room temperature, unprotected from light. Stability was determined over 24 h (48 h for doxorubicin and fluorouracil) by high-pressure liquid chromatography, except for cyclophosphamide (analyzed by mass spectrometry) and carmustine (analyzed by spectrophotometry). Methotrexate, leucovorin calcium, cytarabine, dactinomycin, mithramycin, vinblastine sulfate, cyclophosphamide and dacarbazine were equally stable (10% or less change in concentration over 24 hours) in glass and plastic containers. Doxorubicin and fluorouracil were more stable in plastic containers than glass containers. The T90 value for doxorubicin in glass was 40 h; there was no apparent decrease in plastic even after 48 h. The T90 value for fluorouracil in glass was 7 h and in plastic, 43 h. Vincristine sulfate, bleomycin sulfate and carmustine were more stable in glass than plastic. The T90 value for vincristine sulfate in plastic was 10 h, for bleomycin sulfate 0.7 h, and for carmustine 0.6 h. Mitomycin dissolved in 0.9% NaCl injection was more stable in plastic. Mitomycin dissolved in 5% dextrose injection was not stable. Carmustine and bleomycin sulfate should be administered only in glass containers. Continuous infusions of doxorubicin and fluorouracil are more completely delivered from plastic containers. Mitomycin should not be dissolved in 5% dextrose injection.

Descriptors: METHOTREXATE FLUORO URACIL CYTARABINE
 DACTINOMYCIN DOXORUBICIN BLEOMYCIN SULFATE MITOMYCIN
 MITHRAMYCIN VINCISTINE SULFATE VINBLASTINE SULFATE CYCLO
 PHOSPHAMIDE DACARBAZINE CARMUSTINE LEUCOVORIN CALCIUM
 ANTINEOPLASTIC-DRUG POLY VINYL CHLORIDE BAGS GLASS PARTIAL
 FILL BOTTLES 5 PERCENT DEXTROSE INJECTION

Concept Codes: BIOCHEM METH-GENERAL(10050); BIOCHEM
 STUD-GENERAL(10060); BIOCHEM STUD-VITAMINS(10063); BIOCHEM
 STUD-PROTEINS, PEPTIDES, AMINO ACID(10064); BIOCHEM STUD-CARBOHY-
 DR.(10068); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLE-
 CUL PROP, MACROMOLEC(10506); EXTERN EFF-LIGHT, DARKNESS(10604);
 EXTERN EFF-TEMPERATURE(10614); MOVEMENT(12100); CARDIOVASC
 SYST-GENL STUDS, METHS(14501); PHARMACOL-GENERAL STUDIES(12200-
 2); ROUTES OF IMMUNIZ, INFECT, THERAP(22100); TEMPERATURE-GENL, -
 METHS(22001);

CHEMOTHERAPY-GENL STUD, METH, METAB(138502); PLANT PHYSIOL-CHEM
 CONSTITUENTS(S1522); PHARMACOGNOSY/PHARMACEUT BOTANY(54000)

Biosystematic Codes: APOCYNACEAE(25580)

74004057

INHALATION PHARMACO KINETICS BASED ON GAS UPTAKE STUDIES 3. A PHARMACO KINETIC ASSESSMENT IN MAN OF PEAK CONCENTRATIONS OF VINYL CHLORIDE.

BOLT H M; FILSER J G; BUCHTER A
 ABTEILUNG FUER TOXIKOLOGIE, PHARMAKOLOGISCHES INSTITUT DER
 UNIVERSITAET MAINZ OBERE ZAHLBACHER STRASSE 67, D-6500 MAINZ
 1.

ARCH TOXICOL 48 (4). 1981. 213-228. Coden: ARTOD
 Language: ENGLISH

On the basis of previous determinations of pharmacokinetic parameters for inhaled vinyl chloride and on improved pharmacokinetic models, a pharmacokinetic treatment of the problem of peak concentrations of vinyl chloride, as occurring in industrial practice, became possible. Metabolic elimination kinetics of vinyl chloride was assumed to be 1st order as experimental evidence showed linear pharmacokinetics up to atmospheric exposures of 200-300 ppm. The distribution of vinyl chloride between atmosphere and organism under different conditions was evaluated using steady-state-kinetics. The numerical values for the parameters derived from a human kinetic experiment were used to calculate the time courses of vinyl chloride concentration in the organism and the cumulative amount of vinyl chloride metabolized under a 2 h constant exposure to 5 ppm vinyl chloride and subsequent peaks of 50 ppm with a duration of 5 min each. This model calculation suggested that the amount of (reactive) metabolites formed from vinyl chloride would be a function of the mean atmospheric vinyl chloride concentration over time. As the concentration of the reactive metabolite of vinyl chloride responsible for the carcinogenic effect at the target site must be a result of formation and inactivation, an evaluation of the differential risk of different exposure profiles can reasonably be based on biochemical examinations of the detoxifying pathways. This points out the relevance studies of the patterns of different metabolites of vinyl chloride in man under varying exposure profiles.

Descriptors: CARCINOGEN

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500);
 BIOCHEM STUD-GENERAL(10060); BIOPHYS-BIOCYBERNETICS(10515);
 METABOLISM-GENL STUD, METAB PATHW(13002); RESPIRATORY
 SYST-PHYSIOL, BIOCHEM(16004); TOXICOL-GENL/EXP STUDS, METHS(12-
 2501); TOXICOL-ENVIRONMNTL, INDUSTR(122506); NEOPLSMS/NEOPL
 AGNTS-CARCINOGENS(124007); ENVIRON HEALTH-OCCUPATNL HEALTH(37-
 013); ENVIRON HEALTH-AIR, WATER, SL POLLN(37015)

Biosystematic Codes: HOMINIDAE(86215)

R&S 138352

73086449

EFFECT OF AIR EXCHANGE ON THE CONCENTRATION OF VOLATILE SUBSTANCES DIFFUSED FROM POLY VINYL CHLORIDE LINOLEUMS.

VASIL'EVA T S; MAL'TSEV V V; KUDRYAVTSEVA G A
ALL-UNION RES. DES.-CONSTR. INST. POLYM. CONSTR. MATER.,
MOSCOW, USSR.
GIG SANIT O (11). 1980 (RECD. 1981). 59-62. Coden:
GISAA

Language: RUSSIAN

Quantitative studies were carried out on the effect of the air exchange multiplicity factor [AEMF] on the concentration of separate volatile substances [VS] diffused from polyvinyl chloride linoleum [PVCL]. Two types of linoleum were tested, a linoleum coated with printed film [CPF] and a monolayered rolled-calandered [MLRC] linoleum. Gas chromatographic analysis of VS revealed the presence of unsaturated and aromatic hydrocarbons (hexene-1, benzene, toluene, ethylbenzene, decene-1, cumene, mesitylene and other substances) in the air above the PVCL. Air exchange at 0.25 vol/h decreased the concentration of most VS to the maximum permissible level. Increased air exchange had a lesser effect on the concentration of substances with a higher boiling point (ethylbenzene in MLRC linoleum). With air exchange at 0.3 vol/h (typical for living quarters), concentration of ethylbenzene decreased by 1/2 while concentrations of hexene-1 and benzene (in CPF linoleum) decreased 10- to 12-fold. Properties of the volatile substances and surface material through which the VS diffused had an effect on the nature of changes in individual VS.

Descriptors: HOME INDOOR AIR POLLUTION

Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD APPARATUS(01010); PHOTOGRAPHY-METHS,MATLS,APPARAT(01012); SOC-IAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GE-NERAL BIOPHYS TECH(10504); TOXICOL-ENVIRONMNTL,INDUSTR(22506); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

73076992

ROLES OF 2 HALO ETHYLENE OXIDES AND 2 HALO ACETALDEHYDES DERIVED FROM VINYL BROMIDE AND VINYL CHLORIDE IN IRREVERSIBLE BINDING TO PROTEIN AND DNA.

GUENGERICH F P; MASON P S; STOTT W T; FOX T R; WATANABE P G
DEP. BIOCHEMISTRY CENT. ENVIRONMENTAL TOXICOL., VANDERBILT
UNIV. SCH. MED., NASHVILLE, TENNESSEE 37232.
CANCER RES 41 (11 PART 1). 1981. 4391-4398. Coden:
CNREA

Language: ENGLISH

The metabolism of [1,2-14C]vinyl bromide (VBR) [which appears to be carcinogenic in animals] to products irreversibly bound to DNA and protein was examined in rat liver microsomes, reconstituted cytochrome P-450 systems and isolated hepatocytes. A role for cytochrome P-450 was confirmed using inhibition and reconstitution experiments. The major form of cytochrome P-450 involved in VBR metabolism does not appear to be either of the major isozymes induced by phenobarbital or beta-naphthoflavone, as determined by

induction, reconstitution and antibody inhibition studies. 2-Bromoethylene oxide and 2-bromoacetaldehyde, suspected metabolites of VBR, were synthesized and found to be substrates for rat liver epoxide hydrolase and equine liver alcohol dehydrogenase, respectively. These enzymes were used to probe the roles of the 2 possible metabolites in the irreversible binding of products of VBR to protein and DNA. Alcohol dehydrogenase was more effective than epoxide hydrolase in inhibiting the binding VBR metabolites to protein in microsomal incubations. Epoxide hydrolase was effective in inhibiting the binding of VBR or vinyl chloride metabolites to calf thymus DNA added to such systems, but alcohol dehydrogenase was not. Similar results were obtained for binding of VBR metabolites to DNA in a reconstituted enzyme system. Reduced glutathione blocked nonenzymatic binding of 2-bromo[1,2-14C]acetaldehyde to protein but not DNA. Binding of vinyl chloride and VBR metabolites to protein was blocked by reduced glutathione, but binding to DNA was not. These results are consistent with the view that 2-haloethylene oxides are the major alkylating agents bound to protein in these experimental systems. Studies with labeled 2-bromoacetaldehyde indicate that the slow kinetics of DNA binding by this compound is responsible in part for this phenomenon. Studies with isolated rat hepatocytes suggest that a significant portion of the total and reactive metabolites are able to leave these cells. In these systems, binding of metabolites of vinyl chloride to DNA outside the hepatocytes could be partially blocked by epoxide hydrolase or by alcohol dehydrogenase, implying that, as targets farther away from sources of reactive species are considered, the stabilities of these species become more important for reaction with nucleophilic sites.

Descriptors: RAT HORSE CALF LIVER THYMUS CARCINOGEN GLUTATHIONE CYTOCHROME P-450 PHENO BARBITAL BETA NAPHTHO FLAVONE EPOXIDE HYDROLASE ALCOHOL DEHYDROGENASE NUCLEOPHILIC SITE ANTIBODY INHIBITION STUDY

Concept Codes: RADIATION BIOL-RADTN,ISOTOP TECH(06504); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACID,PURNS,PYRM-(10062); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); BIOCHEM STUD-PORPHYRNS,BILE PIGM(10065); BIOPHYS-MOLECUL PROP,MACROMOLEC(+10506); ENZYMES-METHODS(10804); ENZYMES-PHYS-IOLOGICAL STUDIES(+10808); METABOLISM-GENL STUD,METAB PATHW(+13002); METABOLISM-PROTNS,PEPTDS,AM ACDS(+13012); METABOLISM-NUCL ACID,PURINS,PYRIM(+13014); DIGESTIVE SYST-PATH- OLOGY(+14006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(15008); ENDOCRINE SYST-THYMUS(17016); PHARMACOL-DRUG METAB,METAB STIMU(22003); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/-NEOPL AGNTS-CARCINOGENS(+24007); IMMUNOL/IMMUNOCHEM-GEN METIL(34502)

Biosystematic Codes: BOVIDAE(85715); EQUIDAE(86145); MURIDAE(86375)

73076949

MALIGNANT TUMORS AFTER CHRONIC EXPOSURE TO VINYL CHLORIDE.

EMMERICH K H; NORPOTH K

INST. PATHOL., UNIV. MUENSTER, DOMAGKSTR. 17, D-4400 MUENSTER, W. GER.

J CANCER RES CLIN ONCOL 102 (1). 1981 (RECD. 1982). 1-12.

Codon: JCROD

Language: ENGLISH

Correlations between exposure to vinyl chloride and the development of malignant tumors in the liver have been known since 1974 and have been confirmed by many experimental investigations. Based on the evaluation of [human] mortality statistics from 9 different countries an increased incidence of malignant tumors of the lung, the gastrointestinal tract and the central nervous system (CNS) and of malignant lymphomas is documented in connection with exposure to vinyl chloride. Statistically significant increases were only found in the incidence of malignant liver tumors. Metabolism and toxicology of vinyl chloride are discussed in detail.

Descriptors: HUMAN LUNG GASTRO INTESTINAL TRACT CENTRAL NERVOUS SYSTEM CARCINOGEN MORTALITY STATISTICS

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-NECROSIS(12510); METABOLISM-GENL STUD,METAB PATHW(+13002); DIGESTIVE SYST-PATHOLOGY(+14006); BLOOD/BODY FLDS-BLD,LYM,RES PATH(15006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(15008); RESPIRATORY SYST-PATHOLOGY(+16006); NERVOUS SYST-PATHOLOGY(+20506); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,IND- USTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); NEOPLSMS/NEOPL AGNTS-BLOOD,RES(+24010); PUB HEALTH-ADMINISTR, - STATISTICS(37010); EPIDEMIOLOG-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

73074723

PHOSPHINE FUMIGATION OF POLY VINYL CHLORIDE COVERED EARTH WALLED BULK GRAIN STORAGES FULL-SCALE TRIALS USING A SURFACE APPLICATION TECHNIQUE.

BANKS H J; STICKA R

DIV. ENTOMOL., CSIRO, P.O. BOX 1700, CANBERRA CITY, A.C.T. 2601.

AUST C S I R O DIV ENTOMOL TECH PAP O (18). 1981. 1-45.

Codon: ASEPA

Language: ENGLISH

Trials of a phosphine fumigation technique for temporary, PVC[polyvinylchloride]-covered grain storage bunkers of 7000-61,000 tonnes capacity are described. Phosphine was generated from the phosphide-containing formulations, Gas-Ex-B, Degesch Plates or Phostoxin Plates, in blankets or strips, placed on the grain surface below the PVC membrane. The phosphine dispersed rapidly and reached insecticidal levels ($> 0.01 \text{ g m}^{-3}$) at all parts of the bulk, except the corners, within 3 days of application, using a dose rate of about $0.75 \text{ g PH}_3 \text{ t}^{-1}$. It took 15-19 days for phosphine levels to become even throughout. Because of the slow gas evolution, speed of distribution, wind effects and the need for extended periods of exposure for insecticidal action, the treatment

period should not be < 20 days. Even at the high sealing levels achieved, wind caused gas loss from some regions, particularly corners of the stack, and increased local dosing of these regions was recommended. At the rates of gas loss observed, 5-15% day $^{-1}$ overall, and dosage rate used, phosphine was retained at insecticidal levels through the treated bulks for > 1 mo. All caged test insects, including pupae of *Sitophilus granarius*, were killed at a Ct product of 20 g h m^{-3} over 28 days. There were no significant differences in the results obtained which could be attributed directly to differences between the phosphine-generating preparations used.

Descriptors: SITOPHILUS-GRANARIUS INSECTICIDE WIND

Concept Codes: ECOLOGY-BIOCLIMATOL,BIOMETEOROL(07504); BIOCHEM-GASES(+10012); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-NECROSIS(12510); FOOD TECH-PREP,PROCESSNG,STORAGE(+13532); TOXICOL-GENL/EXP STUDS,METHS(+22501); AGRONOMY-GRAIN CROPS(+52504); PEST CONTRL GENL/PESTICS/HERBICS(+54600); ECONOM ENTOMOL-STORED PRODUCTS(+60008); ECONOM ENTOMOL-CHEM PHYS CONTRL(+60016); INVERTEB PHYSIOL-INSECTA-PATHOL(64078)

Biosystematic Codes: GRAMINEAE(25305); COLEOPTERA(75304); ABSTRACTS OF ENTOMOLOGY(96000)

R&S 138354

DIALOG File5: BIOSIS Previews, 77-83/Jan BA7502;RRM2402(See File55) (c. BIOSIS 1982) (Item 47 of 858) User 3614 25Jan83 2000

73071210

ESTROGEN ANTAGONISTS IN CHICK OVIDUCT ANTAGONIST ACTIVITY OF 8 SYNTHETIC TRI PHENYL ETHYLENE DERIVATIVES AND THEIR INTERACTIONS WITH CYTOPLASMIC AND NUCLEAR ESTROGEN RECEPTORS.

SUTHERLAND R L

LUOWIG INSTITUTE FOR CANCER RESEARCH, UNIV. OF SYDNEY, NSW 2006, AUSTRALIA.

ENDOCRINOLOGY 109 (6). 1981. 2061-2068. Coden: ENDOA

Language: ENGLISH

The estrogen agonist and antagonist activities of 8 structurally related synthetic compounds [trans-1-(4.beta.-dimethylaminoethoxyphenyl)-1,2-diphenylbut-1-ene (tamoxifen), cis-1-(4.beta.-dimethylaminoethoxyphenyl)-1,2-diphenylbut-1-ene (ICI 47,699), .alpha.-[4-pyrrolidinoethoxy]phenyl-4-methoxy-.alpha.-nitrostilbene (CI 628), .alpha.-[4-dimethylaminopropoxy]phenyl-4-methoxy-.alpha.-nitrostilbene citrate (CI 680), 1-(2-[p-(3,4-dihydro-6-methoxy-2-phenyl-1-naphthyl)phenoxy]ethyl)pyrrolidine hydrochloride (nafoxidine), cis-(3-[p-(1,2,3,4-tetrahydro-6-methoxy-2-phenyl-1-naphthyl)phenoxy]-1,2-propanediol (U 23, 469), trans-1-(p-.beta.-diethylaminoethoxyphenyl)-1,2-diphenyl-2-chloroethylene monocitrate (enclomiphene) and cis-1-(p-.beta.-diethylaminoethoxyphenyl)-1,2-diphenyl-2-chloroethylene monocitrate (zuclophene)] were tested in the estrogen-withdrawn chick oviduct. No compound demonstrated agonist activity, as assessed by changes in oviduct wet wt, DNA, protein, and progesterone receptor concentration, when administered for 1 or 3 days at doses ranging from 0.1-100 mg/kg body wt. When 25 mg/kg enclomiphene, tamoxifen, CI 628, CI 680, or nafoxidine were administered together with 5 mg/kg estradiol benzoate, a significant inhibition of estrogen-induced increases in oviduct wet wt, DNA, protein and progesterone receptor concentration was observed 24 h later. ICI 47,699, zuclophene and U 23, 469 showed no antagonism at this dose. When the cis isomers (ICI 47,699 and zuclophene) were administered at a dose of 25 mg/kg.cntdot.day together with 1 mg/kg .cntdot. day estradiol benzoate, they both demonstrated significant antagonist activity 3-4 days later. All 8 ligands were able to displace tritiated estradiol from its receptor sites in oviduct cytosol and nuclear extracts. The 5 compounds that were potent antagonists (enclomiphene, CI 628, CI 680, tamoxifen and nafoxidine) had relative binding affinities (estradiol = 100%) for the nuclear estrogen receptor ranging from 10-24%. Within this group, the relative binding affinity was not highly correlated with the degree of antagonism. The weak antagonists (ICI 47,699, zuclophene and U 23,469) had comparatively lower affinities for the estrogen receptor, i.e., 1.0-1.5% that of estradiol. Under these experimental conditions, none of the above compounds were estrogenic, and all except U 23,469 showed significant estrogen antagonism.

Descriptors: ESTRADIOL BENZOATE TAMOXIFEN CIS-1-4-BETA DI METHYLAMINOETHOXYPHENYL-1 2-DIPHENYL BUT-1-ENE ICI-47699 ALPHA-4 PYRROLIDINOETHOXYPHENYL-4-METHOXY-ALPHA NITRO STILBENE CI-628 ALPHA-4 DI METHYLAMINOPROPOXYPHENYL-4-METHOXY-ALPHA NITRO STILBENE CITRATE CI-680 NAFOXIDINE CIS-3-P-1 2 3 4 TETRA HYDRO-6 METHOXY-2-PHENYL-1-NAPHTHYLPHENOXY 1 2 PROPANEDIOL U-23469 ENCLMIPHENE ZUCLOMIPHENE HORMONE-DRUG DNA PROGESTERONE RECEPTOR PROTEIN

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); RADIATION BIOL-RADTN,ISOTOP TECH(06504); COMPARATIVE BIOCHEM-GENL STUDIES(+10010); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); BIOCHEM STUD-PROTEINS,PEPTID-ES,AMINO ACD(10064); BIOCHEM STUD-STEROLS,STERIDS(10067); BIOPHYS-MOLECUL PROP,MACROMOLEC(+10506); REPRODUCT SYST-PHYSI-OL,BIOCHEM(+16504); ENDOCRINE SYST-GONADS,PLACENTA(+17006); PHARMACOL-DRUG METAB,METAB STIMU(22003); PHARMACOL-ENDOCRINE SYST(+22016); PHARMACOL-REPRODUCT SYST,IMPLANT(+22028)

Biosystematic Codes: GALLIFORMES(85536)

R&S 138355

73070119

SYNTHESIS AND REACTIONS OF DEUTERATED 2-ALKYLIMINO-3-NITROSO OXAZOLIDINES 3-ALKYL-1-1-2-HYDROXYETHYL-1-NITROSO UREAS AND RELATED COMPOUNDS AS POSSIBLE INTERMEDIATES IN THE AQUEOUS DECOMPOSITION OF 3-ALKYL-1-2-CHLOROETHYL-1-NITROSO UREAS.

LOWN J W; CHAUDHAN S M S

DEP. CHEM., UNIV. ALBERTA, EDMONTON, ALBERTA, CAN. T6G 2G2.

J ORG CHEM 46 (12). 1981. 2479-2489. Coden: JOCEA

Language: ENGLISH

Decomposition of CCNU-.alpha.-d2 (7) [3-cyclohexyl-1-nitroso-1-(1,1-dideuterio-2-chloroethyl)urea] in pH 7.2 phosphate buffer or of CINO-.alpha.-d2 (9) [2-(cyclohexylimino)-3-nitroso-4,4-dideuteriooxazolidine] or CCNU-.alpha.-d2 (8) [3-cyclohexyl-1-nitroso-1-(1,1-dideuterio-2-hydroxyethyl)urea] with the addition of Cl- gives rise to the same spectrum of products, including deuterium-free acetaldehyde, a mixture of the 2-deuterio-2-chloroethanols, 2-hydroxy-2,2-dideuterioethyl cyclohexyl carbamates and vinyl chloride containing 1 deuterium. The products were identified, and the number and position of the deuterium labels were determined. The results are interpreted in terms of 2 decomposition pathways for CCNU [1-(2-chloroethyl)-3-cyclohexyl-1-nitrosourea]. The 1st decomposition pathway operating for CCNU is via an intermediate 2-chloroethanediazohydroxide or the equivalent 2-chloroethyl cation in agreement with the results of other workers. The 2nd pathway may involve reversible conversion of 7 to 9 and then ring opening of the latter to 8. Independent decomposition of 8 provides evidence for its conversion to a 1,1-dideuterio-2-hydroxyethanediazohydroxide (41). The intermediacy of species 41 may account for the formation of 2-hydroxyethylated nucleosides observed when (2-chloroethyl)nitrosoureas react with DNA. An alternative ring-opening reaction of 9 leads to a 2-hydroxydiazoethyl cyclohexyl carbamate species (37), elimination of which and attack by halide ion may account for the vinyl halide species formed. Further evidence in support of these competing pathways employing additional specifically deuterated intermediates is described and discussed. [(2-Haloethyl)nitrosoureas are of clinical value in the treatment of a range of neoplasms.]

Descriptors: 1-2-CHLOROETHYL-3-CYCLOHEXYL-1-NITROSO UREA ANTI TUMOR AGENTS

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(+10060); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); PATHOLOGY-THERAPY(125-12); PHARMACOL-GENERAL STUDIES(+22002); NEOPLSMS/NEOPL AGENTS-THERAP,AGNT(+24008); CHEMOTHERAPY-GEN STUD,METH,METAB(+38502)

Language: ITALIAN

The results of experimental research in rats, inoculated (1, 2 or 3 times) with PVC [polyvinyl chloride] in the s.c. tissue of a posterior limb, are presented. In 8 of 25 animals malignant tumors in various organs were observed from 40-545 days after treatment. Among these tumors, the most frequent (16%) were carcinomas of the cecum-colon. The oncogenic activity of PVC is demonstrated, and human statistical data on a higher morbidity and mortality for gastroenteric neoplasms are confirmed among vinyl chloride-polyvinyl chloride workers.

Descriptors: HUMAN RAT COLON LIMB CARCINOGEN OCCUPATIONAL EXPOSURE

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500); BIOCHEM STUD-GENERAL(10060); CHORDATE BODY REGNS-EXTREMITIES(+11318); DIGESTIVE SYST-PATHOLOGY(+14006); INTEGUMENT SYST-GENL STUDS,METHS(18501); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,IND- USTR(+22506); NEOPLSMS/NEOPL AGENTS-CARCINOGENS(+24007); PUB HEALTH-ADMINISTR,STATISTICS(37010); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); EPIDEMIOL-ORGANIC DIS,NEOPLASMS(37054)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

73069739

EXPERIMENTAL STUDY OF THE ONCOGENIC ACTIVITY OF POLY VINYL CHLORIDE.

FRAU G; ZUCCA G; FAA G; DESSY E; FRONGIA N

IST. DI ANATOMIA E ISTOL. PATOL. DELL'UNIV. DEGLI STUDI DI CAGLIARI OSPEDALE S. GIOVANNI DI DIO, VIA OSPEDALE - CAGLIARI. G ITAL MED LAV 3 (1). 1981. 1-4. Coden: GIMLD

73069645

IN-VITRO METABOLISM OF ACRYLONITRILE TO 2 CYANO ETHYLENE OXIDE REACTION WITH GLUTATHIONE AND IRREVERSIBLE BINDING TO PROTEINS AND NUCLEIC-ACIDS.

GUENGERICH F P; GEIGER L E; HOGY L L; WRIGHT P L
DEP. BIOCHEM., VANDERBILT UNIV. SCH. MED., NASHVILLE, TENN.
37232.

CANCER RES 41 (12 PART 1), 1981. 4925-4933. Coden:
CNREA

Language: ENGLISH

The metabolism of the suspected carcinogen acrylonitrile was studied using subcellular fractions isolated from rats and humans. Irreversible binding of radioactive label from [1-14C]- or [2,3-14C]acrylonitrile to protein and DNA was enhanced by reduced NADP in the presence of rat liver microsomes or a reconstituted cytochrome P-450 system. During the reduced NADP-dependent reaction, HCN was produced and the heme of cytochrome P-450 was destroyed. Rat brain microsomes did not produce detectable levels of metabolites. Conclusive evidence of metabolically mediated binding of acrylonitrile to protein and DNA in human systems was not found. Metabolism was induced in rats by pretreatment of animals with either phenobarbital or 5,6-benzoflavone. Labeled 2-cyanoethylene oxide was found to bind irreversibly to calf thymus DNA and microsomal protein. The extent of binding was greater in the case of 2,3-14C-labeled than 1-14C-labeled material. The relative 1st-order rate of acrylonitrile binding to calf thymus DNA in rat liver microsomal systems was 1-2 orders of magnitude less than that for 1,1,2-trichloroethylene and 3 orders of magnitude less than that for vinyl chloride or vinyl bromide. Rat liver microsomes or a reconstituted cytochrome P-450 system catalyzed the mixed-function oxidation of acrylonitrile to 2-cyanoethylene oxide. 2-Cyanoethylene oxide has a half-life of about 2 h in neutral buffer at 37.degree.. This epoxide was found to serve as a substrate for microsomal epoxide hydrolase. HCN was released during hydrolysis of 2-cyanoethylene oxide or reaction of the epoxide with reduced glutathione; HCN release in either case was not stoichiometric with epoxide disappearance. 2-Cyanoethylene oxide reacted less rapidly with reduced glutathione than did acrylonitrile. Rat liver cytosol preparations contained glutathione S-transferase activity towards acrylonitrile and greater activity with 2-cyanoethylene oxide as a substrate. Cytosol preparations from rat brain and human liver had no detectable glutathione S-transferase activity towards acrylonitrile but did exhibit some activity towards 2-cyanoethylene oxide. These studies establish the basic pathways involved in the metabolism of acrylonitrile and should provide a basis for examination of the relevance of these individual steps and their roles in bioactivation and detoxication under more physiological situations.

Descriptors: HUMAN RAT CALF THYMUS BRAIN LIVER 1 1 2 TRI CHLORO ETHYLENE VINYL BROMIDE VINYL CHLORIDE CARCINOGEN PHENO BARBITAL 5 6 BENZO FLAVONE GLUTATHIONE S TRANSFERASE EPOXIDE HYDROLASE CYTOCHROME P-450 NADP RADIO LABEL

Concept Codes: RADIATION BIOL-RADTN,ISOTOP TECH(06504); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM-(10062); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064);

BIOCHEM STUD-PORPHYRNS,BILE PIGM(10065); ENZYMES-PHYSIOLOGICAL STUDIES(+10808); METABOLISM-GENL STUD,METAB PATHW(+13002); METABOLISM-PROTNS,PEPTDS,AM ACD(+13012); METABOLISM-NUCL ACD,PURINS,PYRM(+13014); DIGESTIVE SYST-PHYSIOL,BIOCHEM(+140-04); ENDOCRINE SYST-THYMUS(17016); NERVOUS SYST-PHYSIOL,BIOCHEM(+20504); PHARMACOL-GENERAL STUDIES(22002); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); TISS CULTURE-APPARAT,METHS,MEDIA(32500); IN VITRO STUDS-CELLULR,SUBCELL(32600)

Biosystematic Codes: BOVIDAE(85715); HOMINIDAE(86215); MURIDAE(86375)

73068259

ISSUES RELEVANT TO THE ASSESSMENT OF CHEMICALLY INDUCED CHROMOSOME DAMAGE IN-VIVO AND THEIR RELATIONSHIP TO CHEMICAL MUTAGENESIS.

ANDERSON D; RICHARDSON C R
BRITISH IND. BIOL. RES. ASSOC., WOODMANSTERNE ROAD,
CARSHALTON, SURREY SM5 4DS, ENGL., UK.

MUTAT RES 90 (3), 1981. 261-272. Coden: MUREA

Language: ENGLISH

Rats were exposed by different routes of administration (inhalation, orally and i.p.) to known mutagens and their bone-marrow cells sampled at different times to determine the extent of chromosome damage. The mutagens investigated were ethyl methanesulfonate, mitomycin C, trimethylphosphate, benzene and vinyl chloride, at single and/or multiple doses (5 consecutive daily). Various categories of chromosome damage were observed in all cases. The extent of damage due to chromosome and chromatid gaps was greater than, and generally increased in parallel with, other categories of damage. Chromosome and chromatid gaps may be indicative of toxic phenomena, but such aberrations could be useful as sensitive indicators of chemically induced genetic damage. Single exposure is as effective as multiple exposure in producing chromosome damage; correct sampling time is necessary to detect this damage. For screening purposes a time course sampling after a single treatment regime would be suitable for detecting the mutagenic potential of a chemical.

Descriptors: RAT BONE MARROW CELL ETHYL METHANESULFONATE MITOMYCIN C TRI METHYL PHOSPHATE BENZENE VINYL CHLORIDE

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(+02506); GENETICS/CYTOGENET-ANIMAL(+03506); BIOCHEM STUD-GENERAL(10060); DIGESTIVE SYST-GENL STUDS,METHS(14001); BLOOD/BODY FLDS-GENL STUDS,METHS(15001); BLOOD/BODY FLDS-BLOOD CELL STUDS(15004); BLOOD/BODY FLDS-LYMPHAT TISS,RES(+15008); RESPIRATORY SYST-GENL STUD,METHS(16001); DENTAL/ORAL BIOL-GENL STUD,METHS(19001); PHARMACOL-GENERAL STUDIES(+22002); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-THERAP,AGNT(24008); CHEMOTHERAPY-GEN STUD,METH,METAB(38502)

Biosystematic Codes: MURIDAE(86375)

R&S 138357

DIALOG File5: BIOSIS Previews 77-83/Jan 84/502;RNM2402(JUL File55) (c. BIOSIS 1982) (Item 52 of 858) User 3614 25Jan83 2003

73067195

TREATMENT OF THERMOLABILE INSTRUMENTS WITH WATER AFTER COLD STERILIZATION WITH GIGASEPT.

HARKE H-P; LINKE M
SCHUELKE AND MAYR GMBH, BEREICH FORSCHUNG UND ENTWICKLUNG,
ROBERT-KOCH-STR. 2, D-2000 NORDERSTEDT.

ZENTRALBL BAKTERIOL MIKROBIOL HYG ABT 1 ORIG B HYG UMWELTHYG
KRANKENHAUSHYG ARBEITSHYG PRAEV MED 172 (6). 1981. 520-523.

Coden: ZAOMD

Language: GERMAN

After careful disinfection of polished surfaces of V4A steel, rubber or PVC [polyvinyl chloride] with a 10% Gigasept solution, it is sufficient to dip the plates into water for 5 min 1 time only in order to practically clear off all residues. Irregularly shaped parts should be rinsed twice. This 2nd time should last 1 h, or if a shorter dipping time is desired, the instrument should be moved.

Descriptors: STEEL RUBBER POLY VINYL CHLORIDE

Concept Codes: BIOCHEM STUD-GENERAL(10060); MINERALS(10069);
BIOPHYS-BIOENGINEERING(10511); EXTERN EFF-TEMPERATURE(10614);
EXTERN EFF-COLD(10616); EXTERN EFF-HOT(10618); TEMPERATURE-GE-
NL,METHS(23001); PUB HEALTH-DISINFCT,VECT CNT,PEST(+37008);
DISINFECTION,DISINFECTANTS,STERL(+39500)

73064712

POWER CONSIDERATIONS IN EPIDEMIOLOGIC STUDIES OF VINYL CHLORIDE WORKERS.

BEAUMONT J J; BRESLOW N E
INDUSTRYWIDE STUDIES BRANCH F-8, NATIONAL INSTITUTE FOR
OCCUPATIONAL SAFETY AND HEALTH, 4676 COLUMBIA PARKWAY,
CINCINNATI, OH 45226.

AM J EPIDEMIOL 114 (5). 1981. 725-734. Coden: AJEPA

Language: ENGLISH

Nine retrospective mortality studies of workers exposed to vinyl chloride were reviewed to determine whether differences in their hypothesis testing results might be due to differences in statistical power. Where possible, the power of each study was calculated for cancer of the lung, brain and liver. When power was taken into consideration, the results for liver and brain cancer were consistent with an etiologic role for vinyl chloride. For lung cancer, the data were not consistent with an etiologic role. In that 2 studies with very high power yielded negative results.

Descriptors: HUMAN LUNG CANCER BRAIN CANCER LIVER CANCER MORTALITY

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500);
BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPARATIVE(12503);
PATHOLOGY-NECROSIS(12510); DIGESTIVE SYST-PATHOLOGY(+14006);
RESPIRATORY SYST-PATHOLOGY(+16006); NERVOUS SYST-PATHOLOGY(+2-
0506); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL
AGNTS-CARCINOGENS(+24007); PUB HEALTH-ADMINISTR,STATISTICS(+3-
7010); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); EPIDEMIOL-ORG-
ANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

73060466

MECHANICAL CONTROL OF THE ACTIVITY OF GLUCOSE OXIDASE IMMOBILIZED ON POROUS POLY VINYL CHLORIDE MEMBRANE.

ISHIMORI Y; KARUBE I; SUZUKI S
RES. LAB. RESOURCE UTILIZATION, TOKYO INST. TECHNOL., 4259
NAGATSUTA-CHO, MIDORI-KU, YOKOHAMA, 227, JAPAN.

BIOTECHNOL BIOENG 23 (11). 1981. 2601-2608. Coden: BIBIA

Language: ENGLISH

Glucose oxidase [*Aspergillus niger*] was immobilized on a porous polyvinylchloride (PVC) membrane. The activity of the glucose oxidase-PVC membrane decreased when the membrane was mechanically stretched. A linear relationship was observed between the stress and the relative logarithmic activity of the glucose oxidase-PVC membrane. Apparent Km and maximum velocity (Vm) of the glucose oxidase-PVC membrane under stretched conditions were 1.4 and 0.71 times those without stretching, respectively. The decrease of the membrane activity with stress was reproducible. The glucose oxidase activity of the membrane can be controlled with stress.

Descriptors: ASPERGILLUS-NIGER MICHAELIS CONSTANT STRESS CONTROL

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500);
BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060);
BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOPHYS-GENE-
RAL STUDIES(10502); BIOPHYS-GENERAL BIOPHYS TECH(10504);
BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); BIOPHYS-MEMBRANE
PHENOMENA(10508); BIOPHYS-BIOENGINEERING(+10511); EXTERN
EFF-PHYSICAL,MECH EFFECTS(10612); ENZYMES-GEN,COMPAR STUD,COE-
NZYMS(10802); ENZYMES-METHODS(+10804); ENZYMES-CHEM,PHYSICAL
STUDIES(10806); MOVEMENT(12100); FOOD/INDUS MICRO-SYN,BIOASS.-
FERM(+39007); PLANT PHYSIOL-ENZYMES(+51518)

Biosystematic Codes: DEUTEROMYCETES(15500)

R&S 138358

DIALOG File5: BIOSIS Previews, 77-83/Jan B. 1984; RKM2402(See File55) (c. BIOSIS 1982) (Item 55 of 858) User 3614 25Jan83 2004

73057900

ACUTE HEPATO TOXICITY OF INHALED VINYL CHLORIDE.

TATRAI E; UNGVARY G

ORSZAGOS MUNKA-ES UZEMEGESZSEGUGYI INTEZET, H-1450 BUDAPEST, NAGYVARAD TER 2., HUNGARY.

ACTA MORPHOL ACAD SCI HUNG 29 (2-3). 1981. 221-226.

Coden: AMSHA

Language: ENGLISH

Acute toxicity of vinyl chloride [environmental pollutant] exposure was studied by morphological methods in 3 spp. (mouse, rat, rabbit). In rats and rabbits exposure to 1500 ppm of vinyl chloride for 24 h did not cause pathological changes. In mice shorter inhalation (4 and 8 h) resulted in circulatory changes, while longer exposure (12 and 24 h) caused vasomotor paralysis followed by characteristic shock; subsequent alterations could be seen in the liver and lungs. The acute hepatotoxicity of vinyl chloride could not be proved.

Descriptors: MOUSE RAT RABBIT ENVIRONMENTAL POLLUTANT CIRCULATORY CHANGE VASO MOTOR PARALYSIS SHOCK LUNG ALTERATION

Concept Codes: BIOCHEM STUD-GENERAL(10060); DIGESTIVE SYST-PATHOLGY(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+1450-8); RESPIRATORY SYST-PATHOLGY(+16006); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: LEPORIDAE(86040); MURIDAE(86375)

73049943

THE DETERMINATION OF VINYL CHLORIDE IN THE ATMOSPHERE BY MEANS OF GAS CHROMATOGRAPHY AFTER SAMPLING ON ACTIVATED CHARCOAL.

KEMKA R; KOLLAR V

VUPL, LIMBOVA 14, 809 58 BRATISLAVA.

PRAC LEK 33 (5). 1981. 167-170. Coden: PRLFA

Language: CZECH

The method was elaborated as a means to control short-term and all-shift concentrations of vinyl chloride, whose maximum allowable concentration in Czechoslovakia was recommended to be 10 mg/m3 for the average and 30 mg/m3 for the threshold. Samples of air were taken at a flow rate of 0.03-0.05 l/min into the tube containing 200 mg activated charcoal GA-1, particle size 0.8-1.25 mm. Vinyl chloride was extracted from the charcoal by stationary elution into 2 ml of elution agent (CS2 with CCl4 as internal standard) in which the content remained unchanged for 6 days if kept at -20.degree. C. The column temperature was 35.degree. C, length 2 m, diameter 2.5 mm, and was filled with Chromosorb W 80-100 mesh with 3% Carbowax 20 M. The injection port and flame-ionization detector (FID) were heated to 200.degree. C. For carrier gas, N was used (flow rate 35 ml/min). Samples of 1 mu.l containing CCl4 were analyzed for internal standard. The relative error of determination of vinyl chloride in the air in the concentration range 53-9506 mg/m3 was between -3.1 and 2.4%. The non-quantitative stationary elution of vinyl chloride from the activated charcoal must be corrected by a coefficient of elution 0.83.

Descriptors: MONITORING OCCUPATIONAL HEALTH

Concept Codes: ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

APPARATUS(01010); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(-+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100); TOXICOL-ENVIRONMNTL,INDUSTR(+22-506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

73048195

ANGIO SARCOMA OF THE LIVER A CASE.

CAULET T; PAYEN L; PINTEAUX A; PLUOT M; DELATTRE J F; LEUTENEGGER M

SERVICE CENTRAL ANATOMIE CYTOL. PATHOL., CHU ROBERT DEBRE, RUE ALEXIS CARREL, 51100 REIMS.

ARCH ANAT CYTOL PATHOL 29 (4). 1981. 239-245. Coden: AACPD

Language: FRENCH

The case of an angiosarcoma of the liver occurring in a 64 yr old diabetic man with fever and a painful abdominal syndrome is presented. Clinical examination and chest X-rays revealed a hepatomegaly and a large opacity of the upper lobe of the right lung. He died 1 mo. later from a massive intra-abdominal hemorrhage. At necropsy the relevant findings were a huge angiosarcoma of the liver with pulmonary and lymph node metastases. The microscopic features were identified by optical and ultrastructural studies. This case is compared to other cases of the literature which occurred in the absence of known exposure to carcinogenic factors such as thorotrast, arsenic and vinyl chloride (75% of the cases) and in conjunction with long-term exposure to specific agents. In the present case none of the carcinogenic factors was found in the patient's history.

Descriptors: HUMAN LUNG ABDOMEN LYMPH NODE VINYL CHLORIDE THOROTRAST ARSENIC CARCINOGEN DIABETES PAIN HEPATOMEGALY METASTASIS HEMORRHAGE X-RAY

Concept Codes: PHOTOGRAPHY-METHS,MATLS,APPARAT(01012); RADIATION BIOL-RADTN,ISOTOP TECH(06504); BIOCHEM STUD-GENERAL-(10060); MINERALS(10069); CHORDATE BODY REGNS-THORAX(11312); CHORDATE BODY REGNS-ABDOMEN(11314); PATHOLOGY-DIAGNOSTIC(1250-4); PATHOLOGY-NECROSIS(12510); METABOLISM-CARBOHYDRATES(13004); METABOLISM-METABOLIC DISORDERS(+13020); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+1450-8); BLOOD/BODY FLDS-BLD,LYM,RES PATH(+15006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(15008); RESPIRATORY SYST-PATHOLOGY(+160-06); ENDOCRINE SYST-PANCREAS(17008); NERVOUS SYST-PHYSIOL,BIO-CHEM(20504); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-DIAGNS METH(24001); NEOPLSMS/NEOPL AGNTS-PATH,CLIN-IC(+24004); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: HOMINIDAE(86215)

DIALOG File5: BIOSIS Previews 77-83/Jan BA7502:RRM2402(See File55) (c. BIOSIS 1982) (Item 58 of 858) User 3614 25Jan83 2005

73047914

ULTRASTRUCTURE OF HEPATIC ANGIO SARCOMA IN RATS INDUCED BY VINYL CHLORIDE.

SPIT B J; FERON V J; HENDRIKSEN C F M
INST. CIVO-TOXICOL. NUTR. TNO, P.O. BOX 360, 3700 AJ ZEIST, NETH.

EXP MOL PATHOL 35 (2). 1981. 277-284. Coden: EXMPA
Language: ENGLISH

The hepatic angiosarcoma studied was from a male Wistar rat exposed to vinyl chloride monomer (VCM) by the oral route for 120 wk. Widened sinusoids linked by large electron-lucent, spindle-shaped tumor cells and membrane-bound nuclear-free structures were seen in the transitional zone between the tumor mass and the adjacent liver tissue. In areas consisting solely of tumor tissue the tumor cells had a more angular or irregular shape. The origin of the tumor cells is discussed in light of the characteristic differences between endothelial cells and Kupffer cells described in the literature. Although an endothelial origin of the tumor cells could not be established unequivocally, at present there is little reason to doubt such an origin.

Descriptors: CARCINOGEN ENDOTHELIAL ORIGIN SINUSOID SPINDLE SHAPED CELL ORAL ADMINISTRATION

Concept Codes: MICROSCOPY-CYTOLOG, CYTOCHEM TECH(01054); MICROSCOPY-HISTOL, HISTOCHEM TECH(01056); CYTOLOGY/CYTOCHEM-ANIMAL(+02506); BIOCHEM STUD-GENERAL(10060); ANATOMY/HISTOL-MICRO, ULTRAMICRSC(+11108); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+14508); BLOOD/BODY FLDS-LYMPHAT TISS, RES(+15008); DENTAL/ORAL BIOL-GENL STUD, METHS(19001); ROUTES OF IMMUNIZ, INFECT, THERAP(22100); TOXICOL-GENL/EXP STUDS, METHS(+22501); NEOPLSMS/NEOPL AGNTS-PATH, CLINIC(+24004); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: MURIDAE(86375)

73047869

FOLLOW-UP STUDY ON THE CARCINOGENICITY OF VINYL CHLORIDE AND VINYLIDENE CHLORIDE IN RATS AND MICE TUMOR INCIDENCE AND MORTALITY SUBSEQUENT TO EXPOSURE.

HONG C B; WINSTON J M; THORNBURG L P; LEE C C; WOODS J S
BATTLE SEATTLE RESEARCH CENTER, 4000 N.E. 41ST ST., SEATTLE, WASHINGTON 98105.

J TOXICOL ENVIRON HEALTH 7 (6). 1981. 909-924. Coden: JTEHD

Language: ENGLISH

Carcinogenic and other toxic effects in rats and mice were examined during a 12-mo. period following exposure to vinyl chloride (VC) or vinylidene chloride (VDC). Exposure of male and female mice to 50, 250 or 1000 ppm VC for 6 h/day, 5 days/wk for 1, 3 or 6 mo. resulted in increased numbers of deaths and increased morbidity at all dose levels during the exposure and postexposure periods as compared with air-exposed controls. Similar observations were made with rats after 1, 3, 6 or 10 mo. exposure to VC. Cumulative tumor incidence at various organ sites increased in both species during the postexposure period in proportion to dose or duration of exposure at higher dose levels. Except for mammary gland

tumors in female mice no significant increase in cumulative tumor incidence occurred in either species at 50 ppm VC or 55 ppm VDC regardless of duration of exposure. Exposure to vinyl halides at dose levels lower than those that elicit a significant increase in cancer incidence during the lifetime of the animal may increase the risk of early death or morbidity from toxic pre- or subcarcinogenic effects. At dose levels higher than those consistent with the physiological defense or repair capabilities of the cell, ultimate tumor incidence becomes proportionate to length of exposure and may reflect the number of carcinogenic events elicited during the exposure period.

Descriptors: MAMMARY GLAND TUMOR CELL DEFENSE REPAIR DOSE DEPENDENCE EXPOSURE LENGTH

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); BIOCHEM-GAS-ES(10012); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-NECROSIS(12-510); METABOLISM-GENL STUD, METAB PATHW(13002); REPRODUCT SYST-PATHOLOGY(+16506); TOXICOL-GENL/EXP STUDS, METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: MURIDAE(86375)

73043998

AUTOMATED DETERMINATION OF AMMONIA WITH A POTENTIOMETRIC GAS SENSOR AND FLOWING INTERNAL ELECTROLYTE.

FRATICELLI Y M; MEYERHOFF M E

DEP. CHEM., UNIV. MICHIGAN, ANN ARBOR, MICHIGAN 48109.

ANAL CHEM 53 (7). 1981. 992-997. Coden: ANCHA

Language: ENGLISH

An electrode-based automated method for rapid determination of ammonia-N in the 10⁻⁶ to 10⁻³ mol/l range is described. The system designed utilizes a novel tubular flow-through poly(vinyl chloride)-nonactin membrane electrode to sense NH₄⁺ formed in a recipient internal buffer stream as the sample passes through a gas dialysis chamber. Peak potentials observed are logarithmically related to sample ammonia-N concentrations. At least 30 samples/h can be determined with excellent precision (±1 mV SD) for samples 10⁻⁴ to 10⁻³ mol/l. Thorough investigations regarding the optimization of system variables such as flow rates, diluent reagents, segmentation, etc., are described. Preliminary studies are presented which demonstrate the immediate application of this system for the determination of ammonia in human serum, plasma and whole blood samples.

Descriptors: HUMAN SERUM PLASMA WHOLE BLOOD POLY VINYL CHLORIDE NONACTIN MEMBRANE ELECTRODE

Concept Codes: CLIN BIOCHEM-GENL STUDIES(+10006); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-BIOENGINEERING(+10511); BLOOD/BODY FLDS-BLOOD, LYMPH STUD(+15002)

Biosystematic Codes: HOMINIDAE(86215)

Dialog File5: BIOSIS Previews, 77-83/Jan BA7502;RRM2402(See File55) (c. BIOSIS 1982) (Item 61 of 858) User 3614 25Jan83 2006

73043590

EVALUATION OF BIO COMPATIBILITY OF POLYMERS FOR THE DEVELOPMENT OF PERITONEAL DIALYSIS CATHETER

RAY A R; VERMA K; CHAUDHRY V P
CENTRE FOR BIOMEDICAL ENGINEERING INDIAN INST. OF TECHNOL.,
NEW DELHI 110016.

INDIAN J MED RES 74 (AUG.). 1981. 308-311. Coden: IJMRA
Language: ENGLISH

Two indigenously obtained polymeric materials (polyvinyl chloride and nylon) were implanted s.c. in rats to test their biocompatibility. The tissue reactions to these materials were evaluated and compared with the commonly used peritoneal dialysis catheter material. Since nylon material was comparatively safer, it may be used for making the peritoneal dialysis catheter.

Descriptors: RAT POLY VINYL CHLORIDE NYLON
Concept Codes: BIOPHYS-GENERAL BIOPHYS TECH(10504);
BIOPHYS-BIOENGINEERING(+10511);
ANATOMY/HISTOL-EXPERIMENTAL(11104);
ANATOMY/HISTOL-SURGERY(+11105);
ANATOMY/HISTOL-REGEN,TRANSPLANT(+11107); CHORDATE BODY
REGNS-ABDOMEN(+11314); MOVEMENT(12100); PATHOLOGY-COMPARATIVE-
(12503); PATHOLOGY-THERAPY(+12512); BLOOD/BODY FLDS-GENL
STUDS,METHS(+15001); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(15002);
URIN SYST/EXT SECR-GEN STUD,METH(+15501); URIN SYST/EXT
SECR-PATHOLOGY(+15506); COELOM MEMBRANES,MESENTERIES,ETC(1820-
0); INTEGUMENT SYST-GENL STUDS,METHS(18501); ROUTES OF
IMMUNIZ,INFECT,THERAP(22100); IMMUNOL/IMMUNOCHEM-GEN METH(345-
02); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(+34508)

Biosystematic Codes: MURIDAE(86375)

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); BIOCHEM
STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO
ACD(10064); MINERALS(10069); ENZYMES-PHYSIOLOGICAL STUDIES(+1-
0808); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-INFLAMMATN,INF-
LAM DIS(12508); METABOLISM-GENL STUD,METAB PATHW(13002);
MINERALS(+13010); METABOLISM-PROTNS,PEPTDS,AM ACDS(+13012);
RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY
SYST-PATHOLOGY(+16006); ROUTES OF IMMUNIZ,INFECT,THERAP(22100)
; TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,I-
NDOSTR(22506); ENVIRON HEALTH-OCCUPATNL HEALTH(37013)

Biosystematic Codes: MURIDAE(86375)

73043370

BIOCHEMICAL AND CELLULAR REACTION OF POLY VINYL CHLORIDE PASTE POLYMERS AND LATEX FOLLOWING INTRA TRACHEAL INSTILLATION IN RATS

TETLEY T D; ROSE F A; RICHARDS R J
DEP. BIOCHEM., UNIV. COLL., CARDIFF CF1 1XL, WALES, U.K.
INFLAMMATION 5 (2). 1981. 137-152. Coden: INFLD
Language: ENGLISH

Rats were given different doses (0.25-25 mg) of 2 forms of PVC [polyvinylchloride] paste polymers and polystyrene by intratracheal instillation and monitored for cellular and biochemical changes in the lung lavage fluid and remaining lung tissue after 1 and 4 wk of exposure. Changes were observed in free cell morphology, level of pulmonary surfactant and hydrolytic enzyme activities with all 3 compounds at high concentrations. Some differences in the extent of changes produced per given mass instilled were noted with different formulations and the relationship between particle numbers, surface areas and detergent coatings of samples was discussed. PVC paste polymers and polystyrene cannot be considered totally biologically inert but in comparison with active cytotoxic and inflammatory minerals such as chrysotile asbestos, the extent of their initial reaction in the lung was relatively weak.

Descriptors: CHRYSTILE ASBESTOS POLY STYRENE PASTES

73036886

CRYO PRESERVED RED BLOOD CELLS FOR PEDIATRIC TRANSFUSION
FROZEN STORAGE OF SMALL ALIQUOTS IN POLY VINYL CHLORIDE
PLASTIC BAGSVALERI C R; VALERI D A; GRAY A; MELARGNO A J; VECCHIIONE J J;
DENNIS R C; EMERSON C P

NAVAL BLOOD RES. LAB., BOSTON, MASS.

TRANSFUSION (PHILA) 21(5), 1981, 527-536. Coden: TRANA

Language: ENGLISH

Human nonrejuvenated and rejuvenated red blood cells were prepared for cryopreservation and subsequent pediatric transfusion. Glycerol was added to the red blood cells in the primary polyvinyl chloride plastic collection bag to achieve a concentration of 40% wt/vol. The red blood cells were concentrated by centrifugation, and the supernatant glycerol was discarded. Each glycerolized unit was divided into 4 equal aliquots in the individual 600 ml bags of a dry quadruple polyvinyl chloride plastic system, and each aliquot was frozen and stored at -80.degree. C. After thawing, NaCl solutions were used to wash the aliquots in the IBM Blood Processor 2991-1 or 2991-2 or the Haemonetics Blood Processor 115, and the washed aliquots were stored in a NaCl glucose phosphate solution at 4.degree. C for 24 h. Freeze-thaw recovery of the red blood cells was about 97%, and freeze-thaw-wash recovery was about 84%. Twenty-four-hour posttransfusion survival values were about 92% for both nonrejuvenated and indated-rejuvenated red blood cells. Nonrejuvenated red blood cells, those frozen within 3-5 days of collection without biochemical modification, had normal O2 transport function at the time of transfusion; rejuvenated red blood cells, those biochemically treated with PIGPA [pyruvate, inosine, glucose, phosphate, adenine and NaCl], Solution A after 3-5 days of storage at 4.degree. C, had improved O2 transport function at the time of transfusion.

Descriptors: HUMAN GLYCEROL SODIUM CHLORIDE GLUCOSE PHOSPHATE SOLUTION IBM BLOOD PROCESSOR HAEMONETICS BLOOD PROCESSOR

Concept Codes: BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); BIOCHEM STUD-CARBOHYDR.(10068); MINERALS(10069); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MEMBRANE PHENOMENA(10508); EXTERN EFF-COLD(10616); MOVEMENT(12100); BLOOD/BODY FLDS-GENL STUDS,METHS(+15001); BLOOD/BODY FLDS-BLOOD,Lymph STUD(+15002); BLOOD/BODY FLDS-BLOOD CELL STUDS(+15004); TEMPERATURE-GENL,METHS(+23001); TEMPERATURE-CRYOBIOLOGY(+23004); PEDIATRICS(+250-00)

Biosystematic Codes: HOMINIDAE(86215)

Language: ENGLISH

Cryopreservation of [human] platelets at -80.degree. C with 6% DMSO [dimethylsulfoxide] in PVC [polyvinyl chloride] bags was reevaluated and compared to cryopreservation in teflon-kapton bags. With platelets stored for > 5 mo., post-thawing recovery was 80 +/- 9 in the 2 types of bags. Clot retraction, thromboelastogram and response to hypotonic shock are identical for teflon-kapton and PVC bags and indicate that the majority of platelets recovered after the freeze-thaw procedure are metabolically functional in vitro.

Descriptors: HUMAN TEFLON KAPTON CLOT RETRACTION THROMBO ELASTOGRAM HYPOTONIC SHOCK

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(02508); BIOCHEM STUD-GENERAL(10060); EXTERN EFF-COLD(+10616); BLOOD/BODY FLDS-GENL STUDS,METHS(+15001); BLOOD/BODY FLDS-BLOOD CELL STUDS(+15004); TEMPERATURE-GENL,METHS(+23001); TEMPERATURE-CRYOBIOLOGY(+23004); IN VITRO STUDS-CELLULR,SUBCELL(32600)

Biosystematic Codes: HOMINIDAE(86215)

73022388

CRYO PRESERVATION AT MINUS 80 CELSIUS OF PLATELETS IN POLY
VINYL CHLORIDE BAGS WITH 6 PERCENT DI METHYL SULFOXIDE

LOPEZ M; BARDINET D; FERRER F; ELGHOUZZI M H

UNITE U 76, INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MED., CENT. NATL. TRANSFUSION SANGUINE, 53 BOULEVARD DIDEROT, 75 012, PARIS, FR.

73018636

RAT HEPATIC VINYL CHLORIDE METABOLITES INDUCE GENE CONVERSION IN THE YEAST STRAIN D7RAD IN-VITRO AND IN-VIVO
ECKARDT F; MULIAWAN H; DE RUITER N; KAPPUS H
INST. BIOL., GESELLSCHAFT STRAHLEN UMWELTFORSCHUNG,
INGOLSTAEDTER LANDSTR. 1, D 8042, NEUHERBERG.
MUTAT RES 91 (4-5), 1981, 381-390. Coden: MUREA
Language: ENGLISH

The genetic activity of gaseous vinyl chloride in vitro and in vivo was tested using the gene-conversion system (trp5-12/trp5-27, fwdarw, TRP+) in the yeast (Saccharomyces cerevisiae) strain D7RAD. To induce, in vitro, TRP+ convertants with 2.5% gaseous vinyl chloride, a rat liver microsomal system for metabolic activation of the vinyl chloride and dividing yeast cells are required. Neither a deficiency in excision repair (rad3) nor in the error-prone repair pathway (rad6) increased the vinyl chloride-induced conversion frequencies compared with the repair-competent D7RAD strain. When logarithmically growing cells of the D7RAD strain were injected i.v. into male Wistar rats which inhaled 1% vinyl chloride in air for 24 h, a significant enhancement of the TRP+ conversion frequencies was found compared with that in cells re-isolated from untreated rats. Vinyl chloride metabolites from the metabolizing hepatocytes apparently diffuse into yeast cells, which accumulate in the liver capillaries. The endothelial cells of the liver sinuses, which have hardly any metabolic activity, but which give rise to vinyl chloride-induced hemangiotheliomas (rare type of liver tumor), are apparently transformed by diffusible metabolites of the procarcinogen vinyl chloride.

Descriptors: SACCHAROMYCES-CEREVISIAE LIVER SINUS ENDOTHELIAL CELLS HEM ANGIO ENDOTHELIOMA MUTAGEN CARCINOGEN EXCISION REPAIR ERROR PRONE REPAIR HOST MEDIATED ASSAY

Concept Codes: CYTOLOGY/CYTOCHEM-PLANT(+02504); GENETICS/CYTOGENET-PLANT(+03504); GENETICS/CYTOGENET-ANIMAL(+03506); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACID,PURINS,PYRIM(10062); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); ENZYMES-CHEM,PHYSICAL STUDIES(10806); ENZYMES-PHYSIOLOGICAL STUDIES(10808); MOVEMENT(12100); METABOLISM-GENL STUD,METAB PATHW(+13002); METABOLISM-NUCL ACID,PURINS,PYRIM(+13014); DIGESTIVE SYST-PHYSIOL,BIOCHEM(+14004); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-GENL STUDS,METHS(14501); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLASMS/NEOPL AGENTS-CARCINOGENS(+24007); MICROBIOLOG APPARAT,METHS,MEDIA(32000); PLANT PHYSIOL-METABOLISM(51519)

Biosystematic Codes: ASCOMYCETES(15100); MURIDAE(86375)

[insect] genitalia microvials which can be closed with PVC stoppers or sealed directly.

Descriptors: INSECT

Concept Codes: BIOCHEM STUD-GENERAL(+10060); REPRODUCT SYST-GENL STUDS,METHS(+16501); INVERTB TAXN-INSECTA,GENL(+63572); INVERTB PHYSIOL-INSECTA-GENERAL(+64072)

Biosystematic Codes: INSECTA-UNSPECIFIED(75300)

73014129

SUITABILITY OF VARIOUS AIR SAMPLING METHODS FOR THE EVALUATION OF OCCUPATIONAL EXPOSURE OF WORKERS TO TOXIC SUBSTANCES

KRAEVSKI YA; MIL'CHARSKA A; DOBETSKI M

INST. MED. IND. TECH. CHEM., LODZ, POLAND.

GIG TR PROF ZABOL O (10), 1980 (RECD, 1981), 17-20.

Coden: GTPZA

Language: RUSSIAN

At a factory manufacturing polyvinyl chloride, average concentrations of vinyl chloride in the air were estimated by various sampling techniques. Measurement of the average concentration in the environment failed to give adequate information on the level of occupational exposure. The level of occupational exposure was highly variable (ranging from 1.8-209.5 mg/m³ air) and depended on the kind of work performed.

Descriptors: HUMAN POLY VINYL CHLORIDE

Concept Codes: GENERAL FIELD APPARATUS(01010); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); PHYSIOLOGY-EXERCISE,PHYS THERAP(12010); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-DIAGNOSTIC(12504); METABOLISM-GENL STUD,METAB PATHW(13002); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

73017818

GENITALIA VIALS FROM POLY VINYL CHLORIDE
VAN DOESBURG P H
RIJKSMUSEUM VAN NATUURLIJKE HISTORIE, LEIDEN.
ENTOMOL BER (AMST) 40 (12), 1980 (RECD, 1981), 177-178.

Coden: ETBRA

Language: ENGLISH

Clear PVC [polyvinyl chloride] tube is proposed to produce

73012587

MATERIAL CHARACTERISTICS OF AND RATES OF NITROUS OXIDE DIFFUSION INTO ENDO TRACHEAL TUBE CUFFS

SHIMIZU Y; NAMIKI A

DEP. ANESTHESIOLOGY, SAPPORO MED. COLL.

SAPPORO MED J 50 (4). 1981. 351-360. Coden: SJZSA

Language: JAPANESE

The characteristics of endotracheal tube cuffs made of latex rubber (LR) or polyvinyl chloride (PVC) or silicone rubber (SR) were investigated in a model trachea and a vinyl bag filled with N₂O, and changes in intra- and lateral cuff pressure in a model trachea were measured. Increases in intracuff and lateral pressures in LR cuffs were more remarkable than those in PVC and SR cuffs. Changes in intracuff pressure, gas volume, component and concentration in air-inflated cuffs were measured in a vinyl bag filled with N₂O. N₂O diffused into all cuffs in a concentration and time-related fashion. The rates of N₂O diffusion in SR cuffs were very great compared with those in LR and PVC cuffs. SR cuffs were more permeable to O₂ and N₂ than LR and PVC cuffs. Gas volume in SR cuffs rapidly increased within a short time and then decreased, though intracuff pressures did not change from the control values. Gas volume and intracuff pressure in LR and PVC cuffs increased continuously with time. The overexpansion of SR cuffs and the high lateral pressure of LR cuffs may cause tracheal obstruction and histological damage to the tracheal wall.

Descriptors: MODEL ANIMAL GENERAL ANESTHETIC OXYGEN NITROGEN POLY VINYL CHLORIDE SILICONE RUBBER LATEX RUBBER TRACHEAL OBSTRUCTION HISTOLOGICAL DAMAGE INTRA CUFF PRESSURE

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(+02506); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-BIOCYBERNETICS(10515); EXTERN EFF-PRESSURE(10606); METABOLISM-GENL STUD,METAB PATHW(13002); RESPIRATORY SYST-GENL STUD,METHS(+16001); RESPIRATORY SYST-PATHOLOGY(+16006); NERVOUS SYST-PHYSIOL,BIOCHEM(+20504); PHARMACOL-DRUG METAB,METAB STIMU(+22003); PHARMACOL-NEUROPHARMACOLOGY(+22024)

Biosystematic Codes: VERTEBRATA-UNSPECIFIED(85150)

73009320

LARVICIDAL EFFECTIVENESS OF 3 CONTROLLED RELEASE FORMULATIONS OF DURSABAN AND DIMILIN ON CULEX-PIPIENS AND AEDES-AEGYPTI

SALEH M S; GAARBOUB I A; KASSEM S M I

PLANT PROTECTION DEP., FAC. AGRIC., UNIV. ALEXANDRIA, ALEXANDRIA, EGYPT.

J AGRIC SCI 97 (1). 1981. 87-96. Coden: JASIA

Language: ENGLISH

Three plastic formulations of both Dursban and Dimilin were tested as controlled-release pellets against larvae of *C. pipiens* and *A. aegypti*. Each pellet had an initial concentration of 0.116 µg/l. Results showed that Dimilin did not appear to give as high percentages of larval mortality as Dursban although in most cases a clearly delayed inhibition

were obtained in 3-14 (in the case of *C. pipiens*) and 1-12 (in the case of *A. aegypti*) days when the 2nd instar larvae were treated with Dursban formulations. With the Dimilin formulations no more than 31% (in case of *C. pipiens*) and 24% (in case of *A. aegypti*) larval mortalities occurred up to 13-14 days until completion of pupation. The results obtained showed that formulation 1 (polyvinyl chloride + dibutyl phthalate + toxicant) was the most effective of the 3 tested ones, followed by formulations 2 (polyvinyl chloride + dibutyl phthalate + triton X-100 + toxicant) and 3 (polyvinyl chloride + dibutyl phthalate + triton X-100 + ammonium carbonate + citric acid + water + toxicant), respectively. This was so on the basis both of percentage of larval mortality and time post-treatment. The durations of effectiveness of Dursban pellets were 123, 94 and 86 days for the formulations 1, 2 and 3, respectively. On the basis of number of tests with over 90% larval mortality, formulation 2 gave the highest level (13 tests) followed by formulation 3 (12 tests) and finally formulation 1 (10 tests). Consideration must be given to the cumulative effect of these factors of activity when using these formulations for control of mosquito larvae. Activity indices also proved that there was no definite variation in the toxicity of both DDT-susceptible and resistant strains against these formulations. Such results were obtained with Dimilin which confirmed that formulation 3 was the most effective one. The durations of effectiveness were about 112-115 (11-67% inhibition of adult emergence), 111-113 (11-93% inhibition of adult emergence) and 102-113 (12-100% inhibition of adult emergence) days for formulations 1, 2 and 3, respectively, for the susceptible and resistant lines of *C. pipiens* and *A. aegypti*.

Descriptors: POLY VINYL CHLORIDE DI BUTYL PHTHALATE TOXICANT MORTALITY DDT

Concept Codes: BIOCHEM STUD-GENERAL(10060); PATHOLOGY-NECROSIS(12510); ENDOCRINE SYST-NEUROENDOCRINOLOG(+17020); TOXICOL-GENL/EXP STUDS,METHS(22501); DEVELOPMNTL BIOL-PATHOLOGICAL(2-5503); PEST CONTRL GENL/PESTICS/HERBICS(+54600); ECONOM ENTOMOL-ANIMAL PESTS(+60012); ECONOM ENTOMOL-BIOLOGICAL CONTRL(+60014); ECONOM ENTOMOL-INTEGRATED CONTRL(+60015); ECONOM ENTOMOL-CHEM PHYS CONTRL(+60016); INVERTB PHYSIOL-INSECTA-PATHOL(64078)

Biosystematic Codes: DIPTERA(75314); ABSTRACTS OF ENTOMOLOGY(96000)

73002631

CHROMOSOMAL ANALYSIS IN VINYL CHLORIDE EXPOSED WORKERS
COMPARISON OF THE STANDARD TECHNIQUE WITH THE SISTER CHROMATID
EXCHANGE TECHNIQUEANDERSON D; RICHARDSON C R; PURCHASE I F H; EVANS H J;
O'RiORDAN M LIMPERIAL CHEMICAL INDUSTRIES LIMITED, CENTRAL TOXICOLOGY
LABORATORY, ALDERLY PARK, MACCLESFIELD, CHESHIRE SK10 4TJ,
UNITED KINGDOM.

MUTAT RES 83 (1). 1981. 137-144. Coden: MUREA

Language: ENGLISH

A group of 21 workers occupationally exposed to vinyl chloride and 6 controls were examined for the presence of chromosomal aberrations or sister-chromatid exchanges [SCE] in their peripheral lymphocytes. These people comprised a 2nd sampling from a group of exposed workers and controls first examined 18 mo. earlier. The vinyl chloride exposed workers showed levels of chromosomal aberrations elevated above those of the controls, but there was only a slight increase in SCE (per cell or per chromosome) and this increase was not statistically significant. SCE were examined from in vitro cultures of lymphocytes exposed in G0/early G1 and late G1/early S phase to vinyl chloride, with and without metabolic activation. There was no increase in SCE in vitro without metabolic activation but there was a marked increase with metabolic activation and this increase was independent of cell-cycle phase. The small increases of SCE in workers apparently were not due to the inability of vinyl chloride to induce SCE in human lymphocytes but were probably because of low exposures, and SCE levels could have returned to normal relatively quickly after exposure. The analysis of longer-living conventional chromosomal aberrations appeared to be a more sensitive monitor of exposure to vinyl chloride in exposed workers than the estimation of SCE; it should be noted that in a 3rd sampling taken 24 mo. later the exposed workers had chromosomal aberration levels similar to the controls.

Descriptors: LYMPHOCYTE CHROMOSOMAL ABERRATION

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(+02508); GENETICS/CYTOGENET-HUMAN(+03508); SOCIAL BIOL/HUMAN ECOLOGY(+05500); BIOCHEM STUD-GENERAL(10060); METABOLISM-GENL STUD,METAB PATHW(+13002); BLOOD/BODY FLDS-BLOOD CELL STUDS(15004); BLOOD/BODY FLDS-LYMPHAT TISS,RES(+15008); TOXICOL-ENVIRONMNTL-,INDUSTRI(+22506); TISS CULTURE-APPARAT,METHS,MEDIA(32500); IN VITRO STUDS-CELLULR,SUBCELL(32600); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

Concept Codes: BIOCHEM STUD-GENERAL(10060); BIOPHYS-BIOENGIN-NEERING(+10511); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY--COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); BLOOD/BODY FLDS-GENL STUDS,METHS(15001); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(+15002); TOXICOL-GENL/EXP STUDS,METHS(+22501)

Biosystematic Codes: VERTEBRATA-UNSPECIFIED(85150); HOMINID-AE(86215)

23061496

1 N-6 ETHENO ADENOSINE AND 3 N-4 ETHENO CYTIDINE IN POLY
RIBO NUCLEOTIDES LEAD TO TRANSCRIPTIONAL ERRORS AND AMBIGUITY.
SPENGLER S J; SINGER B A

UNIV. CALIF., BERKELEY, CALIF. 94720.

MEETING ON MECHANISMS OF CHEMICAL CARCINOGENESIS PRESENTED AT THE ICN-UNIVERSITY OF CALIFORNIA AT LOS ANGELES SYMPOSIUM ON MOLECULAR AND CELLULAR BIOLOGY, FEB. 22-28, 1981. J SUPRAMOL STRUCT CELL BIOCHEM O (SUPPL. 5). 1981. 212. Coden: JSSBD

Language: ENGLISH

Descriptors: ABSTRACT HUMAN VINYL CHLORIDE CARCINOGEN RNA POLYMERASE MANGANESE

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); GENETICS/CYTOGENET-ANIMAL(+03506); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); MINERALS(10069); REPLICATN,TRANSCRIPTN,TRANSLATN(+10300); ENZYMES-PHYSIOLOGICAL STUDIES(+10808); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: HOMINIDAE(86215)

23054464

POLY VINYL CHLORIDE AS A FOOD PACKAGING MATERIAL.

PEARSON R B

IMPERIAL CHEM. INDUSTRIES, LIMITED, PETROCHEM. AND PLASTICS DIV., PO BOX NUMBER 6, BESSEMER RD., WELWYN GARDEN CITY, HERTS, GREAT BRITAIN.

SYMPOSIUM ON THE CHEMISTRY OF FOOD PACKAGING MATERIALS, JUNE 4, 1981. FOOD CHEM B (2). 1982. 85-96. Coden: FOCID

Language: ENGLISH

Descriptors: MONOMER MIGRATION BOTTLE FILM CAP SEALING

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(+10060); BIOPHYS-GENERAL STUDIES(10502); BIOPHYS-MOLECUL PROP,MACROMOL-EC(10506); MOVEMENT(12100); FOOD TECH-GENL STUDS,METHS(+13502); FOOD TECH-EVALNS PHYS,CHEM PROPS(13530); FOOD TECH-PREP,PROCESSNG,STORAGE(+13532); TOXICOL-FOOD,RESIDS,ADDIT,PRESRV(22502)

23063791

THE EVALUATION OF MEDICAL PLASTICS IN CONTACT WITH BLOOD.

BRUCK S D

MEDI-TECH INC., SUITE 727-EAST, 7315 WISCONSIN AVE., BETHESDA, MD. 20814, USA.

BIOMATERIALS 3 (2). 1982. 121-123. Coden: BIMAD

Language: ENGLISH

Descriptors: HUMAN ANIMAL POLY VINYL CHLORIDE 2 DI ETHYLHEXYL PHTHALATE

23050383

ANGIO SARCOMA OF THE LIVER A GROWING PROBLEM?

ANON

BR MED J 282 (6263). 1981 (RECD. 1982). 504-505. Coden: BMJDA

Language: ENGLISH

Descriptors: HUMAN THOROTRAST ARSENIC VINYL CHLORIDE CARCINOGEN CLINICAL FEATURES

Concept Codes: BIOCHEM STUD-GENERAL(10060); MINERALS(10069); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+14508); TOXICOL-GENL/EXP STUDS,METHS(22501); TOXICOL--PHARMACOLOGICAL(22504); TOXICOL-ENVIRONMNTL,INDUSTR(22506); NEOPLSMS/NEOPL AGNTS-PATH,CLINIC(+24004); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); PUB HEALTH-ADMINISTR,STATISTICS(37-010); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015); EPIDEMIOL-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

23046379

EFFECT OF POLY VINYL CHLORIDE DUST ON THE LUNGS.

VERTKIN YU I; NIKONOV A A

SANIT.-HYG. MED. INST., LENINGRAD, USSR.

GIG TR PROF ZABOL O (7). 1981. 48-49. Coden: GTPZA

Language: RUSSIAN

Descriptors: NOTE HUMAN RAT PNEUMOCONIOSIS FIBROSIS

Concept Codes: BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-PROTNS,PEPTDS,AM ACD(13012); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006); BONE,JNTS,FASC,CONN/ADIP-PATHOL(+18006); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

23038224

PRE NATAL SUSCEPTIBILITY TO CARCINOGENESIS BY XENOBIOTIC SUBSTANCES INCLUDING VINYL CHLORIDE.

RICE J M

PERINATAL CARCINOGENESIS SECT., LAB. COMPARATIVE CARCINOGENESIS, NATL. CANCER INST., FORT DETRICK, FREDERICK, MD. 21701.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (0). 1981 (RECD. 1982). 179-188. Coden: EVHPA

Language: ENGLISH

Descriptors: RAT CARCINOGEN ZYMBALS GLAND CARCINOMA NEPHRO BLASTOMA ANGIO SARCOMA MIXED FUNCTION OXIDASE TRANS PLACENTAL ROUTE

Concept Codes: BIOCHEM STUD-GENERAL(10060); BIOCHEM

STUDIES(+10808); METABOLISM-GENL STUD,METAB PATHW(+13002); CARDIOVASC SYST-BLD VESS PATHOL(+14508); URIN SYST/EXT SECR-PATHOLOGY(+15506); REPRODUCT SYST-PHYSIOL,BIOCHEM(16504); ENDOCRINE SYST-GENERAL STUDIES(+17002); INTEGUMENT SYST-PATHOLOGY(+18506); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,INDUSTR(22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); DEVELOPMNTL BIOL-EXPERIMENTAL(+25504)

Biosystematic Codes: MURIDAE(86375)

23037125

EFFECT OF FUNGICIDES ON ESTERASE ACTIVITY OF THE FUNGUS ASPERGILLUS-NIGER.

ANISIMOV A A; LINOVITSKAYA V M; KRAPIVINA E K

GORKY STATE UNIV.

APPL BIOCHEM MICROBIOL (ENGL TRANSL PRIKL BIOKHIM MIKROBIOL) 17 (4). 1981 (RECD. 1982). 456-458. Coden: APBMA

Language: ENGLISH

Descriptors: MOLD MERTHIOLATE TRILANE CATAPINE POLY VINYL CHLORIDE BIO DEGRADATION DAMAGE PROTECTION

Concept Codes: BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); ENZYMES-PHYSIOLOGICAL STUDIES(+10808); METABOLISM-GENL STUD,METAB PATHW(+13002); FOOD/INDUS MICRO-BIODEGRAD,DETER(+39006); PLANT PHYSIOL-ENZYMES(+51518); PLANT PHYSIOL-METABOLISM(+51519); PEST CONTRL GENL/PESTICS/HERBICS(+54600)

Biosystematic Codes: DEUTEROMYCETES(15500); ABSTRACTS OF MYCOLOGY(95000)

23036538

VINYL CHLORIDE INHALATION TERATOLOGY STUDY IN MICE RATS AND RABBITS.

JOHN J A; SMITH F A; SCHWETZ B A

TOXICOL. RES. LAB., HEALTH AND ENVIRON. SCI. USA, DOW CHEMICAL USA, MIDLAND, MICH. 48640.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (0). 1981 (RECD. 1982). 171-178. Coden: EVHPA

Language: ENGLISH

Descriptors: ENVIRONMENTAL POLLUTANT OCCUPATIONAL HAZARD ETHANOL

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BIOCHEM STUD-GENERAL(10060); RESPIRATORY SYST-GENL STUD,METHS(16001); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); DEVELOPMNTL BIOL-EXPER TERATOL(+25554); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: LEPORIDAE(86040); MURIDAE(86375)

23034248

ANGIO SARCOMA OF THE LIVER A SIGNAL LESION OF VINYL CHLORIDE EXPOSURE.

VIANNA N J; BRADY J; HARPER P
BUREAU ENVIRONMENTAL EPIDEMIOLOG., N.Y. STATE DEP. HEALTH,
TOWER BUILDING, EMPIRE STATE HEALTH PLAZA, ALBANY, N.Y. 12237.
CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE
MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS,
BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 207-210. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN CARCINOGEN OCCUPATIONAL HAZARD

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-GENERAL(10060); DIGESTIVE SYST-PATHOLOGY(+14006);
CARDIOVASC SYST-BLD VESS PATHOL(+14508); TOXICOL-ENVIRONMNTL,
INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007);
ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,W-
ATR,SL POLLN(37015); EPIDEMIOLOG-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

23034247

EXCESS LUNG CANCER RISK IN A SYNTHETIC CHEMICALS PLANT.

WAXWEILER R J; SMITH A H; FALK H; TYROLER H A
INDUSTRY-WIDE STUDIES BRANCH, DIV. SURVEILLANCE, HAZARD
EVALUATIONS FIELD STUDIES, NATL. INST. OCCUPATIONAL SAFETY AND
HEALTH, 4676 COLUMBIA PARKWAY, CINCINNATI, OHIO 45226.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE
MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS,
BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 159-166. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN POLY VINYL CHLORIDE CARCINOGEN
UNDIFFERENTIATED LUNG CANCER ADENO CARCINOMA

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-GENERAL(10060); TOXICOL-ENVIRONMNTL,INDUSTR(+225-
06); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON
HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL
POLLN(37015); EPIDEMIOLOG-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

23034246

MORTALITY AND CANCER RATES AMONG WORKERS IN THE SWEDISH POLY VINYL CHLORIDE PROCESSING INDUSTRY.

MOLINA G; HOLMBERG B; ELOFSSON S; HOLMLUND L; MOOSING R;
WESTERHOLM P

OCCUPATIONAL TOXICOL. UNIT, DEP. OCCUPATIONAL MED., LABOR
MED. DIV., DEP. OCCUPATIONAL SAFETY, BOX 100, 26 STOCKHOLM,
SWED.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE
MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS,
BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 145-152. Coden: EVHPA

Language: ENGLISH

SYSTEM TUMORS OCCUPATIONAL HAZARD

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-GENERAL(10060); PATHOLOGY-NECROSIS(12510);
DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-HEART
PATHOLOGY(+14506); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPL-
SMS/NEOPL AGNTS-CARCINOGENS(+24007); PUB HEALTH-ADMINISTR,STA-
TISTICS(+37010); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013);
ENVIRON HEALTH-AIR,WATR,SL POLLN(37015); EPIDEMIOLOG-ORGANIC
DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

23034245

THE BRITISH UK HEPATIC ANGIO SARCOMA REGISTER.

BAXTER P J

CHRONIC DIS. DIV., SPECIAL STUDIES BRANCH, CENTER DIS.
CONTROL, ATLANTA, GA. 30333.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE
MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS,
BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 115-116. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN VINYL CHLORIDE THOROTRAST CARCINOGEN
RADIO DIAGNOSIS OCCUPATIONAL HAZARD

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
RADIATION BIOL-RADTN,ISOTOP TECH(06504); BIOCHEM STUD-GENERAL-
(10060); PATHOLOGY-DIAGNOSTIC(12504); DIGESTIVE SYST-PATHOLOG-
Y(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+14508);
TOXICOL-PHARMACOLOGICAL(+22504);
TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CAR-
CINOGENS(+24007); PUB HEALTH-ADMINISTR,STATISTICS(+37010);
ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,W-
ATR,SL POLLN(37015); EPIDEMIOLOG-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

23034244

EPIDEMIOLOGIC STUDY OF VINYL CHLORIDE WORKERS MORTALITY THROUGH DEC. 31 1972.

COOPER W C

2150 SHATTUCK AVE., SUITE 401, BERKELEY, CALIF. 94704.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 101-106. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN RESPIRATORY TRACT MALIGNANCY DIGESTIVE TRACT MALIGNANCY BRAIN NEOPLASM USA

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-NECROSIS(12510); DIGESTIVE SYST-PATHOLOGY(+14006); RESPIRATORY SYST-PATHOLOGY(+16006); NERVOUS SYST-PATHOLOGY(+2-0506); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); PUB HEALTH-ADMINISTR,STATISTICS(37-010); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); EPIDEMIOL-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

23034243

REVIEW OF EPIDEMIOLOGIC STUDY RESULTS OF VINYL CHLORIDE RELATED COMPOUNDS.

APFELDORF R; INFANTE P F

OFFICE CARCINOGEN IDENTIFICATION CLASSIFICATION, HEALTH STANDARDS PROGRAMS, OCCUPATIONAL SAFETY HEALTH ADM., U.S. DEP. LABOR, WASHINGTON, D.C. 20210.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 221-226. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN VINYLIDENE CHLORIDE TRI CHLORO ETHYLENE PER CHLORO ETHYLENE CARBON TETRA CHLORIDE ETHYLENE DI BROMIDE EPI CHLOROHYDRIN CARCINOGENIC RISK MORTALITY

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-NECROSIS(12510); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); EPIDEMIOL-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

23034242

EPIDEMIOLOGICAL STUDY OF PNEUMOCONIOSIS IN THE ITALIAN POLY VINYL CHLORIDE INDUSTRY.

MASTRANGELO G; SAIA B; MARCER G; PIAZZA G

IST. MED. LAVORO, UNIV. STUDI PADOVA, VIA FACCIOLATI 71, PADOVA, ITALY.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 153-158. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN SMOKING AGE

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); SOCIAL BIOL/HUMAN ECOLOGY(05500); BEHAVIOR BIOL-HUMAN BEHAVIOR(+07004); BIOCHEM STUD-GENERAL(10060); RESPIRATORY SYST-PATHOLOGY(+16006); PSYCHIATRY-ADDICTION(INC SMOKNG)(+210-04); TOXICOL-GENL/EXP STUDS,METHS(22501); TOXICOL-ENVIRONMNTL-INDUSTR(+22506); DEVELOPMNTL BIOL-GEN MORPHGENSIS(+25508); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); EPIDEMIOL-ORGANIC DIS,NEOPLASMS(+37054); PLANT PHYSIOL-CHEM CONSTITUENTS(51522); AGRONOMY-TOBACCO CROPS(52512)

Biosystematic Codes: SOLANACEAE(26775); HOMINIDAE(86215)

23034241

EPIDEMIOLOGY OF HEPATIC ANGIO SARCOMA IN THE USA 1964-1974.

FALK H; HERBERT J; CROWLEY S; ISHAK K G; THOMAS L B; POPPER H; CALDWELL G G

CHRONIC DIS. DIV., CENT. ENVIRON. HEALTH, PUBLIC HEALTH SERV., U.S. DEP. HEALTH HUMAN SERV., ATLANTA, GA. 30333.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 107-114. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN ANDROGEN ANABOLIC STEROID TREATMENT SEX DIFFERENCE ARSENIC POLY VINYL CHLORIDE EXPOSURE

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); GENETICS/CYTOGENET-SEX DIFFERENC(+03510); SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-STEROLS,STEROIDS(10067); PATHOLOGY-THERAPY(+12512); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+14508); ENDOCRINE SYST-GONADS,PLACENTA(+17006); TOXICOL-PHARMACOLOGICAL(+22504); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); EPIDEMIOL-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

23032431

EFFECTS OF AGING ON THE INDUCTION OF ANGIO SARCOMA.
GROTH D H; COATE W B; ULLAND B M; HORNUNG R W
DIV. BIOMED. BEHAV. SCI., NATL. INST. OCCUP. SAF. HEALTH.
CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE
MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS,
BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 53-58. Coden: EVHPA

Language: ENGLISH

Descriptors: RAT VINYL CHLORIDE CARCINOGEN LIVER LUNG
METASTASES SEX

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
GENETICS/CYTOGENET-SEX DIFFERENC(03510); BIOCHEM STUD-GENERAL-
(10060); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLO
VESS PATHOL(+14508); RESPIRATORY SYST-PATHOLOGY(+16006);
TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CA-
RCINOGENS(+24007); GERONTOLOGY(+24500)

Biosystematic Codes: MURIDAE(86375)

23032430

NEOPLASTIC AND NONNEOPLASTIC EFFECTS OF VINYL CHLORIDE IN
MOUSE LUNG.

SUZUKI Y

ENVIRON. SCI. LAB., DEP. COMMUNITY MED., MT. SINAI SCH. MED.
CITY UNIV. N.Y., ONE GUSTAVE LEVY PL., NEW YORK, N.Y. 10029,
USA.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE
MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS,
BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 31-52. Coden: EVHPA

Language: ENGLISH

Descriptors: ALVEOLOGENIC TUMOR HYPERPLASIA INFLAMMATION
HISTOLOGY ULTRASTRUCTURE

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
MICROSCOPY-HISTOL,HISTOCHEM TECH(01056); ELECTRON MICROSCOPY(-
01058); BIOCHEM STUD-GENERAL(10060); ANATOMY/HISTOL-MICRO,ULT-
RAMICRSC(+11108); PATHOLOGY-INFLAMMATN,INFLAM DIS(+12508);
RESPIRATORY SYST-PATHOLOGY(+16006); NEOPLSMS/NEOPL AGNTS-CARC-
INOGENS(+24007)

Biosystematic Codes: MURIDAE(86375)

23032429

CARCINOGENICITY BIOASSAYS OF VINYL CHLORIDE MONOMER A MODEL
OF RISK ASSESSMENT ON AN EXPERIMENTAL BASIS.

MALIONI C; LEFEMINE G; CILIBERTI A; CATTI G; CARRETTI D

INST. ONCOL. TUMOR CENT., BOLOGNA, ITALY.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE
MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS,
BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 3-30. Coden: EVHPA

Language: ENGLISH

Descriptors: RAT MOUSE HAMSTER LIVER ANGIO SARCOMA ZYMBAL
GLAND CARCINOMA FORE STOMACH PAPILLOMA ACANTHOMA MAMMARY TUMOR
NEUROBLASTOMA NEUROBLASTOMA HEMANGIOMA

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-GENERAL(10060); DIGESTIVE SYST-PATHOLOGY(+14006);
CARDIOVASC SYST-BLO VESS PATHOL(+14508); URIN SYST/EXT
SECR-PATHOLOGY(+15506); REPRODUCT SYST-PATHOLOGY(+16506);
ENDOCRINE SYST-GENERAL STUDIES(17002); INTEGUMENT SYST-PATHOL-
OGY(+18506); NERVOUS SYST-PATHOLOGY(+20506); TOXICOL-GENL/EXP
STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: CRICETIDAE(86310); MURIDAE(86375)

23032428

OBSERVATIONS OF THE SITE SPECIFIC CARCINOGENICITY OF VINYL
CHLORIDE TO HUMANS.

INFANTE P F

HEALTH STANDARDS PROGRAMS, OCCUP. SAF. HEALTH ADM.,
WASHINGTON, D.C. 20210, USA.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE
MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS,
BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 89-94. Coden: EVHPA

Language: ENGLISH

Descriptors: LIVER CANCER LUNG CANCER CENTRAL NERVOUS SYSTEM
CANCER LYMPHATIC CANCER LEUKEMIA OCCUPATIONAL HAZARD

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-GENERAL(10060); DIGESTIVE SYST-PATHOLOGY(+14006);
BLOOD/BODY FLDS-BLO,LYM,RES PATH(15006); BLOOD/BODY
FLDS-LYMPHAT TISS,RES(15008); RESPIRATORY SYST-PATHOLOGY(+160-
06); NERVOUS SYST-PATHOLOGY(+20506); TOXICOL-ENVIRONMNTL,INDU-
STR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007);
NEOPLSMS/NEOPL AGNTS-BLOOD,RES(+24010); ENVIRON HEALTH-OCCUPA-
TNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015);
EPIDEMIOLOG-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

DIALOG File5: BIOSIS Previews, 77-83/Jan BA7502;RRM2402(See File55) (c. BIOSIS 1982) (Item 91 of 858) User 3614 25Jan83 2015

23032419

EFFECT OF ETHANOL ON VINYL CHLORIDE CARCINOGENESIS.

RADIKE M J; STEMMER K L; BINGHAM E
UNIV. CINCINNATI MED. CENT., DEP. ENVIRON. HEALTH, KETTERING
LAB., 3223 EDEN AVE, CINCINNATI, OHIO 45267.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE
MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS,
BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 59-62. Coden: EVHPA

Language: ENGLISH

Descriptors: RAT LIVER ANGIO SARCOMA HEPATO CELLULAR
CARCINOMA LYMPHO SARCOMA ENDOCRINE TUMORS

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-GENERAL(10060); DIGESTIVE SYST-PATHOLOGY(+14006);
CARDIOVASC SYST-BLD VESS PATHOL(+14508); BLOOD/BODY
FLDS-BLD,LYM,RES PATH(15006); BLOOD/BODY FLDS-LYMPHAT
TISS,RES(15008); ENDOCRINE SYST-GENERAL STUDIES(+17002);
TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CA-
RCINOGENS(+24007); NEOPLSMS/NEOPL AGNTS-BLOOD,RES(+24010)

Biosystematic Codes: MURIDAE(86375)

23032418

REVIEW OF EXPERIMENTAL CARCINOGENESIS BY COMPOUNDS RELATED
TO VINYL CHLORIDE.

CHU K C; MILMAN H A

NATL. CANCER INST., BETHESDA, MD. 20205.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE
MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS,
BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 211-220. Coden: EVHPA

Language: ENGLISH

Descriptors: MOUSE RAT VINYLIDENE CHLORIDE TRI CHLORO
ETHYLENE PER CHLORO ETHYLENE DI CHLORO ETHANE DI BROMO ETHANE
EPI CHLOROHYDRIN CARCINOGEN FORE STOMACH TUMOR LIVER HEM ANGIO
SARCOMA HEPATO CELLULAR CARCINOMA KIDNEY TUMOR UTERINE TUMOR
MAMMARY GLAND TUMOR FIBROMA LUNG TUMOR

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL-
(10060); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLD
VESS PATHOL(+14508); URIN SYST/EXT SECR-PATHOLOGY(+15506);
RESPIRATORY SYST-PATHOLOGY(+16006); BONE,UNTS,FASC,CONN/ADIP-
PATHOL(+18006); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSM-
S/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: MURIDAE(86375)

23032417

CANCER INDUCTION FOLLOWING SINGLE AND MULTIPLE EXPOSURES TO
A CONSTANT AMOUNT OF VINYL CHLORIDE MONOMER.

HEHIR R M; MCNAMARA B P; MCLAUGHLIN J JR; WILLIGAN D A;
BIERBOWER G; HARDISTY J F

U.S. CONSUMER PRODUCT SAFETY COMMISSION, WESTWOOD TOWERS
BUILDING, ROOM 738, 5401 WEST BLVD., WASHINGTON, D.C. 20207.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE
MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS,
BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 189-194. Coden: EVHPA

BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 63-72. Coden: EVHPA

Language: ENGLISH

Descriptors: RAT MOUSE CARCINOGEN PULMONARY ADENOMA
CARCINOMA

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-GENERAL(10060); RESPIRATORY SYST-PATHOLOGY(+1600-
6); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL
AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: MURIDAE(86375)

23031381

MUTAGENICITY STUDIES OF VINYL CHLORIDE.

FABRICANT J D; LEGATOR M S

DEP. PREVENTIVE MED. COMMUNITY HEALTH, DIV. ENVIRON.
TOXICOL., UNIV. TEX. MED. BRANCH, GALVESTON, TEX. 77550.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE
MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS,
BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT
41 (O). 1981 (RECD. 1982). 189-194. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN EUKARYOTE PROKARYOTE SOMATIC MUTATION
GERMINAL EFFECT

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
GENETICS/CYTOGENET-HUMAN(+03508); BIOCHEM STUD-GENERAL(10060);
REPRODUCT SYST-GENL STUDS,METHS(16501); REPRODUCT SYST-PATHOL-
OGY(+16506); TOXICOL-GENL/EXP STUDS,METHS(+22501); IN VITRO
STUDS-CELLULR,SUBCELL(32600)

Biosystematic Codes: ORGANISMS-UNSPECIFIED(00500); HOMINIDA-
E(86215)

23029934

AN IN-VIVO MODEL TO ASSESS BIO MATERIAL THROMBO RESISTANCE.

RODVIEN R; ROBINSON J; LITWAK P; MITCHELL R R

INST. MED. SCI., SAN FRANCISCO, CALIF.

8TH INTERNATIONAL CONGRESS ON THROMBOSIS AND HEMOSTASIS,
JULY 13-17, 1981. THROMB HAEMOSTASIS 46 (1). 1981. 100.
Coden: THHAD

Language: ENGLISH

Descriptors: ABSTRACT GOAT POLY VINYL CHLORIDE CATHETER POLY
ETHYLENE CATHETER TEFLON CATHETER INDIUM-111 LABELED PLATELETS

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
CYTOLOGY/CYTOCHEM-ANIMAL(02506); RADIATION BIOL-RADTN,ISOTOP
TECH(+06504); BIOPHYS-BIOENGINEERING(+10511); PHYSIOLOGY-COMP-
ARATIVE(+12003); PHYSIOLOGY-METHODS(12006); CARDIOVASC
SYST-GENL STUDS,METHS(+14501); CARDIOVASC SYST-BLD VESS
PATHOL(+14508); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(+15002);
BLOOD/BODY FLDS-BLOOD CELL STUDS(+15004)

Biosystematic Codes: BOVIDAE(85715)

23028765

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER POLY VINYL CHLORIDE AND STRUCTURAL ANALOGS BETHESDA MARYLAND USA MARCH 20-21 1980.

NATL INST ENVIRON HEALTH SCI; NATL INST OCCUP SAF HEALTH; OCCUP SAF HEALTH ADM (USA)

BETHESDA, MD., USA.

ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 1-309.

Coden: EVHPA

Language: ENGLISH

Descriptors: MEETING

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(OO520); BIOCHEM STUD-GENERAL(10060); TOXICOL-GENL/EXP STUDS,METHS(+22-501)

23028674

POWER CONSIDERATIONS IN STUDIES OF REPRODUCTIVE EFFECTS OF VINYL CHLORIDE AND SOME STRUCTURAL ANALOGS.

HATCH M; KLINE J; STEIN Z

DIV. EPIDEMIOLOG., SCH. PUBLIC HEALTH, COLUMBIA UNIV., 630 WEST 168TH ST., NEW YORK, N.Y. 10032.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 195-202. Coden: EVHPA

Language: ENGLISH

Descriptors: ANIMAL MODEL HUMAN PATERNAL EXPOSURE OCCUPATIONAL HEALTH

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(OO520); MATHEMATIC BIOL/STATISTIC METH(+04500); BIOCHEM STUD-GENERAL(-10060); BIOPHYS-BIOCYBERNETICS(+10515); PATHOLOGY-COMPARATIVE-(12503); METABOLISM-GENL STUD,METAB PATHW(13002); REPRODUCT SYST-PATHOLOGY(+16506); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); DEVELOPMNTL BIOL-PATHOLOGICAL(+25503); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013)

Biosystematic Codes: VERTEBRATA-UNSPECIFIED(85150); HOMINID-AE(86215)

23028673

REVIEW OF PULMONARY EFFECTS OF POLY VINYL CHLORIDE AND VINYL CHLORIDE EXPOSURE.

LILIS R

ENVIRON. SCI. LAB., DEP. COMMUNITY MED., MOUNT SINAI SCH. MED., CITY UNIV. N.Y., ONE GUSTAVE LEVY PLACE, NEW YORK, N.Y. 10029.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 167-170. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN LUNG CANCER IMMUNO TOXICITY DYSPNEA FIBROSIS INHALATION

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(OO520);

STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-PROTNS,PEPTOS,AM ACDS(+13012); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006); BONE,JNTS,FASC,CONN/ADIP-PATHOL(+18006); ROUTES OF IMMUNIZ.INFECT,THERAP(22100); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPL-LSMS/NEOPL AGNTS-CARCINOGENS(+24007); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(+34508); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

23028672

WORKER EXPOSURE TO VINYL CHLORIDE AND POLY VINYL CHLORIDE.

JONES J H

DIV. SURVEILLANCE, HAZARD EVALUATIONS AND FIELD STUDIES, NATL. INST. OCCUPATIONAL SAFETY AND HEALTH, 4676 COLUMBIA PARKWAY, CINCINNATI, OHIO 45226.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 129-136. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH USA

Concept Codes: GENL BIOL-INSTITUT,ADMIN,LEGISLN(OO508); GENL BIOL-SYMPOSIA,PROCDNGS,REVW(OO520); GENERAL FIELD APPARATUS(O-1010); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-DIAGNOSTIC(12504); METABOLISM-GENL STUD,METAB PATHW(13002); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

23028663

POLY VINYL CHLORIDE PROCESSES AND PRODUCTS.

WHEELER R N JR

UNION CARBIDE CORP., P.O. BOX 8361, SOUTH CHARLESTON, W. VA. 25303.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 123-128. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN OCCUPATIONAL HEALTH

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-GENERAL STUDIES(12502); METABOLISM-GENL STUD,METAB PATHW(13002); TOXICOL-ENVIRONMNTL,-INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

23028662

EFFECTIVENESS OF FEDERALLY REQUIRED MEDICAL LABORATORY SCREENING IN THE DETECTION OF CHEMICAL LIVER INJURY.

TAMBURO C H; GREENBERG R

LIVER RES. CENT., DIV. DIG. DIS., DEP. MED., UNIV. LOUISVILLE SCH. MED., LOUISVILLE, KY. 40201.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 117-122. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN VINYL CHLORIDE CANCER OCCUPATIONAL HEALTH

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-DIAGNOSTIC(+12504); METABOLISM-GENL STUD,METAB PATHW(13002); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-PATHOLOGY(+14006); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); EPIDEMIOLOG-ORGANIC DIS,NEOPL-ASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

23028661

RESULTS OF SPUTUM CYTOLOGY AMONG WORKERS EXPOSED TO VINYL CHLORIDE MONOMER AND TO POLY VINYL CHLORIDE.

MALTONI C; LODI P

INST. ONCOL., TUMOR CENT., BOLOGNA, ITALY.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 85-88. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN MOUSE LUNG CANCER CYTO TOXICITY PULMONARY TOXICITY

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); CYTOLOGY/CYTOCHEM-ANIMAL(+02508);

CYTOLOGY/CYTOCHEM-HUMAN(+02508); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-DIAGNOSTIC(+12504); METABOLISM-GENL STUD,METAB PATHW(13002); BLOOD/BODY FLDS-OTHER BODY FLDS(15010); RESPIRATORY SYST-PATHOLOGY(+16006); DENTAL/ORAL BIOL-GENL STUD,METHS(19001); DENTAL/ORAL BIOL-PATHOLOGY(+19006); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

23028660

PRELIMINARY OBSERVATIONS OF THE EFFECT OF INHALATION OF POLY VINYL CHLORIDE IN MAN AND EXPERIMENTAL ANIMALS.

WAGNER J C; JOHNSON N F

MED. RES. COUNCIL, PNEUMOCONIOSIS UNIT, LLANDOUGH HOSP, PENARTH, WALES, UK.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 83-84. Coden: EVHPA

Language: ENGLISH

Descriptors: RAT PULMONARY TOXICITY DUST OCCUPATIONAL HEALTH

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

R&S 138372

DIALOG File5: BIOSIS Previews 77-83/Jan BA7502;RRM2402(See File55) (c. BIOSIS 1982) (Item 104 of 858) User 3614 25Jan83 2018

23028659

PNEUMOCONIOSIS IN ANIMALS EXPOSED TO POLY VINYL CHLORIDE DUST.

GROTH D H; LYNCH D W; MOORMAN W J; STETTLER L E; LEWIS T R; WAGNER W D; KOMMINENI C

DIV. BIOMED. BEHAVIORAL SCI., DEP. HEALTH HUMAN SERV., NATL. INST. OCCUPATIONAL SAFETY AND HEALTH, ROBERT A. TAFT LABS., CINCINNATI, OHIO 45226.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 73-82. Coden: EVHPA

Language: ENGLISH

Descriptors: RAT GUINEA-PIG MONKEY MACROPHAGE

Concept Codes: GENL BIOL-SYMPOSIA,PROCONGS,REVW(00520); CYTOLOGY/CYTOCHEM-ANIMAL(02506); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); BLOOD/BODY FLDS-BLOOD CELL STDS(+15004); BLOOD/BODY FLDS-BLD,LYM,RES PATH(+15006); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: PRIMATES-UNSPECIFIED(86190); CAVIIDAE(-86300); MURIDAE(86375)

23028226

MORTALITY AMONG POLY VINYL CHLORIDE FABRICATING EMPLOYEES.

CHIAZZE L JR; FERENCE L D
DIV. BIOSTATISTICAL EPIDEMIOLOGY, GEORGETOWN UNIV. SCH. MED., 3750 RESERVOIR RD., N. W., WASHINGTON, D.C. 20007.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 137-144. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN BREAST CANCER DIGESTIVE CANCER

Concept Codes: GENL BIOL-SYMPOSIA,PROCONGS,REVW(00520); SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-NECROSIS(12510); METABOLISM-GENL STUD,METAB PATHW(13002); DIGESTIVE SYST-PATHOLOGY(+14006); REPRODUCT SYST-PATHOLOGY(+16506); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGENTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); EPIDEMIOLOGY-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

23028224

GERMAN INVESTIGATIONS ON MORBIDITY AND MORTALITY OF WORKERS EXPOSED TO VINYL CHLORIDE.

WEBER H; REINH W; GREISER E
STAATLICHER GEWERBEARZT, DUESSELDORF, W. GER.
CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS

BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 95-100. Coden: EVHPA

Language: ENGLISH

Descriptors: HUMAN CANCER

Concept Codes: GENL BIOL-SYMPOSIA,PROCONGS,REVW(00520); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-NECROSIS(12510); METABOLISM-GENL STUD,METAB PATHW(13002); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGENTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); EPIDEMIOLOGY-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

23028139

ENVIRONMENTAL PROTECTION AGENCY USA PROGRAMS OF VINYL CHLORIDE MONITORING IN AMBIENT AIR.

DIMMICK W F

EMISSION STANDARDS ENG. DIV., U.S. ENVIRON. PROTECTION AGENCY, RESEARCH TRIANGLE PARK, N.C. 27711.

CONFERENCE TO REEVALUATE THE TOXICITY OF VINYL CHLORIDE MONOMER, POLY(VINYL CHLORIDE) AND STRUCTURAL ANALOGS, BETHESDA, MD., USA, MAR. 20-21, 1980. ENVIRON HEALTH PERSPECT 41 (O). 1981 (RECD. 1982). 203-206. Coden: EVHPA

Language: ENGLISH

Descriptors: AIR POLLUTION

Concept Codes: GENL BIOL-INSTITUT,ADMIN,LEGISLN(00508); GENL BIOL-SYMPOSIA,PROCONGS,REVW(00520); GENERAL FIELD APPARATUS(01010); ECOLOGY-GENL STUDIES,METHODS(07502); ECOLOGY-BIOCLIMATOL,BIOMETEOROL(+07504); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); TOXICOL-ENVIRONMNTL,INDUSTR(22506); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

R&S 1383

DIALOG File5: BIOSIS Previews, 77-83/Jan BA7502:J

... (c. BIOSIS 1982) (Item 108 of 858) User 3614 25Jan83 2019

23024499

IDIOPATHIC PORTAL HYPERTENSION A REVIEW.

DATTA D V; BHAGWAT A G

DEP. OF LIVER DISEASES.

BULL POSTGRAD INST MED EDUC RES CHANDIGARH 15 (4). 1981 (RECD. 1982). 173-192. Coden: BPIRD

Language: ENGLISH

Descriptors: HUMAN ARSENIC COPPER VITAMIN A VINYL CHLORIDE MONOMER NONCIRRHOTIC PORTAL FIBROSIS HEPATO PORTAL SCLEROSIS OBLITERATIVE PORTAL VENOPATHY BANTIS SYNDROME CIRRHOSIS BUDD CHIARI SYNDROME EXTRAHEPATIC PORTAL VENOUS OBSTRUCTION HEPATIC VENOUS OUTFLOW OBSTRUCTION CONGENITAL HEPATIC FIBROSIS PARTIAL NODULAR TRANSFORMATION SCHISTOSOMIASIS NODULAR REGENERATIVE HYPERPLASIA FELTYS SYNDROME MYELO PROLIFERATIVE DISORDERS HEPATIC ANGIO SARCOMA HISTOLOGY

Concept Codes: MICROSCOPY-HISTOL,HISTOCHEM TECH(01056); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-VITAMINS(10063); BIOCHEM STUD-LIPIDS(10066); MINERALS(10069); ANATOMY/HISTOL-MICRO,ULTRAMICRSC(11108); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-DIAGNOSTIC(12504); PATHOLOGY-INFLAMMATN,INFLAM DIS(12508); DIGESTIVE SYST-ANATOMY(14002); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-ANATOMY(14502); CARDIOVASC SYST-BLD VESS PATHOL(+14508); BLOOD/BODY FLDS-BLD,LYM,RES PATH(15006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(15008); BONE,JNTS,FASC,CONN/ADIP-PATHOL(18006); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-PATH,CLINIC(24004); DEVELOPMNTL BIOL-DESCRIP TERATOL(25552); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(34508); PARASITOLOGY-MEDICAL(60504); INVERTB PHYSIOL-PLATYHELMINTHES(+64010)

Biosystematic Codes: TREMATODA(45200); HOMINIDAE(86215)

23023006

DOES THIS PATIENT HAVE VINYL CHLORIDE DISEASE?

DIERICKX L; DEGREEF H

DEP. DERMATOL., AKAO. ZIEKENHUIS ST.-PIETER, BRUSSELESTR. 69, 3000 LEUVEN, BELG.

CONTACT DERMATITIS 7 (6). 1981 (RECD. 1982). 356-357. Coden: CODED

Language: ENGLISH

Descriptors: FINGER NAIL CARPENTRY WINDOW FRAME INSTALLATION Concept Codes: BIOCHEM STUD-GENERAL(10060); CHORDATE BODY REGNS-EXTREMITIES(11318); INTEGUMENT SYST-PATHOLOGY(+18506); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013)

Biosystematic Codes: HOMINIDAE(86215)

23023000

AN EPIDEMIOLOGIC STUDY OF RESPIRATORY DISEASE IN WORKERS EXPOSED TO POLY VINYL CHLORIDE DUST.

SOUTAR C; COPLAND L; THORNLEY P; HURLEY F; OTTERY J; ADAMS W; BENNETT B

INST. OCCUPATIONAL MED., ROXBURGH PLACE, EDINBURGH, SCOTL., UK.

23RD ASPEN LUNG CONFERENCE: THE ENVIRONMENT AND THE

ASPEN, COLO., USA, JUNE 11-14, 1980. CHEST 80 (SUPPL. 1). 1981. 60S. Coden: CHETB

Language: ENGLISH

Descriptors: HUMAN DYSPNEA SMOKING AGE

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BEHAVIOR BIOL-HUMAN BEHAVIOR(07004); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006); PSYCHIATRY-ADDICTION(INC SMOKNG)(21004); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); DEVELOPMNTL BIOL-GEN MORPHGENSIS(25508); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); EPIDEMIOLOG-ORGANIC DIS,NEOPLASMS(+37054); PLANT PHYSIOL-CHEM CONSTITUENTS(51522); AGRONOMY-TOBACCO CROPS(52512)

Biosystematic Codes: SOLANACEAE(26775); HOMINIDAE(86215)

23022970

VINYL CHLORIDE DISORDER.

WALKER A E

ROYAL HOSPITAL, CHESTERFIELD, DERBYSHIRE.

SYMPOSIUM ON OCCUPATIONAL SKIN DISEASE, STRATFORD-UPON-AVON, WARWICKS., ENGLAND, APRIL 10-11, 1981. BR J DERMATOL 105 (21). 1981. 19-22. Coden: BJDSA

Language: ENGLISH

Descriptors: HUMAN ANIMAL INHALATION NEURO TOXICITY ACRO OSTEOCLYSIS SKIN CANCER SCLERODERMA RAYNAUDS DISEASE CRYO GLOBULIN

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); CLIN BIOCHEM-GENL STUDIES(+10006); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); BIOCHEM STUD-CARBOHYDR.(10068); EXTERN EFF-COLO(10616); CHORDATE BODY REGNS-EXTREMITIES(11318); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-INFLAMMATN,INFLAM DIS(12508); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-CARBOHYDRATES(13004); METABOLISM-PROTNS,PEPTDS,AM ACDS(13012); RESPIRATORY SYST-GENL STUD,METHS(16001); BONE,JNTS,FASC,CONN/ADIP-PATHOL(+18006); INTEGUMENT SYST-PATHOLOGY(+18506); NERVOUS SYST-PATHOLOGY(+20506); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); TEMPERATURE-CRYOBIOLOGY(23004); TEMPERATURE-HYPO,HYPERTHERMIA(+23006); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(+34508); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: VERTEBRATA-UNSPECIFIED(85150); HOMINIDAE(86215)

23022417

MEAT WRAPPERS ASTHMA.

BUTLER J; CULVER B H; ROBERTSON H T

DEP. MED., UNIV. WASH., SEATTLE.

23RD ASPEN LUNG CONFERENCE: THE ENVIRONMENT AND THE LUNG.
ASPEN, COLO., USA, JUNE 11-14, 1980. CHEST 80 (SUPPL. 1).
1981. 71S-73S. Coden: CHETB

Language: ENGLISH

Descriptors: HUMAN POLY VINYL CHLORIDE COLD INHALATION

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM STUD-GENERAL(10060);
EXTERN EFF-COLD(10616); METABOLISM-GENL STUD,METAB
PATHW(13002); RESPIRATORY SYST-GENL STUD,METHS(16001);
RESPIRATORY SYST-PATHOLOGY(+16006); ROUTES OF IMMUNIZ,INFECT,-
THERAP(22100); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON
HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL
POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

23022404

DETERMINATION OF VINYL CHLORIDE IN WATER BY HEADSPACE
ANALYSIS WITH A PHOTO IONIZATION DETECTOR.

STEIN V B; NARANG R S

TOXICOL. INST., DIV. LAB. RES., N.Y. STATE DEP. HEALTH,
ALBANY, N.Y. 12201.

BULL ENVIRON CONTAM TOXICOL 27 (5). 1981. 583-587.
Coden: BECTA

Language: ENGLISH

Descriptors: WATER POLLUTION

Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD
APPARATUS(01010); ECOLOGY-GENL STUDIES,METHODS(07502);
ECOLOGY-WATR RESRCH,FISHERY BIOL(07517); BIOCHEM METH-GENERAL-
(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS
TECH(10504); TOXICOL-ENVIRONMNTL,INDUSTR(22506); ENVIRON
HEALTH-AIR,WATR,SL POLLN(+37015)

23020700

REACTIVE METABOLITES AND CARCINOGENICITY OF HALOGENATED
ETHYLENES.

BOLT H M; LAIB R J; FILSER J G

PHARMAKOL. INST., ABT. TOXIKOL., JOHANNES GUTENBERG-UNIV.
MAINZ, OBERE ZAHLBACHER STR. 67, D-6500 MAINZ, W. GER.

BIOCHEM PHARMACOL 31 (1). 1982. 1-4. Coden: BCPA

Language: ENGLISH

Descriptors: ESCHERICHIA-COLI SALMONELLA-TYPHIMURIUM RAT
VINYL FLUORIDE VINYLIDENE FLUORIDE VINYL CHLORIDE VINYLIDENE
CHLORIDE TRI CHLORO ETHYLENE PER CHLORO ETHYLENE VINYL BROMIDE

Concept Codes: BIOCHEM STUD-GENERAL(10060); METABOLISM-GENL
STUD,METAB PATHW(+13002); TOXICOL-GENL/EXP STUDS,METHS(+22501)
; NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); MURIDAE(863-
75)

23016487

A DEFENSE OF CANCER CASE CLUSTER STUDIES.

ALDRICH T E; GARCIA N; BERGER S; ZEICHNER S; SANCHEZ W

U. MIAMI SCH. MED., MIAMI, FL 33101.

14TH ANNUAL MEETING OF THE SOCIETY FOR EPIDEMIOLOGIC
RESEARCH, SNOWBIRD, UTAH, USA, JUNE 17-19, 1981. AM J
EPIDEMIOL 114 (3). 1981. 442. Coden: AJEPA

Language: ENGLISH

Descriptors: ABSTRACT HUMAN DI ETHYL STILBESTROL VINYL
CHLORIDE ASBESTOS CARCINOGEN

Concept Codes: GENL, BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-GENERAL(10060); ENDOCRINE SYST-GONADS,PLACENTA(+
17006); TOXICOL-PHARMACOLOGICAL(+22504); TOXICOL-ENVIRONMNTL,-
INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-GENL STUDS(+24002);
NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); PUB HEALTH-ADMINIST-
R,STATISTICS(+37010); EPIDEMIOL-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

23014703

MULTI STAGE DOSE RESPONSE MODELS IN CARCINOGENESIS.

CARLBORG F W

400 SOUTH NINTH ST., SAINT CHARLES, ILLINOIS 60174.

FOOD COSMET TOXICOL 19 (3). 1981. 361-366. Coden: FCTXA

Language: ENGLISH

Descriptors: MOUSE RAT DDT VINYL CHLORIDE DI ETHYL
STILBESTROL CARCINOGEN DOSE LIVER ANGIO SARCOMA MAMMARY
CARCINOMA NASAL ADEND CARCINOMA

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500);
BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-STEROLS,STEROIDS(10-
067); BIOPHYS-BIOCYBERNETICS(+10515); DIGESTIVE SYST-PATHOLOG-
Y(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+14508);
RESPIRATORY SYST-PATHOLOGY(+16006); REPRODUCT SYST-PATHOLOGY(+
16506); ENDOCRINE SYST-GONADS,PLACENTA(17006); PHARMACOL-ENDO-
CRINE SYST(22016); TOXICOL-GENL/EXP STUDS,METHS(+22501);
TOXICOL-PHARMACOLOGICAL(22504);
TOXICOL-ENVIRONMNTL,INDUSTR(22506); NEOPLSMS/NEOPL AGNTS-CARC-
INOGENS(+24007); PEST CONTRL GENL/PESTICS/HERBICS(54600)

Biosystematic Codes: MURIDAE(86375)

IALOG File5: BIOSIS Previews, 77-83/Jan 8A7502;RRM2402(See File55) (c. BIOSIS 1982) (Item 117 of 858) User 3614 25Jan83 2021

23013782

METABOLIC ACTIVATION AND MUTAGENICITY OF 4 VINYLIC MONOMERS VINYL CHLORIDE STYRENE ACRYLO NITRILE BUTADIENE.

OUVERGER M; LAMBOTTE M; MALVOISIN E; DE MEESTER C; PONCELET F; MERCIER M

LAB. OF BIOTOXICOLOGY, UNIV. OF LOUVAIN, SCH. OF PHARMACY, U.C.L.-73.69, B, 1200 BRUSSELS, BELGIUM.

TOXICOL EUR RES 3 (3). 1981. 131-140. Coden: TOERD. Language: ENGLISH

Descriptors: SALMONELLA-TYPHIMURIUM ESCHERICHIA-COLI SCHIZOSACCHAROMYCES-POMBE SACCHAROMYCES-CEREVISIAE OROSPHILA-MELANOGASTER CHINESE HAMSTER LUNG V-79 CELL CHINESE HAMSTER OVARY CHO CELL MIXED FUNCTION OXIDASE ENDOPLASMIC RETICULUM CHROMOSOME ABERRATION

Concept Codes: CYTOLOGY/CYTOCHEM-PLANT(+02504); CYTOLOGY/CYTOCHEM-ANIMAL(+02506); GENETICS/CYTOGENET-GENL STUDIES(+03502); GENETICS/CYTOGENET-PLANT(+03504); GENETICS/CYTOGENET-ANIMAL(+03506); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS, PEPTIDES, AMINO ACID(+10064); ENZYMES-PHYSIOLOGICAL STUDIES(+10808); METABOLISM-GENL STUD, METAB PATHW(13002); METABOLISM-PROTEINS, PEPTIDES, AM ACIDS(+13012); RESPIRATORY SYST-GENL STUD, METHS(+16001); REPRODUCT SYST-GENL STUDS, METHS(16501); TOXICOL-GENL/EXP STUDS, METHS(+22501); TISS CULTURE-APPARAT, METHS, MEDIA(32500); INVERTB PHYSIOL-INSECTA-PHYSIOL(+64076)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); ASCOMYCETES(15100); DIPTERA(75314); CRICETIDAE(86310)

23009340

GAS CHROMATOGRAPHIC DETERMINATION OF VINYL CHLORIDE IN ATMOSPHERIC AIR.

IL'ICHEVA G V; KUZNETSOVA L V

GORKI RES. INST. IND. HYG. OCCUP. DIS., GORKI, USSR.

GIG SANIT O (7). 1981. 52-54. Coden: GISAA

Language: RUSSIAN

Descriptors: NOTE CARCINOGEN SEASONAL EFFECT AIR POLLUTION

Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD APPARATUS(01010); ECOLOGY-GENL STUDIES, METHODS(07502); ECOLOGY-BIOCLIMATOL, BIOMETEOROL(+07504); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100); TOXICOL-ENVIRONMNTL, INDUSTR(22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-AIR, WATR, SL POLLN(+37015)

23002475

THE ROLE OF HUMAN GENETIC MONITORING IN THE WORKPLACE.

DABNEY B J

IBM CORPORATION, P.O. BOX 1900, BOULDER, CO. 80302.

J OCCUP MED 23 (9). 1981. 626-631. Coden: JOCMA

Language: ENGLISH

Descriptors: HUMAN SPERM BODY FLUID SOMATIC CELL VARIANT BENZENE VINYL CHLORIDE MONOMER EPI CHLORHYDRIN SISTER CHROMATID EXCHANGE STATISTICAL DESIGN GENETICALLY RELEVANT END POINT

TOGENET-HUMAN(+03508); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-NECROSIS(12510); BLOOD/BODY FLDS-OTHER BODY FLDS(15010); REPRODUCT SYST-GENL STUDS, METHS(16501); TOXICOL-ENVIRONMNTL, INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR, WATR, SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

22069803

A PROPOSED HYGIENIC STANDARD FOR VINYL CHLORIDE.

KURLYANDSKII B A; STOVBUR N N; TURUSOV V S

MUNIC. SANIT.-EPIDEMIOLOG., MOSCOW, USSR.

GIG SANIT O (3). 1981. 74-75. Coden: GISAA

Language: RUSSIAN

Descriptors: NOTE HUMAN CARCINOGEN EMBRYO TOXICITY TERATOGEN

Concept Codes: BIOCHEM STUD-GENERAL(10060); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD, METAB PATHW(13002); TOXICOL-GENL/EXP STUDS, METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); DEVELOPMNTL BIOL-PATHOLOGICAL(+25503); DEVELOPMNTL BIOL-GEN MORPHGENSIS(+25508); DEVELOPMNTL BIOL-DESCRIP TERATOL(+25552)

Biosystematic Codes: HOMINIDAE(86215)

22069737

LUNG FIBROSIS IN POLY VINYL CHLORIDE WORKERS.

HUNTER A M; WAGNER J C; JOHNSTON N; SEATON A

JOINT SUMMER MEETING OF THE SCOTTISH THORACIC SOCIETY AND THE THORACIC SOCIETY, ST. ANDREWS, SCOTLAND, JULY 2-3, 1981.

THORAX 36 (9). 1981. 711-712. Coden: THORA

Language: ENGLISH

Descriptors: ABSTRACT HISTOLOGY ELECTRON MICROSCOPY

Concept Codes: GENL BIOL-SYMPOSIA, PROCDNGS, REVW(00520); MICROSCOPY-HISTOL, HISTOCHEM TECH(01056); ELECTRON MICROSCOPY(01058); SOCIAL BIOL/HUMAN ECOLOGY(+05500); BIOCHEM, STUD-GENERAL(10060); ANATOMY/HISTOL-MICRO, ULTRAMICRSC(+11108); RESPIRATORY SYST-PATHOLOGY(+16006); TOXICOL-ENVIRONMNTL, INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(37013)

Biosystematic Codes: HOMINIDAE(86215)

R&S 138376

22063948

SATURABLE METABOLISM AND ITS RELATIONSHIP TO TOXICITY.
ANDERSEN M E
TOXICOL. BRANCH, AIR FORCE AEROSPACE MED. RES. LAB.,
WRIGHT-PATTERSON AIR FORCE BASE, OHIO.
CRIT REV TOXICOL 9 (2). 1981. 105-150. Coden: CRTXB
Language: ENGLISH
Descriptors: REVIEW RAT 2 4 5-T STYRENE VINYL CHLORIDE
PHARMACO KINETICS INHALATION
Concept Codes: BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(1-
0060); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIV-
E(12503); METABOLISM-GENL STUD,METAB PATHW(13002); RESPIRATORY
SYST-GENL STUD,METHS(16001); PHARMACOL-DRUG METAB,METAB
STIMU(+22003); ROUTES OF IMMUNIZ,INFECT,THERAP(22100);
TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-PHARMACOLOGICAL-
(+22504); PLANT PHYSIOL-GROWTH SUBSTANCES(51514); AGRONOMY-WE-
EDS AND WEED CONTROL(52518); PHYTOPATHOL-NONPARASITIC
DISEASE(54512); PEST CONTRL GENL/PESTICS/HERBICS(+54600)
Biosystematic Codes: MURIDAE(86375)

22063890

VINYL CHLORIDE DISORDER.
WALKER A E
ROYAL HOSPITAL, CHESTERFIELD, DERBYSHIRE.
MEETING ON OCCUPATIONAL SKIN DISEASE, STRATFORD-ON-AVON,
WARWICKS.. ENGLAND. APR. 10-11, 1981. BR J DERMATOL SUPPL
105 (21). 1981. 19-22. Coden: BJDSA
Language: ENGLISH
Descriptors: HUMAN ANIMAL POLY VINYL CHLORIDE LIVER ACRO
OSTEOLYSIS SCLERODERMA CARCINOGEN RAYNAUDS DISEASE IMMUNO
PATHOLOGY
Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); CHORDATE
BODY REGNS-EXTREMITIES(11318); PATHOLOGY-GENERAL STUDIES(1250-
2); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB
PATHW(13002); DIGESTIVE SYST-PATHOLOGY(+14006); RESPIRATORY
SYST-GENL STUD,METHS(16001); BONE,JNTS,FASC,CONN/ADIP-PATHOL(-
+18006); INTEGUMENT SYST-PATHOLOGY(+18506); ROUTES OF
IMMUNIZ,INFECT,THERAP(22100);
TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CAR-
CINOGENS(+24007); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(+34508);
ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,W-
ATR,SL POLLN(+37015)
Biosystematic Codes: VERTEBRATA-UNSPECIFIED(85150); HOMINIO-
AE(86215)

22061665

CURRENT PROBLEMS IN OCCUPATIONAL HYGIENE IN PRODUCTION OF
PLASTICS LITERATURE REVIEW.
SHEVCHENKO A M; YAVOROVSKI A P
A.A. BOGOMOLET MED. INST., KIEV, USSR.
GIG TR PROF ZABOL O (5). 1981. 24-28. Coden: GTPZA
Language: RUSSIAN
Descriptors: HUMAN MOUSE GLASS FIBER POLY VINYL CHLORIDE AIR

SKIN CARCINOGEN

Concept Codes: BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(1-
0060); MINERALS(10069); PATHOLOGY-COMPARATIVE(12503);
METABOLISM-GENL STUD,METAB PATHW(13002); MINERALS(+13010);
INTEGUMENT SYST-PATHOLOGY(+18506); TOXICOL-ENVIRONMNTL,INDUSTR-
R(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON
HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL
POLLN(+37015)
Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

22058028

GAS CHROMATOGRAPHIC DETERMINATION OF VINYL CHLORIDE IN AIR.
DMITRIEV M T; MISHCHIKHIN V A
MOSCOW, USSR.
GIG SANIT O (4). 1981. 46-49. Coden: GISAA
Language: RUSSIAN
Descriptors: NOTE HUMAN POLY VINYL CHLORIDE OCCUPATIONAL
HEALTH
Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD
APPARATUS(01010); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(-
+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS
TECH(10504); MOVEMENT(12100); PATHOLOGY-GENERAL STUDIES(12502);
METABOLISM-GENL STUD,METAB PATHW(13002); TOXICOL-ENVIRONMNT-
L,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013);
ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)
Biosystematic Codes: HOMINIDAE(86215)

22054186

MECHANICAL METHOD FOR SYNANTHROPIC COCKROACH CONTROL.
PENEV I; CHEL'EVSKI S; TOSHEV G; MLADENOV M; VODENICHAROV P
INST. TRANSPORT MED., SOFIA, BULG.
MED PARAZITOL PARAZIT BOLEZNI 50 (1). 1981. 48-49.
Coden: MPPBA
Language: RUSSIAN
Descriptors: BLATTA-ORIENTALIS BLATTA-GERMANICA POLY VINYL
CHLORIDE RESIN
Concept Codes: BIOCHEM METH-GENERAL(10050); BIOCHEM
STUD-GENERAL(+10060); PEST CONTRL GENL/PESTICS/HERBICS(+54600);
ECONOM ENTOMOL-ANIMAL PESTS(+60012); ECONOM ENTOMOL-CHEM
PHYS CONTRL(+60016); SANITARY ENTOMOLOGY(+61000)
Biosystematic Codes: ORTHOPTERA(75340)

R&S 138377

DIALOG File5: BIOSIS Previews 77-83/Jan BA75

(c. BIOSIS 1982) (Item 127 of 858) User 3614 25jan83 2023

22051618

POWER CONSIDERATIONS IN EPIDEMIOLOGIC STUDIES OF VINYL CHLORIDE WORKERS.

BEAUMONT J J; BRESLOW N E
NIOSH, CINCINNATI, OH 45226.

14TH ANNUAL MEETING OF THE SOCIETY FOR EPIDEMIOLOGIC RESEARCH, SNOWBIRD, UTAH, USA, JUNE 17-19, 1981. AM J EPIDEMIOL 114 (3). 1981. 438. Coden: AJEPA

Language: ENGLISH

Descriptors: ABSTRACT HUMAN LUNG BRAIN LIVER CANCER MORTALITY

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-NECROSIS(12510); METABOLISM-GENL STUD,METAB PATHW(13002); DIGESTIVE SYST-PATHOLOGY-(+14006); RESPIRATORY SYST-PATHOLOGY(+16006); NERVOUS SYST-PATHOLOGY(+20506); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); EPIDEMIOL-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

22050201

ABSORPTION OF ISOSORBIDE DI NITRATE BY POLY VINYL CHLORIDE INFUSION BAGS AND ADMINISTRATION SETS.

LEE M G; FENTON-MAY V

PHARMACY DEP., UNIV. HOSP. WALES, HEATH PARK, CARDIFF.

J CLIN HOSP PHARM 6 (3). 1981. 209-212. Coden: JCHPD

Language: ENGLISH

Descriptors: HUMAN CARDIOVASCULAR-DRUG MYO CARDIAL INFARCTION POTENCY GLASS POLY PROPYLENE PHARMACO KINETICS

Concept Codes: BIOCHEM STUD-GENERAL(10060); PATHOLOGY-THERAPY(12512); METABOLISM-GENL STUD,METAB PATHW(13002); CARDIOVASC SYST-GENL STUDS,METHS(14501); CARDIOVASC SYST-HEART PATHOLOGY(14506); PHARMACOL-GENERAL STUDIES(+22002); PHARMACOL-DRUG METAB,METAB STIMU(+22003); PHARMACOL-CLINICAL PHARMACOL(22005); PHARMACOL-CARDIOVASC SYST(+22010); ROUTES OF IMMUNIZ,INFECT,THERAP(22100)

Biosystematic Codes: HOMINIDAE(86215).

22049333

MECHANISMS OF VINYL CHLORIDE CARCINOGENICITY MUTAGENICITY.

PATHWAY D E

I.C.I. LIMITED, CENTRAL TOXICOLOGY LABORATORY, ALDERLEY PARK, CHESHIRE SK10 4TJ.

BR J CANCER 44 (4). 1981. 597-600. Coden: BJCAA

Language: ENGLISH

Descriptors: SALMONELLA-TYPHIMURIUM RAT MOUSE HUMAN LIVER DEOXY ADENOSINE DEOXY CYTIDINE DNA MOLECULAR MODEL

Concept Codes: MICROSCOPY-CYTOLOG,CYTOCHEM TECH(01054); CYTOLOGY/CYTOCHEM-ANIMAL(+02506); GENETICS/CYTOGENET-GENL STUDIES(03502); GENETICS/CYTOGENET-ANIMAL(+03506); GENETICS/CYTOGENET-HUMAN(03508); BIOCHEM STUD-GENERAL(10060); BIOCHEM

LEC(+10506); BIOPHYS-BIOCYBERNETICS(10515); METABOLISM-GENL STUD,METAB PATHW(+13002); METABOLISM-NUCL ACD,PURINS,PYRIM(+13014); DIGESTIVE SYST-PATHOLOGY(+14006); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); BACTERIAL AND VIRAL GENETICS(+31500); MED/CLIN MICROBIOL-BACTERIOLOGY(36002)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); HOMINIDAE(86215); MURIDAE(86375)

22043909

TUMORS IN PATIENTS WITH ANGIO SARCOMA OF THE LIVER.

VIANNA N J

BUREAU OF ENVIRON. EPIDEMIOL. AND OCCUPATIONAL HEALTH, TOWER BUILD., GOVERNOR NELSON A. ROCKEFELLER EMPIRE STATE PLAZA; ALBANY, NY 12237.

ANN INTERN MED 95 (2). 1981. 185-186. Coden: AIMEA

Language: ENGLISH

Descriptors: THORIUM DI OXIDE ARSENIC VINYL CHLORIDE CARCINOGEN FAMILY HISTORY OCCUPATION DIAGNOSIS THERAPY

Concept Codes: GENETICS/CYTOGENET-HUMAN(03508); BIOCHEM STUD-GENERAL(10060); MINERALS(10069); PATHOLOGY-DIAGNOSTIC(12504); PATHOLOGY-THERAPY(12512); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+14508); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-DIAGNS METH(+24001); NEOPLSMS/NEOPL AGNTS-PATH,CLINIC(+24004); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); NEOPLSMS/NEOPL AGNTS-THERAP,AGNT(24008); PUB HEALTH-ADMINISTR,STATISTICS(37010); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015); EPIDEMIOL-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

DIALOG File5: BIOSIS Previews 77-83/Jan BA7502;RRM2402(See File55) (c. BIOSIS 1982) (Item 131 of 858) User J614 25Jan83 2024

22043867

ALKYLATION OF DNA BY VINYL CHLORIDE METABOLITES FORMATION OF 7-N-2 OXOETHYL GUANINE.

LAIB R J; GWINNER L M; BOLT H M
PHARMAKOLOGISCHES INST. UNIV., ABTEILUNG TOXIKOL., D-6500 MAINZ 1.

1ST SYMPOSIUM OF THE SECTION OF EXPERIMENTAL CANCER RESEARCH (SEK) OF THE GERMAN CANCER SOCIETY, HEIDELBERG, WEST GERMANY, MARCH 11-13, 1981. 99 (3). 1981. A33-A34. Coden: JCR00

Language: ENGLISH

Descriptors: ABSTRACT RAT LIVER CARCINOGEN RADIO LABEL CHROMATOGRAPHY SPECTROMETRY

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); RADIATION BIOL-RADTN,ISOTOP TECH(06504); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); MOVEMENT(12100); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-NUCL ACD,PURINS,PYRIM(13014); DIGESTIVE SYST-PHYSIOL,BIOCHEM(14004); TOXICOL-GENL/EXP STUDS,METHS(22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(24007)

Biosystematic Codes: MURIDAE(86375)

22043382

WHEN IS SCLERODERMA NOT SCLERODERMA? THE DIFFERENTIAL DIAGNOSIS OF PROGRESSIVE SYSTEMIC SCLEROSIS.

RODNAN G P
985 SCAIFE HALL., UNIV. PITTSBURGH, DEP. MED., PITTSBURGH, PA. 15261.

BULL RHEUM DIS 31 (2). 1981. 7-10. Coden: BRDIA

Language: ENGLISH

Descriptors: HUMAN PSEUDOSCLERODERMA SCLERO MYX EDEMA FIBROSIS SCLERO DERMATO MYOSITIS CONNECTIVE TISSUE DISEASE AGE PLAQUE THICKENING EOSINOPHILIC FASCIITIS INFLAMMATION HISTOLOGY IMMUNO PATHOLOGY VINYL CHLORIDE DISEASE BLEOMYCIN INDUCED FIBROSIS

Concept Codes: MICROSCOPY-HISTOL,HISTOCHEM TECH(01056); CYTOLOGY/CYTOCHEM-HUMAN(02508); BIOCHEM STUD-PROTEINS,PEPTIDE-S,AMINO ACD(10064); BIOCHEM STUD-CARBOHYDR.(10068); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-INFLAMMATN,INFLAM DIS(12508); BLOOD/BODY FLDS-BLOOD CELL STUDS(15004); BLOOD/BODY FLDS-BLD,LYM,RES PATH(15006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(15008); MUSCLE SYST-PATHOLOGY(17506); INTEGUMENT SYST-PATHOLOGY(18506); NERVOUS SYST-PATHOLOGY(20506); TOXICOL-GENL/EXP STUDS,METHS(22501); TOXICOL-ENVIRONMNTL,INDUSTR(22506); DEVELOPMNTL BIOL-GEN MORPHGENSIS(25508); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(34508); ENVIRON HEALTH-OCUP-ATNL HEALTH(37013)

Biosystematic Codes: HOMINIDAE(86215)

22038222

CHLORO ACETALDEHYDE A VINYL CHLORIDE METABOLITE INDUCES ERRORS DURING IN-VITRO DNA SYNTHESIS.

HALL J A; SAEFILL D

PATERSON LAB., CHRISTE HOSP. AND HOLT RADIUM INST., MANCHESTER.

22ND ANNUAL GENERAL MEETING OF THE BRITISH ASSOCIATION FOR CANCER RESEARCH, KEELE, STAFFORDSHIRE, ENGLAND, APRIL 13-15, 1981. BR J CANCER 44 (2). 1981. 272. Coden: BJCAA

Language: ENGLISH

Descriptors: ABSTRACT ESCHERICHIA-COLI DNA POLYMERASE I, CARCINOGEN

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); REPLICATN,TRANSCRIPTN,TRANSLATN(10300); ENZYMES-PHYSIOLOGICAL STUDIES(10808); METABOLISM-NUCL ACD,PURINS,PYRIM(13014); PHARMACOL-DRUG METAB,METAB STIMU(22003); TOXICOL-GENL/EXP STUDS,METHS(22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(24007); BACTERIA-PHYSIOLOGY,BIOCHEMISTRY(31000)

Biosystematic Codes: ENTEROBACTERIACEAE(04810)

22038187

EFFECTS OF UV IRRADIATION ON THE MUTAGENICITY OF MONOMERS.

OEVERGER M; LAMBOTTE M; PONCELET F; MERCIER M
LAB. BIOTOXICOL., UCL 73.69, 1200 BRUSSELS.

10TH ANNUAL MEETING OF THE EUROPEAN ENVIRONMENTAL MUTAGEN SOCIETY, ATHENS, GREECE, SEPT. 14-19, 1980. MUTAT RES 85 (4). 1981. 243-244. Coden: MUREA

Language: ENGLISH

Descriptors: ABSTRACT HUMAN ANIMAL SALMONELLA-TYPHIMURIUM ESCHERICHIA-COLI ACRYLONITRILE VINYL CHLORIDE CARCINOGEN CYTOCHROME P-450 OCCUPATIONAL EXPOSURE AIR WATER FOOD FREE RADICAL MECHANISM

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); MICROSCOPY-CYTOLOG,CYTOCHEM TECH(01054); GENETICS/CYTOGENET-GENL STUDIES(03502); GENETICS/CYTOGENET-PLANT(03504); MATHEMATIC BIOL/STATISTIC METH(04500); RADIATION BIOL-RADTN,ISOTOP TECH(06504); RADIATION BIOL-RADTN EFF,PROTECT(06506); ECOLOGY-BIOCLIMATOL,BIOMETEOROL(07504); ECOLOGY-LIMNOLOGY(07514); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOCHEM STUD-PORPHYRNS,BILE PIGM(10065); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); ENZYMES-PHYSIOLOGICAL STUDIES(10808); METABOLISM-GENL STUD,METAB PATHW(13002); NUTRITION-PATHOGENIC DIETS(13216); TOXICOL-FOOD,RESIDS,ADDIT,PRESRV(22502); TOXICOL-ENVIRONMNTL,INDUSTR(22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(24007); BACTERIAL AND VIRAL GENETICS(31500); MED/CLIN MICROBIOL-BACTERIOLOGY(36002); PUB HEALTH-ADMINISTR,STATISTICS(37010); ENVIRON HEALTH-OCCUPATNL HEALTH(37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015); EPIDEMIOLOG-ORGANIC DIS,NEOPLASMS(37054)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); VERTEBRATA--UNSPECIFIED(85150); HOMINIDAE(86215)

DIALOG File5: BIOSIS Previews, 77-83/Jan BA7502;RRM2402(See F

... BIOSIS 1982) (Item 135 of 858) User 3614 25Jan83 2025

22037317

ISOLATION OF GUANINE DERIVATIVE IN THE REACTION OF CHLORO ACETALDEHYDE WITH DNA IN-VITRO.

DOERJER G; DESCH F
PHARMAKOLOGISCHES INSTITUT, ABT. MOLEKULAR-PHARMAKOLOGIE,
OBERE ZAHLBACHER STRASSE 67, D-6500 MAINZ.

1ST SYMPOSIUM OF THE SECTION OF EXPERIMENTAL CANCER RESEARCH
(SEK) OF THE GERMAN CANCER SOCIETY, HEIDELBERG, WEST GERMANY,
MARCH 11-13, 1981. 99 (3). 1981. A24. Coden: JCROD

Language: ENGLISH

Descriptors: ABSTRACT VINYL CHLORIDE CARCINOGEN REACTIVE
METABOLITE MUTAGEN

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
CYTOLOGY/CYTOCHEM-ANIMAL(02506);

GENETICS/CYTOGENET-ANIMAL(*03506); BIOCHEM STUD-GENERAL(*1006-
0); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(*10062); REPLICATN,TRANS-
CRIPTN,TRANSLATN(10300); BIOPHYS-MOLECUL PROP,MACROMOLEC(1050-
6); METABOLISM-GENL STUD,METAB PATHW(13002); TOXICOL-GENL/EXP
STUDS,METHS(*22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(*24007);
IN VITRO STUDS-CELLULR,SUBCELL(32600)

Biosystematic Codes: ANIMALIA-UNSPECIFIED(33000)

22035249

HEPATO SPLENOMEGALY SECONDARY TO FOREIGN BODY REACTION IN
PATIENTS ON MAINTENANCE HEMODIALYSIS.

BOMMER J; KREMPIEN B; RITZ E
DEP. INTERN. MED., UNIV. OF HEIDELBERG, FRG.

THE SOCIETY OF NEPHROLOGY, GERMAN SPEAKING, WUERZBURG, WEST
GERMANY, OCT. 19-22, 1980. KIDNEY INT 20 (1). 1981. 144.
Coden: KOYIA

Language: ENGLISH

Descriptors: ABSTRACT NONGRANULOMATOUS REACTION POLY VINYL
CHLORIDE TUBING

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-BIOENGINEERING(1-
0511); MOVEMENT(12100); DIGESTIVE SYST-PATHOLOGY(*14006);
BLOOD/BODY FLDS-GENL STUDS,METHS(*15001); BLOOD/BODY
FLDS-LYMPHAT TISS,RES(*15008)

Biosystematic Codes: HOMINIDAE(86215)

22034799

THE NEPHRO TOXICITY OF LOW MOLECULAR WEIGHT HALOGENATED
ALKANE SOLVENTS PESTICIDES AND CHEMICAL INTERMEDIATES

KLUWE W M
NATL. INST. ENVIRON. HEALTH SCI., RESEARCH TRIANGLE PARK,
N.C. 27709.

HOOK, J. B. (ED.). TARGET ORGAN TOXICOLOGY SERIES:
TOXICOLOGY OF THE KIDNEY. XII+276P. RAVEN PRESS: NEW YORK,
N.Y., USA. ILLUS. ISBN 0-89004-475-9. 0 (0). 1981.
P179-226. Coden: 11114

Language: ENGLISH

Descriptors: REVIEW RAT MOUSE ANIMALS HUMAN 1 3 DI CHLORO
PROPENE TRI CHLORO ETHANE PER CHLORO ETHYLENE CARBON TETRA

BROMOCHLORO PROPANE CARCINOGEN NEPHROPATHY ENVIRONMENTAL
POLLUTION VINYLIDENE CHLORIDE VINYL CHLORIDE CHLORO PRENE HEXA
CHLORO BUTADIENE ETHYLENE DI BROMIDE

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-GENERAL(10060); BIOPHYS-MOLECUL PROP,MACROMOLEC(-
10506); URIN SYST/EXT SECR-PATHOLOGY(*15506); TOXICOL-GENL/EXP
STUDS,METHS(*22501); TOXICOL-ENVIRONMNTL,INDUSTR(*22506); NEO-
PLSMS/NEOPL AGNTS-CARCINOGENS(*24007); ENVIRON HEALTH-AIR,WAT-
R,SL POLLN(*37015); PEST CONTRL GENL/PESTICS/HERBICS(*54600)

Biosystematic Codes: VERTEBRATA-UNSPECIFIED(85150); MURIDAE-
(86375)

22034120

DETERMINATION OF LEVEL OF MIGRATION INTO WATER OF THE
PLASTICIZERS DIOCTYL PHTHALATE DI ALKYL PHTHALATE 789 AND DI
ALKYL PHTHALATE 68 FROM POLY VINYL CHLORIDE MATERIALS

KATAEVA S E

KIEV INST. POSTGRAD. MED., MINIST. HEALTH USSR, KIEV, USSR.
GIG SANIT 0 (5). 1980. 82-83. Coden: GISAA

Language: RUSSIAN

Descriptors: NOTE WATER POLLUTION

Concept Codes: ECOLOGY-GENL STUDIES,METHODS(07502);
ECOLOGY-WATR RESRCH,FISHERY BIOL(07517); COMPARATIVE
BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL(*10050);
BIOCHEM STUD-GENERAL(10060); TOXICOL-ENVIRONMNTL,INDUSTR(2250-
6); ENVIRON HEALTH-AIR,WATR,SL POLLN(*37015)

22033706

A NEW TYPE OF DRAIN TUBE

SUGITACHI A; TANAKA M; KAWAHARA T; KITAMURA N; TAKAGI K
DEP. SURG., OSAKA NATL. HOSP., OSAKA 540, JPN.

3RD ANNUAL MEETING OF THE INTERNATIONAL SOCIETY FOR
ARTIFICIAL ORGANS, PARIS, FRANCE, JULY 8-10, 1981. ARTIF
ORGANS (CLEVELAND) 5A (0). 1981. 69. Coden: ARORD

Language: ENGLISH

Descriptors: ABSTRACT HUMAN URO KINASE HEMATOLOGIC-DRUG POLY
VINYL CHLORIDE TUBE ANTI THROMBOGENICITY

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOPHYS-BIOE-
NGINEERING(*10511); ENZYMES-PHYSIOLOGICAL STUDIES(*10808);
PHYSIOLOGY-METHODS(*12006); PATHOLOGY-THERAPY(12512); CARDIOV-
ASC SYST-BLD VESS PATHOL(*14508); PHARMACOL-CLINICAL
PHARMACOL(22005); PHARMACOL-BLOOD,HEMATO AGENTS(*22008)

Biosystematic Codes: HOMINIDAE(86215)

R&S 138380

22030899

MAKING POLY VINYL CHLORIDE COLORED LEG BANDS
ANDERSON A
CULTERTY FIELD STATION, DEP. ZOOL., UNIV. ABERDEEN NEWBURGH,
ELLON, ABERDEENSHIRE AB4 0AA, UNITED KINGDOM.
J WILDL MANAGE 45 (4). 1981. 1067-1068. Coden: JWMMA
Language: ENGLISH
Descriptors: BIRD
Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD
APPARATUS(+01010); ECOLOGY-ANIMAL(+07508); ECOLOGY-TERRESTRIAL
WILDLIFE MGMT(+07518); CHORDATE TAXONOMY-AVES(+62518)
Biosystematic Codes: AVES-UNSPECIFIED(85500)

22023088

HYGIENIC EVALUATION OF AIR POLLUTION CONTROL MEASURES
IMPLEMENTED AT FACTORIES MANUFACTURING VINYL CHLORIDE AND POLY
VINYL CHLORIDE
TIKHOMIROV YU P; GULKHOV S P; KUZNETSOVA L V; IL'ICHEVA G V;
KALENT'EV V N
GORKI RES. INST. IND. HYG. OCCUP. DIS., GORKI, USSR.
GIG SANIT O (10). 1980 (RECD. 1981). 79-81. Coden:
GISAA

Language: RUSSIAN
Descriptors: NOTE HUMAN
Concept Codes: BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(1-
0060); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIV-
E(12503); METABOLISM-GENL STUD,METAB PATHW(13002);
TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL
HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)
Biosystematic Codes: HOMINIDAE(86215)

22023084

SOME ASPECTS OF THE IMPLEMENTATION OF SANITARY SURVEILLANCE
IN THE CONSTRUCTION INDUSTRY
ZOLKIN G A
ALL-UNION RES. DES. INST. WORK CONSTRUCT., OFF. STATE
CONSTR. USSR, MOSCOW, USSR.
GIG SANIT O (10). 1980 (RECD. 1981). 65-66. Coden:
GISAA

Language: RUSSIAN
Descriptors: NOTE HUMAN POLY VINYL CHLORIDE DUST
Concept Codes: SOCIAL BIOL/HUMAN ECOLOGY(05500);
BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); PATHOLOGY--
GENERAL STUDIES(12502); METABOLISM-GENL STUD,METAB
PATHW(13002); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON
HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL
POLLN(+37015)
Biosystematic Codes: HOMINIDAE(86215)

22017151

RISK FOR TESTICULAR FUNCTION ELICITED BY SOME INDUSTRIAL
CHEMICALS

LAUWERYS R; DE COOMAN S
DEP. MED. HYG. TRAVAIL, U.C.L., 30.54. CLOS
CHAPPELLE-AUX-CHAMPS, B-1200 BRUXELLES.
LOUV MED 100 (4). 1981. 197-203. Coden: LOMEA
Language: FRENCH

Descriptors: HUMAN ANIMAL PESTICIDE BORON CADMIUM LEAD
MANGANESE POLY BROMINATED BI PHENYL VINYL CHLORIDE DICHLORVOS
CARBARYL VOLATILE ANESTHETIC EMBRYO TOXICITY OCCUPATIONAL
HEALTH INSECTICIDE

Concept Codes: BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(1-
0060); MINERALS(10069); PATHOLOGY-COMPARATIVE(12503);
METABOLISM-GENL STUD,METAB PATHW(13002); MINERALS(13010);
REPRODUCT SYST-PATHOLOGY(+16506); PHARMACOL-NEUROPHARMACOLOGY-
(+22024); TOXICOL-PHARMACOLOGICAL(+22504); TOXICOL-ENVIRONMNT-
L,INDUSTR(+22506); DEVELOPMNTL BIOL-PATHOLOGICAL(+25503);
DEVELOPMNTL BIOL-GEN MORPHGENSIS(25508); DEVELOPMNTL
BIOL-DESCRIP TERATOL(+25552); ENVIRON HEALTH-OCCUPATNL
HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); PEST
CONTRL GENL/PESTICS/HERBICS(+54600); ECONOM ENTOMOL-CHEM PHYS
CONTRL(60016)

Biosystematic Codes: VERTEBRATA-UNSPECIFIED(85150); HOMINID-
AE(86215); ABSTRACTS OF ENTOMOLOGY(96000)

22014582

IN-VITRO TRANSFORMATION OF HAMSTER EMBRYO CELLS EXPOSED TO
GASEOUS OR VOLATILE CHLORINATED HYDRO CARBONS
HATCH G G; MAMAY P D; CHRISTENSON C C; CASTO B C; LANGENBACH
R; NESNOW S

NORTHROP SERV., INC., US ENVIRON. PROT. AGENCY, RESEARCH
TRIANGLE PARK, N.C.

72ND ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR CANCER
RESEARCH, INC., WASHINGTON, D.C., USA, APRIL 27-30, 1981. PROC
AM ASSOC CANCER RES AM SOC CLIN ONCOL 22 (0). 1981. 119.
Coden: PAAOD

Language: ENGLISH
Descriptors: ABSTRACT SA-7 VIRUS 1 1 1 TRI CHLORO ETHANE DI
CHLORO METHANE 1 1 DI CHLORO ETHANE 1 2 DI CHLORO ETHANE VINYL
CHLORIDE CARCINOGEN

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
CYTOLOGY/CYTOCHEM-ANIMAL(+02506); BIOCHEM-GASES(10012); BIOCH-
EM STUD-GENERAL(10060); PHARMACOL-DRUG METAB,METAB
STIMU(+22003); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS-
/NEOPL AGNTS-CARCINOGENS(+24007); DEVELOPMNTL BIOL-EXPER
TERATOL(+25554); MED/CLIN MICROBIOL-VIROLOGY(+36006)

Biosystematic Codes: ADENOVIRIDAE(02210); CRICETIDAE(86310)

22013384

VINYL CHLORIDE AN EXAMPLE FOR EVALUATING MUTAGENIC EFFECTS IN MAMMALS IN-VIVO AFTER EXPOSURE TO INHALATION

BASLER A; ROEHRBORN G

INST. HUMANGENET. ANTHROPOL., UNIV., D-4000 DUESSELDORF 1.

10TH ANNUAL MEETING OF THE EUROPEAN ENVIRONMENTAL MUTAGEN SOCIETY, ATHENS, GREECE, SEPT. 14-19, 1980. MUTAT RES 85 (4), 1981, 240. Coden: MUREA

Language: ENGLISH

Descriptors: ABSTRACT CHINESE HAMSTER

Concept Codes: GENL BIOL-SYMPOSIA, PROCONGS, REVW(00520); CYTOLOGY/CYTOCHEM-ANIMAL(*02506); GENETICS/CYTOGENET-ANIMAL(*03506); BIOCHEM STUD-GENERAL(10060); BLOOD/BODY FLDS-BLOOD CELL STUDS(15004); BLOOD/BODY FLDS-LYMPHAT TISS.RES(15008); BONE,JNTS,FASC,CONN/ADIP-GENL(1-8001); TOXICOL-GENL/EXP STUDS,METHS(*22501)

Biosystematic Codes: MAMMALIA-UNSPECIFIED AND EXTINCT(85700); CRICETIDAE(86310)

22011500

DNA ALKYLATION BY VINYL CHLORIDE METABOLITES ETHENO DERIVATIVES OF 7 ALKYLATION OF GUANINE

LAIB R J

PHARMAKOL. INST. DER UNIV., ABTEILUNG TOXIKOL., D-6500 MAINZ 1.

22ND SPRING MEETING OF THE DEUTSCHE PHARMAKOLOGISCHE GESELLSCHAFT (GERMAN PHARMACOLOGICAL SOCIETY), MAINZ, WEST GERMANY, MARCH 10-13, 1981. NAUNYN-SCHMIEDEBERG'S ARCH PHARMACOL 316 (SUPPL.), 1981, R13. Coden: NSAPC

Language: ENGLISH

Descriptors: ABSTRACT RAT LIVER MICROSOMES CARCINOGENICITY

Concept Codes: GENL BIOL-SYMPOSIA, PROCONGS, REVW(00520); CYTOLOGY/CYTOCHEM-ANIMAL(02506); GENETICS/CYTOGENET-ANIMAL(*03506); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); REPLICATN,TRANSCRIPTN,TRANSLATN(10300); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); METABOLISM-NUCL ACD,PURINS,PYRIM(*13014); DIGESTIVE SYST-PHYSIOL,BIOCHEM(1400-4); TOXICOL-GENL/EXP STUDS,METHS(*22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(*24007); IN VITRO STUDS-CELLULR,SUBCELL(326-00)

Biosystematic Codes: MURIDAE(86375)

22011433

SOME INDICES OF SERUM IN WORKERS EXPOSED TO VINYL CHLORIDE

ANTOV G P; SPASOVSKI M KH

INST. HYG. OCCUP. MED., SOFIA, BULG.

GIG TR PROF ZABOL O (8), 1980, 47-48. Coden: GTPZA

Language: RUSSIAN

Descriptors: NOTE VASCULAR PATHOLOGY FIBROSIS SCLERODERMA LIVER COLLAGEN GLYCO PROTEIN OXY PROLINE

Concept Codes: CLIN BIOCHEM-GENL STUDIES(*10006); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-PROTNS,-PEPTDS AM AC(*10054); BIOCHEM METH-PROTNS,-PEPTDS AM AC(*10054); BIOCHEM METH-PROTNS,-PEPTDS AM AC(*10054)

BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,A-MINO ACD(10064); BIOCHEM STUD-CARBOHYDR.(10068); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-DIAGNOSTIC(12504); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-CARBOHYDRATES(13004); METABOLISM-PROTNS,PEPTDS,AM ACD(13012); DIGESTIVE SYST-PATHOLOGY(*14006); CARDIOVASC SYST-BLD VESS PATHOL(*14508); BLOOD/BODY FLDS-GENL STUDS,METHS(15001); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(*15002); BONE,JNTS,FASC,CONN/ADIP-PATHOL(*18006); INTEGUMENT SYST-PATHOLOGY(*18506); TOXICOL-ENVIRONMNTL,INDUSTR(*22506); NEOPLSMS/-NEOPL AGNTS-CARCINOGENS(24007); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(*34508); ENVIRON HEALTH-OCCUPATNL HEALTH(*37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(*37015)

Biosystematic Codes: HOMINIDAE(86215)

22004922

UTILIZATION OF POLYMERIC MATERIALS BY FUNGI

ORLOVA E I

V.I. KOMAROV BOT. INST., ACAD. SCI. USSR, LENINGRAD, USSR.

MIKOL FITOPATOL 14 (5), 1980 (RECD. 1981), 422-425.

Coden: MIFIB

Language: RUSSIAN

Descriptors: ASPERGILLUS-FLAVUS ASPERGILLUS-NIGER PENICILLIUM-FUNICULOSUM AUREOBASIDIUM-PULLULANS POLY ETHYLENE POLY VINYL CHLORIDE FUNGICIDE NEMATOCIDE BIOCIDES INSECTICIDES

Concept Codes: BIOCHEM STUD-GENERAL(10060); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); METABOLISM-GENL STUD,METAB PATHW(*130-02); PLANT PHYSIOL-METABOLISM(*51519); PEST CONTRL GENL/PESTICS/HERBICS(*54600)

Biosystematic Codes: DEUTEROMYCETES(15500); ABSTRACTS OF MYCOLOGY(95000); ABSTRACTS OF ENTOMOLOGY(96000)

DIALOG File5: BIOSIS Previews 77-83/Jan BA7502;RRM2402(See File55) (c. BIOSIS 1982) (Item 149 of 858) User 3614 25Jan83 2028

72084705

INVESTIGATIONS ON THE CORRELATION BETWEEN VINYL CHLORIDE UPTAKE AND EXCRETION OF ITS METABOLITES BY 15 VINYL CHLORIDE EXPOSED WORKERS 1. MEASUREMENTS OF THE INDIVIDUAL VINYL CHLORIDE EXPOSURE BY MEANS OF STATIONARY MONITORING AND PERSONAL AIR SAMPLING

HEGER M; MUELLER G; NORPOTH K

INST. FUER STAUBLUNGENFORSCHUNG AND ARBEITSMEDIZIN DER WESTFAELISCHEN WILHELMS-UNIV. MUENSTER, WESTRING 10, D-4400 MUENSTER, BUNDESREPUBLIK DEUTSCHLAND.

INT ARCH OCCUP ENVIRON HEALTH 48 (2). 1981. 205-210. Coden: IAOHID

Language: GERMAN

Vinyl chloride (VCM) exposure of 15 workers was determined by stationary monitoring and personal air sampling. The mean value obtained by stationary measurements was 4.51 +/- 0.67 ppm and that from personal related measurements was 6.03 +/- 5.04 ppm, both referring to a mean air concentration during a 12-h work period. Stationary measurement values ranged 3.5-5.8 ppm and personal related measurements were 0.3-18.4 ppm. Analytical data of the 2 series were not correlated. Stationary monitoring might be considered as sufficient for the risk control of VCM exposed collectives. Personal air monitoring is necessary for investigations concerning the dependence of the excretion of VCM metabolites from VCM uptake.

Descriptors: HUMAN

Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD APPARATUS(01010); SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-BIOENGINEERING(10511); PATHOLOGY-DIAGNOSTIC(12504); METABOLISM-GENL STUD,METAB PATHW(13002); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

Descriptors: HUMAN HYDRO CARBON ETHYLENE PROPYLENE VINYL CHLORIDE TRI CHLORO ETHYLENE METHYL METHACRYLATE

Concept Codes: BEHAVIOR BIOL-HUMAN BEHAVIOR(07004); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-DIAGNOSTIC(12504); METABOLISM-GENL STUD,METAB PATHW(13002); NERVOUS SYST-GENL STUDS,METHS(20501); NERVOUS SYST-PATHOLOGY(+20506); PSYCHIATRY-PSYCHPATH-OYNM,THERAP(+21002);

TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

72075304

CALCIUM II SELECTIVE ELECTRODES A NOVEL POLY VINYL CHLORIDE GELLED NEUTRAL CARRIER MIXTURE COMPARED WITH OTHER CURRENTLY AVAILABLE SENSORS/

TSIEN R Y; RINK T J

PHYSIOL. LAB., UNIV. OF CAMBRIDGE, CAMBRIDGE CB2 3EG, ENGL., UK.

J NEUROSCI METHODS 4 (1). 1981. 73-86. Coden: JNMED

Language: ENGLISH

The great importance of cytoplasmic free Ca^{2+} in regulating cellular function has stimulated the development of several more-or-less Ca -selective sensor systems for microelectrodes. The known formulations each have serious deficiencies, particularly in fine microelectrodes. A new sensor was developed which gives distinctly improved performance of submicron tips. This sensor combines the widely used neutral carrier ETH1001 with an intensely hydrophobic salt into a polyvinylchloride gel. This study compares the calibration responses of the various sensor systems under a uniform set of experimental conditions.

Concept Codes: GENERAL LABORATORY APPARATUS(01006); MICROSCOPY-CYTOLOG,CYTOCHEM TECH(+01054); MINERALS(+10069); NERVOUS SYST-GENL STUDS,METHS(+20501)

72077527

PATHOGENESIS OF DYSSOMNIA IN SOME OCCUPATIONAL NEURO TOXICOSES AS REVEALED BY POLYGRAPHIC RECORDING OF NIGHT SLEEP

GNESINA E A; ANTONYUZHENKO V A

INST. IND. HYG. OCCUP. DIS., GORKI, USSR.

GIG TR PROF ZABOL O (9). 1980 (RECD. 1981). 10-13. Coden: GTPZA

Language: RUSSIAN

Continuous polygraphic recording of night sleep was done on 22 patients with chronic occupational intoxication by narcotic substances such as low MW hydrocarbons and their chlorine derivatives (ethylene, propylene, vinyl chloride, trichloroethylene) and in 8 patients with intoxication by methyl methacrylate. Analysis established the relationship between levels of function of the activating and hypnogenic systems. A dyssomnia syndrome evolved in phases which correlated with the stages of intoxication, and the phasic nature of the syndrome was accounted for by nonuniformity of

DIALOG File5: BIOSIS Previews 77-83/Jan BA7502:RRM2402(See File55) (c. BIOSIS 1982) (Item 152 of 858) User 3614 25Jan83 2029

72074838

MODIFICATION OF DEOXY GUANOSINE BY CHLORO ETHYLENE OXIDE

SCHERER E; VAN DER LAKEN C J; GWINNER L M; LAIB R J; EMMELOT P
DIV. OF CHEMICAL CARCINOGENESIS, ANTONI VAN
LEEUVENHOEK-HUIS, THE NETHERLANDS CANCER INST., 121
PLESMANLAAN, 1066 CX AMSTERDAM, THE NETHERLANDS.
CARCINOGENESIS (LOND) 2 (7). 1981. 671-678. Coden:
CRNGO

Language: ENGLISH

Reaction of deoxyguanosine in glacial acetic acid with chloroethylene oxide, a proposed reactive metabolite of vinyl chloride, led to a single, strongly fluorescent product in nearly quantitative yield. The UV spectra indicated alkylation of N-7 of guanine, which was confirmed following reduction of the reaction product by sodium borohydride to 7-(2-hydroxyethyl)guanine, and the synthesis of the same modified guanine via a stereoselective 7-N hydroxy alkylation using 2,3-epoxy-1-propanol. In agreement with the expected structure 7-(2-oxoethyl)guanine reacted with the carbonyl specific reagent 2,4-dinitrophenylhydrazine (2,4-DNPH). Its IR and proton NMR spectra did not support the existence of a simple aldehyde group. The 2,4-dinitrophenylhydrazone was labile, 7-(2-oxoethyl)guanine being produced when excess 2,4-DNPH was removed. This instability was interpreted as being due to the reversible formation of a hemiacetal ring between O6 of the guanine residue and the aldehyde carbon of the 2-oxoalkyl group resulting in O6,7-(1'-hydroxyethano)guanine. This conformation was supported by the occurrence in field desorption mass spectra of the ions of $m/e = 175$ and 292 which are interpreted as O6,7-ethenoguanine and O6,7-ethenodeoxyguanosine resulting from the elimination of H₂O of the hydroxyethano residue. O6,7-(1'-hydroxyethano)guanine might be expected to cause faulty base pairing during replication of DNA, which may be the molecular basis of the carcinogenicity of vinyl chloride.

Descriptors: VINYL CHLORIDE CARCINOGEN MUTAGEN DNA REPLICATION

Concept Codes: GENETICS/CYTOGENET-GENL STUDIES(+03502); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); BIOPHYS-GENERAL BIOPHYS TECH(10504); METABOLISM-GENL STUD,METAB PATHW(+13002); METABOLISM-PROTNS,PEPTDS,AM ACOS(+13012); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

72073259

FORMATION OF MERCAPTURIC ACIDS FROM ACRYLONITRILE CROTONONITRILE AND CINNAMONITRILE BY DIRECT CONJUGATION AND VIA AN INTERMEDIATE OXIDATION PROCESS

VAN BLADEREN P J; DELBRESSINE L P C; HOOGETERP J J; BEAUMONT A H G M; BREIMER D D; SEUTTER-BERLAGE F; VAN DER GEN A
DEP. PHARMACOL., UNIV. LEIDEN, P.O. BOX 9502, 2300 RA
LEIDEN, NETH.

DRUG METAB DISPOS 9 (3). 1981. 246-249. Coden: DMDSA

Language: ENGLISH

After administration of acrylonitrile, crotononitrile, and

cinnamionitrile to rats, 2 types of mercapturic acids were isolated from urine and identified by mass and NMR spectroscopy as N-acetyl-S-(2-cyanoethyl)-L-cysteine (I) and N-acetyl-S-(2-hydroxyethyl)-L-cysteine (II) (methyl-substituted in the case of crotonitrile and phenyl-substituted in the case of cinnamionitrile). After pretreatment of rats with the cytochrome P-450 inhibitor 1-phenylimidazole, no trace of mercapturic acid II was found; a higher amount of mercapturic acid I was excreted. The 1st type of products may result from direct addition of glutathione; the 2nd group of metabolites (II), in which the cyano group has been replaced by a hydroxyl group, may be formed via an intermediate epoxide. Substituents on the double bond had a considerable influence on the ratio of the 2 mercapturic acids formed, and thus presumably on the amount metabolized via an oxidative process: the ratio of the cyano (I) to hydroxy (II) mercapturic acid was 72:28 for AN; introduction of a methyl or a phenyl group resulted in ratios of 91:9 and 98:2, respectively. [Acrylonitrile is an industrial mutagen structurally similar to the carcinogen vinyl chloride.]

Descriptors: RAT MUTAGEN VINYL CHLORIDE CARCINOGEN 1 PHENYL IMIDAZOLE METABOLIC-DRUG GLUTATHIONE

Concept Codes: GENETICS/CYTOGENET-ANIMAL(+03506); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOPHYS-GENERAL BIOPHYS TECH(10504); METABOLISM-GENL STUD,METAB PATHW(+13002); METABOLISM-PROTNS,P,PEPTDS,AM ACDS(+13012); URIN SYST/EXT SECR-PHYSL,BIOCHEM(15504); PHARMACOL-DRUG METAB,METAB STIMU(+22003); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: MURIDAE(86375)

72071304

NEUTRAL CARRIER BASED ION SELECTIVE ELECTRODE FOR THE DETERMINATION OF SODIUM IN URINE

JENNY H-B; AMMANN D; DOERIG R; MAGYAR B; ASPER R; SIMON W
ETH-CENT., DEP. ORGANIC CHEM., UNIVERSITAETSSTRASSE 16, CH
8092 ZUERICH, SWITZERLAND.

MIKROCHIM ACTA 2 (1-2). 1980 (RECD. 1981). 125-132.
Codon: MIACA

Language: ENGLISH

A Na⁺-selective PVC[polyvinylchloride]-membrane electrode which allows continuous measurement of Na⁺-activities in undiluted urine samples is described. In view of routine clinical analysis and bedside monitoring in intensive care units, a miniaturized electrode system was developed. When the Na⁺-concentrations determined by ion selective electrodes are correlated with those obtained for the same samples via flame photometry and atomic absorption, the residual standard deviation is found to be $\pm$ 4.5 mM over the 50-250 mM Na⁺ range.

Descriptors: HUMAN MINIATURIZED POLY VINYL CHLORIDE MEMBRANE ELECTRODE SYSTEM FLAME PHOTOMETRY ATOMIC ABSORPTION

Concept Codes: BIOCHEM METH-MINERALS(+10059); MINERALS(1006-9); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-BIOENGINEERING(+10511); PATHOLOGY-DIAGNOSTIC(12504); URIN SYST/EXT SECR-GEN STUD.METH(+15501); URIN SYST/EXT SECR-PHYSL,BIOCHEM(-15504); URIN SYST/EXT SECR-PATHOLOGY(+15506)

Biosystematic Codes: HOMINIDAE(86215)

72070457

PROTECTIVE EFFECT OF METHIONINE AGAINST VINYL CHLORIDE MEDIATED DEPRESSION OF NONPROTEIN SULFHYDRYLS AND CYTOCHROME P-450

WISNIEWSKA-KNYPL J M; SOKAL J A; KLIMCZAK J; DAJNIAK A;
BOGDANIKOWA B

INDUSTRIAL TOXICOL. BRANCH, INST. OCCUPATIONAL MED., TERESY
8, 90-950 LODZ, POLAND.

TOXICOL LETT (AMST) 8 (3). 1981. 147-152. Codon: TOLED

Language: ENGLISH

Potentiality of a protective effect of Met against hepatotoxic action of vinyl chloride (VC) was assessed on rats. Induced with phenobarbital and then exposed to 50,000 ppm VC for 5 h. This high dosage of VC warranted the appearance of drastic symptoms of liver injury in the course of 20 h postexposure. DL-Met at 1 g/kg given by gavage prior to VC-exposure counteracted VC-provoked depletion of non-protein SH and destruction cytochrome P-450 in the liver. In Met pretreated rats the phenobarbital-induced synthesis of microsomal proteins in the livers was maintained during the post-exposure period, contrary to the non-pretreated animals. It may be justified to apply Met as a prophylactic agent in cases of occupational exposure to VC.

Descriptors: HUMAN RAT ANTIDOTE METABOLIC-DRUG PHENO BARBITAL LIVER MICROSOME KINETICS OCCUPATIONAL HEALTH

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); CYTOLOGY/CYTOCHEM-HUMAN(02508); SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACID PURINS PYRIM(10062);

BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); BIOCHEM STUD-PORPHYRINS,BILE PIGM(10065); ENZYMES-GEN.COMPAR STUD.COENZYMS(+10802); ENZYMES-PHYSIOLOGICAL STUDIES(+10808); ANATOMY/HISTOL-MICRO,ULTRAMICRSC(11108); PATHOLOGY-THERAPY(12512); METABOLISM-GENL STUD,METAB PATHW(+13002); METABOLISM-PROTNS,P-PTOS,AM ACDS(+13012); METABOLISM-PORPHYRINS,BILE PIGMN(+1301-3); METABOLISM-NUCL ACID,PURINS,PYRIM(+13014); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-PATHOLOGY(+14006); PHARMACOL-DRUG METAB,METAB STIMU(+22003); PHARMACOL-CLINICAL PHARMACOL(22005); ROUTES OF IMMUNIZ,INFECT.THERAP(22100); TOXICOL-PHARMACOLOGICAL(+22504); TOXICOL-ANTIDOTES,PREVENTIVE(+22505); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(24007); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

72070028

EPIDEMIOLOGY OF ANGIO SARCOMA OF LIVER IN NEW-YORK STATE USA

VIANNA N J; BRADY J A; CARDAMONE A T
N.Y. STATE DEP. HEALTH, BUREAU ENVIRON. EPIDEMIOL.
OCCUPATIONAL HEALTH, ALBANY, N.Y.

N Y STATE J MED 81 (6). 1981. 895-899. Codon: NYSJA

Language: ENGLISH

The geographic distribution of ASL (angiosarcoma of the liver) among residents of New York, USA, was examined with special emphasis on the epidemiologic characteristics which might be of etiologic importance in this malignancy. The average annual incidence rate for the state, excluding New York City, was 0.26 per million population. Of the chemicals associated with ASL, potential exposure to vinyl chloride appeared to be the most important factor in certain urban industrialized counties, whereas probable arsenic exposure was the major factor in rural areas. Prior thorium dioxide injections accounted for only 7% of the 43 patients studied. Certain chemicals structurally similar to vinyl chloride might be of etiologic importance among patients who have no documented exposure to any of the established causes of ASL.

Descriptors: HUMAN THORIUM DIOXIDE ARSENIC VINYL CHLORIDE

Concept Codes: SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM STUD-GENERAL(10060); MINERALS(10069); DIGESTIVE SYST-PATHOLOGY(+14006); TOXICOL-PHARMACOLOGICAL(+22504); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-MISCELL STUDS(+37019); EPIDEMIOL-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

DIALOG File5: BIOSIS Previews, 77-83/Jan 8A7502:RRM2402(See File55) (c. BIOSIS 1982) (Item 157 of 858) User 3614 25Jan83 2031

72069528

STUDIES ON THE IMMOBILIZATION OF PAPAIN ON POLY VINYL CHLORIDE POWDER

CHENG P-S; SHAW J-F

DEP. CHEMISTRY, NATIONAL KAOHSIUNG TEACHER'S COLLEGE.

NATL SCI COUNC MON 9 (2), 1981, 135-145. Coden: KHFKD

Language: CHINESE

Purified papain was covalently coupled with insoluble carrier, PVC [polyvinyl chloride] powder, by several different methods. The amount of activating reagents, the procedure for the activation of PVC, and the time for coupling reaction affected the amount of enzyme immobilized and its relative activity. The maximal amount of papain immobilized was 47.8 mg/g of PVC and the maximal relative activity was 27.8%. Urea, the denaturing reagent of soluble papain, appeared to have little effect on the activity of immobilized papain. The Km values for the immobilized enzymes were higher than those of native papain. The immobilized papain showed no significant loss in enzyme activity after 3 mo. storage at 4.degree. C. In the presence of 0.05 M L-cysteine and 0.02 M EDTA, the caseinolytic activity was increased by 20%. If the reuse cycle was 12 h, the batch type operational half-life (casein as substrate) at 45.degree. C and pH 7.0 was 7.8 cycles; the half-life at 35.degree. C and pH 7.0 was extended to 27.0 cycles. If the reuse cycle was 1/2 h, the half-life at 65.degree. C and pH 7.0 was 20.5 cycles.

Descriptors: MICHAELIS CONSTANT CASEIN

Concept Codes: BIOCHEM METH-PROTNS,PEPTDS,AM AC(10054); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); BIOPHYS-BIOENGINEERING(+10511); EXTERN EFF-TEMPERATURE(10614); ENZYMES-METHODS(+10804); ENZYMES-CHEM,PHYSICAL STUDIES(+10806); PLANT PHYSIOL-ENZYMES(+51518); PLANT PHYSIOL-APPARATUS,METHODS(51524)

Biosystematic Codes: CARICACEAE(25755)

72065656

FURTHER FIELD TRIALS OF PHEROMONE DISPENSERS AND TRAPS FOR MALES OF PRAYS-CITRI LEPIDOPTERA YPONOMEUTIDAE

STERNLICHT M; GOLDENBERG S; NESBITT B F; HALL D R

DIV. OF ENTOMOL., THE VOLCANI CENT., BET DAGAN, ISRAEL.

BULL ENTOMOL RES 71 (2), 1981, 267-274. Coden: BERE A

Language: ENGLISH

Dispensers made of different materials and loaded with the female sex pheromone, (Z)-7-tetradecenal, were field-tested for attractancy for males of *P. citri* (Mill.) in Israel. Hollow fibers of low density polyethylene, low density polyethylene chips and natural rubber septa were better than hollow fibers of polypropylene, hollow fibers of a polypropylene-polyethylene mixture, solid fibers of low density polyethylene and PVC [polyvinylchloride] tubes. In other tests, funnels with wall angles of 60.degree. were inferior to those with angles between 70 and 80.degree.; polyester funnels were superior to polystyrene and polypropylene ones, which were better than those of PVC or

dusted on the inside walls improved the efficiency of polypropylene funnels. The catches in traps consisting of several plastic funnels or tubes under a roof and with insecticide to prevent escape did not differ significantly from those in the sticky traps. A modified version of a new trap with a renewable sticky floor is described; this and the funnel traps are at present the most useful and practical for catching *P. citri* male.

Descriptors: Z-7 TETRADECENAL INSECTICIDE POLY ETHYLENE POLY VINYL CHLORIDE FUNNEL ISRAEL

Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD APPARATUS(01010); GENETICS/CYTOGENET-SEX DIFFERENC(03510); BEHAVIOR BIOL-ANIMAL BEHAVIOR(+07003); BEHAVIOR BIOL-ANIMAL COMMUNICATN(+07006); BIOCHEM STUD-GENERAL(10060); ENDOCRINE SYST-GENERAL STUDIES(+17002); TOXICOL-GENL/EXP STUDS,METHS(22-501); PEST CONTRL GENL/PESTICS/HERBICS(54600); ECONOM ENTOMOL-FRUIT AND NUTS(+60006); ECONOM ENTOMOL-BIOLOGICAL CONTRL(+60014); ECONOM ENTOMOL-CHEM PHYS CONTRL(60016); INVERTB PHYSIOL-INSECTA-PHYSIOL(+64076)

Biosystematic Codes: LEPIDOPTERA(75330); ABSTRACTS OF ENTOMOLOGY(96000)

72053340

PRECURSOR STAGE OF HEPATO CELLULAR NEOPLASM FOLLOWING LONG EXPOSURE TO ORALLY ADMINISTERED CONTRACEPTIVES

THUNG S N; GERBER M A

DEP. PATHOL., MT. SINAI SCH. MED., ONE GUSTAVE L. LEVY PLACE, NEW YORK, N.Y. 10029.

HUM PATHOL 12 (5). 1981. 472-475. Coden: HPCQA

Language: ENGLISH

Hepatic neoplasms and peliosis are known to occur in women taking contraceptives orally. Hyperplasia of hepatocytes combined with hypertrophy of sinusoidal lining cells and sinusoidal dilatation with progression to peliosis was observed in the liver of a patient who had been taking such contraceptives for 10 yr. These changes resembled the precursor stage in the development of hepatic angiosarcoma induced by vinyl chloride, Thorotrast and arsenic. In users of orally administered contraceptives these findings may precede the development of hepatocellular neoplasms.

Descriptors: HUMAN VINYL CHLORIDE THOROTRAST ARSENIC CARCINOGEN HYPERPLASIA PELIOSIS ANGIO SARCOMA

Concept Codes: BIOCHEM STUD-GENERAL(10060); MINERALS(10069); PATHOLOGY-COMPARATIVE(12503); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+14508); REPRODUCT SYST-PHYSIOL,BIOCHEM(16504); ENDOCRINE SYST-GONADS,PLACENTA(17006); DENTAL/ORAL BIOL-GENL STUD,METHS(19001); PHARMACOL-CLINICAL PHARMACOL(22005); PHARMACOL-ENDOCRINE SYST(22016); PHARMACOL-REPRODUCT SYST,IMPLANT(+22028); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-PHARMACOLOGICAL(+22504); NEOPLSMS/NEOPL AGENTS-CARCINOGENS(+24007)

Biosystematic Codes: HOMINIDAE(86215); BIOSIS INTERNAL USE(97100)

72049295

VINYL CHLORIDE TOXICITY AFTER INHALATION

CHYBA A

OO-791 WARSZAWA, UL. CHOCIMSKA 24.

RODZ PANSTW ZAKL HIG 31 (6). 1980 (RECD. 1981). 615-621.

Coden: RPZHA

Language: POLISH

White rats were exposed continuously to vinyl chloride (inhaled air) in concentrations of 1, 1.8, 2, 3.6, 11.5 and 30. mg/m³ air. The animals were intoxicated in special chambers for 7-8 mo. During that time the rats were weighed and hematological parameters and blood cholinesterase activity were determined. Ca level and alkaline phosphatase activity were determined in plasma. CNS efficiency was also tested. After completion of exposure, weight of the internal organs was determined and histological examinations were performed. Vinyl chloride in all concentrations reduced the efficiency of CNS and prolonged blood clotting time. In plasma, concentrations of 3.6, 11.5 and 30 mg/m³ reduced Ca level.

Descriptors: RAT NEURO TOXICITY BLOOD CHOLIN ESTERASE ALKALINE PHOSPHATASE CALCIUM KINETICS

Concept Codes: MICROSCOPY-CYTOLOG, CYTOCHEM TECH(01054); MICROSCOPY-HISTOL,HISTOCHEM TECH(01056); CYTOLOGY/CYTOCHEM-AN-

IMAL(02506); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-PROTNS,PEPTDS,AM AC(10054); BIOCHEM METH-MINERALS(10059); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); MINERALS(10069); ENZYMES-GEN,COMPAR STUD,COENZYS(10802); ENZYMES-PHYSIOLOGICAL STUDIES(+10808); ANATOMY/HISTOL-MICRO,ULTRAMICRSC(11108); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(+13002); MINERALS(+13010); METABOLISM-PROTNS,PEPTDS,AM ACDS(+13012); BLOOD/BODY FLDS-BLOOD CELL STUDS(+15004); BLOOD/BODY FLDS-BLD,LYM,RES PATH(+15006); RESPIRATORY SYST-GENL STUD,METHS(16001); NERVOUS SYST-GENL STUDS,METHS(20501); NERVOUS SYST-PATHOLOGY(+20506); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501)

Biosystematic Codes: MURIDAE(86375)

72049242

REPRODUCTIVE FUNCTION IN MEN EXPOSED TO CHEMICALS

SANOTSKII I V; DAVTYAN R M; GLUSHCHENKO V I

INST. IND. HYG. OCCUP. DIS., ACAD. MED. SCI. USSR, MOSCOW, USSR.

GIG TR PROF ZABOL O (5). 1980. 28-32. Coden: GTPZA

Language: RUSSIAN

Reproductive function was studied in men occupationally exposed to chloroprene, vinyl chloride or antimonite ore dust. This function was assessed on indirect evidence and from analyses of ejaculates. The rate of spontaneous abortions was significantly increased among wives of men exposed to chloroprene as was the rate of stillbirths among wives of those exposed to vinyl chloride. Pathologic changes were detected in ejaculates.

Descriptors: CHLOROPRENE VINYL CHLORIDE ANTIMONITE ORE ABORTION STILL BIRTH OCCUPATIONAL HEALTH

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(02508); BIOCHEM STUD-GENERAL(10060); MINERALS(10069); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); MINERALS(13010); BLOOD/BODY FLDS-OTHER BODY FLDS(15010); REPRODUCT SYST-GENL STUDS,METHS(16501); REPRODUCT SYST-PATHOLOGY(+16506); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); DEVELOPMNTL BIOL-PATHOLOGICAL(+25503); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLIN(+37015)

Biosystematic Codes: HOMINIDAE(86215); BIOSIS INTERNAL USE(97000); BIOSIS INTERNAL USE(97100)

72049241

TIME COURSE OF THE HEART RATE AND GALVANIC SKIN REFLEX DURING NIGHT SLEEP IN PATIENTS WITH CHRONIC OCCUPATIONAL INTOXICATION WITH VINYL CHLORIDE

GNESINA E A; PSHENITSYNA A I

INST. IND. HYG. OCCUP. DIS., GORKI, USSR.

GIG TR PROF ZABOL O (5). 1980. 39-42. Coden: GTPZA

Language: RUSSIAN

Heart rate and galvanic skin reflex were studied in polygraphic records of night sleep in 20 patients with chronic occupational intoxication by vinyl chloride, a compound with narcotic action. A correlation was established between the impoverishment of the dream pattern and changes in heart rate and galvanic skin reflex distribution patterns. Characteristic differences between these patterns at different stages of intoxication were described.

Descriptors: HUMAN KINETICS OCCUPATIONAL HEALTH

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(02508); BEHAVIOR BIOL-HUMAN BEHAVIOR(07004); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); CARDIOVASC SYST-GENL STUDS,METHS(14501); CARDIOVASC SYST-HEART PATHOLOGY(+14506); INTEGUMENT SYST-GENL STUDS,METHS(18501); INTEGUMENT SYST-PATHOLOGY(+18506); NERVOUS SYST-GENL STUDS,METHS(20501); NERVOUS SYST-PATHOLOGY(+20506); PSYCHIATRY-PSYCHPATH-DYMN,THERAP(+21002); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

72046537

EVIDENCE FOR ENDOTHELIAL CELL ORIGIN OF VINYL CHLORIDE INDUCED HEPATIC ANGIO SARCOMA

FORTWENGLER H P JR; JONES D; ESPINOSA E; TAMBURRO C H

DIV. DIGESTIVE DIS. NUTRITION, DEP. MED., HEALTH SCI. CANCER CENT., UNIV. LOUISVILLE; KY. 40292.

GASTROENTEROLOGY 80 (6). 1981. 1415-1419. Coden: GASTA

Language: ENGLISH

Previous reports of [human] hepatic angiosarcoma have not clearly defined the cellular type from which this tumor arises, as evidenced by the terminology of endothelioma, Kupffer cell sarcoma, endothelial cell sarcoma and hemangioendothelial sarcoma, etc., which were used interchangeably. There was no consensus on the separate entity of Kupffer and sinusoidal endothelial cells. Evidence for the endothelial cell origin of this tumor is provided by demonstrating factor VIII, a known endothelial cell marker, in the tumor cells. Fluorescence due to the presence of factor VIII appeared intense in the tumor sinusoidal cells of all 4 vinyl chloride-associated angiosarcomas studied, whereas normal liver sinusoidal lining cells showed negligible fluorescence.

Descriptors: HUMAN KUPFFER CELL CARCINOGEN FACTOR-VIII FLUORESCENCE

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(+02508); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-DIAGNOSTI-

C(12504); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+1450-8); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(15002); BLOOD/BODY FLDS-BLD,LYM,RES PATH(15006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(15008); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-DIAGNS METH(+24001); NEOPLSMS/NEOPL AGNTS-BIOCHEM(+24006); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+2400-7); NEOPLSMS/NEOPL AGNTS-BLOOD,RES(+24010); ENVIRON HEALTH-OCCUPATNL HEALTH(37013)

Biosystematic Codes: HOMINIDAE(86215)

72041601

COMPLICATIONS OF CARBON DI OXIDE LASER SURGERY OF THE LARYNX MEYERS A

DEP. OTOLARYNGOL., UNIV. COLO. HEALTH SCI. CENT., DENVER, COLO.

ANN OTOL RHINOL LARYNGOL 90 (2 PART 1). 1981. 132-134. Coden: AORHA

Language: ENGLISH

Since the introduction of CO2 laser surgery, surgeons have stressed the importance of protecting nontarget structures from errant irradiation. Although striking areas outside the intended field may inflict little or no damage, irradiating an exposed endotracheal tube may result in an endotracheal fire. Recent experience with a case of endotracheal tube ignition involving a 28 yr old man led to a reevaluation of those factors associated with this serious complication. To determine the best endotracheal tube to use during laser surgery of the larynx, the flammability of polyvinyl chloride and red rubber endotracheal tubes was compared. Several factors were noted to contribute to the potential hazard of endotracheal tube ignition. Since red rubber tubes are less flammable, they should be used during laryngeal CO2 laser surgery.

Descriptors: HUMAN TRACHEA FIRE POLY VINYL CHLORIDE RED RUBBER HAZARD

Concept Codes: RADIATION BIOL-RADTN,ISOTOP TECH(+06504); RADIATION BIOL-RADTN EFF,PROTECT(+06506); BIOPHYS-GENERAL BIOPHYS TECH(10504); ANATOMY/HISTOL-SURGERY(+11105); PATHOLOGY-THERAPY(12512); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006)

Biosystematic Codes: HOMINIDAE(86215)

72040719

THE EFFECTS OF NALOXONE ON THE ANALGESIC ACTIVITIES OF GENERAL ANESTHETICS

SMITH E H; REES J M H
 DEP. PHARMACOL., MATERIA MED. THER., MED. SCH., UNIV.
 MANCH., MANCHESTER M13 9PT, ENGL., UK.
 EXPERIENTIA (BASEL) 37 (3), 1981. 289-290. Coden: EXPEA
 Language: ENGLISH

Inhaled concentrations of N2O (80%), halothane (0.5%), trichloroethylene (0.5%) and s.c. ethanol (1 ml/kg) caused similar degrees of excitation and ataxia in mice. N2O, trichloroethylene and ethanol caused analgesia (hot plate and writhing tests), but only that caused by N2O was antagonized by naloxone (20 mg/kg). Halothane lacked analgesic activity. [N2O was the only anesthetic that released endorphins. The underlying reasons were unclear.]

Descriptors: MOUSE CENTRAL STIMULANT NITROUS OXIDE HALOTHANE TRI CHLOROETHYLENE ETHANOL CENTRAL DEPRESSANT ANTAGONIST ENDORPHIN RELEASE HOT PLATE WRITHING TEST

Concept Codes: BEHAVIOR BIOL-ANIMAL BEHAVIOR(07003); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS, PEPTIDES, AMINO ACID(10064); EXTERN EFF-EHOT(10618); MOVEMENT(12100); METABOLISM-PROTNS, PEPTDS, AM ACDS(13012); RESPIRATORY SYST-GENL STUD, METHS(1001); ENDOCRINE SYST-NEUROENDOCRINOLOG(17020); MUSCLE SYST-PATHOLOGY(17506); NERVOUS SYST-PHYSIOL, BIOCHEM(+20504); PSYCHIATRY-PSYCHOPHYSIOLOGY(21003); PHARMACOL-DRUG METAB, METAB STIMU(+22003); PHARMACOL-NEUROPHARMACOLOGY(+22024); PHARMACOL-PSYCHOPHARMACOLOGY(+22026); ROUTES OF IMMUNIZ, INFECT, THERAP(22100); TOXICOL-GENL/EXP STUDS, METHS(22501); TEMPERATURE-GENL, METHS(23001)

Biosystematic Codes: MURIDAE(86375)

72039321

METABOLISM OF DRUGS AND CARCINOGENS IN ISOLATED SUB CELLULAR FRACTIONS OF DROSOPHILA-MELANOGASTER 1. ACTIVATION OF VINYL CHLORIDE 2 AMINO ANTHRACENE AND BENZO A PYRENE AS MEASURED BY MUTAGENIC EFFECTS IN SALMONELLA-TYPHIMURIUM

HALLSTROM I; SUNDVALL A; RANNUG U; GRAFSTROM R; RAMEL C
 ENVIRONMENTAL TOXICOL. UNIT, WALLENBERG LAB., UNIV.
 STOCKHOLM, S-106 91 STOCKHOLM.

CHEM-BIOL INTERACT 34 (2), 1981. 129-144. Coden: CBINA
 Language: ENGLISH

The capacity of microsomal fractions from different Drosophila strains to activate 3 premutagens, 2-aminoanthracene (2-AA), vinyl chloride (VCM) and benzo[a]pyrene (BP) was investigated, using Salmonella typhimurium as the indicator organism. A significant increase in the mutation response in the Salmonella test system was obtained with all 3 substances in the presence of a metabolizing system (S9) from Drosophila larvae. 2-AA was converted to highly mutagenic metabolite(s) by the Drosophila S9 and the mutagenic effect was further increased after pretreatment with Aroclor 1254 (PCB) or beta-naphthoflavone (BNF). BP had only marginal mutagenic effects, causing less than 10-fold increase in mutation frequency.

control. The data indicate that the metabolic conversion of BP is different in the Drosophila as compared to the rat liver microsomal fraction. In accordance with mutagenic data on Drosophila in vivo, vinyl chloride was a fairly weak mutagen in this Drosophila/Salmonella in vitro system. The relevance of these results for the understanding of Drosophila metabolism and the value of the Salmonella test as a rapid and sensitive indicator of the formation of reactive metabolites in Drosophila are discussed.

Descriptors: RAT LIVER LARVA AROCLOR 1254 BETA NAPHTHO FLAVONE METABOLIC-DRUG INDICATOR

Concept Codes: GENETICS/CYTOGENET-GENL STUDIES(+03502); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD, PURNS, PYRM(10062); REPLICATN, TRANSCRIPTN, TRANSLATN(10300); METABOLISM-GENL STUD, METAB PATHW(13002); METABOLISM-NUCL ACD, PURINS, PYRM(13014); DIGESTIVE SYST-GENL STUDS, METHS(14001); DIGESTIVE SYST-PATHOL-OGY(14006); PHARMACOL-DRUG METAB, METAB STIMU(+22003); TOXICOL-GENL/EXP STUDS, METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); DEVELOPMNTL BIOL-GEN MORPHGENSIS(25508); BACTERIAL AND VIRAL GENETICS(31500); MICROBIOLOG APPARAT, METHS, MEDIA(32000); IN VITRO STUDS-CELLULR, SUBCELL(32-600); INVERTB PHYSIOL-INSECTA-PATHOL(+64078)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); DIPTERA(753-14); MURIDAE(86375)

72037374

TRAPS FOR MONITORING POPULATIONS OF THE CITRUS THRIPS
SCIRTOTHRIPS-CITRI THYSANOPTERA THIRIPIDAE

TANIGOSHI L K; MORENO D S

BOYDEN ENTOMOLOGICAL LAB., USDA, AGRICULTURAL RES., SEA,
RIVERSIDE, CALIF 92521.

CAN ENTOMOL 113 (1). 1981. 9-12. Coden: CAENA

Language: ENGLISH

Modified versions of the standard Reed-Rich citrus thrips trap were compared for trapping efficiency and labor required. The number of migrant *S. citri* (Moulton) captured per unit trapping area of a PVC[polyvinylchloride]-acetate trap was comparable to the number captured per unit area of the Reed-Rich trap, although the PVC-acetate trapping surface was approx. 35% that of the 929 cm² standard trap. The reduced counting surface and the use of disposable acetate sheets reduced to 1/4 the time required for field-laboratory handling, preparing and processing. The PVC-acetate trap is recommended as a new standard trap for monitoring *S. citri* population levels in California and Arizona [USA] citriculture.

Descriptors: REED-RICH CITRUS THIRIP TRAP POLY VINYL CHLORIDE
ACETATE TRAP CALIFORNIA ARIZONA USA

Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD
APPARATUS(01010); BIOCHEM STUD-GENERAL(10060); HORTICULT-TROP
FRUIT,NUT,PLANTAT(+53004); PEST CONTRL GENL/PESTICS/HERBICS(+
54600); ECONOM ENTOMOL-FRUIT AND NUTS(+60006); ECONOM
ENTOMOL-CHEM PHYS CONTRL(+60016)

Biosystematic Codes: RUTACEAE(26685); THYSANOPTERA(75350)

72035790

FORMATION OF VINYL HALIDES FROM VINYL CATIONS GENERATED BY
ACETYLENIC PARTICIPATION IN BIOMIMETIC POLYENE CYCLIZATIONSJOHNSON W S; WARD C E; BOOTS S G; GRAVESTOCK M B; MARKEZICH
R L; MCCARRY B E; OKORIE D A; PARRY R J

DEP. OF CHEM., STANFORD UNIV., STANFORD, CALIF. 94305.,

J AM CHEM SOC 103 (1). 1981. 88-98. Coden: JACSA

Language: ENGLISH

The object of this study was to examine the fate of vinyl cations (resulting from biomimetic polyene cyclizations) in the presence of various halides as sources of nucleophiles. Treatment of the dienynol 1 with trifluoroacetic acid in methylene chloride for 45 min at -78.degree. C resulted in the isolation of the rearranged bicyclic vinyl chloride 6 in 56% yield. Confirmation of the structure and isomeric purity of 6 was obtained by exhaustive ozonization to give diketone 9 followed by Wolff-Kischner reduction and then esterification to yield the ester, the structure of which was confirmed by HD exchange of the protons .alpha. to the carbomethoxy group. The configuration of the ring fusion in 6 was trans in the following manner. Selective ozonization gave the chloro ketone, which was converted into the chloro olefin by Wolff-Kischner reduction. Further ozonization afforded the keto ester, which was converted into the diacid by sodium hypobromite oxidation. Esterification afforded the diester,

Wolff-Kischner reduction of the known keto diester. More careful examination of the products from the aforementioned cyclization showed the presence of 8% ketone (after hydrolytic workup). Identical cyclization conditions of 1, except at 0.degree. C, gave 55% vinyl chloride 6 and 45% ketone while use of a 7.5:1 pentane:1,2-dichloroethane mixture at 0.degree. C led to 11% vinyl chloride 6 and 89% ketone 8. Cyclization of dienynol 1 with stannic chloride in 1,1-dichloroethylene at -35.degree. C for 45 min gave a 53% yield of 3 isomeric vinyl chlorides, in a ratio of 8:75:12. The successful cyclization of dienynol 1 led to more extensive cyclization studies of substrates which provided tetracyclic products. The most thoroughly studied case was that of trienynol 3, which on treatment with stannic chloride in 1,1-dichloroethylene at approximately -30.degree. C for 50 min, gave a 64% yield of 3 tetracyclic products A, B and C in a ratio of 15:73:12 by VPC. Product A was the chloro diene by hydrogenation of the .DELTA.1-olefinic bond followed by ozonization to give 5.beta.,13.alpha.-androstan-17-one, which was compared with an authentic sample prepared by irradiation of 5.beta.-androstan-17-one. Products B and C were chloro dienes by conversion of the mixture into 5.beta.-androstan-17-one and the keto ester. A systematic variation of reaction conditions as well as the use of mixed-halide sources led to evidence for a possible mechanism for the formation of all 3 products from an intermediary tricyclic cation.

Descriptors: 5-BETA ANDROSTAN-17-ONE 5-BETA 13-ALPHA
ANDROSTAN-17-ONE

Concept Codes: BIOCHEM METH-GENERAL(+10050); BIOCHEM
METH-STEROLS,STEROIDS(+10057); BIOCHEM STUD-GENERAL(+10060);
BIOCHEM STUD-LIPIDS(10066); BIOCHEM STUD-STEROLS,STEROIDS(+10-
067); BIOPHYS-MOLECUL PROP,MACROMOLEC(+10506); REPRODUCT
SYST-PHYSIOL,BIOCHEM(16504); ENDOCRINE SYST-GONADS,PLACENTA(1-
7006); PHARMACOL-GENERAL STUDIES(22002); PHARMACOL-PSYCHOPHAR-
MACOLOGY(22026)

72035100

EFFECTS IN THE RAT OF INHALING POLY VINYL CHLORIDE DUST AT THE NUISANCE DUST LEVEL

RICHARDS R J; ROSE F A; TETLEY T D; COBB L E; HARDY C J
 DEP. BIOCHEMISTRY, UNIV. COLL. CARDIFF, P.O. BOX 78, CARDIFF
 CF11XL, U.K.

ARCH ENVIRON HEALTH 36 (1). 1981. 14-19. Coden: AEHLA
 Language: ENGLISH

Rats inhaled a paste polymer polyvinyl chloride [PVC] dust at an aerosol concentration of 10 mg/m³ for 6 h/day, 5 days/wk for 15 wk. A small number of randomly scattered lung lesions were detected at 15 wk; these lesions were also present 15 wk after exposure to PVC had ceased. Few if any biochemical changes were detected at the alveolar surface in lung tissues or other organs of PVC-exposed rats. At nuisance dust level this form of PVC polymer exhibited weak biological reactivity.

Descriptors: LUNG KINETICS NEGLIGIBLE TOXICITY AIR POLLUTION
 Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); BIOCHEM-GAS-ES(10012); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-DIAGNOSTIC(12504); METABOLISM-GENL STUD,METAB PATHW(+13002); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: MURIDAE(86375)

72035000

ADSORPTION AND DESORPTION OF PERMETHRIN AND OTHER PESTICIDES ON GLASS AND PLASTIC MATERIALS USED IN BIOASSAY PROCEDURES

SHARON M S; SOLOMON K R
 DEP. ENVIRONMENTAL BIOL., UNIV. GUELPH, GUELPH, ONT., N1G 2W1.

CAN J FISH AQUAT SCI 38 (2). 1981. 199-204. Coden: CJFSD

Language: ENGLISH

Laboratory studies were conducted to determine the adsorption and desorption of permethrin on glass and several plastic materials that may be used for the construction of limnocorals. The insecticide was substantially adsorbed on polyethylene, polyvinylchloride, glass and Teflon. Adsorbed permethrin was not easily desorbed from polyethylene and polyvinylchloride by several water rinses. Increased adsorption of the insecticide was observed with increasing temperatures. A study on the adsorption of several herbicides [barban, trifluralin, metribuzin, atrazine, picloram and amitrole], of various water solubilities indicated that trifluralin was adsorbed to glass and that there was no general relationship between adsorption of the herbicide on polyvinylchloride and water solubility.

Descriptors: BARBAN TRIFLURALIN AMITROLE METRIBUZIN ATRAZINE PICLORAM HERBICIDE INSECTICIDE POLY ETHYLENE POLY VINYL CHLORIDE TEFLON LIMNOCORRAL WATER SOLUBILITY

Concept Codes: ECOLOGY-GENL STUDIES,METHODS(07502); ECOLOGY-LIMNOLOGY(+07514); ECOLOGY-AQUATIC WILDLIFE MGMI(0751-6); ECOLOGY-WATR RESOUR FISHERY

METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); EXTERN EFF-TEMPERATURE(10614); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); TEMPERATURE-GENL,METHS(23001); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015); PLANT PHYSIOL-GROWTH SUBSTANCES(51514); AGRONOMY-WEEDS AND WEED CONTROL(52518); PEST CONTRL GENL/PESTICS/HERBICS(+54600); ECONOM ENTOMOL-CHEM PHYS CONTRL(60016)

Biosystematic Codes: ABSTRACTS OF ENTOMOLOGY(96000)

72032371

VINYL CHLORIDE INDUCED ANGIO SARCOMA AND HEPATO CELLULAR CARCINOMA OF THE LIVER

KOISCHWITZ D; LELBACH W K; LACKNER K; HERMANUTZ D
 RADIOL. KLIN., UNIV. BONN, ROENTGENABT. MED. KLIN., 5300
 BONN-VENUSBERG, W. GER.

FORTSCHR GEB ROENTGENSTR NUKLEARMED 134 (3). 1981. 283-290. Coden: FGRNA

Language: GERMAN

Three patients with industrial exposure to PVC [polyvinylchloride] are described, who developed angiosarcomas of the liver; in 1 patient this was combined with a multi-locular primary hepatocellular carcinoma. The epidemiology, clinical features and diagnosis are discussed, with particular reference to angiography, sonography and computerized tomography [CT]. The non-invasive methods, such as CT and sonography, are the techniques of choice if an angiosarcoma is suspected after long exposure to PVC.

Descriptors: HUMAN OCCUPATIONAL HAZARD RADIOGRAPHY DIAGNOSIS

Concept Codes: GENL BIOL-INFRMTN,DOCU,COMP APPL(00530); PHOTOGRAPHY-METHS,MATLS,APPARAT(01012); MATHEMATIC BIOL/STATISTIC METH(04500); RADIATION BIOL-RADTN,ISOTOP TECH(06504); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); ANATOMY/HISTOL-RADIOLOGIC(11106); PATHOLOGY-DIAGNOSTIC(12504); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-GENL STUDS,METHS(14501); CARDIOVASC SYST-BLD VESS PATHOL(+14508); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS-/NEOPL AGNTS-DIAGNS METH(+24001); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

72030340

RELEASE RATES AND ATTRACTION OF POLY VINYL CHLORIDE LURES CONTAINING SYNTHETIC SEX ATTRACTANT OF THE SPRUCE BUDWORM CHORISTONEURA-FUMIFERANA LEPIDOPTERA TORTRICIDAE

SANDERS C J

GREAT LAKES FOREST RES. CENT., CANADIAN FORESTRY SERVICE, SAULT STE. MARIE, ONTARIO P6A 5M7.

CAN ENTOMOL 113 (2), 1981, 103-112. Coden: CAENA

Language: ENGLISH

Release rates of synthetic attractant of the spruce budworm, *C. fumiferana* (Clem.), from a PVC [polyvinyl chloride] formulation were determined by weight loss. They varied in direct proportion to the initial concentration of the attractant and also with the size of the pellet. Release rates declined by approx. 50% over the time intervals of 10-40 days and 40-100 days. Initially they were 2-3 times lower at 10.degree. C than at 21.degree. C, but were far more constant over time at the lower temperature. A pellet weighing 130 mg containing 42 .mu.g of attractant released an estimated 0.1-1 .mu.g/day or 4-40 ng/h, which is close to the rate of emission by a calling female (Silk, et al. 1980), and field trapping data showed that a lure this size attracted the same number of males as a calling female.

Descriptors: TEMPERATURE

Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD APPARATUS(01010); GENETICS/CYTOGENET-SEX DIFFERENC(03510); BEHAVIOR BIOL-GENL, COMPAR BEHAV(+07002); BEHAVIOR BIOL-ANIMAL BEHAVIOR(+07003); BIOCHEM STUD-GENERAL(10060); EXTERN EFF-TEMPERATURE(10614); ENDOCRINE SYST-GENERAL STUDIES(+17002); PEST CONTRL GENL/PESTICS/HERBICS(54600); ECONOM ENTOMOL-TREE, ORN, WD PRODS(+60010); ECONOM ENTOMOL-BIOLOGICAL CONTRL(60014); INVERTEB PHYSIOL-INSECTA-PHYSIOL(+64076)

Biosystematic Codes: LEPIDOPTERA(75330)

72030337

RESISTANCE OF POLYMER FILMS TO PENETRATION BY LESSER GRAIN BORER RHYZOPERTHA-DOMINICA AND DESCRIPTION OF A DEVICE FOR MEASURING RESISTANCE

HIGILAND H A; WILSON R

STORED-PRODUCT INSECTS RES. DEVELOPMENT LAB., P.O. BOX 22909, SAVANNAH, GA. 31403.

J ECON ENTOMOL 74 (1), 1981, 67-70. Coden: JEENA

Language: ENGLISH

In tests with a newly developed laboratory device for determining the resistance to penetration of flexible packaging films by adult *R. dominica* (F.), polyurethane and polyester films were the most resistant of 18 types tested. Polypropylene and fluorinated C polymer films varied in resistance to penetration. Plasticized polyvinyl chloride, ionomer, cellulose propionate, polyvinyl alcohol, saran and polyethylene-ethylene vinyl acetate copolymer films were susceptible to penetration, as were 7 types of cellophanes.

Descriptors: CELLULOSE PROPIONATE POLY URETHANE POLY ESTER POLY PROPYLENE FLUORINATED CARBON IONOMER PLASTICIZED POLY VINYL CHLORIDE POLY VINYL ALCOHOL SARAN POLY ETHYLENE ETHYLENE VINYL ACETATE CELLOPHANE

Concept Codes: FOOD TECH-PREP, PROCESSING, STORAGE(+13532); PEST CONTRL GENL/PESTICS/HERBICS(+54600); ECONOM ENTOMOL-STOR-ED PRODUCTS(+60008)

Biosystematic Codes: COLEOPTERA(75304)

72021785

FREEZING IN THE PRIMARY POLY VINYL CHLORIDE PLASTIC COLLECTION BAG A NEW SYSTEM FOR PREPARING AND FREEZING NONREJUVENATED AND REJUVENATED RED BLOOD CELLS

VALERI C R; VALERI D A; ANASTASI J; VECCHIONE J J; DENNIS R C; EMERSON C P

NAVAL BLOOD RES. LAB., 615 ALBANY ST., BOSTON, MASS. 02118.

TRANSFUSION (PHILA) 21 (2), 1981, 138-149. Coden: TRANA

Language: ENGLISH

Red blood cells [human] were stored at 4.degree. C in the primary bag with an integrally attached empty transfer pack so that the red blood cells could be rejuvenated or not, as desired before glycerolization and freezing. The rejuvenation and glycerol solutions were added through ports in the system. After glycerolization the red blood cells were concentrated by centrifugation to remove the supernatant glycerol before freezing with 40% w/v glycerol in the primary polyvinylchloride (PVC) plastic container in -80.degree. C. After thawing the red blood cells were washed using either the Haemonetics Blood Processor 115 or the IBM Blood Processor 2991-1 or 2991-2. In each system, 50 ml of 12% NaCl and 1.5-1.6 l of 0.9% NaCl 0.2% glucose-25 meq/l disodium phosphate were used. Recovery of red blood cells in vitro was 91%. After 3 days of postwash storage at 4.degree. C, nonrejuvenated red blood cells had a mean 24 h posttransfusion survival of 88%, indated-rejuvenated red blood cells a value of 90%, and outdated-rejuvenated red blood cells a value of 81%. This new system is simpler and safer than methods previously used in this laboratory, and red blood cell recovery and 24 h posttransfusion survivals were comparable or better.

Descriptors: HUMAN

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(02508); BIOCHEM STUD-CARBOHYDR.(10068); MINERALS(10069); BIOPHYS-GENERAL BIOPHYS TECH(10504); EXTERN EFF-TEMPERATURE(10614); EXTERN EFF-COLD(10616); MOVEMENT(12100); BLOOD/BODY FLDS-GENL STUDS,METHS(+15001); BLOOD/BODY FLDS-BLOOD CELL STUDS(+15004); TEMPERATURE-GENL,METHS(23001); TEMPERATURE-CRYOBIOLOGY(+23004)

Biosystematic Codes: HOMINIDAE(86215)

72018186

THE INDUCTION OF ERRORS DURING IN-VITRO DNA SYNTHESIS FOLLOWING CHLORO ACETALDEHYDE TREATMENT OF POLY DEOXY CYTIDYLIC DEOXY GUANYLIC-ACID AND POLY DEOXY ADENYLIC THYMIDYLIC-ACID TEMPLATES

HALL J A; SAFFHILL R; GREEN T; HATHWAY D E
PATERSON LABORATORIES, CHRISTIE HOSPITAL AND HOLT RADIUM INSTITUTE, MANCHESTER M20 9BX.

CARCINOGENESIS (LOND) 2 (2). 1981. 141-146. Coden: CRNGD

Language: ENGLISH

Chloroacetaldehyde, a rearranged metabolic product of the human carcinogen vinyl chloride, reacts with the DNA-like polymers poly(dA-dT) and poly(dC-dG) to form etheno-adducts of the adenine and cytosine bases. These treated polymers, when used as templates for *Escherichia coli* DNA polymerase I in an in vitro assay, show a decreased ability to direct DNA synthesis. At the same time, increased relative levels of non-complementary nucleotides are incorporated. With the poly(dA-dT) templates 1 dGMP residue is incorporated for every 60 ethenoadenine residues present while no increased misincorporation of dCMP was detected. With the poly(dC-dG) templates 1 misincorporation of dAMP or dTMP occurred in the presence of approx. 30 and 80 ethenocytosine residues, respectively. A nearest neighbor analysis shows that with the modified poly(dC-dG) templates the majority of the errors were incorporated opposite cytosine (or modified cytosine) bases.

Descriptors: ESCHERICHIA-COLI HUMAN VINYL CHLORIDE CARCINOGEN

Concept Codes: GENETICS/CYTOGENET-GENL STUDIES(03502); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACID,PURINS,PYRM-(10062); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); ENZYMES-PHYSIOLOGICAL STUDIES(+10808); METABOLISM-GENL STUD,METAB PATHW(+13002); METABOLISM-PROTNS,PEPTDS,AM ACDS(13-012); METABOLISM-NUCL ACID,PURINS,PYRIM(+13014); TOXICOL-GENL/-EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24-007); BACTERIA-PHYSIOLOGY,BIOCHEMISTRY(31000); IN VITRO STUDS-CELLULR,SUBCELL(32600)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); HOMINIDAE(8-6215)

72015918

RESPONSE OF SOFT BOTTOM BENTHOS TO ANNUAL CATASTROPHIC DISTURBANCE IN A SOUTHERN FLORIDA USA ESTUARY

SANTOS S L; SIMON J L
FACULTY OF NATURAL SCI. AND MATHEMATICS, STOCKTON STATE COLL., POMONA, NJ 08240, USA.

MAR ECOL PROG SER 3 (4). 1980 (RECD. 1981). 347-356. Coden: MESED

Language: ENGLISH

A portion of Hillsborough Bay (Tampa, Florida, USA) part of the Tampa Bay estuary, undergoes annual summer defaunation, presumably due to hypoxia. Dissolved O₂ levels are very low (< 1.0 mg/l) at the times of the defaunations. In the ensuing period between defaunations, recolonization occurs. Monthly samples for 42 consecutive months were collected by SCUBA

diver-operated, hand-held PVC [polyvinyl chloride] cores and screened through a 0.5 mm sieve. Eight species, *Mysella planulata*, *Ampelisca abdita*, *Streblospio benedicti*, *Grandidierella bonnieroides*, *Mulinia lateralis*, *Mediomastus californiensis*, *Cyclaspis* sp. and *Nereis succinea* were numerically dominant, accounting for > 95% of the total density during the entire period. These 8 spp. are all classified as r-strategists and utilize several dispersal mechanisms to attain large populations rapidly. Circumstantial evidence is presented which indicates that *A. abdita*, although classified as an r-strategist, may be an effective interference competitor.

Descriptors: MYSELLA-PLANULATA AMPELISCA-ABDITA STREBLOSPIO-BENEDICTI GRANDIDIERELLA-BONNIEROIDES MULINIA-LATERALIS MEDIOMASTUS-CALIFORNIENSIS CYCLASPIS-SP NEREIS-SUCCINEA R STRATEGIST SUMMER INTERFERENCE COMPETITOR HYPOXIA SCUBA DISPERSAL POLY VINYL CHLORIDE CORE SCREEN STATISTICS

Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD APPARATUS(01010); MATHEMATIC BIOL/STATISTIC METH(04500); ECOLOGY-BIOCLIMATOL,BIOMETEOROL(07504); ECOLOGY-ANIMAL(+07508); ECOLOGY-OCEANOGRAPHY,LIMNOLOGY(+07510); ECOLOGY-WATR RESRCH,FISHERY BIOL(07517); BIOCHEM-GASES(10012); EXTERN EFF-PRESSURE(10606); MOVEMENT(12100); RESPIRATORY SYST-PATHIOL-OGY(+16006); INVERTB PHYSIOL-MOLLUSCA(64026); INVERTB PHYSIOL-ANNELIDA(64030); INVERTB PHYSIOL-CRUSTACEA(64054)

Biosystematic Codes: PELECYPODA(61500); POLYCHAETA(65500); MALACOSTRACA(75112)

72011114

INTER STRAND DNA CROSS LINKING BY 4,5',8-TRIMETHYLPSORALEN PLUS MONOCHROMATIC UV LIGHT STUDIES BY ALKALINE ELUTION IN MOUSE L-1210 LEUKEMIA CELLS

COHEN L F; EWIG R A G; KOHN K W; GLAUBIGER D
PEDIATRIC ONCOL. BRANCH, DIV. OF CANCER TREATMENT, NCI, NIH,
BETHESDA, MD. 20205, USA.
BIOCHIM BIOPHYS ACTA 610 (1). 1980. 56-63. Coden: BBACA
Language: ENGLISH

DNA crosslinking by 4,5',8-trimethylpsoralen and monochromatic UV light of wavelength 365 nm was studied in mouse L1210 leukemia cells. DNA breaks and crosslinking were evaluated by alkaline elution of DNA from poly(vinyl chloride) filters. Trimethylpsoralen and 365 nm light produced DNA crosslinks but not breaks. The kinetics of crosslinking were linear with respect to concentration, and 2nd-order with respect to light exposure time. The latter finding supports the proposed 2-photon mechanism for the formation of diadducts. In contrast to DNA crosslinking agents, i.e., nitrogen mustard, nitrosoureas and Pt, trimethylpsoralen crosslinks were resistant to proteolytic digestion. Trimethylpsoralen and 365 nm light produced interstrand crosslinks, as proposed for a bifunctional agent binding to bases on opposite DNA strands.

Descriptors: RADIOSENSITIZER METABOLIC-DRUG HEMATOLOGIC-DRUG ANTINEOPLASTIC-DRUG NITROGEN MUSTARD NITROSO UREAS PLATINUM PROTEOLYTIC DIGESTION PHARMACODYNAMICS

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); RADIATION BIOL-RADTN,ISOTOP TECH(06504); RADIATION BIOL-RADTN EFF,PROTECT(+06506); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); MINERALS(10069); BIOPHYS-MOLECUL PROP,MACROMOLEC(+10506); BIOPHYS-BIOENERGETICS(10510); EXTERN EFF-LIGHT,DARKNESS(10604); METABOLISM-GENL STUD,METAB PATHW(13002); MINERALS(13010); METABOLISM-PROTNS,PEPTDS,AM ACDS(13012); METABOLISM-NUCL ACD,PURINS,PYRIM(13014); BLOOD/BODY FLDS-BLD,LYM,RES PATH(+15006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(+15008); PHARMACOL-DRUG METAB,METAB STIMU(+22003); PHARMACOL-BLOOD,HEMATO AGENTS(+22008); NEOPLSMS/NEOPL AGNTS-CELL LINE(+24005); NEOPLSMS/NEOPL AGNTS-THERAP,AGNT(+24008); NEOPLSMS/NEOPL AGNTS-BLOOD,RES(+24010); TISS CULTURE-APPARAT,METHS,MEDIA(32500); IN VITRO STUDS-CELLULR,SUBCELL(32600); CHEMOTHERAPY-GENL STUD,METH,METAB(+38502); PLANT PHYSIOL-CHEM CONSTITUENTS(51522); PHARMACOGNOSY/PHARMACEUT BOTANY(54000)

Biosystematic Codes: PLANTAE-UNSPECIFIED(11000); MURIDAE(86-375)

72006773

URINARY EXCRETION OF THIO DI GLYCOLIC-ACID AND HEPATIC CONTENT OF FREE THIOLS IN RATS AT DIFFERENT LEVELS OF EXPOSURE TO VINYL CHLORIDE

TARKOWSKI S; WISIEWSKA-KNYPL J M; KLIMCZAK J; DRAMINSKI W;
WROBLEWSKA K

DIV. OF INDUSTRIAL TOXICOL., INST. OF OCCUPATIONAL MED.,
90-950 LODZ, UL. TERESY 8, POLSKA.

J HYG EPIDEMIOL MICROBIOL IMMUNOL (PRAGUE) 84 (2) 1983

(RECD. 1981). 253-261. Coden: JHEMA

Language: ENGLISH

To assess the process of oxidation and conjugation involved in biotransformation of vinyl chloride (VC), rats were exposed to 50, 200, 500, 1000 and 20,000 ppm inhaled VC. Rate of urinary excretion of thiodiglycolic acid (TDGA) after exposure to each investigated concentration of VC depended on activity of microsomal monooxygenase. Higher levels of TDGA in urine were reflected by a more significant depression of non-protein SH content in liver of rats. No changes were observed in rats with inhibited activity of microsomal monooxygenase and depressed urinary levels of TDGA. The significance of alcohol dehydrogenase in metabolism of low concentrations of VC was not confirmed. Metabolism of VC in the range 50-2000 ppm was mediated by microsomal monooxygenase followed by conjugation with thiols.

Descriptors: MICROSOMAL MONO OXYGENASE SULFHYDRYL LIVER

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); ENZYMES-PHYSIOLOGICAL STUDIES(+10808); ANATOMY/HISTOL-MICRO,ULTRAMICRSC(11108); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-PROTNS,PEPTDS,AM ACDS(13012); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-PATHOL-OGY(+14006); URIN SYST/EXT SECR-GENL STUD,METH(15501); URIN SYST/EXT SECR-PATHOLOGY(+15506); RESPIRATORY SYST-GENL STUD,METHS(16001); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,IND- USTR(22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(24007); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015)

Biosystematic Codes: MURIDAE(86375)

72006762

POLY VINYL CHLORIDE DERMATITIS NOT CAUSED BY PHTHALATES

SCHULSINGER C; MOLLGAARD K

SKT. PEDERSSTR. 43, 4 T.V., COPENHAGEN K, DK-1453 DENMARK.

CONTACT DERMATITIS 6 (7). 1980 (RECD. 1981). 477-480.
Coden: CODEO

Language: ENGLISH

Seven cases of contact dermatitis in children due to identification bracelets made of polyvinyl chloride (PVC) plastic are reported. Patch tests with the bracelets were negative in the 5 cases tested. The irritant reactions were due to some unknown chemical in the bracelets. The most widely used plasticizers in PVC, phthalates, must have very low sensitizing properties, as only 1 positive patch test was found in 1532 patch tests with phthalate mix, performed as a joint study by the International Contact Dermatitis Research Group.

Descriptors: CHILDREN IDENTIFICATION BRACELET SENSITIZING PROPERTIES IRRITANT REACTION INTERNATIONAL CONTACT DERMATITIS RESEARCH GROUP PATCH TEST

Concept Codes: GENL BIOL-INSTITUT,ADMIN,LEGISLN(00508); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-INFLAMMATN,INFLAM DIS(12508); PATHOLOGY-THERAPY(12512); INTEGUMENT SYST-GENL STUDS,METHS(18501); INTEGUMENT SYST-PATHOLOGY(+18506); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); PEDIATRICS(+25000); IMMUNOL/IMMUNOCHEM-GEN METH(345-02); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(34508); ALLERGY(+35500)

Biosystematic Codes: HOMINIDAE(86215)

72006664

EXPERIMENTAL STUDIES ON THE CHRONIC TOXIC EFFECTS OF VINYL CHLORIDE IN RATS

SOKAL J A; BARANSKI B; MAJKA J; ROLECKI R; STETKIEWICZ J; IVANOVA-CHEMISHANSKA L; VERGIEVA T; ANTONOV G; MIRKOVA E; ET AL

INST. OF OCCUPATIONAL MED., 90-950 LODZ, P.O. BOX 199 POLAND.

J HYG EPIDEMIOL MICROBIOL IMMUNOL (PRAGUE) 24 (3). 1980 (RECD. 1981). 285-294. Coden: JHEMA

Language: ENGLISH

Male rats were exposed to vinyl chloride at concentrations of 50, 500 and 20,000 ppm, 5 h daily, 5 days/wk for 10 mo. Morphological lesions in liver and testes detected by light and EM and depression in body weight increase intensified with duration of exposure. Increased relative weights of some organs and slight hematological and biochemical changes in blood were also observed. Some toxic effects including morphological liver injuries arose at the smallest exposure level (50 ppm). Assuming 50 ppm as threshold concentration for rats, 5 ppm level was estimated as safe exposure limit in industry in relation to systemic effects of vinyl chloride.

Descriptors: BLOOD LIVER TESTES WEIGHT LOSS OCCUPATIONAL HEALTH INDUSTRIAL TOXICITY

Concept Codes: GENL BIOL-INSTITUT,ADMIN,LEGISLN(00508); MICROSCOPY-GENL,SPECL TECHNIQUES(01052); ELECTRON MICROSCOPY(-01058); CYTOLOGY/CYTOCHEM-ANIMAL(02506); BIOCHEM STUD-GENERAL-

(10060); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-PATHOLOGY(+14006); BLOOD/BODY FLDS:BLD,LYM,RES PATH(+15006); REPRODUCT SYST-GENL STUDS,METHS(16501); REPRODUCT SYST-PATHOLOGY(+16506); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015)
Biosystematic Codes: MURIDAE(86375)

72004253

CHEMO THERAPY OF VINYL CHLORIDE ASSOCIATED HEPATIC ANGIO SARCOMA

DANNAHER C L; TAMBURRO C H; YAM L T

COLUMBUS HOSP. REG. ONCOL. CENT., P.O. BOX 5013, GREAT FALLS, MONT. 59403.

CANCER (PHILA) 47 (3). 1981. 466-469. Coden: CANCA

Language: ENGLISH

The use of systemic chemotherapy was studied in a group of 4 patients who had hepatic angiosarcoma in association with exposure to vinyl chloride. All patients received adriamycin 60 mg/m² i.v. every 3-4 wk. In 3 patients this was combined with cytoxan 600 mg/m² and methotrexate 20 mg/m². Three patients had an objective response lasting 4, 9 and 10 mo. One patient had stable disease for 10 mo. Responding patients maintained an excellent performance status during therapy. Following evidence of progressive disease, patients died in 3, 4 and 6 mo. Survival from the time of diagnosis was 11, 13, 15 and 53+ mo. Sufficient data are not available from these patients to recommend a specific drug or combination for use in hepatic angiosarcoma; chemotherapy apparently can improve quality and duration of survival.

Descriptors: HUMAN ADRIAMYCIN CYTOXAN METHOTREXATE ANTINEOPLASTIC-DRUG

Concept Codes: GENL BIOL-INFRMTN,DOCU,COMP APPL(00530); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-VITAMINS(10063); PATHOLOGY-DIAGNOSTIC(12504); PATHOLOGY-NECROSIS(12510); PATHOLOGY-THERAPY(12512); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-GENL STUDS,METHS(14501); CARDIOVASC SYST-BLO VESS PATHOL(+14508); PHARMACOL-CLINICAL PHARMACOL(22005); PHARMACOL-CARDIOVASC SYST(+22010); PHARMACOL-DIGESTIVE SYST(+22014); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-DIAGNS METH(24001); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); NEOPLSMS/NEOPL AGNTS-THERAP,AGNT(+24008); ENVIRON HEALTH-OCCUPATNL HEALTH(37013); CHEMOTHERAPY-GENL STUD,METH,METAB(+38502)

Biosystematic Codes: HOMINIDAE(86215)

72003902

ANGIO SARCOMA OF THE PENIS WITH HEPATIC ANGIOMAS IN A PATIENT WITH LOW VINYL CHLORIDE EXPOSURE

GHANDUR-MNAYMNEH L; GONZALEZ M S

DEPARTMENT OF PATHOLOGY, UNIVERSITY OF MIAMI SCHOOL OF MEDICINE, 1611 N.W. 12TH AVE., MIAMI, FL. 33136.

CANCER (PHILA) 47 (6). 1981. 1318-1324. Coden: CANCA

Language: ENGLISH

A case of angiosarcoma of the penis associated with 2 hepatic angiomata in a 61 yr old man is presented. The patient had worked in a polyvinyl chloride factory as an accountant for 10 yr. The relationship of this low vinyl chloride exposure to the development of the vascular lesions is discussed with a review of the experimental and epidemiologic data on this subject.

Descriptors: FACTORY WORKER CARCINOGEN

Concept Codes: BIOCHEM STUD-GENERAL(10060); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+1450-8); REPRODUCT SYST-PATHOLOGY(+16506); TOXICOL-ENVIRONMNTL;IND- USTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); GERONTOLOGY(24500); ENVIRON HEALTH-OCCUPATNL HEALTH(37013)

Biosystematic Codes: HOMINIDAE(86215)

72003890

RETENTION OF VINYL CHLORIDE IN THE HUMAN LUNG

KRAJEWSKI J; DOBECKI M; GROMIEC J

DEP. CHEMICAL AIR POLLUTANTS INST. OCCUPATIONAL MED., LODZ, POLAND.

BR J IND MED 37 (4). 1980 (RECD. 1981). 373-374. Coden: BJIMA

Language: ENGLISH

Experiments with volunteers showed that 42% of an inhaled dose of vinyl chloride [a carcinogen] was retained in the lungs. This value was independent of concentration of vinyl chloride in the air. Elimination of vinyl chloride through the lungs was negligible since its concentration in expired air decreased immediately after cessation of exposure.

Descriptors: CARCINOGEN AIR POLLUTION

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(02508); ECOLOGY-BIOCLIMATOL,BIOMETEOROL(07504); COMPARATIVE BIOCHEM-GENL STUDIES(-10010); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-DIAGNOSTIC(12504); METABOLISM-GENL STUD,METAB PATHW(13002); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

72000124

CONTACT URTICARIA FROM NICKEL AND PLASTIC ADDITIVES BUTYLHYDROXY TOLUENE OLEYLAMIDE

OSMUNDSEN P E

SKIN CLIN., FREDERIKSSUNDSVEJ 112, 2700 BRONSHOJ, DENMARK.
CONTACT DERMATITIS 6 (7). 1980 (RECD. 1981). 452-454.
Coden: CODED

Language: ENGLISH

In 2 patients, urticaria was elicited by contact with Ni-containing objects. Chamber-prick testing with NiSO₄ 2.5% in petrolatum evoked a strong urticarial reaction in both patients. In 1 of the patients contact with plastic articles also provoked urticaria. A 20 min patch test with several plastic articles (polyethylene and PVC [polyvinyl chloride]) and with butylhydroxytoluene (BHT) 1% in ethanol elicited urticarial reactions. BHT is used as an antioxidant in plastic. Open patch test with oleylamide (amide of oleic acid) 0.1% in ethanol elicited a strong urticarial reaction in 20 min. This chemical is used as a slipping agent in plastic.

Descriptors: HUMAN POLY ETHYLENE POLY VINYL CHLORIDE ANTI OXIDANT SLIPPING AGENT CHAMBER PRICK TESTING

Concept Codes: BIOCHEM STUD-GENERAL(10060); MINERALS(10069); PATHOLOGY-INFLAMMATN,INFLAM DIS(12508); INTEGUMENT SYST-GENL STUDS,METHS(18501); INTEGUMENT SYST-PATHOLOGY(+18506); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(-122501); IMMUNOL/IMMUNOCHEM-GEN METH(34502); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(34508); ALLERGY(+35500)

Biosystematic Codes: HOMINIDAE(86215)

71084057

ESTIMATING THE AIR EMISSIONS OF CHEMICALS FROM HAZARDOUS WASTE LANDFILLS

THIBODEAUX L J

DEP. OF CHEM. ENGINEERING, COLL. OF ENGINEERING, UNIVERSITY OF ARKANSAS, FAYETTEVILLE, AR 72701, U.S.A.

J HAZARD MATER 4 (3). 1981. 235-244. Coden: JHMAD

Language: ENGLISH

A comprehensive landfill cover vapor transport model capable of assessing the diffusive and convective transport mechanisms for toxic chemical air emission calculations was developed. Sample calculations of rates for worst-case scenarios involving benzene, chloroform, vinyl chloride and Aroclor 1248 provided some insight into the magnitude of the environment impact of an insecure chemical waste landfill on surrounding air quality. An algorithm was presented for obtaining crude exposure levels.

Descriptors: BENZENE CHLOROFORM VINYL CHLORIDE AROCLOR 1248 LANDFILL COVER VAPOR TRANSPORT MODEL SEWAGE AIR POLLUTION

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500); ECOLOGY-BIOCLIMATOL,BIOMETEOROL(07504); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-BIOCYBERNETICS(10515); TOXICOL-ENVIRONMNTL,INDUSTR(22506); ENVIRON HEALTH-SEWG DISP,SANITAR(+37014); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); SOIL SCI-PHYSICS,CHEMISTRY(52805)

71077019

EPIDEMIOLOGICAL STUDY OF RESPIRATORY DISEASE IN WORKERS EXPOSED TO POLY VINYL CHLORIDE DUST

SOUTAR C A; COPLAND L H; THORNLEY P E; HURLEY J F; OTTERY J; ADAMS W G F; BENNETT B

INST. OCCUPATIONAL MED., ROXBURGH PL., EDINBURGH EH8 9SU.

THORAX 35 (9), 1980, 644-652. Coden: THORA

Language: ENGLISH

Respiratory health of workers exposed to polyvinylchloride (PVC) dust was investigated in 818 men sampled from the work force of a factory manufacturing PVC. In a cross-sectional survey, lung function and prevalences of respiratory symptoms and chest radiographic abnormalities were compared with estimates of individual PVC dust exposures based on detailed occupational histories and current measurements of respirable PVC dust. Complaints of slight exertional dyspnea were associated with PVC dust exposure, though age and smoking effects were much stronger. Forced expired volume in 1 sec. (FEV1) and forced vital capacity (FVC) were inversely related to dust exposure after age, height and smoking effects were taken into account. This effect was seen principally in cigarette smokers and there was suggestive evidence that PVC dust exposure and cigarette smoking interacted in reduction of FEV1 and FVC. Gas transfer factor was not related to dust exposure. Chest radiographs were performed. One reader recorded a low prevalence of small rounded opacities not related to age or dust exposure. Another reader recorded a higher prevalence of small rounded opacities category 0/1 or more related to age but not to dust exposure. The 3rd reader recorded the highest prevalence of small rounded opacities (though none greater than category 1/1) and these were independently related to age and PVC dust exposure, indicating an effect of PVC dust on appearances of chest radiograph. These appearances were so slight, that only the higher sensitivity of this reader in the interpretation of profusion of small rounded opacities enabled detection of this effect of PVC dust. Exposure to PVC dust was associated with some deterioration of lung function, slight abnormalities of chest radiograph and complaints of slight dyspnea. Mean decline in FEV1 associated with average dust exposure was small, though some men with higher dust exposures suffered clinically important loss of lung function as a result of their occupation.

Descriptors: HUMAN DYSPNEA SMOKING AGE AIR POLLUTION OCCUPATIONAL HEALTH

Concept Codes: PHOTOGRAPHY-METHS, MATLS, APPARAT(01012); CYTOLOGY/CYTOCHEM-HUMAN(02508); MATHEMATIC BIOL/STATISTIC METH(04500); SOCIAL BIOL/HUMAN ECOLOGY(05500); RADIATION BIOL-RADTN, ISOTOP TECH(06504); BEHAVIOR BIOL-HUMAN BEHAVIOR(07004); BIOCHEM STUD-GENERAL(10060); ANATOMY/HISTOL--COMPARATIVE(11103); ANATOMY/HISTOL-RADIOLOGIC(11106); CHORDATE BODY REGNS-THORAX(11312); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-DIAGNOSTIC(12504); METABOLISM-GENL STUD, METAB PATHW(13002); RESPIRATORY SYST-GENL STUD, METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006); PSYCHIATRY-ADDICTION(1NC SMOKNG)(21004); ROUTES OF IMMUNIZ, INFECT, THERAP(22100); TOXICOL-GENL/EXP STUDS, METHS(+22501); TOXICOL-ENVIRONMNTL, IND-USTR(+22506); DEVELOPMNTL BIOL-GEN, MORPHGENSIS(25508); PUB

HEALTH-ADMINISTR, STATISTICS(37010); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR, WATR, SL POLLN(+37015); EPIDEMIOLOG-MISCELL STUDIES(+37056); PLANT PHYSIOL-CHEM CONSTITUENTS(51522); AGRONOMY-TOBACCO CROPS(52512)

Biosystematic Codes: SOLANACEAE(26775); HOMINIDAE(86215)

71075541

THE ADAPTABILITY OF POLY VINYL CHLORIDE BAGS IN THE FLUID THERAPY OF FIELD MEDICINE

CEDERBERG A; LEVANEN J; TIKKA S A; ROKKANEN P

KESKUSSOTILASSAIRAALA 1, PL 105, 00251 HELSINKI 25.

SOTILASLAAK AIKAK 55 (3), 1980 (RECD. 1981), 120-124.

Coden: SOAIA

Language: FINNISH

One of the most important procedures in field medicine in catastrophic situations during the war and peace time is to organize efficient fluid therapy. Most essential is the packing material of infusion fluids. PVC(polyvinyl chloride)-bags made in Finland were tested in field conditions. The infusion was carried out in typical Finnish field conditions to anesthetized pigs which were wounded by shooting. The infusion was started at the site of the shooting and it was continued during the transportation, at the battalion aid station and in the field hospital. The bags were suitable in size and shape, which made their handling easy. The readiness to start infusion was reached without delay, due to easy insertion of infusion tubes. PVC bags and tubes are easily transported with the patient, e.g., example by putting the bag and the tubes in the patient's clothing. Despite rough handling, there was no bag breaking. Keeping the fluid warm in combat exercises proved successful by putting the bag under the arm of the patient. High pressure infusions are easy to carry out. The danger of air emboli is avoided by sucking the air out of the bag. The use of PVC bags in field medicine enables an efficient use of fluid therapy during the war and in peacetime disasters. The plastic material is light and easy to handle and it requires minimal storage space.

Descriptors: HUMAN PIG FINLAND AIR EMBOLISM

Concept Codes: GENERAL FIELD METHODS(01008); SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); EXTERN EFF-PHYSICAL, MECH EFFECTS(+10612); ANATOMY/HISTOL-REGEN, TRANSPLANT(11107); CHORDATE BODY REGNS-EXTREMITIES(11318); PHYSIOLOGY-INSTRUMENTATION(+12004); MOVEMENT(12100); PATHOLOGY-GENERAL STUDIES(+12502); PATHOLOGY-THERAPY(12512); NUTRITION-PROPHYLAC, THERAP DIETS(+13218); CARDIOVASC SYST-BLD VESS PATHOL(+14508); NERVOUS SYST-GENL STUDS, METHS(20501); PHARMACOL-NEUROPHARMACOLOGY(22024); TEMPERATURE-GENL, METHS(+23001); PUB HEALTH-HEALTH SERV, MEDL CARE(37012)

Biosystematic Codes: SUIDAE(85740); HOMINIDAE(86215)

71074995

HEM ANGIO SARCOMA OF THE LIVER AND SPLEEN MANIFESTED BY HIGH OUTPUT HEART FAILURE AND CONSUMPTION COAGULOPATHY

HO K-J; ZAKI S; SCULLY K T

DEP. PATHOL., UNIV. ALA., BIRMINGHAM, ALA., USA.

ALA J MED SCI 17 (1). 1980 (RECD. 1981). 27-31. Coden: AJDMA

Language: ENGLISH

A case of a 60 yr old black male with massive liver, and splenic hemangiosarcoma is reported. The patient presented with high output heart failure. The clinical course was complicated by disseminated intravascular coagulation (DIC) and bleeding diathesis, which resulted in repeated episodes of intraabdominal bleeding. He died from renal insufficiency and terminal massive bleeding from the tumor. The 2 most outstanding clinical features in this case, namely the high output heart failure and DIC, could be explained by the nature of the tumor: its function as an arteriovenous shunt and its irregular, abnormal, neoplastic endothelium and Kupffer's cells. Despite its rare occurrence, in the presence of an unexplained high output heart failure with DIC and hepatomegaly, hemangiosarcoma of the liver should be included in the differential diagnosis, particularly in those patients with a past history of prolonged exposure to [the carcinogens] vinyl chloride, thorotrast or arsenic.

Descriptors: HUMAN VINYL CHLORIDE THOROTRAST ARSENIC CARCINOGEN DIAGNOSIS

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(02508); BIOCHEM STUD-GENERAL(10060); MINERALS(10069); CHORDATE BODY REGNS-ABDOMEN(11314); PATHOLOGY-NECROSIS(12510); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+1450-8); BLOOD/BODY FLDS-BLD,LYM,RES PATH(+15006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(15008); URIN SYST/EXT SECR-PATHOLOGY(15-506); TOXICOL-GENL/EXP STUDS,METHS(22501); NEOPLSMS/NEOPL AGNTS-DIAGNS METH(+24001); NEOPLSMS/NEOPL AGNTS-PATH,CLINIC(+24004); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: HOMINIDAE(86215)

71074072

INHIBITION OF BABESIA-SPP BY PLASTICS

TIMMS P

QUEENSL. DEP. PRIMARY INDUST., ANIM. RES. INST., TICK FEVER RES. CENT., WACOL, QUEENSL. 4076, AUSTR.

APPL ENVIRON MICROBIOL 41 (1). 1981. 17-19. Coden: AEMID

Language: ENGLISH

Five commercially available plastic containers [used in vaccine preparation] were compared with glass for toxicity toward *B. rodhaini* and *B. bigemina*. Comparisons were made by using infectivity tests in mice (*B. rodhaini*) and cattle (*B. bigemina*). Low-density polypropylene and polystyrene containers were not toxic but 2 of the 3 polyvinyl chloride containers tested significantly reduced the viability of both species of *Babesia*. Plasticizer present in various amounts on the surface of the toxic containers was most likely the inhibitory material.

Descriptors: BABESIA-RODHAINI BABESIA-BIGEMINA MOUSE BOVINE POLY VINYL CHLORIDE POLY PROPYLENE POLY STYRENE TOXICITY VACCINE

Concept Codes: BIOCHEM STUD-GENERAL(10060); BLOOD/BODY FLDS-BLD,LYM,RES PATH(15006); TOXICOL-GENL/EXP STUDS,METHS(+2-2501); TISS CULTURE-APPARAT,METHS,MEDIA(+32500); IMMUNOLOGY-P-ARASITOLOGICAL(+35000); VETERINARY SCI-PATHOLOGY(38004); PARASITOLOGY-VETERINARY(+60506); INVERTB PHYSIOL-PROTOZOA(+64-002)

Biosystematic Codes: SPOROZOA(35400); BOVIDAE(85715); MURIDAE(86375)

71071509

ACRO OSTEOLYSIS REPORT OF 2 CASES AND BRIEF REVIEW OF LITERATURE

KAUR S; KUMAR B; CHOPRA J S; LAMBA G; NARANG A
DEP. DERMATOL., POST-GRAD. INST. MED. EDUC. RES., CHANDIGARH, INDIA.CLIN NEUROL NEUROSURG 82 (1). 1980. 45-56. Coden: CNNSB
Language: ENGLISH

Siblings (2) with acro-osteolysis, a rare disorder, are discussed. Although 3 distinct types of acro-osteolysis, i.e., familial, idiopathic and due to vinyl chloride, are clearly defined, these patients did not fit into any category. They had intact nails, preserved tactile and sensory system, plantar ulceration and no sensory deficit. Nerve conduction studies showed prolongation of motor distal latencies in median, ulnar, posterior tibial and lateral popliteal nerves. Nerve biopsies from both patients showed severe loss of myelinated fibers of all sizes, but more so of small ones.

Descriptors: HUMAN VINYL CHLORIDE PLANTAR ULCERATION MYELINATED FIBER LOSS

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(02508); GENETICS/CYT-DGENET-HUMAN(03508); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-CARBOHYDR.(10068); CHORDATE BODY REGNS-EXTREMITIES(11318); PATHOLOGY-DIAGNOSTIC(12504); PATHOLOGY-INFLAMMATN,INFLAM DIS(12508); METABOLISM-CARBOHYDRATES(+13004); METABOLISM-LIPIDS(13006); METABOLISM-PROTNS,PEPTDS,AM ACIDS(+13012); MUSCLE SYST-PATHOLOGY(17506); BONE,JNTS,FASC,CONN/ADIP-PATHOL(+18006); INTEGUMENT SYST-GENL STUDS,METHS(18501); NERVOUS SYST-GENL STUDS,METHS(20501); NERVOUS SYST-PATHOLOGY(+20506); TOXICOL-GENL/EXP STUDS,METHS(22501)

Biosystematic Codes: HOMINIDAE(86215)

71070480

PESTICIDE ACTIVITY OF FOODS EXPOSED TO NALED OR DICHLORVOS
POLY VINYL CHLORIDE RESIN FORMULATIONS

GREENBERG J; GOULDING R L

A.H. ROBINS CO. RES. LAB., RICHMOND, VA. 23220, USA.

J STORED PROD RES 16 (3-4). 1980 (RECD. 1981). 159-162.

Codon: JSTPA

Language: ENGLISH

Raw hamburger, fruits, vegetables and bread were exposed to a 25% naled-polyvinyl chloride resin formulation and a comparable commercial 20% dichlorvos formulation in test cells for 24 h. Relative pesticide activity was determined by bioassay (LT50) against male SRS susceptible houseflies (*Musca domestica*). Activity in samples exposed to dichlorvos was 11-16 times greater than that in comparable naled samples and treatments. Since housefly topical LD50 values for these 2 organophosphates were nearly similar, a much smaller residue of naled was indicated by greater LT50 of food exposed to this pesticide.

Descriptors: MUSCA-DOMESTICA FLY FRUIT VEGETABLE HAMBURGER BREAD FOOD TOXICITY INSECTICIDE

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-NECROSIS(12510); METABOLISM-GENL STUD,METAB PATHW(13002); NUTRITION-PATHOGENIC DIETS(13216); FOOD TECH-FRUIT,NUTS,VEGETABLES(+13504); FOOD TECH-MILLING TECHNOLOGY(+13506); FOOD TECH-BAKING TECHNOLOGY(+13508); FOOD TECH-MEAT,MEAT BY-PRODUCTS(+13516); FOOD TECH-EVALNS PHYS,CHEM PROPS(13530); TOXICOL-GENL/EXP STUOS,METHS(+22501); TOXICOL-FOOD,RESIDS,ADDIT,PRESRV(+22502); FOOD/INDUS MICRO-FD/BEV SP CNTAM(39002); PEST CONTRL GENL/PESTICS/HERBICS(+54600); ECONDM ENTOMOL-CHEM PHYS CONTRL(+60016); INVERTB PHYSIOL-INSECTA-PHYSIOL(+64076)

Biosystematic Codes: PLANTAE-UNSPECIFIED(11000); DIPTERA(75-314); VERTEBRATA-UNSPECIFIED(85150); ABSTRACTS OF ENTOMOLOGY(96000)

71070479

NALED ANALYSES OF FOODS EXPOSED TO 25 PERCENT NALED POLY VINYL CHLORIDE FLY DISPENSER

GREENBERG J; POLLOCK R J

A.H. ROBINS RES. LAB., RICHMOND, VA. 23220, USA.

J STORED PROD RES 16 (3-4). 1980 (RECD. 1981). 155-158.

Codon: JSTPA

Language: ENGLISH

Foods were exposed for 1,3 or 24 h in an atmosphere of 2 ng/l naled produced from 25% naled-PVC [polyvinyl chloride] fly dispensers in a room of 43.6 m³. After 24 h no residues were detected in sliced tomato or grapes and after 3 h no residues were found in milk, grapefruit, potato, beaten egg, cooked rice, chicken pie or chopped meat. After 1 h residues of 0.06 ppm or less were found in vegetable oil, cooked rice, cooked spinach and macaroni cheese but were not detectable in bread or butter. When residues were found, levels were well below official tolerances permitted in USA.

Descriptors: SPINACH TOMATO GRAPE GRAPEFRUIT POTATO RICE

CHICKEN MILK EGG MEAT VEGETABLE OIL MACARONI CHEESE BUTTER BREAD NEGLIGIBLE TOXICITY TOLERANCE LEVEL

Concept Codes: GENL BIOL-INSTITUT,ADMIN,LEGISLN(00508); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); EXTERN EFF-HOT(10618); PATHOLOGY-COMPARATIVE(12503); NUTRITION-PATHOGENIC DIETS(13216); FOOD TECH-FRUIT,NUTS,VEGETABLES(+13504); FOOD TECH-MILLING TECHNOLOGY(+13506); FOOD TECH-FATS,OILS(+13514); FOOD TECH-MEAT,MEAT BY-PRODUCTS(+13516); FOOD TECH-DAIRY PRODUCTS(+13518); FOOD TECH-POULTRY,EGGS(+13520); FOOD TECH-EVALNS PHYS,CHEM PROPS(13530); FOOD TECH-PREP,PROCESSNG,-STORAGE(13532); TOXICOL-FOOD,RESIDS,ADDIT,PRESRV(+22502); TEMPERATURE-GENL,METHS(23001); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015); FOOD/INDUS MICRO-FD/BEV SP CNTAM(39002); AGRONOMY-GRAIN CROPS(52504); HORTICULT-TROP FRUIT,NUT,PLANTAT-(53004); HORTICULT-SMALL FRUITS(53006); HORTICULT-VEGETABLES(-53008); PEST CONTRL GENL/PESTICS/HERBICS(+54600); ECONDM ENTOMOL-CHEM PHYS CONTRL(60016)

Biosystematic Codes: ANGIOSPERMAE-UNSPECIFIED(25200); GRAMINEAE(25305); CHENOPODIACEAE(25795); RUTACEAE(26685); SOLANACEAE(26775); VITACEAE(26940); GALLIFORMES(85536); ABSTRACTS OF ENTOMOLOGY(96000)

71070431

PULMONARY MANIFESTATIONS OF VINYL CHLORIDE AND POLY VINYL CHLORIDE INTERSTITIAL LUNG DISEASE NEWER ASPECTS

CORDASCO E M; DEMETER S L; KERKAY J; VAN ORDSTRAND H S; LUCAS E V; CHEN T; GOLISH J A

9500 EUCLID AVE., CLEVELAND 44106.

CHEST 78 (6), 1980 (RECD. 1981). 828-834. Coden: CHETB

Language: ENGLISH

Newer varieties of occupational lung diseases primarily due to increased industrial technology were reported. Preeminent among newer agents were vinyl chloride (VC) and polyvinyl chloride. Few cases were reported, only in Europe, with descriptive histopathologic changes. No pathologic studies of VC exposure were described in USA literature. Biopsy abnormalities in patients disclosed desquamation of alveolar macrophages into alveolar lumina and minor interstitial and alveolar inflammatory changes. Pulmonary function abnormalities included restrictive insufficiency. Preventive therapy consisted of avoidance of further exposures, frequent industrial hygiene monitoring and total avoidance of tobacco smoke and associated atmospheric pollutants. No patient had exhibited evidence of pulmonary neoplasm. All 3 patients survived their occupational injuries and 2 were still disabled to varying degrees. Urine and blood levels of phthalic acid derivatives were elevated in 2 patients, exact significance was not fully known. It probably represented a toxicologic response.

Descriptors: HUMAN TOBACCO SMOKE PHTHALIC-ACID PULMONARY NEOPLASM INFLAMMATION THERAPY OCCUPATIONAL HEALTH ENVIRONMENTAL TOXICITY

Concept Codes: GENL BIOL-TXTBKS, EDUCATN, AUD-VIS(00514); CYTOLOGY/CYTOCHEM-HUMAN(02508); BEHAVIOR BIOL-HUMAN BEHAVIOR(07004); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOPHYS-MOLECUL PROP, MACROMOLEC(10506); ANATOMY/HISTOL-MICRO, ULTRAMICRSC(11108); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-I-NFLAMMATN, INFLAM DIS(12508); PATHOLOGY-THERAPY(12512); METABOLISM-GENL STUD, METAB PATHW(13002); BLOOD/BODY FLOS-BLD, LYM, RES PATH(+15006); BLOOD/BODY FLOS-LYMPHAT TISS, RES(+15008); URIN SYST/EXT SECR-GEN STUD, METH(15501); URIN SYST/EXT SECR-PATHOLOGY(+15506); RESPIRATORY SYST-GENL STUD, METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006); PSYCHIATRY-ADDICTION(INC SMOKNG)(21004); TOXICOL-GENL/EXP STUDS, METHS(+22501); TOXICOL-ENVIRONMNTL, INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR, WATR, SL POLLN(37015); PLANT PHYSIOL-CHEM CONSTITUENTS(51522); AGRONOMY-TOBACCO CROPS(52512)

Biosystematic Codes: SOLANACEAE(26775); HOMINIDAE(86215)

71069912

EPIDEMIOLOGIC INVESTIGATION OF OCCUPATIONAL CARCINOGENESIS USING A SERIALLY ADDITIVE EXPECTED DOSE MODEL

SMITH A H; WAXWEILER R J; TYROLER H A
DEP. COMMUNITY HEALTH, WELLINGTON CLIN. SCH. MED.,
WELLINGTON HOSP., WELLINGTON 2, N.Z.

AM J EPIDEMIOL 112 (6) 1980 (RECD. 1981) 387-397

Coden: AJEPA

Language: ENGLISH

The epidemiologic identification of occupational carcinogens is complicated by several problems including worker mobility between jobs, variation over time of chemicals and processes used, and the long latency period between exposure and discovery of a tumor. Considering these problems, a method using the cumulative dose concept was developed; this involves calculating the expected yearly exposure for each case from work histories of all noncases close to the case, in year of birth and year of hire. Data required for use of the method include information concerning exposure to the chemicals being studied for each job in each calendar year of the study. Use of the method is illustrated with a study of liver angiosarcoma and vinyl chloride exposure in a polymerization plant. The value of the method lies in the wealth of information generated concerning the association between chemical exposures and cancer, such as exposure level relationships, latency information and the possibility that 2 chemicals might be acting independently or jointly. The serially additive expected dose model may prove particularly useful in the analysis of data collected by occupational health surveillance systems, and in retrospective studies.

Descriptors: HUMAN VINYL CHLORIDE CARCINOGEN LIVER ANGIO SARCOMA

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500); BIOCHEM STUD-GENERAL(10060); BIOPHYS-BIOCYBERNETICS(+10515); DIGESTIVE SYST-PATHOLOGY(+14006); TOXICOL-ENVIRONMNTL, INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); PUB HEALTH-ADMINISTR, STATISTICS(+37010); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); EPIDEMIOL-ORGANIC DIS, NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

71064464

EFFECT OF ROUGHNESS ON THE THROMBOGENICITY OF A PLASTIC

HECKER J F; EDWARDS R D

DEP. PHYSIOL., UNIV. N. ENGL., ARMIDALE, N.S.W. 2351, AUSTRALIA.

J BIOMED MATER RES 15 (1). 1981. 1-8. Coden: JBMRB

Language: ENGLISH

Tubings extruded from 1 batch of polyvinylchloride resin at 5 temperatures ranging from 110-205.degree. C were tested for thrombogenicity in the saphenous vein and aorta of sheep. There was more thrombus in the vein and aorta on tubings extruded at lower temperatures. The surface areas of renal infarction were smaller when lower temperature tubings were inserted into the aorta. Scanning EM showed that lower extrusion temperatures caused greater roughness on the tubings. This greater roughness was confirmed by roughness measurements. The association which was demonstrated between roughness and thrombus formation might be due to the degree of adhesion of the thrombus to the surface rather than to differences in thrombogenicity.

Descriptors: SHEEP POLY VINYL CHLORIDE RESIN RENAL INFARCTION TEMPERATURE

Concept Codes: ELECTRON MICROSCOPY(01058); BIOCHEM STUD-GENERAL(10060); BIOPHYS-BIOENGINEERING(+10511); EXTERN EFF-TEMPERATURE(+10614); CARDIOVASC SYST-GENL STUDS,METHS(+14-501); CARDIOVASC SYST-BLD VESS PATHOL(+14508); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(+15002); URIN SYST/EXT SECR-PATHOLOGY(+15506); TEMPERATURE-GENL,METHS(23001)

Biosystematic Codes: BOVIDAE(85715)

71060825

BREAST CANCER MORTALITY AMONG POLY VINYL CHLORIDE FABRICATORS

CHIAZZE L JR; WONG D; NICHOLS W E; FERENC I D

DIV. OF BIOSTATISTICS AND EPIDEMIOLOG., GEORGETOWN UNIV. SCH. OF MED., WASHINGTON, DC 20007.

J OCCUP MED 22 (10). 1980. 677-679. Coden: JOCMA

Language: ENGLISH

A case-control analysis of breast cancer deaths among PVC [polyvinyl chloride] fabricators was presented. This study was an extension of a cross-sectional mortality study of deaths occurring among 17 PVC fabricators during 1964-1973. Relative risk estimates were derived and tested using the Mantel-Haenszel procedure. Although no statistically significant relative risks were found, a least significant relative risk analysis indicated that underlying relative risk would be on the order of 3:1 to be detected. There seemed to be reasonable assurance that large increases in risk for breast cancer did not exist among these PVC fabricators.

Descriptors: HUMAN OCCUPATIONAL HEALTH STATISTICS

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(02508); MATHEMATIC BIOL/STATISTIC METH(04500); SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM STUD-GENERAL(10060); CHORDATE BODY REGNS-THORAX(11312); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-NECROSIS(12510); METABOLISM-GENL STUD,METAB PATHW(13002); REPRODUCT SYST-PATHOLOGY(+16506); TOXICOL-ENVIRONMNTL,INDUSTR(+22506);

NEOPLASMS/NEOPL AGENTS-CARCINOGENS(+24007); PUB HEALTH-ADMINISTR,STATISTICS(37010); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015); EPIDEMIOLOG-ORGANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

71059764

A SIMPLE RADIO IMMUNOASSAY TO DETERMINE BINDING OF ANTIBODIES TO LIPID ANTIGENS

SMOLARSKY M

DEP. OF CHEM. IMMUNOL., WEIZMANN INST. OF SCI., REHOVOT, ISRAEL.

J IMMUNOL METHODS 38 (1-2). 1980. 85-94. Coden: JIMMB

Language: ENGLISH

Lipids are not only integral structural components of cell membranes, but they also carry important recognition determinants that have an important role in various cell functions, social behavior and in the determination of their immunogenic and antigenic properties. A solid-phase radioimmunoassay [RIA] to determine the binding of antibodies to lipid antigens is described. Polyvinyl chloride microtiter plates were coated with lipid antigens by placing in each well 25-100 .mu.l of antigen solutions in ethanol and solvent evaporation. The wells were then washed with 0.3% gelatine solution to remove loosely bound antigens and to saturate the plastic with an irrelevant protein to prevent unspecific antibody binding to the plates. About 1/3 of [3H]phosphatidylcholine adsorbed in this way (out of 1 nmol) was firmly attached to the plastic and was not washed away during a standard assay. The rest, loosely bound lipid, was washed away in the first 5 washings before the primary antibodies were applied. The technique is rapid and convenient and is as sensitive as a conventional solid-phase RIA with protein antigens. It requires minute amounts of antigen. Less than 1 pmole of lipid antigen can be detected by this technique.

Descriptors: PHOSPHATIDYL CHOLINE POLY VINYL CHLORIDE MICRO TITER PLATES

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(+02506); RADIATION BIOL-RADTN,ISOTOP TECH(06504); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL(10050); BIOCHEM METH-PROTNS,PEPTDS,AM AC(10054); BIOCHEM METH-PORPHYRNS,BILE PIGM(10055); BIOCHEM METH-LIPIDS(10056); BIOCHEM STUD-PROTEIN-S,PEPTIDES,AMINO ACD(+10064); BIOCHEM STUD-LIPIDS(10066); BIOCHEM STUD-CARBOHYDR.(10068); BIOPHYS-MEMBRANE PHENOMENA(+1-0508); IN VITRO STUDS-CELLULR,SUBCELL(32600); IMMUNOL/IMMUNOCHEM-GEN METH(+34502); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(+34508)

Biosystematic Codes: VERTEBRATA-UNSPECIFIED(85150)

DIALOG File5: BIOSIS Previews. 77-83/Jan BA7502;RRM2402(See File55) (c. BIOSIS 1982) (Item 19a of 858) User 3614 25Jan83 2047

71056313

EVALUATION OF ACUTE TOXICITY OF SMOKE AND GASES FROM SMOLDERING AND BURNING PLASTIC FORMS

NISHIMARU Y; TSUDA Y; SAITO F
DEP. LEGAL MED., YOKOHAMA CITY UNIV. SCH. MED., 2-33
URAFUNE, MINAMI, YOKOHAMA 232, JPN.
YOKOHAMA MED BULL 30 (1-4). 1979 (RECD. 1980). 47-60.
Coden: YMBUA

Language: ENGLISH

Under estimated conditions of heating and air supply, various polymeric materials (polystyrene, polyvinylchloride, polyurethane, urea resin and wood [Lavan]) were burned. Plastic foams were heated to temperatures corresponding to early stage of fire. Incapacitation time of mice and rabbits was taken as toxicity scale. Generally, incapacitation time decreased and toxicity increased with increasing temperature. Most toxic effects of the polymers resulted from HCN.

Descriptors: MOUSE RABBIT POLY STYRENE POLY VINYL CHLORIDE POLY URETHANE UREA RESIN WOOD TEMPERATURE

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); MINERALS(10069); EXTERN EFF-HOT(10618); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-NECROSIS(12510); METABOLISM-GENL STUD,METAB PATHW(13002); MINERALS(13010); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); TEMPERATURE-GENL,METHS(23001); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); FORESTRY AND FOREST PRODUCTS(53500)
Biosystematic Codes: SPERMATOPHYTA-UNSPECIFIED(25000); LEPORIDAE(86040); MURIDAE(86375)

71052345

CHROMOSOMAL ANALYSES IN VINYL CHLORIDE EXPOSED WORKERS RESULTS FROM ANALYSIS 18 AND 42 MONTHS AFTER AN INITIAL SAMPLING

ANDERSON D; RICHARDSON C R; WEIGHT T M; PURCHASE I F H;
ADAMS W G F

CENT. TOXICOL. LAB., IMPERIAL CHEM. IND. LTD., ALDERLEY PARK, MACCLESFIELD, CHES. SK10 4TJ, G.B.

MUTAT RES 79 (2). 1980. 151-162. Coden: MUREA

Language: ENGLISH

In a previous study, 57 workers occupationally exposed to vinyl chloride (VC) had an increase in the incidence of chromosomal abnormalities in their lymphocytes as compared with 24 control workers. Since that time, threshold limit values for VC and plant exposure levels have been reduced. Two further samples from the same population of workers were analyzed for chromosomal aberrations 18 and 42 mo. after the initial sampling. At 18 mo., 21 VC workers and 6 off-site controls were investigated as were 23 workers and 8 on-site controls at 42 mo. In the 2nd sampling, there was a tendency to an increase in chromosomal abnormalities of VC-exposed workers except in those people who had changed occupation. By the 3rd sampling, there was a decrease by comparison with previous samplings and the levels of abnormalities had returned to values similar to those of the controls. Radiation

in exposure to VC is accompanied by a reduction in the chromosomal abnormalities to levels indistinguishable from those of controls.

Descriptors: HUMAN LYMPHOCYTES MUTAGEN OCCUPATIONAL EXPOSURE
Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(+02508); GENETICS/CY-TOGENET-HUMAN(+03508); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); BLOOD/BODY FLDS-BLOOD CELL STUDS(+15004); BLOOD/BODY FLDS-LYMPHAT TISS,RES(+15008); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013)
Biosystematic Codes: HOMINIDAE(86215)

71049321

REACTIONS OF VITAMIN B-12R WITH POLY HALOGENATED HYDRO CARBON PESTICIDES

LARANJEIRA M C M; ARMSTRONG D W; NOME F
DEP. QUIM., UNIV. FED. SANTA CATARINA, 88.000,
FLORIANOPOLIS, SC, BRAZ.

BIOORG CHEM 9 (3). 1980. 313-317. Coden: BOCMB

Language: ENGLISH

The reaction of vitamin B12r, generated by photolysis of methylcobalamin under a N2 atmosphere, with DDT, results in extensive dechlorination and formation of DDD and DDE as the major products. Minor quantities of 1,1-bis(p-chlorophenyl)-2-chloroethane (DDMS), 1,1-bis(p-chlorophenyl)-2-chloroethylene (DDMU), 1,1-bis(p-chlorophenyl)ethane (DDO) and 1,1-bis(p-chlorophenyl)ethylene (DDNU) were also formed. Reaction of vitamin B12r, with DDD results in the production of DDMU and DDMS, the latter of which can react to produce DDNU and DDO. DDE and DDMU do not react with vitamin B12r. The results obtained are suggestive of a vitamin B12r-mediated dechlorination pathway for polyhalogenated hydrocarbon pesticides.

Descriptors: DDT DDE DDD 1 1 BIS-P CHLOROPHENYL-2-CHLORO ETHANE 1 1 BIS-P CHLOROPHENYL-2-CHLORO ETHYLENE 1 1 BIS-P CHLOROPHENYL ETHANE 1 1 BIS-P CHLOROPHENYL ETHYLENE DECHLORINATION PATHWAY

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL(10060); METABOLISM-GENL STUD,METAB PATHW(13002); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,INDUSTR(22506); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015); PEST CONTRL GENL/PESTICS/HERBICS(+54600); ECONOM ENTOMOL-CHEM PHYS CONTRL(60016)

Biosystematic Codes: ABSTRACTS OF ENTOMOLOGY(96000)

71042988

EFFECT OF PLASTIC CONTAINERS ON LIQUID PRESERVATION OF HUMAN GRANULOCYTES 1. WITH AND WITHOUT DNASE AND HYDROCORTISONE

CONTRERAS T J; JEMONEK J F; FRENCH J E; SHIELDS L J
 DEP. EXP. HEMATOL., ARMED FORCES RADIOBIOLOG. RES. INST.,
 BETHESDA, MD. 20014, USA.

TRANSFUSION (PHILA) 20 (5). 1980. 519-530. Coden: TRANA
 Language: ENGLISH

The effects of 4 types of plastic polymer containers (polyvinyl chloride (PL-146), bioriented-biaxial polyolefin, ethylene-vinyl acetate and polypropylene) on the in vitro recovery, viability, membrane integrity and phagocytosis of human granulocytes (PMNL; polymorphonuclear leukocytes) were studied. Cells were collected by continuous-flow centrifugation leukapheresis (CFCL), then further isolated by counterflow centrifugation-elutriation (CCE), and stored at 4-6 degree C for up to 14 days at concentration of 6 times 10⁶ PMNL/ml in medium with or without hydrocortisone (HC) or DNase. Regardless of the containers, there were no significant differences observed in the responses of PMNL within the first 48 h of storage. PMNL stored in the polyvinyl chloride (PL-146) containers with or without HC and DNase maintained a significantly higher viability and slower mean cell volume (MCV) expansion rate after 48-96 h compared with that stored in other containers. The phagocytic response was comparable in surviving PMNL from all containers during the first 7 days. Addition of HC and DNase to the storage medium reduced the rate of PMNL volume expansion in all containers, improved the viability in all but the polypropylene containers, but had no effect on the phagocytic response. Since the results show a strong correlation between the rate of PMNL volume expansion during storage and subsequent loss of PMNL viability and function, the containers made with PL-146 polyvinyl chloride are superior to those made of bioriented-biaxial polyolefin, ethylene-vinyl acetate or polypropylene.

Descriptors: POLYMORPHONUCLEAR LEUKOCYTE IN-VITRO RECOVERY VIABILITY MEMBRANE INTEGRITY PHAGOCYTOSIS MEAN CELL VOLUME EXPANSION RATE POLY VINYL CHLORIDE BI ORIENTED BI AXIAL POLY OLEFIN ETHYLENE VINYL ACETATE POLY PROPYLENE LOW TEMPERATURE STORAGE CONDITIONS

Concept Codes: GENERAL LABORATORY APPARATUS(01006); MICROSCOPY-CYTOLOG,CYTOCHEM TECH(01054); CYTOLOGY/CYTOCHEM-HUMAN(02508); MATHEMATIC BIOL/STATISTIC METH(04500); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MEMBRANE PHENOMENA(10508); EXTERN EFF-COLD(10616); ENZYMES-METHODS(10804); ENZYMES-PHYSIOLOGICAL STUDIES(10808); MOVEMENT(12100); PATHOLOGY-NECROSIS(12510); METABOLISM-PROTNS,PEPTDS,AM ACOS(13012); BLOOD/BODY FLDS-GENL STUDS,METHS(15001); BLOOD/BODY FLDS-BLOOD CELL STUDS(15004); BLOOD/BODY FLDS-LYMPHAT TISS,RES(15008); ENDOCRINE SYST-ADRENALS(17004); PHARMACOL-DRUG METAB,METAB STIMU(22003); PHARMACOL-CLINICAL PHARMACOL(22005); PHARMACOL-ENDOCRINE SYST(22016); TOXICOL-GENL/EXP STUDS,METHS(22501); TEMPERATURE-GENL,METHS(23001); TEMPERATURE-CRYOBIOLOGY(23004); TEMPERATURE-HYPO,HYPERTHERMIA(23006); IN VITRO STUDS-CELLULR,-SUBCELL(32600)

Biosystematic Codes: HOMINIDAE(86215)

71042263

DETERMINATION OF RESIDUAL VINYL CHLORIDE IN POLY VINYL CHLORIDE RESINS

LAZARIS A YA; SCHMUJLOVICH S M; KALMIKOVA T A
 V.A. KARGIN INST. POLYMER CHEM. TECHNOL., DZERJINSK, GORKY
 DISTRICT 606000.

J CHROMATOGR 198 (3). 1980. 337-346. Coden: JOCRA
 Language: ENGLISH

The determination of residual vinyl chloride (VC) in poly(vinyl chloride) (PVC) powders based on thermal desorption in a carrier gas stream and trapping of the VC is described. A trap is installed in the heated injection port of a gas chromatograph and desorbed volatiles are chromatographed by a 2-stage chromatographic system. While VC is purged through an analytical column, the first column is cleaned by back-flushing. The method was tested on various types of PVC powders and has no limit of sensitivity.

Descriptors: CHROMATOGRAPHY SENSITIVITY LIMIT

Concept Codes: GENERAL LABORATORY METHODS(01004); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL-(10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); EXTERN EFF-HOT(10618); MOVEMENT(12100); TOXICOL-GENL/EXP STUDS,METHS-(22501); TEMPERATURE-GENL,METHS(23001); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(24007); PUB HEALTH-LAB METHS(37006)

71041645

ADSORPTION CAPACITIES OF ACTIVE CARBON TUBES FOR SAMPLING ATMOSPHERIC VINYL CHLORIDE VAPOR

MATSUMURA Y

NATIONAL INST. INDUSTRIAL HEALTH, 21-1, NAGAO, 6-CHOME, TAMA-KU, KAWASAKI 213, JPN.

IND HEALTH 18 (2), 1980, 61-68. Coden: INHEA

Language: ENGLISH

Adsorption capacities of sampling tubes packed with various kinds of active carbons for collecting vinyl chloride vapor were measured. Among the active carbons with identical particle size, those made from coconut shell and wood were more effective than those from petroleum pitch giving longer breakthrough times. The tubes packed with active carbons of smaller particle sizes adsorbed vinyl chloride vapor for longer periods than those with larger particle sizes. The breakthrough time in adsorbing vinyl chloride flow using active carbon tubes containing 150 mg carbon of a definite type in a glass tube of 4 mm inside diameter varied depending on the sampling conditions, i.e., the active carbon tube adsorbed the vapor for a longer period when the sampling rate was slower and the humidity in the flow was low.

Descriptors: COCONUT SHELL WOOD PETROLEUM PITCH

Concept Codes: ECOLOGY-BIOCLIMATOL, BIOMETEOROL(*07504); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(*10050); BIOPHYS-GENERAL BIOPHYS TECH(10504); EXTERN EFF-HUMIDITY(10620); MOVEMENT(12100); TOXICOL-ENVIRONMNTL, INDUSTR(22506); ENVIRON HEALTH-OCCUPATNL HEALTH(37013); ENVIRON HEALTH-AIR, WATR, SL POLLN(*37015); HORTICULT-TROP FRUIT, NUT, PLANTAT(53004); FORESTRY AND FOREST PRODUCTS(53500)

Biosystematic Codes: SPERMATOPHYTA-UNSPECIFIED(25000); PALMAE(25380)

71039577

METABOLIC ACTIVATION OF VINYL CHLORIDE AND VINYL BROMIDE BY ISOLATED HEPATOCYTES AND HEPATIC SINUSOIDAL CELLS

OTTENWAEELDER H; BOLT H M

MED. INST. LUFTHYG. SILIKOSEFORSCH., UNIV., CURLITTSTR. 53, D-4000 DUSSELDORF, FRG.

J ENVIRON PATHOL TOXICOL 4 (1), 1980, 411-418. Coden: JEPTO

Language: ENGLISH

The formation of liver sinusoidal cell tumors after exposure to vinyl chloride led to a survey of hepatocytes and sinusoidal cells isolated from rat liver as to their ability to metabolically activate vinyl chloride and vinyl bromide. Metabolism of these vinyl halides to reactive metabolites is confined primarily to hepatocytes. This favors the theory that in the liver reactive metabolites of vinyl chloride leave the hepatocytes to act on hepatic sinusoidal cells.

Descriptors: RAT CARCINOGENESIS

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL(10060); METABOLISM-GENL STUD, METAB PATHW(13002); DIGESTIVE SYST-GENL STUDS, METHS(14001); DIGESTIVE SYST-PATHOLOGY(*14006); TOXICOL-GENL/EXP STUDS, METHS(*22501); TOXICOL-ENVIRONMNTL, INDUSTR(22-

506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(*24007); ENVIRON HEALTH-AIR, WATR, SL POLLN(37015)

Biosystematic Codes: MURIDAE(86375)

71035047

LOSS OF PHTHALIC-ACID-ESTER FROM POLY VINYL CHLORIDE TUBING INTO VARIOUS FLUIDS

MUELLER J S; BRADLEY R L JR

DEP. FOOD SERVICE, UNIV. WISCONSIN, MADISON, WISCONSIN 53706.

J FOOD PROT 43 (7), 1980, 551-554. Coden: JFPRD

Language: ENGLISH

Migration of phthalic acid esters (PAE) from polyvinyl chloride (Tygon) tubing, approved for use with processed milk and milk products, was measured under conditions simulating normal daily use. Squares of tubing were soaking in water at 18, 44 and 72.degree. C; milk at 38.degree. C; aqueous solutions of 2 chlorinated alkaline cleaners at 62.degree. C and use dilution; and 3 sanitizers at 24.degree. C and use dilution. Each soaking solution was extracted using the AOAC [Association of Official Analytical Chemists] Method for organochlorine pesticides and analyzed quantitatively for PAEs by GLC. Water at 72.degree. C extracted greater amounts of PAEs than water at 18 or 44.degree. C. Milk extracted the least amounts of PAEs; values were usually less than 1 ppb/day. Little difference was seen between the two chlorinated alkaline cleaners. Sanitizers, in general, extracted the greatest quantities of PAEs, averaging about 3 ppb/day. Leaching parents of the individual sanitizers varied. Deformation tests were made on the used squares of tubing with a penetrometer. No change was found compared to samples of unused tubing (control), indicating longer use and greater PAE loss is necessary before tubing flexibility is affected.

Descriptors: MILK TEMPERATURE SANITIZERS LEACHING PATTERNS DEFORMATION TESTS

Concept Codes: GENERAL LABORATORY METHODS(01004); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL STUDIES(10502); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLECUL PROP, MACROMOLEC(10506); EXTERN EFF-PHYSICAL, MECH EFFECTS(10612); EXTERN EFF-TEMPERATURE(10614); EXTERN EFF-HOT(10618); MOVEMENT(12100); FOOD TECH-DAIRY PRODUCTS(*13518); FOOD TECH-EVALNS PHYS, CHEM PRDPS(*13530); FOOD TECH-PREP, PROCESSNG, STORAGE(*13532); TOXICOL-FOOD, RESIDS, ADDIT, PRESRV(*22502); TEMPERATURE-GENL, METHS(23001); DISINFECTION, DISINFECTANTS, STERL(39500); PEST CONTRL GENL/PESTICS/HERBICS(54600)

71032270

EXTRACELLULAR POTASSIUM ION CONCENTRATION AND POTASSIUM ION BALANCE OF THE GASTROCNEMIUS MUSCLE OF THE DOG DURING EXERCISE

HIRCHE H; SCHUMACHER E; HAGEMANN H
LEHRSTUHL FUER ANGEWANDTE PHYSIOL. DER UNIV. ZU KOELN,
ROBERT KOCH STR. 39, D-5000 KOELN 41, FRG.
PFLUEGERS ARCH EUR J PHYSIOL 387 (3). 1980. 231-238.
Codon: PFLAB

Language: ENGLISH

Exercise-induced changes of the extracellular and the venous K⁺ concentrations ([K⁺]_e, [K⁺]_{ven}) were measured continuously in autoperfused dog gastrocnemii using PVC [polyvinyl chloride] liquid membrane electrodes. O₂ consumption ($\dot{V}O_2$), blood flow and performance of the muscles were determined. The muscles were stimulated indirectly and isotonic tetanic contractions (0.2 s) produced every 0.7 s for > 45 min. [K⁺]_e started to increase immediately after the onset of exercise and reached a maximal value of 7.4 meq/l after 4 min of exercise; thereafter it decreased, reaching 5.3 meq/l at the end of the 12 min exercise. After 6 min of recovery, [K⁺]_e became lower than the control level. [K⁺]_{ven} reached maximal values of 5.0 meq/l after 30 s of exercise and thereafter decreased slowly to 3.8 meq/l at the end of exercise. A K⁺ gradient of up to 3 meq/l was observed between the interstitial space and the venous blood. About 30 s after the end of exercise, a net K⁺ uptake of up to 0.3 μ eq/min/g was observed. The K⁺ loss of the muscle fibers reached maximal values of 1.5 μ eq/min/g at 1.5 min after the onset of exercise. Total K⁺ loss was 7% during 12 min of exercise and 12.5% of intracellular K⁺ during 45 min of exercise. The changes of [K⁺]_e correlated closely with performance and $\dot{V}O_2$ during exercise but not during recovery. Blood flow correlated with the changes of [K⁺]_e during exercise and recovery. Apparently, changes of [K⁺]_e of the working muscle might be an important factor regulating exercise hyperemia.

Descriptors: POLY VINYL CHLORIDE LIQUID MEMBRANE ELECTRODE
AUTO PERFUSION OXYGEN CONSUMPTION BLOOD FLOW STIMULATION
ISOTONIC TETANIC CONTRACTION INTERSTITIAL SPACE VENOUS BLOOD
HYPEREMIA

Concept Codes: BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(1-0060); MINERALS(10069); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MEMBRANE PHENOMENA(*10508); EXTERN EFF-ELECTR,MAGNET,-GRAVITY(10610); PHYSIOLOGY-EXERCISE,PHYS THERAP(*12010); MINERALS(*13010); BLOOD/BOOY FLDS-BLOOD,LYMPH STUD(*15002); MUSCLE SYST-PHYSIOL,BIOCHEM(*17504)

Biosystematic Codes: CANIDAE(85765)

determining the influence of the microenvironment of cages made of PCV [polyvinyl chloride] tiles, floor lining, lentex upon their weight and length gain. The animals lived in the cages from birth to maturity. They were compared to those living in control cages made of wood and glass. The lowest weight and length values, independently of sex, were observed in hamsters bred in PCV cages. Similar differences were noted in cages covered with floor lining, especially within the 1st wk of life. The hamsters bred in lentex cages did not show such differences in development.

Descriptors: AGE POLY VINYL CHLORIDE

Concept Codes: BEHAVIOR BIOL-ANIMAL BEHAVIOR(*07003); BIOPHYS-BIOENGINEERING(10511); PHYSIOLOGY-COMPARATIVE(12003); REPRODUCT SYST-GENL STUDS,METHS(16501); REPRODUCT SYST-PHYSIO-L,BIOCHEM(*16504); GERONTOLOGY(24500); PEDIATRICS(25000); DEVELOPMNTL BIOL-GEN MORPHGENSIS(*25508); LABORATORY ANIMALS-GENL STUDS(*28002)

Biosystematic Codes: CRICETIDAE(86310)

71031948

EVALUATION OF WEIGHT GAIN AND GROWTH OF 3 GENERATIONS OF HAMSTERS BRED IN CAGES MADE OF VARIOUS CONSTRUCTION MATERIALS

GROCHOWSKI J; STANKIEWICZ D; PIATKOWSKA E
INST. PEDIATR., AKAO. MED., UL. WIELICKA 265, 30-663 KRAKOW.
ZWIERZETA LAB 16 (1-2). 1979 (RECD. 1980). 39-46.

Codon: ZWLAA

Language: POLISH

Three generations of hamsters were subjected to studies to

71028109

RAPID ADSORPTIVE LOSS OF NITRO GLYCERIN FROM AQUEOUS SOLUTION TO PLASTIC

SOKOLOSKI T D; WU C-C; BURKMAN A M
DIVISION OF PHARM., COLLEGE OF PHARMACY, THE OHIO STATE
UNIV., COLUMBUS, OHIO 43210 USA
INT J PHARM (AMST) 6 (1). 1980. 63-86. Coden: IJPHID
Language: ENGLISH

In short time periods the loss of nitroglycerin, used for the treatment of myocardial infarction and in open heart surgery in man, from normal saline solutions to plastic polyvinylchloride tubing is treated as an adsorption process. The rate of adsorption is rapid and can be quantified as an apparent 1st-order process. The half-life of the loss at 21.degree. C is 2.8 min. Temperature dependence of the rate constant gives a non-linear Arrhenius dependence between 6.5 and 21.degree. C. Equilibrium amounts of nitroglycerin adsorbed at several constant bulk concentrations and 3 temperatures show a type III adsorption behavior. At reduced concentrations of 0.1-0.8, the data conform to a Polanyi adsorption potential theory treatment. The amount of nitroglycerin adsorbed increases as temperature increases. This unusual behavior may be explained by analogy to systems where similar anomalies were reported. The theoretical approaches presented here for a practical case provide a basis for studying systems involving general adsorptive phenomena.

Descriptors: HUMAN MYO CARDIAL INFARCTION OPEN HEART SURGERY TEMPERATURE POLY VINYL CHLORIDE TUBING

Concept Codes: BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(+10060); MINERALS(10069); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLECUL PRDP,MACROMOLEC(10506); EXTERN EFF-TEMPERATURE(10614); ANATOMY/HISTOL-SURGERY(11105); PATHOL-OGY-THERAPY(12512); CARDIOVASC SYST-GENL STUDS,METHS(14501); CARDIOVASC SYST-HEART PATHOLOGY(+14506); CARDIOVASC SYST-BLD VESS PATHOL(+14508); MUSCLE SYST-PATHOLOGY(17506); PHARMACOL-GENERAL STUDIES(+22002); PHARMACOL-DRUG METAB,METAB STIMU(22003); PHARMACOL-CLINICAL PHARMACOL(22005); PHARMACOL--CARDIOVASC SYST(+22010); TOXICOL-PHARMACOLOGICAL(+22504); TEMPERATURE-GENL,METHS(23001)

Biosystematic Codes: HOMINIDAE(86215)

71027428

CALIBRATION OF A PERMEATION TUBE AND A DIFFUSION TUBE WITH AN ELECTRO BALANCE

SODA R
NATL. INST. IND. HEALTH, 21-1 NAGAO 6 CHOME, TAMO, KAWASAKI
213, JPN.
IND HEALTH 18 (1). 1980. 41-54. Coden: INHEA
Language: ENGLISH

An electrobalance equipped with a hang down assembly was used to calibrate a permeation rate of vinyl chloride in a permeation tube and a diffusion rate of organic solvent in a diffusion tube [used for environmental analysis]. The permeation rate obtained by the electrobalance coincided fairly with that measured by a chemical balance. Gas chromatographic analysis of organic solvent vapor in the

dynamic mixture prepared by the diffusion tube technique showed that diffusion rate obtained by the electrobalance was practically close to that obtained by the gas chromatography. Calculated diffusion rate was also in good coincidence with the value observed by the electrobalance. Several advantages were presented to calibrate the permeation tube and the diffusion tube by the electrobalance.

Descriptors: VINYL CHLORIDE ENVIRONMENTAL ANALYSIS

Concept Codes: GENERAL LABORATORY METHODS(01004); GENERAL LABORATORY APPARATUS(01006); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100); TOXICOL-ENVIRONMNTL,INDUSTRI(+22506); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

71021811

COULTER COUNTER AND LIGHT TRANSMISSION STUDIES OF PLATELETS EXPOSED TO LOW TEMPERATURE ADP EDTA AND STORAGE AT 22 CELSIUS
HOLME S; MURPHY S

CARDEZA FOUND. HEMATOL. RESEARCH, 1015 WALNUT ST., PHILADELPHIA, PA. 19107.

J LAB CLIN MED 96 (3). 1980. 480-493. Coden: JLCMA

Language: ENGLISH

Changes in apparent platelet mean volume (V) as determined by Coulter Counter were compared with changes in light transmission properties of platelets in plasma when the platelets were exposed to low temperature, ADP, EDTA or storage for transfusion at 22.degree. C. Two light transmission parameters were determined. One was recently described; it measures the shape change of the platelets. The other was quantitated as the average extinction (optical density) per platelet (e). With fresh PRP from 29 normal donors a strong positive correlation ($r = 0.90$) was found between e and V; thus e appears to reflect the volume of the platelets. When varying degrees of shape change were produced by exposure of citrated PRP to low temperatures or ADP, there was a linear correlation between percent shape change and the percent increase in V and e. A complete shape change as produced by $10 \mu\text{M}$ ADP increased e and V 19 and 24%, respectively. Spherical platelets obtained from blood anticoagulated with EDTA showed an increase in V that exceeded what could be produced by shape change alone and an associated decrease in e when compared with platelets in citrated plasma. This change progressed as hours passed after blood collection. Light-scattering theory would predict this if cellular swelling occurs. The extinction measurements were then applied, complemented with Coulter volume determinations, to the study of platelet morphology during storage for transfusion at 22.degree. C. Platelet concentrates with high platelet counts stored in containers constructed of polyvinylchloride are exposed to hypoxic conditions which lead to accelerated glycolysis, pH fall and platelet shape change. As the platelet concentrate pH fell below 6.7, there was a progressive increase in V beyond what could be accounted for by shape change and a proportionate decrease in e. This swelling may reflect the inability of the platelets to maintain normal intracellular volume under hypoxic stress. There 3 measurements are objective, quantitative and complementary; they reflect platelet morphology and can be used in the study of in vitro platelet behavior.

Descriptors: HUMAN MEAN VOLUME SHAPE OPTICAL DENSITY ANTICOGULANT CITRATE TRANSFUSION POLY VINYL CHLORIDE STORAGE CONTAINER HYPOXIA GLYCOLYSIS

Concept Codes: GENERAL LABORATORY APPARATUS(01006); MICROSCOPY-CYTOLOG,CYTOCHEM TECH(01054); CYTOLOGY/CYTOCHEM-HUMAN(02508); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); BIOCHEM STUD-CARBOHYDR.(10068); BIOPHYS-GENERAL BIOPHYS TECH(10504); EXTERN EFF-COLD(10616); ANATOMY/HISTOL-REGEN,TRANSPLANT(11107); ANATOMY/HISTOL-MICRO,ULTRAMICRSC(11108); METABOLISM-ENERGY,RESPIRATION(13003); METABOLISM-CARBOHYDRATES(13004); BLOOD/BODY FLDS-GENL STUDS,METHS(15001); BLOOD/BODY FLDS-BLOOD CELL STUDS(15004); PHARMACOL-BLOOD,HEMATO AGENTS(22008);

TOXICOL-GENL/EXP STUDS,METHS(22501); TEMPERATURE-GENL,METHS(23001); TEMPERATURE-HYPO,HYPERThERMIA(23006); IN VITRO STUDS-CELLULR,SUBCELL(32600)

Biosystematic Codes: HOMINIDAE(86215)

71020897

HEMOLYTIC PROPERTIES OF SPECIAL MATERIALS EXPOSED TO A SHEAR FLOW AND PLASMA CHANGES WITH SHEAR

MONROE J M; LIJANA R C; WILLIAMS M C

CHEM. ENG. DEP., UNIV. CALIF., BERKELEY, CALIF. 94720, USA.

BIOMATER MED DEVICES ARTIF ORGANS 8 (2). 1980. 103-144. Coden: BMDOA

Language: ENGLISH

Types of materials (3) of special interest to the NIH Biomaterials Program were evaluated for their tendency to induce hemolysis when exposed to a laminar [human] blood flow between rotating parallel disks. The 3 types were as follows: TDMAC[Trifluoromethylmethyl ammonium chloride]-heparinized surfaces of polycarbonate (Lexan), silicone rubber and polyvinylchloride; polyacrylamide hydrogels (PAH) prepared by three different chemical processes; and fluorinated ethylcellulose (FEC). All were compared to a polyethylene (PE) standard, to normalize data for variations in blood quality. Multiple tests, showing good reproducibility, demonstrated: FEC is a very low hemolyzer, about 60% of PE; the PAH surfaces are poorer than PE, giving 120-220% of PE hemolysis depending on fabrication and shipment history; and TDMAC-heparinized surfaces are highly hemolytic, in the range 160-440% of PE depending on substrate. Plastics used as substrates for the coatings cited above were also evaluated: Delrin, Lexan, Nylon 6, propylene and a polyether urethane. Tentative explanations are advanced for hemolytic variations, in terms of surface chemistry and material interactions with the blood.

Descriptors: HUMAN TRI FLUOROMETHYL AMMONIUM CHLORIDE HEPARIN POLY CARBONATE SILICONE RUBBER POLY VINYL CHLORIDE POLY ACRYLAMIDE HYDRO GELS FLUORINATED ETHYL CELLULOSE POLY ETHYLENE DELRIN LEXAN NYLON 6 PROPYLENE POLY ETHER URETHANE

Concept Codes: BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-CARBOHYDR.(10068); EXTERN EFF-PHYSICAL,MECH EFFECTS(10612); MOVEMENT(12100); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(15002); BLOOD/BODY FLDS-BLOOD CELL STUDS(15004); TOXICOL-GENL/EXP STUDS,METHS(22501)

Biosystematic Codes: HOMINIDAE(86215)

71020833

EXPERIMENTAL APPLICATION OF GAS CHROMATOGRAPHIC HEADSPACE ANALYSIS TO PRIORITY POLLUTANTS

UMBREIT G R; GROB R L
GREENWOOD LABORATORIES, 903 E. BALTIMORE PIKE, KENNETT SQUARE, PA 19348.

J ENVIRON SCI HEALTH PART A ENVIRON SCI ENG 15 (5). 1980. 429-466. Coden: JESED.

Language: ENGLISH

A general procedure for the headspace analysis of volatile organic pollutants in water is examined in detail. Theoretical and practical considerations are discussed in depth. The experimental demonstration of the method is applied to the analysis of .mu.g/l concentrations of methyl chloride, ethyl chloride and vinyl chloride. Details of field sampling, calibration, analysis, aliquot transfer and standard preparation are all addressed. Stability of prepared samples over the course of 16 days was examined. With all data included over the course of the 16 day investigation, the standard deviation of analyses of the individual components is approximately +/- 20% of each average at nominal 30 .mu.g/l initial concentrations.

Descriptors: WATER ANALYSIS METHYL CHLORIDE ETHYL CHLORIDE VINYL CHLORIDE

Concept Codes: ECOLOGY-WATR RESRCH.FISHERY BIOL(07517); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL-(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(+10504); MOVEMENT(12100); TOXICOL-ENVIRONMNTL,INDUSTR(+2-2506); ENVIRON HEALTH-SEWG DISP.SANITAR(+37014); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

71016037

EFFICACY OF PERMETHRIN EAR TAGS AGAINST FACE FLIES MUSCA-AUTUMNALIS AND HORN FLIES HAEMATOBIA-IRRITANS ON PASTURED CATTLE

KNAPP F W; HERALD F

DEP. ENTOMOL., UNIV. KY., LEXINGTON, KY. 40546, USA.

SOUTHWEST ENTOMOL 5 (3). 1980. 183-186. Coden: SENTD

Language: ENGLISH

Two different ear tags, polyvinylchloride (PVC) and polyurethane (PU), both containing 5 and 10% permethrin, were placed in each ear of cows and heifers. Face flies on the cattle were reduced throughout the test period by an average of 21 and 74% with the 5 and 10% PVC tags and 49 and 59% with the 5 and 10% PU tags, respectively. No horn flies were observed on any treated cattle during the 1st 12 wk of the test period.

Descriptors: COW HEIFER POLY VINYL CHLORIDE POLY URETHANE PERMETHRIN

Concept Codes: ECOLOGY-ANIMAL(07508); BIOCHEM STUD-GENERAL(-10060); CHORDATE BODY REGNS-HEAD(11304); TOXICOL-GENL/EXP STUDS,METHS(22501); ANIMAL PRODUCTN-GENL STUDS,METHS(+26502); PEST CONTRL GENL/PESTICS/HERBICS(54600); ECONOM ENTOMOL-ANIMAL PESTS(+60012); ECONOM ENTOMOL-CHM PHYS CONTRL(+60016); PARASITOLOGY-VETERINARY(+60506)

ABSTRACTS OF ENTOMOLOGY(96000)

71014766

INTERACTION OF HUMAN ALPHA THROMBIN WITH ARTIFICIAL SURFACES AND REACTIVITY OF ADSORBED ALPHA THROMBIN

CHUANG H Y K; MOHAMMAD S F; SHARMA N C; MASON R G
DEP. PATHOL., COLL. MED., UNIV. UTAH, SALT LAKE CITY, UTAH 84132, USA.

J BIOMED MATER RES 14 (4). 1980. 467-476. Coden: JMBRB
Language: ENGLISH

Thrombin adsorbed onto Cuprophane or poly(vinyl chloride) (PVC) was inactive with respect to amidase activity. Desorbed thrombin from these 2 artificial surfaces showed only low amidase activity. In the presence of albumin the surface-bound thrombin appeared to exhibit increased amidase activity. This apparent activity may be due to the action of thrombin displaced from the surfaces by albumin. Thrombin bound to Cuprophane or PVC was capable of reacting with antithrombin III (AT III) only in the presence of heparin. AT III bound to Cuprophane or PVC was unable to react with thrombin in either the absence or presence of heparin. Fibrin formation on or at surfaces was demonstrated by phase contrast microscopy when Cuprophane or PVC pretreated with thrombin and carefully rinsed was incubated in a fibrinogen solution. This fibrin formation is time dependent and likely is the result of direct interaction of adsorbed thrombin with fibrinogen in solution. Glass, Cuprophane and PVC pretreated with thrombin attracted more platelets than respective untreated surfaces. The enhancing effect of adsorbed thrombin on platelet adhesion was similar to the enhancing effect of adsorbed fibrinogen. Thrombin adsorbed onto PVC and crosslinked by glutaraldehyde treatment was antigenically active with a 125I-labeled monospecific antithrombin IgG produced in rabbits. No other plasma proteins adsorbed singly or from plasma or serum onto PVC reacted significantly with the antithrombin IgG preparation. The possible significance of these observations is discussed.

Descriptors: RABBIT CUPROPHANE POLY VINYL CHLORIDE ANTI THROMBIN III FIBRINOGEN PLATELETS HEPARIN

Concept Codes: RADIATION BIOL-RADTN,ISOTOP TECH(06504); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,A-MINO ACID(10064); BIOCHEM STUD-CARBOHYDR.(10068); MINERALS(100-69); BIOPHYS-BIOENGINEERING(+10511); ENZYMES-METHODS(10804); ENZYMES-CHEM,PHYSICAL STUDIES(+10806); BLOOD/BODY FLDS-GENL STUDS,METHS(+15001); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(+15002); BLOOD/BODY FLDS-BLOOD CELL STUDS(+15004); PHARMACOL-BLOOD,HEM-AIO AGENTS(22008)

Biosystematic Codes: LEPORIDAE(86040)

71013877

THE EFFECT OF ETHYLENE OXIDE AND CHEMICAL DISINFECTANT RESIDUES UPON THE LARYNGEAL AND TRACHEAL MUCOSA OF RABBITS

STAR E G; CASELITZ J; LOENING T
 INST. ANAESTHESIOLOG., UNIVERSITAETSKLIN., LANGENBECKSTR. 1,
 D-6500 MAINZ, W. GER.
 ZENTRALBL BAKTERIOLOG 1 ABT ORIG B HYG KRANKENHAUSHYG
 BETRIEBSHYG PRAEV MED 170 (5-6). 1980. 539-547. Coden:
 ZAOMD

Language: GERMAN

Residues of ethylene oxide and chemical disinfectants in anesthesia supplies can cause side effects in patients. For this reason 37 New Zealand rabbits were intubated with polyvinyl chloride endotracheal tubes of 3.0-3.5 mm inner diameter. The tubes were sterilized with ethylene oxide and aerated for 24 or 48 h in room air. At this time they still held 600 and 80 ppm ethylene oxide as determined by gas chromatography. For comparison tubes were soaked in 2% activated Cidex or 10% GigaSept and watered for 1 h in sterile water. 5 nonintubated animals served as controls. All rabbits were sacrificed after 48 h and larynx and trachea examined microscopically for histological changes. In all intubated animals hyperemia, edema formation and cellular infiltration were found. There were epithelial erosions in about 60%, and 4 ulcers. The findings were more pronounced in animals which had been intubated with tubes containing 600 ppm ethylene oxide. Almost all tubes cause mechanical irritation of the respiratory tract. Additional chemical trauma is not to be expected if they are watered adequately after treatment with disinfecting solutions or aerated sufficiently after ethylene oxide sterilization.

Descriptors: HUMAN COMPARISON CIDEX GIGASEPT POLY VINYL CHLORIDE TRAUMA EDEMA HYPEREMIA ANESTHESIA HISTOLOGY

Concept Codes: MICROSCOPY-HISTOL,HISTOCHEM TECH(01056); CYTOLOGY/CYTOCHEM-ANIMAL(02506); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); EXTERN EFF-PHYSICAL,MECH EFFECTS(10612); ANATOMY/HISTOL-SURGERY(11105); ANATOMY/HISTOL-MICRO,ULTRAMICRSC(11108); MOVEMENT(-12100); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-INFLAMMATN,INFLAM DIS(12508); METABOLISM-GENL STUD,METAB PATHW(13002); BLOOD/BODY FLDS-OTHER BODY FLDS(15010); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006); NERVOUS SYST-GENL STUDS,METHS(20501); PHARMACOL-DRUG METAB,METAB STIMU(22003); PHARMACOL-NEUROPHARMACOLOG(22024); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-PHARMACOLOGICAL(+22504); DISINFECTION,DISINFECTANTS,STERIL(+39500)

Biosystematic Codes: LEPORIDAE(86040); HOMINIDAE(86215)

Coden: IAOIID

Language: ENGLISH

The activity of microsomal cytochrome P-450 monooxygenase and ultrastructure of the liver were studied in rats exposed dynamically to 50, 500 and 20,000 ppm of vinyl chloride (VC) [an industrial hepatotoxin, mutagen and carcinogen] over 10 mo. After 1 and 3 mo. of exposure to 500 and 20,000 ppm of VC, the cytochrome P-450 level was slightly lower than in the control animals and upon continuation of exposure it was restored to the original level accompanied by a slight increase of aniline p-hydroxylase activity. Liver enlargement, developed in the course of the exposure, was accompanied by ultrastructural alterations beginning in the 3rd mo. of exposure to all VC concentrations. Development of hepatic alterations (hypertrophy of smooth and rough endoplasmic reticulum, swelling of mitochondria, accumulation of lipid droplets, focal cytoplasmic degradation) is discussed with regard to the activity of microsomal monooxygenase system in metabolizing VC to toxic metabolites.

Descriptors: HEPATO TOXIN MUTAGEN CARCINOGEN CYTOCHROME P-450 MONO OXYGENASE ANILINE P HYDROXYLASE

Concept Codes: MICROSCOPY-CYTOLOG,CYTOCHEM TECH(01054); ELECTRON MICROSCOPY(01058); CYTOLOGY/CYTOCHEM-ANIMAL(02506); GENETICS/CYTOGENET-ANIMAL(+03506); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOCHEM STUD-LIPIDS(10066); BIOPHYS-MEMBRANE PHENOMENA(10508); ENZYMES-GEN,COMPAR STUD,COENZYMES(10802); ENZYMES-METHODS(10804); ENZYMES-PHYSIOLOGICAL STUDIES(+10808); ANATOMY/HISTOL-MICRO,ULTRAMICRSC(+11108); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-LIPIDS(13006); METABOLISM-PROTNS,PEPTDS,AM ACDS(13012); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-ANATOMY(14002); DIGESTIVE SYST-PATHOLOGY(+14006); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015)

Biosystematic Codes: MURIDAE(86375)

71013831

MONO OXYGENASE ACTIVITY AND ULTRASTRUCTURAL CHANGES OF LIVER IN THE COURSE OF CHRONIC EXPOSURE OF RATS TO VINYL CHLORIDE

WISNIEWSKA-KNYPL J M; KLIMCZAK J; KOLAKOWSKI J
 DEP. BIOCHEM., INST. OCCUP. MED., TERESY 8, 90-950 LODZ,
 POL.

INT ARCH OCCUP ENVIRON HEALTH 46 (3). 1980. 241-249

71013825

VINYL CHLORIDE DETECTION AT SUB PARTS-PER-BILLION LEVELS WITH A CHEMICALLY SENSITIZED ELECTRON CAPTURE DETECTOR

GOLDAN P D; FEHSENFELD F C; KUSTER W C; PHILLIPS M P; SLEVERS R E

AERONOMY LAB., ENVIRON. RES. LAB., NATL. OCEANIC ATMOSPHERIC ADM., BOULDER, COLO. 80303.

ANAL CHEM 52 (11). 1980. 1751-1754. Coden: ANCHA

Language: ENGLISH

The sensitivity of an otherwise conventional 63Ni electron capture detector to vinyl chloride was increased by almost 103 by doping the N2 carrier gas with 10-50 ppm of N2O. The vinyl chloride detection limit for a signal-to-noise ratio of 2 using a porous silica packed column was lowered from 1 .times. 1013 molecules (.apprx. 1000 pg) per sample to 1.4 .times. 1010 molecules (.apprx. 1.4 pg) per sample, the latter limit corresponding to a volume mixing ratio of 0.5 ppb for a 1-standard cm3 air sample. This dramatic improvement is achieved by a chemical sensitization within the detector arising from the reaction of vinyl chloride with O- formed by the reaction of N2O with thermal electrons at 350.degree. C. By the use of this technique, vinyl chloride can be easily monitored in industrial environments either by in-situ sampling or time averaged grab sampling at sub-ppb levels.

Descriptors: INDUSTRIAL MONITORING

Concept Codes: SOCIAL BIOL/HUMAN ECOLOGY(05500); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

71012488

CONTROL OF MEMBRANE POTENTIAL BY EXTERNAL HYDROGEN ION CONCENTRATION IN BACILLUS-SUBTILIS AS DETERMINED BY AN ION SELECTIVE ELECTRODE/

HOSOI S; MOCHIZUKI N; HAYASHI S; KASAI M

DEP. BIOPHYS. ENG., FAC. ENG. SCI., OSAKA UNIV., TOYONAKA, OSAKA 560, JPN.

BIOCHIM BIOPHYS ACTA 600 (3). 1980. 844-852. Coden: BBACA

Language: ENGLISH

The membrane potential of intact bacteria was monitored by measuring the tetraphenylphosphonium ion distribution across the membrane using poly-(vinyl chloride) matrix-type electrode selective to tetraphenylphosphonium ion. The tetraphenylphosphonium ion was not counter-transported against H+ movement. The membrane potential of *B. subtilis* was estimated to be 80-120 mV inside-negative at external pH 7. The effect of the external pH on the membrane potential was studied. It varied from 30-40 mV/decade change in the external [H+] in the pH region of greater than 6.5. Increasing pH making it more inside-negative. The addition of carbonyl cyanide *m*-chlorophenylhydrazone depolarized the membrane, and the membrane potential approached the H+ equilibrium potential. The addition of *N,N'*-dicyclohexylcarbodiimide did not abolish

the pH dependence of the membrane potential. Increasing the external [K+] did not affect the pH dependence. CN- partially depolarized the membrane. A parallel conductance model for membrane potential could explain the results qualitatively.

Concept Codes: BIOCHEM STUD-GENERAL(10060); MINERALS(10069); BIOPHYS-GENERAL STUDIES(10502); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MEMBRANE PHENOMENA(+10508); BIOPHYS-BIOENERGETICS(+10510); METABOLISM-ENERGY,RESPIRATION(+13003); BACTERIA-MORPHOLOGY,CYTOLOGY(30500); BACTERIA-PHYSIOLOGY,BIOCHEMISTRY(+31000); MICROBIOLOG APPARAT-,METHS,MEDIA(32000)

Biosystematic Codes: BACILLACEAE(05610)

71011323

IN-VITRO ACTIVATION OF 1,2-DICHLOROETHANE BY MICROSOMAL AND CYTOSOLIC ENZYMES

GUENGERICH F P; CRAWFORD W M JR; DOMORADZKI J Y; MACDONALD L; WATANABE P G

DEPT. BIOCHEMISTRY AND CENTER IN ENVIRONMENTAL TOXICOLOGY, VANDERBILT UNIV. SCH. MED., NASHVILLE, TENNESSEE 37232.

TOXICOL APPL PHARMACOL 55 (2). 1980. 303-317. Coden: TXAPA

Language: ENGLISH

[1,2-¹⁴C]1,2-Dichloroethane [a tumorigenic industrial chemical] was metabolized by rat liver enzyme systems to nonvolatile products and to products irreversibly bound to protein and calf thymus DNA. Cytosolic metabolism to all 3 types of metabolites was dependent upon the presence of reduced glutathione (GSH), suggesting the role of GSH transferases. Microsomal metabolism to all 3 types of products occurred via mixed function oxidation; microsomal GSH transferase(s) catalyzed the formation of metabolites irreversibly bound to DNA. GSH blocked microsomal mixed function oxidase (MFO)-catalyzed binding to protein but stimulated binding to DNA in a synergistic manner. 2-Chloroacetaldehyde, S-(2-chloroethyl)-GSH and 1-chloro-2-chloroethane are proposed as major species involved in irreversible binding but vinyl chloride, 2-chloroethanol and chloroethyl radicals are not. The microsomal MFO, synergistic microsomal MFO-GSH transferase and cytosolic GSH transferase systems differed in their preferences for irreversible binding of label from dichloroethane to various homopolyribonucleotides and only the latter system produced metabolites mutagenic to *Salmonella typhimurium* TA 1535. Several 1,2-dichloroethane activation pathways are operative which produce different adducts; the relative contribution of each pathway to total nonvolatile metabolites, mutagenic metabolites and DNA and protein adducts under these in vitro assay conditions was estimated.

Descriptors: SALMONELLA-TYPHIMURIUM RAT 2 CHLORO ACETALDEHYDE S-2 CHLOROETHYL GLUTATHIONE 1 CHLORO-2-CHLOROETHANE MUTAGEN TUMORIGEN GLUTATHIONE TRANSFERASES CALF THYMUS DNA

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); GENETICS/CYTOGENET-ANIMAL(+03506); COMPARATIVE BIOCHEM-GENL STUDIES(1001-0); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACID,PURINS,PYRIM(10062); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); REPLICATN,TRANSCRIPTN,TRANSLATN(10300); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); BIOPHYS-MEMBRANE PHENOMENA(10508); ENZYMES-METHODS(10804); ENZYMES-PHYSIOLOGICAL STUDIES(+10808); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-PROTNS,PEPTDS,AM ACDS(13012); METABOLISM-NUCL ACID,PURINS,PYRIM(-13014); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-PATHOLOGY(+14006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(1500-8); ENDOCRINE SYST-THYMUS(17016); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,INDUS(R(22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); BACTERIAL AND VIRAL GENETICS(31500); MICROBIOLOG APPARAT,METHS,MEDIA(32000); IN VITRO STUDS-CELLULR,SUBCELL(32600); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015)

Biological Source: ENTEROBACTERIACEAE(04810); BOWDIAE(052-

15); MURIDAE(86375)

71007659

HUMAN RED BLOOD CELLS WITH NORMAL OR IMPROVED OXYGEN TRANSPORT FUNCTION PREPARED AND FROZEN IN THE PRIMARY POLY VINYL CHLORIDE PLASTIC BLOOD COLLECTION CONTAINER

VALERI C R; VALERI D A; DENNIS R C; VECCHIONE J J; EMERSON C P

NAV. BLOOD RES. LAB., BOSTON UNIV. SCH. MED., 615 ALBANY ST., BOSTON, MASS. 02118, USA.

REV FR TRANSFUS IMMUNO-HEMATOL 22 (5). 1979 (RECD. 1980). 467-486. Coden: RFTID

Language: ENGLISH

This is a report of a new system for freezing human red blood cells [RBC] in the same polyvinyl chloride plastic container in which the blood is collected and separated into components. This polyvinyl chloride plastic collection bag with integrally attached transfer packs for blood collection, component separation RBC biochemical modification, freezing, storage and post-thaw dilution before washing, represents a major advancement in the freeze-preservation process. The label with the donor's blood type and identification number affixed to the bag at the time of collection remains in place throughout the freezing and thawing process. The transfused RBC are of superior quality, and the processing cost is less than with other methods of freeze-preservation. There is a lower risk of contamination with these RBC because manipulation of the product is kept at a minimum. Rejuvenation a bioengineering process by which outdated RBC can be salvaged, can be incorporated into the preservation process using one of the attached transfer packs of the primary collection bag. This process has been introduced as a possible means of alleviating the dramatic blood shortages which occur periodically. RBC may also be rejuvenated after storage in the liquid state to increase their 2,3 DPG [diphosphoglycerate] and ATP levels to 150-200% of normal, and these RBC with improved O₂ transport function were administered to anemic patients with and without cardiopulmonary insufficiency, patients undergoing cardiopulmonary bypass and treatment with hypothermia during cardiac surgery and in instances where nonhemolytic transfusion reactions might be expected.

Descriptors: STORAGE TRANSFUSED BLOOD CELLS COST CONTAMINATION RISK REJUVENATION 2 3 DI PHOSPHO GLYCERATE ATP ANEMIA CARDIO PULMONARY INSUFFICIENCY CARDIO PULMONARY BYPASS HYPO THERMIA CARDIAC SURGERY NONHEMOLYTIC TRANSFUSION REACTIONS

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(02508); BIOCHEM-GASES(+10012); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACID,PURNS,PYRM(10062); BIOPHYS-BIOENGINEERING(+10511); EXTERN EFF-COLD(10616); ANATOMY/HISTOL-SURGERY(11105); PATHOLOGY-THERAPY(12512); CARDIOVASC SYST-HEART PATHOLOGY(14506); BLOOD/BODY FLDS-GENL STUDS,METHS(+15001); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(15002); BLOOD/BODY FLDS-BLOOD CELL STUDS(+15004); BLOOD/BODY FLDS-BLD,LYM,RES PATH(15006); RESPIRATORY SYST-PATHOLOGY(16006); TEMPERATURE-CRYOBIOLOGY(23004); TEMPERATURE-HYPO,HYPERTHERMIA(23006); IMMUNOL/IMMUNOCHEM-IMMUNOHEMATOL(34506)

Biosystematic Codes: HOMINIDAE(86215)

71002319

FATE OF SALMONELLA-INFANTIS STAPHYLOCOCCUS-AUREUS AND HAFNIA-ALVEI IN VACUUM PACKAGED BEEF PLATE PIECES DURING REFRIGERATED STORAGE

KENNEDY J E JR; OBLINGER J L; WEST R L
FOOD SCI. HUM. NUTR. DEP., IFAS, UNIV. FLA., GAINESVILLE, FLA. 32611, USA.

J FOOD SCI 45 (5). 1980. 1273-1277, 1300. Coden: JFDSA
Language: ENGLISH

The fate of *S. infantis*, *S. aureus* and *H. alvei* inoculated onto vacuum packaged and polyvinylchloride (PVC) packaged fresh beef plate pieces after 0, 3, 7, 14, 21 and 28 days of storage at 1.7 degree C was investigated. Aerobic plate counts (APC) of representative beef pieces were also monitored during storage and the effect of heat shrinking on both inocula and APC in vacuum packaged samples determined. APC of vacuum packaged beef pieces increased slower and attained lower final numbers than did PVC wrapped pieces. Levels of *S. infantis* in PVC and vacuum packaged samples declined at similar rates during 28 days of storage with overall decreases of 52 and 55%, respectively. The most rapid decreases occurred during the 1st wk of storage. *S. aureus* levels in PVC and vacuum packaged samples declined at similar rates during 28 days of storage with overall decreases of 90 and 80%, respectively. *H. alvei* increased in numbers by approximately 4.45 and 4.60 log cycles/g in vacuum and PVC packaged beef pieces, respectively, during 28 days of storage. Levels of inocula in vacuum packaged samples were significantly lower initially and during storage than respective inocula in PVC packaged samples. Heat shrinkage of vacuum packages had no significant effect on levels of inocula or subsequent APC.

Descriptors: POLY VINYL CHLORIDE AEROBIC PLATE COUNTS HEAT SHRINKAGE

Concept Codes: BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); EXTERN EFF-PRESSURE(10606); EXTERN EFF-TEMPERATURE(10614); EXTERN EFF-COLD(+10616); EXTERN EFF-HOT(10618); METABOLISM-ENERGY,RESPIRATION(13003); FOOD TECH-MEAT,MEAT BY-PRODUCTS(+13516); FOOD TECH-EVALNS PHYS,CHEM PROPS(+13530); FOOD TECH-PREP,PROCESSNG,STORAGE(+13532); TEMPERATURE-GENL,METHS(23001); TEMPERATURE-CRYOBIOLOGY(23004); BACTERIA-PHYSIOLOGY,BIOCHEMISTRY(31000); MICROBIOLOG APPARAT,METHS,MEDIA(32000); MED/CLIN MICROBIOL-GEN,METH,TECH(36001); MED/CLIN MICROBIOL-BACTERIOLOGY(+36002); PUB HEALTH-LAB METHS(37006); PUB HEALTH-INANIMATE DIS VECTORS(37060); PUB HEALTH MICROBIOL(+37400); FOOD/INDUS MICRO-FD/BEV SP CNTAM(+39002)

Biosystematic Codes: BACTERIA-UNSPECIFIED(04000); ENTEROBACTERIACEAE(04810); MICROCOCCACEAE(05510); BOVIDAE(85715)

71002239

PREPARATION AND PROPERTIES OF BETA GLUCURONIDASE EC-3.2.1.31 IMMOBILIZED ON A POLY VINYL CHLORIDE MEMBRANE

HIROSE S; HAYASHI M; TAMURA N; KARUBE I; SUZUKI S
CENT. RES. LAB., MITSUBISHI PETROCHEM. CO. LTD., AMI,
INASHIKI, IBARAGI 300-03, JPN.

J MOL CATAL 9 (1). 1980. 115-124. Coden: JMCAD

Language: ENGLISH

.beta.-Glucuronidase [from bovine liver, EC 3.2.1.31] was immobilized on various carriers. .beta.-Glucuronidase immobilized on a polyvinylchloride (PVC) membrane showed the highest activity (300 mU/g wet carrier). Then .beta.-glucuronidase was immobilized on various PVC membranes. The highest activity was observed when .beta.-glucuronidase was immobilized on a swollen PVC membrane. The membrane prepared from the casting solution of 8% PVC was suitable for the immobilization of .beta.-glucuronidase. The activity yield of .beta.-glucuronidase-PVC membrane was from 30-50%. No significant difference in pH and temperature stabilities was observed between immobilized .beta.-glucuronidase and native .beta.-glucuronidase. The .beta.-glucuronidase-PVC membrane retained its original activity for 2 mo. at 5.degree. C.

Descriptors: BOVINE LIVER

Concept Codes: BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOPHYS-BIOENGINEERING(+10511); EXTERN EFF-TEMPERATURE(10614); ENZYMES-METHODS(+10804); ENZYMES-CHEM,PHYSICAL STUDIES(+10806); DIGESTIVE SYST-PHYSIOL,BIOCHEM(14004); TEMPERATURE-GENL,METHS(23001)

Biosystematic Codes: BOVIDAE(85715)

71000557

AN IN-VITRO EVALUATION OF A NEW PLASTICIZER FOR POLY VINYL CHLORIDE MEDICAL DEVICES

JACOBSON M S; KEVY S V; PARKMAN R; WESOLOWSKI J S

DEP. MED., CHILD. HOSP. MED. CENT., BOSTON, MASS., USA.

TRANSFUSION (PHILA) 20 (4). 1980. 443-447. Coden: TRANA

Language: ENGLISH

The rate of Hatcol-200 (H-200) leaching from polyvinylchloride (PVC) by serum is 1/100 that of di-2-ethylhexyl phthalate (DEHP) as determined by radioassay. There is a proportional decrease in leachability of DEHP but not of H-200 as the plasma proteins are diluted. Saline extracts of DEHP demonstrated a low but progressive rate of leaching with an accumulation of 11 .mu.g/ml after 7 wk whereas H-200 showed only a constant residue of 0.35 .mu.g/ml. Normal human serum incubated for 3 wk at 37.degree. C with PVC strips plasticized with DEHP produced significant growth-inhibition of human diploid fibroblasts. Human serum incubated in an identical manner with PVC plasticized with H-200 for up to 4 wk demonstrated no effect on tissue culture. H-200 deserves further evaluation as a replacement for DEHP in PVC biomedical devices.

Descriptors: HUMAN DI PLOID FIBROBLAST CELL GROWTH INHIBITION PLASMA PROTEINS SERUM HATCOL 200 DI-2 ETHYLHEXYL PHTHALATE LEACHABILITY

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(+02508); RADIATION

BIOI-RADTN,ISOTOP TECH(06504); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(+10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOPHYS-BIOENGINEERING(+10511); METABOLISM-PROTNS,PEPTDS,AM ACDS(13012); BLOOD/BODY FLDS-GENL STUOS,METHS(15001); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(+15002); BLOOD/BODY FLDS-BLD,LYM,RES PATH(15006); BONE,JNTS,FASC,CONN/-ADIP-GENL(18001); TOXICOL-GENL/EXP STUOS,METHS(+22501); DEVELOPMNTL BIOI-GEN MORPHGENSIS(25508); TISS CULTURE-APPARAT-METHS,MEDIA(32500); IN VITRO STUOS-CELLULR,SUBCELL(32600)
Biosystematic Codes: HOMINIDAE(86215)

21064681

TOXICITY OF VINYL CHLORIDE IN A CHRONIC EXPERIMENT

GLUSHCHENKO V I; FOMENKO V N; PAVLENKO G I; SEMILETKINA N N; GRODETSKAYA N S; PANKRATOVA G P; VORONTSOV R S; GRACHEVA K M
INST. IND. HYG. OCCUP. DIS., ACAD. MED. SCI. USSR, MOSCOW, USSR.

GIG TR PROF ZABOL O (9). 1980 (RECD. 1981). 44-46.
Coden: GTPZA

Language: RUSSIAN

Descriptors: NOTE RAT ARRHYTHMIA MOTOR ACTIVITY RESPIRATION RECTAL TEMPERATURE OXYGEN HEMO GLOBIN ERYTHROCYTE LEUKOCYTE RETICULOCYTE

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); BEHAVIOR BIOI-ANIMAL BEHAVIOR(07003); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOCHEM STUD-PORPHYRNS,BILE PIGM(10065); EXTERN EFF-TEMPERATURE(10614); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-ENERGY,RESPIRATION(13003); METABOLISM-PROTNS,PEPTDS,AM ACDS(+13012); METABOLISM-PORPHYRINS,BILE PIGMN(+13013); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-HEART PATHOLOGY(+14506); BLOOD/BODY FLDS-BLOOD CELL STUOS(+15004); BLOOD/BODY FLDS-BLD,LYM,RES PATH(+15006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(+15008); RESPIRATORY SYST-PATHOLOGY(+16006); MUSCLE SYST-PATHOLOGY(+17506); NERVOUS SYST-PATHOLOGY(+20506); TOXICOL-GENL/EXP STUOS,METHS(+22501); TEMPERATURE-GENL,METHS(23001); TEMPERATURE-THERMOREGULATION(+23012)

Biosystematic Codes: MURIDAE(86375)

21052453

LABELING IN THE WORKPLACE AS REQUIRED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION USA

FERRANDINO D; REICH A; RYER F H
 DEP. LABOR, OCCUP. SAFETY HEALTH ADM., WASHINGTON, D.C.
 20210, USA.

MORRIS, L. A., M. B. MAZIS AND I. BAROFSKY (ED.). BANBURY REPORT, VOL. 6. PRODUCT LABELING AND HEALTH RISKS. XVI+328P. COLD SPRING HARBOR LABORATORY: COLD SPRING HARBOR, NEW YORK, N.Y., USA. ILLUS. ISBN 0-87969-205-7. O (0). 1980 (RECD. 1981). P37-54. Coden: BANRD

Language: ENGLISH

Descriptors: HUMAN ASBESTOS CARCINOGEN VINYL CHLORIDE ARSENIC LEAD BENZENE COKE COTTON DUST 1 2 DI BROMO-3-CHLORO PROPANE ACRYLONITRILE

Concept Codes: GENL BIOL-INSTITUT,ADMIN,LEGISLN(00508); GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); SOCIAL BIOL/HUMAN ECOLOGY-(05500); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL(10060); MINERALS(10069); PATHOLOGY-GENERAL STUDIES(12502); RESPIRATORY SYST-PATHOLOGY(16006); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); PUB HEALTH-GENL,MISCELL(37001); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); PLANT PHYSIOL-CHEM CONSTITUENTS(51522)

Biosystematic Codes: MALVACEAE(26330); HOMINIDAE(86215)

21052434

DIRECT DETERMINATION OF POLLUTANTS IN AIR BY GAS CHROMATOGRAPHY HELIUM IONIZATION DETECTION

BRAZELL R S; ANDRAWES F F; GIBSON E K
 AMERICAN CYANAMID, STAMFORD, CONNECTICUT 06904, USA.
 J HIGH RESOLUT CHROMATOGR CHROMATOGR COMMUN 4 (4). 1981.
 188-190. Coden: HCJCD

Language: ENGLISH

Descriptors: VINYL CHLORIDE SAMPLING TECHNIQUE

Concept Codes: ECOLOGY-GENL STUDIES,METHODS(07502); ECOLOGY-BIOCLIMATOL,BIOMETEOROL(07504); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100); TOXICOL-ENVIRONMNTL,INDUSTR(22506); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

21049227

EVIDENCE FOR THE CARCINOGENICITY OF SELECTED HALOGENATED HYDRO CARBONS INCLUDING ETHYLENE DI CHLORIDE

INFANTE P F; MARLOW P B
 OFFICE CARCINOGEN IDENTIFICATION CLASSIFICATION, OCCUP. SAFETY HEALTH ADM., US DEP. LABOR, WASHINGTON, D.C. 22010, USA.

AMES, B., P. INFANTE AND R. REITZ (ED.). BANBURY REPORT, VOL. 5. ETHYLENE DICHLORIDE: A POTENTIAL HEALTH RISK; MEETING, LLOYD HARBOR, N.Y., USA. NOV. 14-17, 1979. XI+350P. COLD SPRING HARBOR LABORATORY: COLD SPRING HARBOR, N.Y., USA. ILLUS. ISBN 0-87969-204-9. O (0). 1980. P287-308. Coden: BANRD

Language: ENGLISH

Descriptors: HUMAN RAT MOUSE VINYL CHLORIDE LUNG LIVER OCCUPATIONAL HEALTH

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); CYTOLOGY/CYTOCHEM-HUMAN(02508); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); DIGESTIVE SYST-PATHOLOGY(+14006); RESPIRATORY SYST-PATHOLOGY(+16006); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); EPIDEMIOLOG-ORGANIC DIS,NEOPLASMS(37054)

Biosystematic Codes: CTENODACTYLIDAE(86315); MURIDAE(86375)

21045864

EFFECT OF VINYL CHLORIDE ON RAT EMBRYOGENESIS

SAL'NIKOVA L S; KITSOVSKAYA I A
 INST. IND. HYG. OCCUP. DIS., ACAD. MED. SCI. USSR, MOSCOW, USSR.

GIG TR PROF ZABOL O (3). 1980. 46-47. Coden: GTPZA

Language: RUSSIAN

Descriptors: NOTE HUMAN ERYTHROCYTE URINE HIPURIC-ACID INHALATION MORTALITY OCCUPATIONAL HEALTH

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); CYTOLOGY/CYTOCHEM-HUMAN(02508); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-NECROSIS(12510); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-PROTNS,PEPTDS,AM ACDS(+13012); BLOOD/BODY FLOS-BLOOD CELL STUDS(+15004); BLOOD/BODY FLOS-BLD,LYM,RES PATH(+15006); URIN SYST/EXT SECR-GEN STUD,METH(15501); URIN SYST/EXT SECR-PATHOLOGY(+15506); RESPIRATORY SYST-GENL STUD,METHS(16001); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); DEVELOPMNTL BIOL-PATHOLOGICAL(+25503); DEVELOPMNTL BIOL-EXPERIMENTAL(+25504); DEVELOPMNTL BIOL-GEN MORPHOGENESIS(+25508); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

21042859

THE DANGER OF VINYL CHLORIDE MIGRATION INTO WATER AND FOOD PRODUCTS

SHEFTEL' V O

ALL-UNION RES. INST. HYG. TOXICOL. PESTIC. POLYM. PLAST., KIEV, USSR.

GIG SANIT O (2). 1980. 63-65. Coden: GISAA

Language: RUSSIAN

Descriptors: REVIEW HUMAN RAT LIVESTOCK POLY VINYL CHLORIDE FOOD TOXICITY WATER POLLUTION PLASTICS

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); CYTOLOGY/CYTOCHEM-HUMAN(02508); ECOLOGY-WATR RESRCH, FISHERY BIOL(07517); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD, METAB PATHW(13002); NUTRITION-PATHOGENIC DIETS(13216); FOOD TECH-GENL STUDS, METHS(+13502); FOOD TECH-EVALNS PHYS, CHEM PROPS(13530); TOXICOL-GENL/EXP STUDS, METHS(+22501); TOXICOL-FOOD, RESIDS, ADDIT, PRESRV(+22502); TOXICOL-ENVIRONMNTL, INDUSTR(+22506); TOXICOL-VETERINARY(+22508); ANIMAL PRODUCTN-FEEDS, FEEDING(265-04); ENVIRON HEALTH-AIR, WATR, SL POLLN(+37015); VETERINARY SCI-PATHOLOGY(+38004)

Biosystematic Codes: VERTEBRATA-UNSPECIFIED(85150); HOMINID-AE(86215); MURIDAE(86375)

21042674

PRODUCTION USES AND ENVIRONMENTAL FATE OF ETHYLENE DI CHLORIDE AND ETHYLENE DI BROMIDE

FISHBEIN L

DEP. HEALTH EDUC. WELFARE, FOOD DRUG ADM., NATL. CANCER TOXICOL. RES., JEFFERSON, ARKANSAS 72079, USA.

AMES, B., P. INFANTE AND R. REITZ (ED.). BANBURY REPORT, VOL. 5. ETHYLENE DICHLORIDE: A POTENTIAL HEALTH RISK; MEETING, LLOYD HARBOR, N.Y., USA, NOV. 14-17, 1979. XI+350P. COLD SPRING HARBOR LABORATORY: COLD SPRING HARBOR, N.Y., USA. ILLUS. ISBN 0-87969-204-9. O (0). 1980. P227-238. Coden: BANRD

Language: ENGLISH

Descriptors: HUMAN VINYL CHLORIDE FUMIGANT CARCINOGENICITY OCCUPATIONAL HEALTH AIR POLLUTION WATER POLLUTION ENVIRONMENTAL TOXICITY AUTOMOBILE EXHAUST

Concept Codes: GENL BIOL-SYMPOSIUM, PROCDNGS, REVW(00520); CYTOLOGY/CYTOCHEM-HUMAN(02508); ECOLOGY-BIOCLIMATOL, BIOMETEOROL(07504); ECOLOGY-WATR RESRCH, FISHERY BIOL(07517); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD, METAB PATHW(13002); TOXICOL-ENVIRONMNTL, INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR, WATR, SL POLLN(+37015); PEST CONTRL GENL/PESTICS/HERBICS(+54600)

Biosystematic Codes: HOMINIDAE(86215)

21042622

THE EFFECT OF RELATIVE HUMIDITY ON THE RELEASE OF ORGANIC

SOLVENTS INTO THE AIR FROM PAINTED AND VARNISHED SURFACES

DERGACH E A; KATISHONOK L A; KHAIKINA N M

LENINGR. SCI.-PROD. ASSOC. "PIGMENT", LENINGRAD, USSR.

GIG SANIT O (2). 1980. 76-77. Coden: GISAA

Language: RUSSIAN

Descriptors: NOTE HUMAN VINYL CHLORIDE ACETONE GLYCERIN AIR POLLUTION ENVIRONMENTAL TOXICITY

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(02508); ECOLOGY-BIOCLIMATOL, BIOMETEOROL(+07504); COMPARATIVE BIOCHEM-GENL STUDIES(+10010); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); EXTERN EFF-HUMIDITY(+10620); PATHOLOGY-GENERAL STUDIES(12502); METABOLISM-GENL STUD, METAB PATHW(13002); TOXICOL-ENVIRONMNTL, INDUSTR(+22506); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR, WATR, SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

21042587

A STEP TOWARDS PREVENTING ACID PRECIPITATION

KLEINERT J

SLOVAK UNION OF NATURE AND LANDSCAPE PROTECTORS, DISTRICT COMMITTEE IN BANSKA BYSTRICA, UBE SE SAV VS, CS 97602 STARE HORY, CZECHOSLOVAKIA.

ENVIRON CONSERV 7 (4). 1980 (RECD. 1981). 332. Coden: EVCNA

Language: ENGLISH

Descriptors: NOTE PLANT ANIMAL SULFUR DI OXIDE NITROGEN DI OXIDE HYDROGEN CHLORIDE POLY VINYL CHLORIDE AIR POLLUTION ENVIRONMENTAL TOXICITY

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); ECOLOGY-BIOCLIMATOL, BIOMETEOROL(+07504); ECOLOGY-PLANT(+07506); ECOLOGY-ANIMAL(+07508); ECOLOGY-WATR RESRCH, FISHERY BIOL(07517); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(+10060); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD, METAB PATHW(13002); TOXICOL-ENVIRONMNTL, INDUSTR(+22506); ENVIRON HEALTH-AIR, WATR, SL POLLN(+37015); PLANT PHYSIOL-TRANSLOC, ACCUMUL(+51520); PHYTOPATHOL-NONPARASITIC DISEASE(+54512); INVERTB PHYSIOL-GENERAL STUDIES(+64001)

Biosystematic Codes: PLANTAE-UNSPECIFIED(11000); ANIMALIA-UNSPECIFIED(33000)

21039918

USING AN ELECTRIC VACUUM BRUSH AND A POLY VINYL CHLORIDE ADHESIVE BAND TO EXAMINE COMMON EVERYDAY OBJECTS IN CHILDRENS INSTITUTIONS FOR THE PRESENCE OF PINWORM EGGS/

BEREZANTSEV YU A; MEZHAZAKIS F I
DIV. EPIDEMIOL. PARASITOL., LENINGR. SANIT.-HYG. MED. INST.,
LENINGRAD, USSR.

LAB DELO O (7). 1979. 438-439. Coden: LABDA

Language: RUSSIAN

Concept Codes: GENERAL FIELD APPARATUS(+01010); BIOCHEM STUD-GENERAL(10060); PEDIATRICS(25000); DEVELOPMNTL BIOL-GENL-DESCRIPTIVE(+25502); PUB HEALTH-HEALTH SERV, MED CARE(37012); PUB HEALTH-INANIMATE DIS VECTORS(+37060); PARASITOLOGY-MEDICAL(+60504); INVERTB PHYSIOL-ASCHELMINTHES(+64016)

Biosystematic Codes: NEMATODA(51300); HOMINIDAE(86215)

21038496

BINDING KINETICS OF VINYL CHLORIDE AND VINYL BROMIDE AT VERY LOW DOSES

BOLT H M; FILSER J G; LAIB R J; OTTENWAEELDER H
INST. TOXICOL., UNIV. TUEBINGEN, WILHELMSTR. 56, D-7400
TUEBINGEN 1, W. GER.

CLEMMESSEN, J. ET AL. (ED.). ARCHIVES OF TOXICOLOGY, SUPPL. 3. QUANTITATIVE ASPECTS OF RISK ASSESSMENT IN CHEMICAL CARCINOGENESIS; SYMPOSIUM, ROME, ITALY, APRIL 3-6, 1979. VII+336P. SPRINGER-VERLAG: NEW YORK, N.Y., USA; BERLIN, WEST GERMANY. ILLUS. PAPER. ISBN 0-387-09584-5; ISBN 3-540-09584-5.

O (0). 1980. P129-142. Coden: ARTOD

Language: ENGLISH

Descriptors: RAT CARCINOGEN HEPATO CELLULAR CARCINOMA GLUTATHIONE

Concept Codes: GENL BIOL-SYMPOSIA, PROCDNGS, REVW(00520); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS, PEPTIDES, AMINO ACID(10064); METABOLISM-GENL STUD, METAB PATHW(+13002); DIGESTIVE SYST-PATHOLOGY(+14006); TOXICOL-GENL/EXP STUDS, METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: MURIDAE(86375)

21038487

PROCEDURES FOR ASSESSING RISK AT LOW LEVELS OF EXPOSURE

CORNFIELD J; RAI K; VAN RYZIN J
BIOSTAT. CENT., GEORGE WASH. UNIV., BETHESDA, MD. 20014, USA.

CLEMMESSEN, J. ET AL. (ED.). ARCHIVES OF TOXICOLOGY, SUPPL. 3. QUANTITATIVE ASPECTS OF RISK ASSESSMENT IN CHEMICAL CARCINOGENESIS; SYMPOSIUM, ROME, ITALY, APRIL 3-6, 1979. VII+336P. SPRINGER-VERLAG: NEW YORK, N.Y., USA; BERLIN, WEST GERMANY. ILLUS. PAPER. ISBN 0-387-09584-5; ISBN 3-540-09584-5.

O (0). 1980. P295-304. Coden: ARTOD

Language: ENGLISH

Descriptors: ANIMAL HUMAN NITRILO TRI ACETIC-ACID VINYL CHLORIDE CARCINOGEN

Concept Codes: GENL BIOL-SYMPOSIA, PROCDNGS, REVW(00520); BIOCHEM STUD-GENERAL(10060); TOXICOL-GENL/EXP STUDS, METHS(+22-

501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: ANIMALIA-UNSPECIFIED(33000); HOMINIDAE-(86215)

21038484

EPIDEMIOLOGICAL AND ANIMAL DATA AS A BASIS FOR RISK ASSESSMENT

PADDLE G M

IMP. CHEM. IND. LTD., P.O. BOX 3, FULSHAW HALL, WILMSLOW, CHESHIRE SK9 1QB, ENGL., UK.

CLEMMESSEN, J. ET AL. (ED.). ARCHIVES OF TOXICOLOGY, SUPPL. 3. QUANTITATIVE ASPECTS OF RISK ASSESSMENT IN CHEMICAL CARCINOGENESIS; SYMPOSIUM, ROME, ITALY, APRIL 3-6, 1979. VII+336P. SPRINGER-VERLAG: NEW YORK, N.Y., USA; BERLIN, WEST GERMANY. ILLUS. PAPER. ISBN 0-387-09584-5; ISBN 3-540-09584-5.

O (0). 1980. P263-270. Coden: ARTOD

Language: ENGLISH

Descriptors: HUMAN ETHYLENE DI BROMIDE VINYL CHLORIDE CARCINOGEN

Concept Codes: GENL BIOL-SYMPOSIA, PROCDNGS, REVW(00520); BIOCHEM STUD-GENERAL(10060); TOXICOL-GENL/EXP STUDS, METHS(+22-501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); LABORATORY ANIMALS-GENL STUDS(28002); EPIDEMIOL-ORGANIC DIS, NEOPLASMS(+3-7054)

Biosystematic Codes: ANIMALIA-UNSPECIFIED(33000); HOMINIDAE-(86215)

21025185

MUTAGENICITY OF GASES IN THE CHINESE HAMSTER OVARY CELL ASSAY

BARSKY F C; KRAHN D F; IRR J D

E. I. DU PONT DE NEMOURS & CO., WILMINGTON, DEL. 19898.
10TH ANNUAL MEETING OF THE ENVIRONMENTAL MUTAGEN SOCIETY.
ENVIRON MUTAGEN 1 (2). 1979 (RECD. 1980). 167. Coden: ENMUD

Language: ENGLISH

Descriptors: ABSTRACT SALMONELLA RAT LIVER VINYL CHLORIDE
Concept Codes: GENL BIOL-SYMPOSIA, PROCDNGS, REVW(00520); CYTOLOGY/CYTOCHEM-ANIMAL(02506);

GENETICS/CYTOGENET-ANIMAL(+03506); BIOCHEM-GASES(+10012); BIOCHEM STUD-GENERAL(10060); DIGESTIVE SYST-PHYSIOL, BIOCHEM(1400-4); REPRODUCT SYST-PHYSIOL, BIOCHEM(16504); TOXICOL-GENL/EXP STUDS, METHS(+22501); BACTERIAL AND VIRAL GENETICS(31500); TISS CULTURE-APPARAT, METHS, MEDIA(32500)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); CRICETIDAE(-86310); MURIDAE(86375)

21025171

CHROMOSOME GAPS ARE ASSOCIATED WITH CHEMICAL MUTAGENESIS
ANDERSON D; RICHARDSON C R
CENTRAL TOXICOL. LAB., ICI, ALDERLEY PARK, MACCLESFIELD,
CHESHIRE, U.K.

10TH ANNUAL MEETING OF THE ENVIRONMENTAL MUTAGEN SOCIETY.
ENVIRON MUTAGEN 1 (2). 1979 (RECD. 1980). 179. Coden:
ENMUOD

Language: ENGLISH

Descriptors: ABSTRACT RAT ETHYL METHANESULFONATE MITOMYCIN C
TRI METHYL PHOSPHATE BENZENE VINYL CHLORIDE

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
CYTOLOGY/CYTOCHEM-ANIMAL(+02506);
GENETICS/CYTOGENET-ANIMAL(+03506); PHARMACOL-GENERAL STUDIES(-
22002); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-PHARMAC-
OLOGICAL(22504); CHEMOTHERAPY-GEN STUD,METH,METAB(38502)

Biosystematic Codes: MURIDAE(86375)

21023781

HUMAN MALFORMATIONS INDUCED BY ENVIRONMENTAL NOXAE

HECKER W C; ANGERPOINTER T A
KINDERCHIR. KLIN., UNIV.-KLINDERKLIN., DR. VON HAUNERSCHEN
KINDRESPITAL, LINDWURMSTR. 4, 8000 MUENCHEN 2.
FORTSCHR MED 98 (47-48). 1980 (RECD. 1981). 1867-1870.
Coden: FMDZA

Language: GERMAN

Descriptors: DRUGS THALIDOMIDE CYTOSTATIC AGENTS POLY VINYL
CHLORIDE TRI CHLORO PHENOL TERATOGEN GEOGRAPHIC AREA
OCCURRENCE ALCOHOLIC EMBRYOPATHY CLEFT LIP OCCUPATIONAL
CONNECTIONS

Concept Codes: RADIATION BIOL-RADTN EFF.PROTECT(06506);
BEHAVIOR BIOL-HUMAN BEHAVIOR(07004); BIOCHEM STUD-GENERAL(100-
60); DENTAL/ORAL BIOL-PATHOLOGY(19006); PSYCHIATRY-ADDICTION(-
INC SMOKNG)(21004); PHARMACOL-GENERAL STUDIES(+22002);
PHARMACOL-CLINICAL PHARMACOL(22005); TOXICOL-GENL/EXP STUDS,M-
ETHS(+22501); TOXICOL-PHARMACOLOGICAL(+22504); DEVELOPMNTL
BIOL-PATHOLOGICAL(+25503); DEVELOPMNTL BIOL-DESCRIP TERATOL(+
25552); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); EPIDEMIOLOG-OR-
GANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

21021019

ALKYLATION OF RNA BY VINYL CHLORIDE AND VINYL BROMIDE
METABOLITES IN-VIVO EFFECT ON PROTEIN BIOSYNTHESIS

LAIB R J; OTTENWAELOER H; BOLT H M
ABT. TOXIKOL., PHARMAKOL. INST., UNIV. MAINZ, D-6500 MAINZ
1.

JOINT MEETING OF THE SCANDINAVIAN AND GERMAN PHARMACOLOGICAL
SOCIETIES, LUEBECK-TRAVEMUENDE, WEST GERMANY, SEPT. 16-18,
1980. NAUNYN-SCHMIEDEBERG'S ARCH PHARMACOL 313 (SUPPL.).
1980. RGJ. Coden: NSAPC

Language: ENGLISH

Descriptors: ABSTRACT RAT LIVER KINETICS DNA

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);

CYTOLOGY/CYTOCHEM-ANIMAL(Q2506); COMPARATIVE BIOCHEM-GENL
STUDIES(10010); BIOCHEM METH-NUCL ACD,PURNS,PYRM(10052);
BIOCHEM METH-PROTNS,PEPTDS,AM AC(10054); BIOCHEM STUD-GENERAL-
(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); BIOCHEM
STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); METABOLISM-GENL
STUD,METAB PATHW(13002); METABOLISM-PROTNS,PEPTDS,AM ACDS(+13-
012); METABOLISM-NUCL ACD,PURINS,PYRIM(+13014); DIGESTIVE
SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-PATHOLOGY(+14006)
; TOXICOL-GENL/EXP STUDS,METHS(+22501); ENVIRON HEALTH-MISCELL
STUDS(37019)

Biosystematic Codes: MURIDAE(86375)

21017881

UNCLASSIFIED DISEASES PARASITIC INFECTIONS ANCYLOSTOMIASIS
OTTO G F

DEP. ZOOL., UNIV. MD., COLLEGE PARK, MD.
LAST, J. M. MAXCY-ROSENAU PUBLIC HEALTH AND PREVENTIVE
MEDICINE, 11TH EDITION. XXV+1926P. APPLETON-CENTURY-CROFTS:
NEW YORK, N.Y., USA. ILLUS. MAPS. ISBN 0-8385-6186-1. O (O).
1980. P478-484, 497. Coden: 09800

Language: ENGLISH

Descriptors: NECATOR-AMERICANUS ANCYLOSTOMA-DUODENALE HUMAN
INTESTINAL PARASITE ANEMIA USA DIAGNOSIS EPIDEMIOLOGY
SANITATION MAL NUTRITION PYRANTEL PAMOATE TETRA CHLOROETHYLENE
BEPHENIUM HYDROXY NAPHTHOATE ANTIPARASITIC-DRUG

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-GENERAL(10060); PATHOLOGY-DIAGNOSTIC(+12504);
PATHOLOGY-THERAPY(12512);
NUTRITION-MALNUTRITION,OBESITY(13203); DIGESTIVE SYST-PATHOLO-
GY(+14006); BLOOD/BODY FLDS-BLD,LYM,RES PATH(+15006);
PHARMACOL-CLINICAL PHARMACOL(22005); ENVIRON HEALTH-SEWG
DISP,SANITAR(37014); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015);
EPIDEMIOLOG-COMMUNICABLE DISEASES(+37052); CHEMOTHERAPY-ANTIPAR-
ASITIC AGNTS(+38510); PARASITOLOGY-MEDICAL(+60504); INVERTB
PHYSIOL-ASCHELMINTHES(+64016)

Biosystematic Codes: NEMATODA(51300); HOMINIDAE(86215)

21016641

OCCUPATIONAL CARCINOGENESIS THE LOUISVILLE EXPERIENCE WITH VINYL CHLORIDE ASSOCIATED HEPATIC ANGIO SARCOMA

DANNAHER C L; TAMBURRO C H; YAM L T
COLUMBUS HOSP. REGIONAL ONCOL. CENTER, P.O. BOX 5013, GREAT FALLS, MT 59403.

AM J MED 70 (2). 1981. 279-287. Coden: AJMEA

Language: ENGLISH

Descriptors: REVIEW HUMAN BIOPSY CHEMO THERAPY PROGNOSIS

Concept Codes: BIOCHEM STUD-GENERAL(10060); PATHOLOGY-DIAGNOSTIC(12504); PATHOLOGY-THERAPY(12512); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-BLD VESS PATHOL(+14508); PHARMACOL-CLINICAL PHARMACOL(22005); PHARMACOL-CARDIOVASC SYST(22010); PHARMACOL-DIGESTIVE SYST(22014); TOXICOL-ENVIRONMENTAL,INDUSTR(+22506); NEOPLASMS/NEOPL AGENTS-DIAGNS METH(+24001); NEOPLASMS/NEOPL AGENTS-CARCINOGENS(+24007); NEOPLASMS/NEOPL AGENTS-THERAP,AGNT(+24008); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); CHEMOTHERAPY-GEN STUD,METH,METAB(38502)

Biosystematic Codes: HOMINIDAE(86215)

21016017

ATTACHMENT OF VIRAL AND SPOROZOAL ANTIGENS AND ANTIBODY TO PLASTIC CARRIERS FOR ENZYME LINKED IMMUNO SORBENT ASSAY TESTS

WARD L; SEVER J; SHEKARCHI I; MADDEN D
NINCDS, NIH, BETHESDA, MD.

81ST ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, DALLAS, TEX., USA, MARCH 1-6, 1981. ABSTR ANNU MEET AM SOC MICROBIOL 81 (0). 1981. 286. Coden: ASMAC

Language: ENGLISH

Descriptors: ABSTRACT MEASLES POLY VINYL CHLORIDE POLY STYRENE

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BIOCHEM METH-GENERAL(10050); BIOCHEM METH-PROTNS,PEPTDS,AM AC(10054); BIOCHEM METH-CARBOHYDRATES(10058); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOCHEM STUD-CARBOHYDR.(10068); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); PATHOLOGY-DIAGNOSTIC(12504); VIROLOGY-ANIMAL HOST VIRUSES(+33506); IMMUNOL/IMMUNOCHEM-GEN METH(34502); IMMUNOL/IMMUNOCHEM-BACT,VIR,FUNG(+34504); IMMUNOLOGY-PARASITOLOGICAL(+35000); MED/CLIN MICROBIOL-VIROLOGY(+36006); MED/CLIN MICROBIOL-SERODIAGNOSIS(+36504); INVERTB PHYSIOL-PROTOZOA(+64002)

Biosystematic Codes: ANIMAL VIRUSES-UNSPECIFIED(02200); PARAMYXOVIRIDAE(02228); SPOROZOA(35400)

21011978

CALCIUM SELECTIVE MICRO ELECTRODES WITH BEVELED SUBMICRON TIPS CONTAINING POLY VINYL CHLORIDE GELLED NEUTRAL LIGAND SENSOR

RINK R J; TSIEH R Y

PHYSIOL. LAB., CAMBRIDGE CB2 3EG.

MEETING OF THE PHYSIOLOGICAL SOCIETY, JULY 10-11, 1980. J PHYSIOL (LOND) 308 (0). 1980. 5P-6P. Coden: JPHVA

Language: ENGLISH

Descriptors: ABSTRACT MAMMAL CALCIUM ION

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); CYTOLOGY/CYTOCHEM-ANIMAL(+02506); MINERALS(10069); BIOPHYS-GENERAL STUDIES(+10502); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MEMBRANE PHENOMENA(+10508); MINERALS(+13010); CARDIOVASC SYST-GENL STUDS,METHS(+14501); CARDIOVASC SYST-PHYSIOL,BIOCHEM(+14504); MUSCLE SYST-GENL STUDS,METHS(+17501)

Biosystematic Codes: MAMMALIA-UNSPECIFIED AND EXTINCT(85700)

21010343

ESTIMATION OF EXPOSURE TO ALKYLATING AGENTS USING GAS CHROMATOGRAPHY MASS SPECTROMETRY

FARMER P B; BAILEY E

MRC TOXICOL. UNIT, CARSHALTON, SURREY.

21ST ANNUAL GENERAL MEETING OF THE BRITISH ASSOCIATION FOR CANCER RESEARCH, SOUTHAMPTON, ENGLAND, MARCH 31-APRIL 2, 1980. BR J CANCER 42 (1). 1980. 193. Coden: BJCAA

Language: ENGLISH

Descriptors: ABSTRACT RAT HUMAN METHYL METHANESULFONATE VINYL CHLORIDE HEMO GLOBIN TOXICOLOGY

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOCHEM STUD-PORPHYRNS,BILE PIGM(10065); BIOPHYS-GENERAL BIOPHYS TECH(+10504); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); BLOOD/BODY FLOS-BLOOD CELL STUDS(+15004); TOXICOL-GENL/EXP STUDS,METHS(+22501)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

21010302

SINGLE ION MONITORING OF STYRENE IN FOODS BY COUPLED MASS SPECTROMETRY AUTOMATIC HEADSPACE GAS CHROMATOGRAPHY

GILBERT J; STARTIN J R
MINIST. AGRIC., FISH. FOOD, FOOD SCI. DIV., HALDIN HOUSE,
QUEEN ST., NORWICH NR2 4SX.

J CHROMATOGR 205 (2). 1981. 434-437. Coden: JOCRA

Language: ENGLISH

Descriptors: NOTE CREAM YOGHURT COTTAGE CHEESE MARGARINE
CHOCOLATE SPREAD HONEY MONOMER VINYL CHLORIDE FOOD TOXICITYConcept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010);
BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060);
BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100);
NUTRITION-PATHOGENIC DIETS(13216); FOOD TECH-FATS,OILS(+13514)
! FOOD TECH-DAIRY PRODUCTS(+13518); FOOD TECH-SUGAR(+13524);
FOOD TECH-EVALNS PHYS,CHEM PROPS(13530); FOOD TECH-PREP,PROCE-
SSNG,STORAGE(13532); TOXICOL-FOOD,RESIDS,ADDIT,PRESRV(+22502);
ENVIRON HEALTH-MISCELL STUDS(37019); FOOD/INDUS MICRO-FD/BEV
SP CNTAM(39002); ECONOM ENTOMOL-APICULTURE(60018)

Biosystematic Codes: HYMENOPTERA(75326)

21010227

THE THERMAL DECOMPOSITION OF PHTHALIC-ACID ESTERS 20.
ANALYSIS OF PHTHALIC-ACID ESTERS IN POLY VINYL CHLORIDE AND
THEIR THERMAL PROPERTIESSAIDO K; MOTOHASHI S; SATOMI M; KIRISAWA M
DEP. PHARM., COLL. SCI. TECHNOL., NIHON UNIV., NO. 8,
1-CHOME, KANDA-SURUGADAI, CHIYODA, TOKYO 101, JPN.6TH SYMPOSIUM ON ENVIRONMENTAL POLLUTANTS AND TOXICOLOGY,
NAGASAKI, JAPAN, OCT. 4-5, 1979. J PHARMACOBIOIDYN 3 (4).
1980. S-12, S-28. Coden: JOPHD

Language: ENGLISH

Descriptors: ABSTRACT FISH GAS CHROMATOGRAPHY HEAT WATER
POLLUTIONConcept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
CYTOLOGY/CYTOCHEM-ANIMAL(02506); ECOLOGY-ANIMAL(+07508); ECOL-
OGY-WATR RESRCH,FISHERY BIOL(07517); COMPARATIVE BIOCHEM-GENL
STUDIES(10010); BIOCHEM METH-GENERAL(10050); BIOCHEM
STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504);
EXTERN EFF-HOT(10618); MOVEMENT(12100); METABOLISM-GENL
STUD,METAB PATHW(13002); TOXICOL-ENVIRONMNTL,INDUSTR(+22506);
TEMPERATURE-GENL,METHS(23001); ENVIRON HEALTH-AIR,WATR,SL
POLLN(+37015); ENVIRON HEALTH-MISCELL STUDS(37019)

Biosystematic Codes: PISCES-UNSPECIFIED(85200)

21009424

INDUSTRIAL AIR POLLUTION BRITISH UK PROGRESS A REVIEW
NONIBEL G18 DUNNINGS LANE, SOUTHAMPTON, SO5 9GL, ENGLAND.
ATMOS ENVIRON 15 (3). 1981. 213-220. Coden: ATENB

Language: ENGLISH

Descriptors: VINYL CHLORIDE POLY CHLORINATED BI PHENYL
FLUORINE TOXIC METALS RADIOACTIVE METALS

Concept Codes: RADIATION BIOL-RADTN EFF.PROTECT(+06506);

ECOLOGY-BIOCLIMATOL,BIOMETEOROL(+07504); COMPARATIVE BIOCHEM--
GENL STUDIES(10010); BIOCHEM-GASES(10012); BIOCHEM
STUD-GENERAL(10060); MINERALS(10069); TOXICOL-ENVIRONMNTL,IND-
USTR(22506); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); ENVIRON
HEALTH-RADIATION HEALTH(+37017); ENVIRON HEALTH-MISCELL
STUDS(37019)

21004056

ISSUES RELEVANT TO THE ASSESSMENT OF CHEMICALLY INDUCED
CHROMOSOME DAMAGE IN-VIVO AND THEIR RELATIONSHIP TO CHEMICAL
MUTAGENESISANDERSON D; RICHARDSON C R
CENTRAL TOXICOLOGY LABORATORY, ICI, ALDERLEY PARK,
MACCLESFIELD, CHESHIRE, UNITED KINGDOM.9TH ANNUAL MEETING OF THE EUROPEAN ENVIRONMENTAL MUTAGEN
SOCIETY, MARKASKA, YUGOSLOVIA, SEPT. 30-OCT. 5, 1979. MUTAT
RES 74 (3). 1980. 223-224. Coden: MUREA

Language: ENGLISH

Descriptors: ABSTRACT RAT ETHYL METHANESULFONATE MITOMYCIN C
TRI METHYL PHOSPHATE BENZENE VINYL CHLORIDE MUTAGENSConcept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
CYTOLOGY/CYTOCHEM-ANIMAL(+02506);
GENETICS/CYTOGENET-ANIMAL(+03506); BIOCHEM STUD-GENERAL(10060)
; PHARMACOL-GENERAL STUDIES(22002); TOXICOL-GENL/EXP
STUDS,METHS(+22501); TOXICOL-PHARMACOLOGICAL(22504); CHEMOTHE-
RAPY-GEN STUD,METH,METAB(38502)

Biosystematic Codes: MURIDAE(86375)

21003880

TESTING VINYL CHLORIDE MONOMER IN THE MAMMALIAN SPOT TEST

PETER S; UNGVARY G
STATE INST. HYG., LAB. HUM. GENET., BUDAPEST, HUNG.
9TH ANNUAL MEETING OF THE EUROPEAN ENVIRONMENTAL MUTAGEN
SOCIETY, MARKASKA, YUGOSLOVIA, SEPT. 30-OCT. 5, 1979. MUTAT
RES 74 (3). 1980. 232. Coden: MUREA

Language: ENGLISH

Descriptors: ABSTRACT MOUSE CYCLO PHOSPHAMIDE SOMATIC COAT
COLOR MOSAICS MUTAGENSConcept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
CYTOLOGY/CYTOCHEM-ANIMAL(02506);
GENETICS/CYTOGENET-ANIMAL(+03506); BIOCHEM STUD-GENERAL(10060)
; INTEGUMENT SYST-GENL STUDS,METHS(18501); INTEGUMENT
SYST-ANATOMY(18502); PHARMACOL-GENERAL STUDIES(22002);
TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-PHARMACOLOGICAL-
(22504); NEOPLSMS/NEOPL AGNTS-THERAP,AGNT(24008); CHEMOTHERAP-
Y-GEN STUD,METH,METAB(38502)Biosystematic Codes: MAMMALIA-UNSPECIFIED AND EXTINCT(85700)
; MURIDAE(86375)

21003786

METHODS FOR THE DETECTION OF MUTAGENIC GASES AND VOLATILE LIQUIDS IN THE SALMONELLA-TYPHIMURIUM MICROSOME ASSAY

RUSSELL J F JR; SIPPEL M E; KRAHN D F

E. I. DU PONT NEMOURS CO., WILMINGTON, DE 19898.

11TH ANNUAL MEETING OF THE ENVIRONMENTAL MUTAGEN SOCIETY, NASHVILLE, TENN., USA, MARCH 16-19, 1980. ENVIRON MUT 2 (2). 1980. 307. Coden: ENMUO

Language: ENGLISH

Descriptors: ABSTRACT RAT LIVER METABOLIC ACTIVATION VINYL CHLORIDE VINYLIDENE CHLORIDE METHYLENE CHLORIDE FREON 11 FREON 12 FREON 22 FLUORO CARBON 31

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); CYTOLOGY/CYTOCHEM-ANIMAL(02506);

GENETICS/CYTOGENET-ANIMAL(*03506); BIOCHEM-GASES(*10012); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10-062); METABOLISM-GENL STUD,METAB PATHW(*13002); METABOLISM-NUCL ACD,PURINS,PYRIM(*13014); DIGESTIVE SYST-PHYSIOL,BIOCHEM(1400-4); TOXICOL-GENL/EXP STUDS,METHS(*22501); BACTERIA-PHYSIOLOGY,BIOCHEMISTRY(31000); BACTERIAL AND VIRAL GENETICS(*31500); MICROBIOLOG APPARAT,METHS,MEDIA(32000)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); MURIDAE(863-75)

21002823

EXTERNAL STANDPIPE DRAIN SYSTEM FOR FISH TANKS

PARKER N C; JACKSON G A

U.S. FISH WILDL. SERV., SOUTHEASTERN FISH CULTURAL LAB., MARION, ALA. 36756.

PROG FISH-CULT 42 (1). 1980 (RECD. 1981). 53-54. Coden: PFCUA

Language: ENGLISH

Descriptors: NOTE WATER LEVEL ADJUSTMENT FLUSHING PARTICULATE REMOVAL POLY VINYL CHLORIDE PIPE

Concept Codes: GENERAL LABORATORY METHODS(*01004); GENERAL LABORATORY APPARATUS(*01006); ECOLOGY-AQUATIC WILDLIFE MGMT(*07516); ECOLOGY-WATR RESRCH,FISHERY BIOL(07517); BIOCHEM STUD-GENERAL(10060); MOVEMENT(12100); CHORDATE TAXONOMY-PISCES(*62510)

Biosystematic Codes: PISCES-UNSPECIFIED(85200)

21000327

ANTI THROMBOGENICITY OF URO KINASE IMMOBILIZED POLYMER SURFACES

SUGITACHI A; TANAKA M; KAWAHARA T; TAKAGI K

DEP. SURG., OSAKA NATL. HOSP., OSAKA 540, JPN.

26TH MEETING OF THE AMERICAN SOCIETY FOR ARTIFICIAL INTERNAL ORGANS, INC., NEW ORLEANS, LA., USA, APRIL 17-19, 1980. TRANS AM SOC ARTIF INT ORGANS 26 (0). 1980. 274-278. Coden: TAIOA

Language: ENGLISH

Descriptors: HUMAN DIGESTIVE TRACT SURGERY CARCINOMA PLASMINOGEN ACTIVATOR FIBRINOLYSIS INTRA VENOUS HYPER ALIMENTATION INTRA ARTERIAL CATHETER INFUSION CHEMO THERAPY

POLY CAPROAMIDE TUBE POLY UNDECAMIDE TUBE POLY ESTER ELASTOMER TUBE SILICON RUBBER TUBE POLY VINYL CHLORIDE TUBE POLY URETHANE TUBE

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOPHYS-BIOENGINEERING(*10511); ENZYMES-METH-ODS(*10804); ANATOMY/HISTOL-SURGERY(*11105); METABOLISM-PROTN-S,PEPTDS,AM ACDS(*13012); NUTRITION-PROPHYLAC,THERAP DIETS(*1-3218); DIGESTIVE SYST-GENL STUDS,METHS(*14001); DIGESTIVE SYST-PATHOLOGY(*14006); CARDIOVASC SYST-GENL STUDS,METHS(*145-01); CARDIOVASC SYST-BLD VESS PATHOL(14508); BLOOD/BODY FLDS-GENL STUDS,METHS(*15001); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(*15002); BLOOD/BODY FLDS-BLD,LYM,RES PATH(15006); PHARMACOL-GENERAL STUDIES(22002); PHARMACOL-DRUG METAB,METAB STIMU(*22003); PHARMACOL-CLINICAL PHARMACOL(22005); TOXICOL-G-ENL/EXP STUDS,METHS(22501); NEOPLSMS/NEOPL AGNTS-PATH,CLINIC(-24004); NEOPLSMS/NEOPL AGNTS-THERAP,AGNT(*24008); CHEMOTHERAPY-GENL STUD,METH,METAB(*38502)

Biosystematic Codes: HOMINIDAE(86215)

20064009

DEVELOPMENT OF THE POLY VINYL CHLORIDE ENDO TRACHEAL TUBE

WATSON W F

PORTEX LIMITED, HYTHE, KENT.

BIOMATERIALS 1 (1). 1980. 41-46. Coden: BIMAD

Language: ENGLISH

Descriptors: REVIEW HUMAN INTUBATION ANESTHESIA

Concept Codes: BIOCHEM STUD-GENERAL(10060); MINERALS(10069); RESPIRATORY SYST-GENL STUD,METHS(*16001); NERVOUS SYST-GENL STUDS,METHS(*20501)

Biosystematic Codes: HOMINIDAE(86215)

20060577

ANIMAL MODEL OF HUMAN DISEASE HEPATIC ANGIO SARCOMA
HONG C B; WINSTON J M; LEE C C
LIVESTOCK DISEASE DIAGNOSTIC CENT., UNIV. KY., 1429 NEWTOWN
PIKE, LEXINGTON, KY 40511.
AM J PATHOL 101 (3), 1980 (RECD. 1981). 737-740. Coden:
AJPAA

Language: ENGLISH
Descriptors: MOUSE RAT VINYL CHLORIDE CARCINOGEN
OCCUPATIONAL HAZARD

Concept Codes: BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPA-
RATIVE(12503); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC
SYST-BLD VESS PATHOL(+14508); TOXICOL-GENL/EXP STUDS,METHS(22-
501); TOXICOL-ENVIRONMNTL,INDUS(22506); NEOPLSMS/NEOPL
AGNTS-PATH,CLINIC(+24004); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+
24007); LABORATORY ANIMALS-GENL STUDS(+28002); ENVIRON
HEALTH-OCCUPATNL HEALTH(37013)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

20058517

EFFECT OF VARIOUS INFLUENCING THE MUTAGENICITY OF
ACRYLONITRILE

DUVERGER-VAN BOGAERT M; LAMBOTTE-VANDEPAER M; DE MEESTER C;
PONCELET F; MERCIER M

LAB. BIOTOXICOL., 73 AV. EMM. MOUNIER, 1200 BRUSSELS.
9TH ANNUAL MEETING OF THE EUROPEAN ENVIRONMENTAL MUTAGEN
SOCIETY, MARKASKA, YUGOSLOVIA, SEPT. 30-OCT. 5, 1979. MUTAT
RES 74 (3), 1980. 207. Coden: MUREA

Language: ENGLISH
Descriptors: ABSTRACT SALMONELLA-TYPHIMURIUM TA-1530 TA-1535
TA-1950 RAT LIVER MOUSE LIVER HUMAN PROPENITRILE VINYL
CHLORIDE CYANO ETHYLENE INDUSTRIAL CHEMICAL

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
GENETICS/CYTOGENET-ANIMAL(+03506);
GENETICS/CYTOGENET-HUMAN(+03508); BIOCHEM STUD-GENERAL(10060);
BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); METABOLISM-GENL
STUD,METAB PATHW(13002); METABOLISM-NUCL ACD,PURINS,PYRM(+13-
014); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE
SYST-PHYSIOL,BIOCHEM(14004);
TOXICOL-ENVIRONMNTL,INDUS(22506);
BACTERIA-PHYSIOLOGY,BIOCHEMISTRY(31000); BACTERIAL AND VIRAL
GENETICS(31500); MICROBIOLOG APPARAT,METHS,MEDIA(32000);
ENVIRON HEALTH-OCCUPATNL HEALTH(+37013)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); HOMINIDAE(8-
6215); MURIDAE(86375)

20054269

FACTORS CONTRIBUTING TO SYMPTOMS IN MEAT WRAPPERS ASTHMA
SKIRBALL D V; CHESTER E H; SCHWARIZ H J; DEAL E C; TUTTILL T
M; PRESTEL T F; BARANCIK J I; BOZICH T
CLEVELAND, OHIO.

36TH ANNUAL MEETING OF THE AMERICAN ACADEMY OF ALLERGY,
ATLANTA, GA., USA, FEB. 16-20, 1980. J ALLERGY CLIN IMMUNOL
75 (2), 1980. 169. Coden: JACIB

Language: ENGLISH

Descriptors: ABSTRACT HUMAN POLY VINYL CHLORIDE PYROLYSATE
Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-GENERAL(10060); EXTERN EFF-HOT(10618);
RESPIRATORY SYST-PATHOLOGY(+16006); TOXICOL-ENVIRONMNTL,INDUS-
TR(+22506); TEMPERATURE-GENL,METHS(23001); IMMUNOL/IMMUNOCHEM-
-IMMUNOPATHOL(+34508); ALLERGY(+35500); ENVIRON HEALTH-OCCUPA-
TNL HEALTH(+37013)

Biosystematic Codes: HOMINIDAE(86215)

20053780

OXIDATIVE AND DE TOXIFYING ABILITY OF LIVER MESENCHYMAL VS.
PARENCHYMAL CELLS IN THE METABOLISM OF XENOBIOTICS

DU J; TAMBURRO C H
LIVER RES. LAB., DEP. MED., UNIV. LOUISVILLE, LOUISVILLE,
KY.

31ST ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR THE
STUDY OF LIVER DISEASES AND THE INTERNATIONAL ASSOCIATION FOR
THE STUDY OF THE LIVER, CHICAGO, ILL., USA, NOV. 5-10, 1980.
GASTROENTEROLOGY 79 (5 PART 2), 1980. 1013. Coden: GASTA

Language: ENGLISH
Descriptors: ABSTRACT VINYL CHLORIDE CARCINOGEN HEPATO
TOXICITY

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
CYTOLOGY/CYTOCHEM-ANIMAL(02506); BIOCHEM STUD-GENERAL(10060);
METABOLISM-GENL STUD,METAB PATHW(+13002); DIGESTIVE
SYST-PHYSIOL,BIOCHEM(+14004); DIGESTIVE SYST-PATHOLOGY(+14006)
; PHARMACOL-DRUG METAB,METAB STIMU(22003); TOXICOL-GENL/EXP
STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: VERTEBRATA-UNSPECIFIED(85150)

20053617

CHLORINATED WATER CONTAINING ORGANIC SUBSTANCES

LEVENTON O L

ALL-UNION RES. INST. WATER SUPPLY SEWER SYST. HYDRAUL.-ENG.
STRUCT. HYDROGEOL. ENG., MOSCOW, USSR.

GIG SANIT O (1). 1980. 52-53. Coden: GISAA

Language: RUSSIAN

Descriptors: REVIEW HUMAN VINYL CHLORIDE CHLOROFORM METHANE
ACETOPHENONE HALOID DERIVATIVES ACETALDEHYDE FULVIC-ACID
ACETONE CARCINOGEN WATER POLLUTIONConcept Codes: ECOLOGY-WATR RESRCH,FISHERY BIDL(07517);
COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL-
(10050); BIOCHEM STUD-GENERAL(10060); MINERALS(10069);
PATHOLOGY-COMPARATIVE(12503);
TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CAR-
CINOGENS(+24007); ENVIRON HEALTH-SEWG DISP,SANITAR(+37014);
ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015); FOOD/INDUS
MICRO-FD/BEV SP CNTAM(39002)

Biosystematic Codes: HOMINIDAE(86215)

20053547

MAXIMUM PERMISSIBLE CONCENTRATION OF VINYL CHLORIDE IN AIR

MURATOV M M; TAKHIROV M T

UZB. RES. INST. SANIT. HYG. OCCUP. DIS., TASHIKENT, USSR.

GIG SANIT O (11). 1979 (RECD. 1980). 74-76. Coden:
GISAA

Language: RUSSIAN

Descriptors: NOTE HUMAN RAT CARCINOGEN RNA IMMUNITY
MUTAGENICITY TEMPERATURE LIVER KIDNEY BRAIN HEART OCCUPATIONAL
HEALTHConcept Codes: GENL BIOL-INSTITUT,ADMIN,LEGISLN(00508);
CYTOLOGY/CYTOCHEM-ANIMAL(+02506); BIOCHEM STUD-GENERAL(10060);
BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); REPLICATN,TRANSCRIPT-
N,TRANSLATN(10300); EXTERN EFF-TEMPERATURE(10614); PATHOLOGY--
COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002);
METABOLISM-NUCL ACD,PURINS,PYRIM(13014); DIGESTIVE SYST-GENL
STUDS,METHS(14001); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOV-
ASC SYST-GENL STUDS,METHS(14501); CARDIOVASC SYST-HEART
PATHOLOGY(+14506); URIN SYST/EXT SECR-GEN STUD,METH(15501);
URIN SYST/EXT SECR-PATHOLOGY(+15506); NERVOUS SYST-GENL
STUDS,METHS(20501); NERVOUS SYST-PATHOLOGY(+20506); TOXICOL-E-
NVIRONMNTL,INDUSTR(+22506); TEMPERATURE-GENL,METHS(23001);
NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); IMMUNOL/IMMUNOCHEM--
GEN METH(34502); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013);
ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

20047608

CYTO GENETIC ANALYSIS IN WORKERS OCCUPATIONALLY EXPOSED TO
VINYL CHLORIDE

ROSSNER P; STRAM R J; NOVAKOVA J; LAMBL V

INST. HYG. EPIDEMIOLOG., 100 42 PRAGUE, CZECH.

MUTAT RES 73 (2). 1980. 425-428. Coden: MUREA

Language: ENGLISH

Descriptors: HUMAN LYMPHOCYTE MUTAGEN CARCINOGEN

Concept Codes: CYTOLOGY/CYTOCHEM-HUMAN(+02508); GENETICS/CY-
TOGENET-HUMAN(+03508); BIOCHEM STUD-GENERAL(10060); BIOCHEM
STUD-NUCL ACD,PURNS,PYRM(10062); METABOLISM-NUCL ACD,PURINS,P-
YRIM(+13014); BLOOD/BODY FLDS-BLOOD CELL STUDS(+15004);
BLOOD/BODY FLDS-LYMPHAT TISS,RES(+15008); TOXICOL-ENVIRONMNTL-
INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007);
TISS CULTURE-APPARAT,METHS,MEDIA(32500); IN VITRO STUDS-CELLU-
LR,SUBCELL(32600); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

20042917

REPEATABILITY AND REPRODUCIBILITY OF MEASUREMENTS OF VINYL
CHLORIDE CONCENTRATIONS IN MATERIALS AND ARTICLES MADE OF POLY
VINYL CHLORIDE

ROSSI L; WAIBEL J; VOM BRUCK C G

COMMUNAUTES EUROPEENNES, DIRECTORAT GENERAL III, BRUXELLES,
BELGE.

FOOD COSMET TOXICOL 18 (5). 1980. 527-536. Coden: FCTXA

Language: ENGLISH

Descriptors: REVIEW CHROMATOGRAPHY STATISTICS

Concept Codes: MATHEMATIC BIDL/STATISTIC METH(04500);
BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060);
BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100);
TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,IND-
USTR(22506); ENVIRON HEALTH-MISCELL STUDS(+37019)

20042661

OCCURRENCE OF PHTHALATE ESTERS IN HUMAN KIDNEY

OVERTURF M L; DRUILHET R E; KIRKENDALL W M; LIEHR J G;
CAPRIOLI R M

DEP. INTERN. MED., UNIV. TEX. MED. SCH., HOUSTON, TEX.

ANNUAL MEETING OF THE AMERICAN FEDERATION FOR CLINICAL
RESEARCH, SOUTHERN SECTION, JAN. 18-20, 1979. CLIN RES 26
(6). 1978 (RECD. 1979). 781A. Coden: CLREA

Language: ENGLISH

Descriptors: ABSTRACT POLY VINYL CHLORIDE DI-N BUTYL
PHTHALATE DI-2 ETHYLHEXYL PHTHALATE NEPHRO SCLEROSIS
CHROMATOGRAPHY LIPID TEXAS USA ENVIRONMENTAL TOXICITY WASTE
DISPOSALConcept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
CYTOLOGY/CYTOCHEM-HUMAN(02508); SOCIAL BIOL/HUMAN ECOLOGY(055-
00); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060);
BIOCHEM STUD-LIPIDS(10066); BIOPHYS-GENERAL BIOPHYS
TECH(10504); MOVEMENT(12100); METABOLISM-GENL STUD,METAB
PATHW(13002); METABOLISM-LIPIDS(13006); URIN SYST/EXT SECR-GEN
STUD,METH(15501); URIN SYST/EXT SECR-PATHOLOGY(+15506);
TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-SEWG
DISP,SANITAR(37014); ENVIRON HEALTH-AIR,WATR,SL POLLN(+37015)

Biosystematic Codes: HOMINIDAE(86215)

20038503

BIOCHEMICAL AND IMMUNOLOGICAL SURVEILLANCE OF A GROUP OF
VINYL CHLORIDE WORKERS

PAGE M; DELORME F; AUDETTE M

DEP. BIOCHEM., UNIV. LAVAL, LAVAL, QUE., CAN.

4TH INTERNATIONAL SYMPOSIUM OF THE INTERNATIONAL SOCIETY FOR
PREVENTIVE ONCOLOGY ON CANCER DETECTION AND PREVENTION,
LONDON, ENGLAND, JULY 26-31, 1980. CANCER DETECT PREV 3 (1).
1980. NO PAGINATION. Coden: CDPD

Language: ENGLISH

Descriptors: ABSTRACT CARCINOGEN ANGIO SARCOMA CARCINO
EMBRYONIC ANTIGEN FERRITIN ALKALINE PHOSPHATASE GLUTAMIC OXAL
ACETIC TRANS AMINASE GLUTAMIC PYRUVIC TRANS AMINASE LACTIC
DEHYDROGENASEConcept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); CLIN
BIOCHEM-GENL STUDIES(+10006); BIOCHEM STUD-GENERAL(10060);
BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); BIOCHEM
STUD-CARBOHYDR.(10068); ENZYMES-PHYSIOLOGICAL STUDIES(10008);
METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-CARBOHYDR-
ATES(13004); METABOLISM-PROTNS,PEPTDS,AM ACDS(13012); CARDIOV-
ASC SYST-BLD VESS PATHOL(+14508); TOXICOL-ENVIRONMNTL,INDUSTR-
(+22506); NEOPLSMS/NEOPL AGNTS-IMMUNOLOGY(+24003); NEOPLSMS/N-
EOPL AGNTS-CARCINOGENS(+24007); DEVELOPMNTL BIOL-GENL,DESCRIP-
TIVE(25502); IMMUNOL/IMMUNOCHEM-GEN METH(+34502); ENVIRON
HEALTH-OCUPATNL HEALTH(+37013)

Biosystematic Codes: HOMINIDAE(86215)

20038477

EPIDEMIOLOGIC IDENTIFICATION OF CARCINOGENS

ARMSTRONG B K

MED. RES. COUNC. RES. UNIT EPIDEMIOL. PREV. MED., UNIV.
WEST. AUST., NEDLANDS, WEST. AUST., AUST.4TH INTERNATIONAL SYMPOSIUM OF THE INTERNATIONAL SOCIETY FOR
PREVENTIVE ONCOLOGY ON CANCER DETECTION AND PREVENTION,
LONDON, ENGLAND, JULY 26-31, 1980. CANCER DETECT PREV 3 (1).
1980. NO PAGINATION. Coden: CDPD

Language: ENGLISH

Descriptors: ABSTRACT HUMAN ARSENIC ASBESTOS CHROMIUM SOOTS
TARS MINERAL OILS VINYL CHLORIDE CARCINOGEN OCCUPATIONAL
CANCERConcept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-LIPIDS(10066);
MINERALS(10069); TOXICOL-GENL/EXP STUDS,METHS(+22501);
TOXICOL-ENVIRONMNTL,INDUSTR(22506); NEOPLSMS/NEOPL AGNTS-CARC-
INOGENS(+24007); ENVIRON HEALTH-OCUPATNL HEALTH(+37013)

Biosystematic Codes: HOMINIDAE(86215)

20033681

CORRELATION OF INTERFACIAL ENERGIES WITH PLATELET RETENTION
ON ARTERIAL ENDOTHELIUM AND ARTIFICIAL SURFACES

MCIVER D J L; COLES J G; SCHURCH S

DEP. PHARMACOL., UNIV. WEST. ONT., LONDON, ONT.

ANNUAL MEETING OF THE CANADIAN SOCIETY FOR CLINICAL
INVESTIGATION, OTTAWA, ONT., CANADA, OCT. 1-3, 1980. CLIN RES
28 (3). 1980. 660A. Coden: CLREA

Language: ENGLISH

Descriptors: ABSTRACT THROMBOSIS POLY ETHYLENE POLY SILOXANE
POLY VINYL CHLORIDEConcept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520);
CYTOLOGY/CYTOCHEM-ANIMAL(02506); BIOCHEM STUD-GENERAL(10060);
BIOPHYS-BIOENGINEERING(+10511); CARDIOVASC SYST-GENL STUDS,ME-
THS(14501); CARDIOVASC SYST-ANATOMY(+14502); CARDIOVASC
SYST-BLD VESS PATHOL(+14508); BLOOD/BODY FLDS-BLOOD CELL
STUDS(+15004)

20021149

COMPLICATIONS FROM POLY URETHANE AND POLY VINYL CHLORIDE UMBILICAL ARTERY CATHETERS

WIGGER J; PEREZ A; KOONS A; BOYD L
DIV. NEONATOL., COLL. PHYSICIANS SURG., COLUMBIA UNIV., NEW YORK, N.Y., USA.

MEETING OF THE AMERICAN PEDIATRIC SOCIETY AND THE SOCIETY FOR PEDIATRIC RESEARCH, SAN ANTONIO, TEX., USA, APRIL 30-MAY 2, 1980. PEDIATR RES 14 (4 PART 2). 1980. 592. Coden: PEREB

Language: ENGLISH

Descriptors: ABSTRACT HUMAN NEW BORN THROMBOSIS

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BIOCHEM STUD-GENERAL(10060); BIOPHYS-BIOENGINEERING(*10511); CARDIOVASC SYST-GENL STUDS,METHS(*14501); CARDIOVASC SYST-BLD VESS PATHOL(*14508); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(15002); BLOOD/BODY FLDS-BLD,LYM,RES PATH(*15006); TOXICOL-GENL/EXP STUDS,METHS(*22501); PEDIATRICS(*25000); DEVELOPMNTL BIOL-GENL,DESCRIPTIVE(*25502)

Biosystematic Codes: HOMINIDAE(86215)

20019832

HYGIENIC EVALUATION OF FIRE DE CONTAMINATION OF WASTES FROM THE PRODUCTION OF DI CHLORO ETHANE AND VINYL CHLORIDE/

LUBYANSKII M L; LEVINA M M; GRONBERG E SH; MIKHNO V B
GORKI RES. INST. IND. HYG. OCCUP. DIS., MINIST. HEALTH RSFSR, GORKI, USSR.

GIG SANIT O (3). 1979. 61-63. Coden: GISAA

Language: RUSSIAN

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM-GASES(10012); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); TOXICOL-ENVIRONMNTL,INDUSTR(22506); ENVIRON HEALTH-SEWG DISP,SANITAR(*37014); ENVIRON HEALTH-AIR,WATR-SL POLLN(*37015)

20013166

A NEW CELL CULTURE BIO COMPATIBILITY TEST SYSTEM FOR MATERIALS

IMAI Y; WATANABE A; MASUHARA E
INST. MED. DENT. ENG., TOKYO MED. DENT. UNIV., SURUGADAI, KANDA, TOKYO, JPN.

25TH MEETING OF THE AMERICAN SOCIETY FOR ARTIFICIAL INTERNAL ORGANS, NEW YORK, N.Y., USA, APRIL 20-21, 1979. TRANS AM SOC ARTIF INTERN ORGANS 25 (0). 1979 (RECD. 1980). 299-304. Coden: TAIQA

Language: ENGLISH

Descriptors: HUMAN GINGIVAL CARCINOMA CELL LINE SILICONE RUBBER TEFLON POLY URETHANE POLY VINYL CHLORIDE DIRECT CONTACT METHOD

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); CYTOLOGY/CYTOCHEM-HUMAN(*02508); BIOPHYS-BIOENGINEERING(*10511); DENTAL/ORAL BIOL-PATHOLOGY(19-006); NEOPLSMS/NEOPL AGNTS-CELL LINE(24005); TISS CULTURE-APPARAT,METHS,MEDIA(*22500)

Biosystematic Codes: HOMINIDAE(86215)

20010985

CONTACT DERMATITIS 1980

HJORTH N

DEP. DERMATOL., GENTOFTE HOSP., DK-2900 HELLERUP, DEN.
60TH ANNUAL MEETING OF THE BRITISH ASSOCIATION OF DERMATOLOGISTS, OXFORD, ENGLAND, JULY 9-12, 1980. BR J DERMATOL 103 (18). 1980. 19-20. Coden: BJDSA

Language: ENGLISH

Descriptors: HUMAN KERATOTIC ECZEMA IRRITANT HAND ATOPIC DERMATITIS HAND PSORIASIS FRAGRANCE MIX PATCH TEST EPOXY CHROMATE CEMENT FERROUS SULFATE DIETARY NICKEL SESQUI TERPENE LACTONES QUINONES POLY VINYL CHLORIDE PLASTICS LANOLINS PROPYLENE GLYCOL PARABENS

Concept Codes: GENL BIOL-SYMPOSIA,PROCDNGS,REVW(00520); BIOCHEM STUD-GENERAL(10060); MINERALS(10069); CHORDATE BODY REGNS-EXTREMITIES(11318); PATHOLOGY-COMPARATIVE(12503); PATHOLOGY-DIAGNOSTIC(12504); PATHOLOGY-INFLAMMATN,INFLAM DIS(12508); NUTRITION-MINERALS(*13206); NUTRITION-PROPHYLAC,THERAP DIETS(*13218); INTEGUMENT SYST-GENL STUDS,METHS(*18501); INTEGUMENT SYST-PATHOLOGY(*18506); PHARMACOL-DRUG METAB,METAB STIMU(22003); PHARMACOL-IMMUNO PROCES,ALLERGY(22018); TOXICOL-ENVIRONMNTL,INDUSTR(*22506); IMMUNOL/IMMUNOCHEM-GEN METH(345-02); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(*34508); ALLERGY(*35500); ENVIRON HEALTH-OCCUPATNL HEALTH(*37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(*37015); PLANT PHYSIOL-CHEM CONSTITUENTS(51522); FORESTRY AND FOREST PRODUCTS(53500)

Biosystematic Codes: SPERMATOPHYTA-UNSPECIFIED(25000); HOMINIDAE(86215)

20010387

DETERMINATION OF VINYL CHLORIDE IN POLYMERIC MATERIALS MODELED MEDIA AND FOOD PRODUCTS

TARASOVA N A; KATAEVA S E

MOSC. TECHNOL. INST. MEAT DAIRY IND., MOSCOW, USSR.

GIG SANIT O (3). 1979. 48-50. Coden: GISAA

Language: RUSSIAN

Descriptors: CHEESE GAS CHROMATOGRAPHY

Concept Codes: BIOCHEM METH-GENERAL(*10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100); FOOD TECH-GENL STUDS,METHS(13502); FOOD TECH-DAIRY PRODUCTS(13518); FOOD TECH-EVALNS PHYS,CHEM PROPS(13530); TOXICOL-GENL/EXP STUDS,METHS(*22501)

20010361

PHARMACO KINETICS OF VINYL CHLORIDE IN RHESUS MONKEYS RATS AND MAN

BUCHTER A; FILSER J G; PETER H; BOLT H M
 INST. OCCUP. SOC. MED., UNIV. COLOGNE, COLOGNE, W. GER.
 2ND INTERNATIONAL CONGRESS ON TOXICOLOGY, BRUSSELS, BELGIUM,
 JULY 6-11, 1980. TOXICOL LETTERS (AMST) O (SPEC. ISSUE 1).
 1980. 224. Coden: TOLED

Language: ENGLISH

Descriptors: ABSTRACT

Concept Codes: GENL BIOL-SYMPOSIA, PROCDNGS, REVW(00520);
 BIOCHEM STUD-GENERAL(10060); PHYSIOLOGY-COMPARATIVE(12003);
 PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD, METAB
 PATHW(13002); TOXICOL-GENL/EXP STUDS, METHS(+22501); TOXICOL-E-
 NVIRONMNTL, INDUSTR(22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+
 24007); ENVIRON HEALTH-AIR, WATR, SL POLLN(37015)

Biosystematic Codes: CERCOPITHECIDAE(86205); HOMINIDAE(8621-
 5); MURIDAE(86375)

20003781

VINYL CHLORIDE DIRECT OR INDIRECT MUTAGEN

DE MEESTER C; PONCELET F; ROBERFROID M; MERCIER M
 LAB. BIOTOXICOL., EC. PHARM., UNIV. CATHOL. LOUV. 73.69. 73
 AVE. E. MOUNIER, B-1200 BRUXELLES, BELG.

108TH MEETING OF THE SOCIETE BELGE DE BIOCHIMIE (BELGIAN
 BIOCHEMICAL SOCIETY), LOUVAIN-LA-NEUVE, BELGIUM, FEBRUARY 24,
 1979. ARCH INT PHYSIOL BIOCHIM 87 (3). 1979 (RECD. 1980).
 620-621. Coden: AIPBA

Language: ENGLISH

Descriptors: NOTE SALMONELLA-TYPHIMURIUM STRAIN TA-1530
 MOUSE LIVER S-9 FRACTION HUMAN CHLORO ACETALDEHYDE CARCINOGEN
 INDUSTRIAL CHEMICAL OCCUPATIONAL EXPOSURE

Concept Codes: GENL BIOL-SYMPOSIA, PROCDNGS, REVW(00520);
 CYTOLOGY/CYTOCHEM-ANIMAL(02506);
 GENETICS/CYTOGENET-ANIMAL(+03506);
 GENETICS/CYTOGENET-HUMAN(+03508); BIOCHEM STUD-GENERAL(10060);
 BIOCHEM STUD-NUCL ACD, PURNS, PYRM(10062); METABOLISM-GENL
 STUD, METAB PATHW(+13002); METABOLISM-NUCL ACD, PURINS, PYRM(+1-
 3014); DIGESTIVE SYST-PHYSIOL, BIOCHEM(14004); TOXICOL-GENL/EXP
 STUDS, METHS(+22501); TOXICOL-ENVIRONMNTL, INDUSTR(+22506); NEO-
 PLSMS/NEOPL AGNTS-CARCINOGENS(+24007); BACTERIA-PHYSIOLOGY, BI-
 OCHEMISTRY(31000); BACTERIAL AND VIRAL GENETICS(31500);
 MICROBIOLOG APPARAT, METHS, MEDIA(32000); IN VITRO STUDS-CELLUL-
 R, SUBCELL(32600); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); HOMINIDAE(8-
 6215); MURIDAE(86375)

20000931

USING PLASTIC CONTAINERS FOR THE PREPARATION OF A THROMBOCYTE CONCENTRATION AT 22 CELSIUS

CHERNYAK N B; EVLENT'EVA N E; GURTOVOI I M; KOSHEVAYA V P;
 KHAMETOVA R N

CENT. INST. HEMATOL. BLOOD TRANSFUS., MINIST. HEALTH USSR,
 MOSCOW, USSR.

PROBL GEMATOL PERELIV KROVI 24 (11). 1979 (RECD. 1980).
 54-56. Coden: PGPKA

Language: RUSSIAN

Descriptors: HUMAN POLY VINYL CHLORIDE BAGS PRESERVATIVE
 TSOLIPK 78 CENTRIFUGATION EPINEPHRINE CARDIOVASCULAR-DRUG
 FACTOR-VIII

Concept Codes: GENERAL LABORATORY APPARATUS(+01006);
 CYTOLOGY/CYTOCHEM-HUMAN(+02508); BIOCHEM STUD-GENERAL(10060);
 BIOCHEM STUD-PROTEINS, PEPTIDES, AMINO ACD(10064); BIOPHYS-GENE-
 RAL BIOPHYS TECH(10504); EXTERN EFF-TEMPERATURE(10614);
 BLOOD/BODY FLDS-GENL STUDS, METHS(+15001); BLOOD/BODY
 FLDS-BLOOD, LYMPH STUD(15002); BLOOD/BODY FLDS-BLOOD CELL
 STUDS(+15004); ENDOCRINE SYST-ADRENALS(17004); PHARMACOL-CLIN-
 ICAL PHARMACOL(22005); PHARMACOL-BLOOD, HEMATO AGENTS(22008);
 PHARMACOL-CARDIOVASC SYST(22010); TEMPERATURE-GENL, METHS(2300-
 1)

Biosystematic Codes: HOMINIDAE(86215)

20000859

DEMONSTRATION OF POTASSIUM ELECTRODE SUITABLE FOR USE IN-VIVO IN MAN

BAND D M; LINTON R A F; TREASURE T
 DEP. PHYSIOL., ST. THOMAS'S HOSP. MED. SCH., LONDON SE1 7EH,
 ENGL., UK.

BIENNIAL MEETING OF THE EUROPEAN SECTION OF THE
 INTERNATIONAL SOCIETY FOR HEART RESEARCH, DIJON, FRANCE, SEPT.
 13-15, 1979. J MOL CELL CARDIOL 11 (SUPPL. 2). 1979 (RECD.
 1980). 2. Coden: JMCDA

Language: ENGLISH

Descriptors: ABSTRACT BLOOD POTASSIUM POLY VINYL CHLORIDE
 Concept Codes: GENL BIOL-SYMPOSIA, PROCDNGS, REVW(00520);
 BIOCHEM METH-MINERALS(+10059); MINERALS(+10069); BIOPHYS-GENE-
 RAL BIOPHYS TECH(+10504); BLOOD/BODY FLDS-BLOOD, LYMPH
 STUD(+15002)

Biosystematic Codes: HOMINIDAE(86215)

70082286

PHOSGENE IN THE THERMAL DECOMPOSITION PRODUCTS OF POLY VINYL CHLORIDE GENERATION DETECTION AND MEASUREMENT

BROWN J E; BIRKY M M
CENT. FIRE RES., US DEP. COMMERCE, NATL. BUR. STAND.,
WASHINGTON, D.C. 20234, USA.

J ANAL TOXICOL 4 (4). 1980. 166-174. Coden: JATOD

Language: ENGLISH

An analytical study was made to determine whether the toxic product carbonyl chloride (phosgene) is formed during the thermal decomposition of poly(vinyl chloride), PVC. Four methods of decomposition were studied: thermal degradation of PVC in a resistively heated furnace, electrical overloading of a PVC clad wire, electrical arcing between electrodes partially covered with PVC, and electric arc initiated flaming combustion in a cup furnace. Significant quantities of phosgene were generated from PVC by the electric arc method. Lesser amounts were found in the other scenarios. The measurements, identification and quantification of phosgene in the decomposition product, were obtained through the use of gas chromatography, IR spectroscopy and mass spectroscopy. While the study was not mechanistic in nature, phosgene is postulated to result from secondary reactions of the PVC products. Reaction mechanisms are suggested.

Descriptors: TOXICITY

Concept Codes: BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); EXTERN EFF-ELECTR,MAG-NET,GRAVITY(10610); EXTERN EFF-HOT(+10618); MOVEMENT(12100); TOXICOL-GENL/EXP STUDS,METHS(+22501); TEMPERATURE-GENL,METHS(+23001)

70082270

CHARACTERISTICS OF HALO ETHYLENE INDUCED ACETONEMIA IN RATS

FILSER J G; BOLT H M
ABT. TOXIKOL., PHARMAKOL. INST., UNIV. MAINZ, OBERE
ZAHLBACHER STR. 67, D-6500 MAINZ, W. GER.

ARCH TOXICOL 45 (2). 1980. 109-116. Coden: ARTOD

Language: ENGLISH

A series of halogenated ethylenes (vinyl chloride, vinylidene fluoride, cis- and trans-1,2-dichloroethylene, perchloroethylene) induces increased acetone exhalation in rats. Exposures of differently pretreated rats to vinylidene fluoride suggest that a metabolite of the haloethylene must be involved in eliciting this formation of acetone. This conclusion is based on dependence of acetone exhalation on the concentration of vinylidene fluoride; effect of inducing agents [phenobarbital and DDT]; effect of pyrazole, a metabolic inhibitor; effect of cysteine; effect of hypoxia and the time course of acetone exhalation.

Descriptors: PYRAZOLE METABOLIC-DRUG PHENO BARBITAL DDT VINYL CHLORIDE VINYLIDENE FLUORIDE CIS-1,2 DI CHLORO ETHYLENE TRANS-1,2 DI CHLORO ETHYLENE PER CHLORO ETHYLENE HYPOXIA CYSTEINE EXHALATION

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOCHEM

STUD-NUCL ACD,PURINS,PYRM(10062); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-PROTNS,PEPTDS,AM ACD(13012); METABOLISM-NUCL ACD,PURINS,PYRM(13014); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PATHOLOGY(+16006); PHARMACOL-DRUG METAB,METAB STIMU(+22003); ROUTES OF IMMUNIZ,INFECT,THERAP(22-100); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMN-TL,INDUSTR(22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(24007); ENVIRON HEALTH-OCCUPATNL HEALTH(37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015); PEST CONTRL GENL/PESTICS/HERBICS(54600)

Biosystematic Codes: MURIDAE(86375)

70079490

A GENERAL SCHEME FOR THE INCORPORATION OF PHARMACO KINETICS
IN LOW DOSE RISK ESTIMATION FOR CHEMICAL CARCINOGENESIS VINYL
CHLORIDE EXAMPLE

ANDERSON M W; HOEL D G; KAPLAN N L
LAB. PHARMACOKINETICS, NATIONAL INST. ENVIRONMENTAL HEALTH
SCIENCES, RESEARCH TRIANGLE PARK, NORTH CAROLINA 27709.
TOXICOL APPL PHARMACOL 55 (1). 1980. 154-161. Coden:
TXAPA

Language: ENGLISH

A general scheme is proposed which relates the carcinogenic responses to the amount of DNA-carcinogen adduct formed instead of applied dose. Based on the present understanding of the mechanism of carcinogenesis, may be a more rational approach to the low-dose extrapolation problem. In addition to specifying the low-dose extrapolation routine, it is necessary in this scheme to construct a pharmacokinetic model relating exposure concentration to the amount of DNA-chemical adduct formed. Two pharmacokinetic models are constructed for vinyl chloride. Low-dose risk estimates are determined from dose-response functions corresponding to the probit and multistage models. The estimates obtained using the probit model vary considerably when the pharmacokinetics parameters are changed whereas for the multistage model the low-dose estimates have less variability, varying in general by no more than one order of magnitude. This is not unexpected since the probit dose-response function is very flat in the low-dose region whereas the multistage dose-response function is analytic. In some cases a detailed pharmacokinetic study of the carcinogen may be as important as the bioassay study for low-dose and across-species extrapolation. It is important to realize that even though the incorporation of pharmacokinetics into the low-dose estimation process better reflects reality, it does not help in resolving the issue of which underlying model to use for the low-dose extrapolation, e.g., probit vs. multistage.

Descriptors: DNA PHARMACO KINETIC MODEL

Concept Codes: MATHEMATIC BIOL/STATISTIC METH(04500);
COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL-
(10060); BIOCHEM STUD-NUCL ACID,PURINS,PYRM(10062); BIOPHYS-MOL-
ECUL PROP,MACROMOLEC(10506); BIOPHYS-BIOCYBERNETICS(+10515);
METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-NUCL
ACID,PURINS,PYRIM(13014); TOXICOL-GENL/EXP STUDS,METHS(+22501);
TOXICOL-ENVIRONMNTL,INDUSTR(22506); NEOPLSMS/NEOPL AGNTS-CARC-
INOGENS(+24007); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015)

Biosystematic Codes: VERTEBRATA-UNSPECIFIED(05150)

occupational details for those cases agreed as ASL by a panel of histopathologists. Cases (28 men, 6 women and 1 infant girl) were agreed as ASL. The increase in the incidence of ASL observed in recent years was attributable to Thorotrast (thorium dioxide) usage (8 cases) and exposure to vinyl chloride (2 cases) in the past. In its clinical presentation and prognosis ASL resembled primary liver carcinoma, except that extrahepatic metastases were found in only 8 (23%) cases, and hemoperitoneum was more common in those cases due to Thorotrast. There is a possible increased risk of ASL in the electrical and plastics fabrication industries, but information on exposure was inadequate to implicate specific chemicals. The clinical features of 1 case was indicative of As intoxication, but medications in the other patients were not of etiological importance.

Descriptors: HUMAN THOROTRAST ARSENIC VINYL CHLORIDE HEMO
PERITONEUM METASTASIS ELECTRICAL. INDUSTRY PLASTICS INDUSTRY
HISTO PATHOLOGY

Concept Codes: MICROSCOPY-HISTOL,HISTOCHEM TECH(01056);
CYTOLOGY/CYTOCHEM-HUMAN(02508); SOCIAL BIOL/HUMAN ECOLOGY(055-
00); RADIATION BIOL-RAOTN,ISOTOP TECH(06504); COMPARATIVE
BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL(10060);
MINERALS(10069); ANATOMY/HISTOL-MICRO,ULTRAMICRSC(11108); CHO-
RDATE BODY REGNS-THORAX(11312); METABOLISM-GENL STUD,METAB
PATHW(13002); MINERALS(13010); DIGESTIVE SYST-GENL
STUDS,METHS(14001); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOV-
ASC SYST-GENL STUDS,METHS(14501); CARDIOVASC SYST-BLD VESS
PATHOL(+14508); COELOM MEMBRANES,MESENTERIES,ETC(+18200);
PHARMACOL-DRUG METAB,METAB STIMU(22003); PHARMACOL-CLINICAL
PHARMACOL(22005); TOXICOL-PHARMACOLOGICAL(+22504); TOXICOL-EN-
VIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+
24007); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); EPIDEMIOLOG-
GANIC DIS,NEOPLASMS(+37054)

Biosystematic Codes: HOMINIDAE(86215)

70079474

ANGIO SARCOMA OF THE LIVER ANNUAL OCCURRENCE AND ETIOLOGY IN
GREAT BRITAIN UK

BAXTER P J; ANTHONY P P; MACSWEEN R N M; SCHEUER P J
EMPLOYMENT MED. ADV. SERV., LONDON NW1 5DT, ENGL., UK.
BR J IND MED 37 (3). 1980. 213-221. Coden: BJIMA
Language: ENGLISH

The annual occurrence of angiosarcoma of the liver (ASL) in
Britain from 1963-1977 was studied. Including clinical and

70072386

ISOLATION AND CHARACTERIZATION OF A SULFATED GLYCO PROTEIN FROM A TRANSPLANTABLE COLO RECTAL ADENO CARCINOMA OF RATS/

MUNAKATA H; YOSIZAWA Z
DEP. BIOCHEM., TOHOKU UNIV. SCH. MED., 2-1 SEIRYO-MACHI,
SENDAI, MIYAGI 980, JPN.BIOCHIM BIOPHYS ACTA 623 (2). 1980. 412-417. Coden:
BBACA

Language: ENGLISH

A transplantable colorectal adenocarcinoma from rats of the ACI/N strain was extracted with 5 mM EDTA (pH 7.0), and fractionated by gel filtration on sepharose 4B, followed by preparative poly(vinyl chloride) zone electrophoresis. An acidic glycoprotein (SGP) thus obtained was shown to be homogeneous by electrophoresis on cellulose acetate membrane and on sodium dodecyl sulfate agarose gel. SGP contained 61.9% carbohydrate, 28.9% total amino acids and 1.4% sulfate. The major monosaccharides in SGP were galactose, glucosamine and galactosamine. Small quantities of sialic acid, L-fucose and mannose were also present. Threonine, serine, proline, glutamic acid and aspartic acid were the major amino acids of the protein moiety.

Concept Codes: BIOCHEM METH-PROTNS,PEPTDS,AM AC(10054);
BIOCHEM METH-CARBOHYDRATES(10058); BIOCHEM STUD-GENERAL(10060);
BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(+10064);
BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLECUL
PROP,MACROMOLEC(10506); ANATOMY/HISTOL-REGEN,TRANSPLANT(11107);
MOVEMENT(12100); METABOLISM-CARBOHYDRATES(+13004); METABOLI-
SM-PROTNS,PEPTDS,AM ACDS(+13012); DIGESTIVE SYST-PATHOLOGY(+1-
4006); NEOPLSMS/NEOPL AGNTS-BIOCHEM(+24006)

Biosystematic Codes: MURIDAE(86375)

70071009

THE IMMOBILIZATION OF BROMELAIN ON POLY VINYL CHLORIDE POWDER

CHIANG P-S; SHAW J-F
DEP. CHEM., TAIWAN PROV. KAOHSIUNG TEACH. COLL., KAOHSIUNG,
TAIWAN.

NATL SCI COUNC MON 8 (4). 1980. 313-322. Coden: KIIFKD

Language: CHINESE

The purified proteolytic enzyme from pineapple stem juice, bromelain, was covalently coupled to an insoluble support, PVC [polyvinyl chloride] powder. In the preparation of immobilized bromelain [used for food processing], the procedure involved: controlled derivatization of the PVC powder with ethylenediamine or hexamethylenediamine or 4,4'-diaminodiphenylmethane in ethanol solutions to form alkylamino or arylamino derivatives, activation of the amino derivatives by various routes and enzyme attachment on the active support in the various coupling times and pH values. The size of the carrier, the amount of activating reagent, the procedure for the activation of PVC and the time for coupling reaction affected the amount of enzyme immobilized and its relative activity. The maximal amount of bromelain immobilized was 58 mg/g of PVC and the maximal relative activity was 49.5%. The optimal temperature, optimal pH, thermal stability and Km values of

the immobilized enzyme for the hydrolysis of casein were higher than those of soluble bromelain; the immobilized bromelain showed no significant loss in enzyme activity after 3 mo. storage at 4.degree. C. In the presence of 0.05 M L-cysteine or 2-mercaptoethanol, the caseinolytic activity was increased by 65 or 87%, respectively. When casein was used as substrate, the batch-type operational half-life at 40.degree. C and pH 7.0 was 48 h, whereas the half-life at 30.degree. C and pH 7.0 was extended to 15 days.

Descriptors: PINEAPPLE STEM JUICE FOOD PROCESSING PH
TEMPERATURE CASEIN SUBSTRATE

Concept Codes: BIOCHEM METH-PROTNS,PEPTDS,AM AC(10054);
BIOCHEM METH-LIPIDS(10056); BIOCHEM STUD-GENERAL(10060);
BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOPHYS-GENE-
RAL BIOPHYS TECH(10504); BIOPHYS-BIOENGINEERING(+10511);
EXTERN EFF-TEMPERATURE(10614); EXTERN EFF-COLD(10616); EXTERN
EFF-HOT(10618); ENZYMES-METHODS(+10804); MOVEMENT(12100); FOOD
TECH-PREP,PROCESSNG,STORAGE(+13532);
TEMPERATURE-GENL,METHS(23001); PLANT MORPHOL,EMBRYOL,ANATOMY(-
51000); PLANT PHYSIOL-ENZYMES(+51518); PLANT PHYSIOL-APPARATU-
S,METHODS(51524); HORTICULT-TROP FRUIT,NUT,PLANTAT(53004)

Biosystematic Codes: BROMELIACEAE(25235)

70068837

DESIGN AND TESTING OF A MICRO LYSIMETER FOR WETLAND RICE ORYZA-SATIVA

TOMAR V S; O'TOOLE J C

P.O. BOX 933, MANILA, PHILIPPINES.

AGRON J 72 (4). 1980. 689-692. Coden: AGJDA

Language: ENGLISH

Assessment of water loss as transpiration and evapotranspiration for each hour or for each day in the field is difficult because the available methods are either very expensive or inaccurate. This paper introduces a simple, sensitive and accurate microlysimeter for wetland rice (O. sativa L.) fields. The microlysimeter was designed and tested to measure transpiration and evapotranspiration in wetland rice fields. It consists of a poly-vinyl-chloride cylinder, sealed at the lower end and connected to a water reservoir/manometer through flexible tubing. A constant water level is maintained in the microlysimeter with a Mariotte system and water loss from the reservoir/manometer is measured. Total water loss as evaporation from free water surface in the cylinder and transpiration from canopy was measured as evapotranspiration. To measure transpiration, the cylinder was covered to stop evaporation from free water surface in the cylinder. The microlysimeters were laboratory-calibrated and compared in the field with large square tanks. Water use pattern as evapotranspiration per unit land area was essentially the same with both the units. The microlysimeter is accurate even for time intervals as short as 1 hour and can be fabricated locally.

Descriptors: TRANSPIRATION EVAPO TRANSPIRATION

Concept Codes: PLANT PHYSIOL-WATER RELATIONS(+51502); PLANT PHYSIOL-APPARATUS,METHODS(51524); AGRONOMY-GRAIN CROPS(+52504); SOIL SCI-GENL STUDS,METHS(+52801); SOIL SCI-PHYSICS,CHEMISTRY(+52805)

Biosystematic Codes: GRAMINEAE(25305)

70067906

INDUSTRIAL HYGIENE EVALUATION OF THERMAL DEGRADATION PRODUCTS FROM POLY VINYL CHLORIDE FILM IN MEAT WRAPPING OPERATIONS

COOK W A

UNIV. MICH., ANN ARBOR, MICH. 48109, USA.

AM IND HYG ASSOC J 41 (7). 1980. 508-512. Coden: AIHAA

Language: ENGLISH

An industrial hygiene evaluation is presented concerning experimental data on thermal degradation products from hot-wire and cool-rod cutting of PVC [polyvinyl chloride] film used in meat-wrapping operations. Room air concentrations of less than 0.2 ppm HCl and less than 0.05 ppm benzene can be maintained by a number of factors, including minimal dilution ventilation. Estimates of room air concentrations of degradation products are presented using average values of amounts produced per cut. The relation of these concentrations to TLV [threshold limit values] is given, with methods of suggesting TLV for substances not listed by ACGIH [American Conference of Governmental Industrial Hygienists] or OSHA

[Occupation Safety and Health Administration]. Room air concentrations for the 12 degradation products for which TLV are assigned, based on average values per cut, were no greater than 0.3% of accepted limits. Room air concentrations of DOA [dioctyladipate] are not determinable from available data, but present information does not indicate that exposure to DOA causes airway hyperreactivity. The cool rod, rather than the hot wire, is recommended as good industrial hygiene practice, producing no apparent PVC degradation products, even though similar amounts of DOA are volatilized.

Descriptors: DI OCTYL ADIPATE THRESHOLD LIMIT VALUE MINIMAL DILUTION VENTILATION

Concept Codes: GENL BIOL-INSTITUT,ADMIN,LEGISLN(00508); ECOLOGY-BIOCLIMATOL,BIOMETEOROL(07504); BIOCHEM STUD-GENERAL(-10060); BIOPHYS-BIOENGINEERING(10511); EXTERN EFF-HOT(10618); PATHOLOGY-INFLAMMATN,INFLAM DIS(12508); FOOD TECH-MEAT,MEAT BY-PRODUCTS(13516); FOOD TECH-PREP,PROCESSNG,STORAGE(+13532); RESPIRATORY SYST-PATHOLOGY(16006); TOXICOL-ANTIDOTES,PREVENTIVE(22505); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); TEMPERATURE-GENL,METHS(23001); IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(34508); ALLERGY(35500); PUB HEALTH-ADMINISTR,STATISTICS(37010); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015)

70064539

MUTAGENIC ACTIVITY OF VINYL COMPOUNDS AND DERIVED EPOXIDES

SIMMON V F; BADEN J M

GENEX CORP., 6110 EXECUTIVE BLVD., ROCKVILLE, MD. 20852, USA.

MUTAT RES 78 (3). 1980. 227-232. Coden: MUREA

Language: ENGLISH

Many vinyl compounds, such as vinyl chloride and some inhalational anesthetics, are mutagens. Ten vinyl compounds or derived epoxides, widely used in industry, were assayed in the Salmonella typhimurium/mammalian microsome system. Three histidine-dependent S. typhimurium strains (TA 1535, TA 98 and TA 100) were used. Of the 10 compounds, 9-vinylanthracene, vinylcarbazole, 3-vinyl-7-oxabicyclo[4.1.0]heptane and 3-epoxyethyl-7-oxabicyclo[4.1.0]heptane were mutagenic. The overall genotoxicity of vinyl compounds and epoxides is confirmed; these compounds should be carefully screened for mutagenic/carcinogenic effects. [The other compounds screened for mutagenicity were 2-vinylnaphthalene, 2-vinylbiphenyl, 2-vinylpyridine, 4-vinylpyridine, 5-vinyl-2-norbornene and N-vinyl-2-pyrrolidinone. Human applicability is implied].

Descriptors: SALMONELLA-TYPHIMURIUM TA-98 TA-100 TA-1535 STRAINS MAMMALIAN MICROSOME HUMAN INHALATIONAL ANESTHETIC VINYL CHLORIDE 2 VINYL NAPHTHALENE 9 VINYL ANTHRACENE 4 VINYL BI PHENYL 2 VINYL PYRIDINE 4 VINYL PYRIDINE VINYL CARBAZOLE 5 VINYL-2 NORBORNENE N VINYL-2 PYRROLIDINONE 3 VINYL-7-OXA BI CYCLO 4.1.0 HEPTANE 3 EPOXYETHYL-7-OXA BI CYCLO-4.1.0 HEPTANE GENO TOXICITY CARCINOGENICITY INDUSTRIAL CHEMICAL

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(02506); CYTOLOGY/CYTOCHEM-HUMAN(02508); GENETICS/CYTOGENET-ANIMAL(03506); GENETICS/CYTOGENET-HUMAN(03508); BIOCHEM STUD-GENERAL(10060); METABOLISM-NUCL ACD,PURINS,PYRIM(+13014); RESPIRATORY SYST-GENL STUD,METHS(16001); PHARMACOL-NEUROPHARMACOLOGY(22024); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-PHARMACOLOGICAL(22504); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS-(24007); BACTERIAL AND VIRAL GENETICS(31500); MICROBIOLOG APPARAT,METHS,MEDIA(32000); TISS CULTURE-APPARAT,METHS,MEDIA(-32500); IN VITRO STUDS-CELLULR,SUBCELL(32600); ENVIRON HEALTH-OCCUPATNL HEALTH(+37013)

Biosystematic Codes: ENTEROBACTERIACEAE(04810); MAMMALIA-UNSPECIFIED AND EXTINCT(85700); HOMINIDAE(86215)

70064463

VINYL CHLORIDE AN EXAMPLE FOR EVALUATING MUTAGENIC EFFECTS IN MAMMALS IN-VIVO AFTER EXPOSURE TO INHALATION

BASLER A; ROEHRBORN G

INST. HUMANGENET. ANTHROPOL. UNIV., UNIVERSITAETSSTR. 1, GEBAEUDE 23.12, D-4000 DUESSELDORF 1, W. GER.

ARCH TOXICOL 45 (1). 1980. 1-8. Coden: ART00

Language: ENGLISH

As part of a program of investigations on the mutagenic effects in mammals in vivo after inhalation of environmental chemicals, the effects of the industrial compound vinyl chloride (VC) were analyzed. Chinese hamsters were exposed to 1.25, 2.5 or 5% (vol/vol) VC in air for 6, 12 or 24 h. Bone

marrow chromosomes were analyzed for induced chromosome aberrations and sister-chromatid-exchanges (SCE) 26 h after beginning of exposure. The frequency of VC-induced chromosome aberrations and SCE both depend on dose and length of exposure. The highest measured effects were 33.25 SCE/cell after an exposure to 2.5% VC for 24 h and 25.7% metaphases with aberrations, when exposed to 5% VC for 24 h.

Descriptors: HAMSTER BONE MARROW SISTER CHROMATID EXCHANGE METAPHASE

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(+02506); GENETICS/CYTOGENET-ANIMAL(+03506); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-NUCL ACD,PURINS,PYRIM(10062); METABOLISM-GENL STUD,METAB PATHW(13002); METABOLISM-NUCL ACD,PURINS,PYRIM(13014); BLOOD/BODY FLDS-GENL STUDS,METHS(15001); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(15002); BLOOD/BODY FLDS-BLOOD CELL STUDS(15004); BLOOD/BODY FLDS-BLD,LYM,RES PATH(+15006); BLOOD/BODY FLDS-LYMPHAT TISS,RES(+15008); RESPIRATORY SYST-GENL STUD,METHS(16001); BONE,UNTS,FASC,CONN/ADIP-GENL(18001); BONE,UNTS,FASC,CONN/ADIP-PATHOL(18006); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); ENVIRON HEALTH-AIR,WATR,-SL POLLN(37015)

Biosystematic Codes: CRICETIDAE(86310)

70061552

DETERMINATION BY ELECTRON CAPTURE GAS CHROMATOGRAPHY OF MONO-2 ETHYLHEXYL PHTHALATE AND DI-2 ETHYLHEXYL PHTHALATE IN INTRA VENOUS SOLUTIONS STORED IN POLY VINYL CHLORIDE BAGS

ARBIN A; OSTELIUS J

RES. DEP., ACO LAKEMEDEL AB, BOX 3026, S-171 03 SOLNA 3, SWED.

J CHROMATOGR 193 (3). 1980. 405-412. Coden: JOCRA

Language: ENGLISH

Di(2-ethylhexyl) phthalate (DEHP) is used as a plasticizer in poly(vinyl chloride) (PVC), which is frequently used in medical items such as bags for blood transfusions and i.v. solutions. A gas chromatographic method was developed for the simultaneous determination of mono- and di(2-ethylhexyl) phthalate (MEHP and DEHP). The compounds were extracted with methylene chloride at pH 2.5 and the monoester was alkylated to the hexyl derivative by solid-liquid phase transfer catalysis in methyl ethyl ketone. Quantitation was effected by electron-capture gas chromatography. The sensitivity limits of the method are 4 .mu.g/l of DEHP and 1 .mu.g/l of MEHP. The relative SD are 4.2% for DEHP (31 .mu.g/l) and 3.7% for MEHP (27 .mu.g/l) (n = 10).

Descriptors: PLASTICIZER BLOOD TRANSFUSION BAGS

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL(+10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100); CARDIOVASC SYST-GENL STUDS,METHS(14501); BLOOD/BODY FLDS-GENL STUDS,METHS(+15001); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501)

70061522

TRANSPORT CONSIDERATIONS OF POTENTIAL MIGRANTS FROM FOOD PACKAGING MATERIALS

GILBERT S G; MILTZ J; GIACIN J R

FOOD SCI. DEP., COOK COLL., RUTGERS STATE UNIV., P.O. BOX 231, NEW BRUNSWICK, N.J. 08903, USA.

J FOOD PROCESS PRESERV 4 (1-2). 1980. 27-50. Coden: JFPD

Language: ENGLISH

Migration from polymeric packaging materials to contained foods is essentially a desorption process involving low MW species in a polymeric matrix. Such desorption can affect intrinsic quality and safety of ingested packaged food. A legalistic problem also exists because of present regulations of zero tolerance where a possible migrant is a potential carcinogen. The precise elucidation of desorption, at extremely low levels of initial migrant concentration, has become a major issue, but desorption at such levels has not been adequately studied. Sorption/desorption studies conducted with food simulating solvents and foods in classical phase distribution systems show marked concentration dependence for certain poly (vinyl chloride) resins. The thermodynamic relations between selected monomer/polymer systems were further studied by inverse phase gas chromatography for poly (vinyl chloride) and poly (acrylonitrile) and some of its copolymers. Solubility relations are apparently dominant at such low levels

for transport.

Descriptors: DESORPTION MOLECULAR WEIGHT POLYMER CARCINOGEN CHROMATOGRAPHY

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL(+10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); MOVEMENT-(12100); FOOD TECH-GENL STUDS,METHS(+13502); FOOD TECH-EVALNS PHYS,CHEM PROPS(+13530); FOOD TECH-PREP,PROCESSNG,STORAGE(+13-532); TOXICOL-FOOD,RESIDS,ADDIT,PRESRV(+22502); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

70061083

ANAEROBIC TOXICITY EVALUATION BY BATCH AND SEMI CONTINUOUS ASSAYS

STUCKEY D C; OWEN W F; MCCARTY P L; PARKIN G F

CIV. ENG. DEP., STANFORD UNIV., STANFORD, CALIF., USA.

J WATER POLLUT CONTROL FED 52 (4). 1980. 720-729.

Coden: JWPFA

Language: ENGLISH

The results of a simple batch assay technique (anaerobic toxicity assay) for evaluating toxicity thresholds [in anaerobic sludge digestion systems] are presented for 4 chemicals (methylene chloride, vinyl acetate, ethylene dichloride and vinyl chloride) and are compared with those obtained from a semi-continuous assay. The batch method involved the inoculation of the chemical together with anaerobic seed, nutrient media and ethanol into a serum bottle under anaerobic conditions. Semi-continuous studies were carried out using 1.5 l digesters with a detention time of 15 days. Toxicity thresholds for batch and semi-continuous assays are similar unless acclimation, biodegradation or volatilization occurs. When these occur the batch assay provides a conservative estimate of the threshold. Batch assays are quick, cheap, flexible and accurate. Semi-continuous assays are slow and expensive, but give a more useful assessment of toxicity when acclimation, biodegradation or volatilization occurs.

Descriptors: ANAEROBIC SLUDGE DIGESTION SYSTEM METHYLENE CHLORIDE VINYL ACETATE ETHYLENE DI CHLORIDE VINYL CHLORIDE ACCLIMATION BIO DEGRADATION VOLATILIZATION

Concept Codes: ECOLOGY-WATR RESRCH,FISHERY BIOL(07517); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); BIOPHYS-BIOENGINEERING(+10511); TOXICOL-GENL/EXP STUDS,METHS(22501); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); MICROORGANISMS-GENL,MIXED,UNSPEC(29500); MICROBIOLOG APPARAT,-METHS,MEDIA(32000); ENVIRON HEALTH-SEWG DISP,SANITAR(+37014); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015); FOOD/INDUS MICRO-BIODEGRAD,DETER(39006); FOOD/INDUS MICRO-GENL,MISC STUDS(+39008)

Biosystematic Codes: MICROORGANISMS-UNSPECIFIED(01000)

70058853

PHARMACO KINETICS OF VINYL CHLORIDE IN THE RHESUS MONKEY
BUCHTER A; FILSER J G; PETER H; BOLT H M
INST. POLIKLIN. ARB. SOZIALMED., UNIV. KOELN.
JOSEF-STELZMANN-STR. 9, D-5000 KOELN 41, W. GER.
TOXICOL LETT (AMST) 6 (1), 1980, 33-36. Coden: TOLED
Language: ENGLISH

The metabolic elimination of vinyl chloride [VC, a carcinogen] in Rhesus monkeys is a dose-dependent, saturable process, as in rats. Below 200-300 ppm of VC in atmosphere, elimination obeys a 1st-order law; the clearance rate is much closer to that found in man than the values for rats, mice and gerbils. The maximal velocity of metabolic elimination of VC at high concentrations in Rhesus monkeys is only about 1/2 that of rats when related to kilograms body weight. Rhesus monkeys evidently mimic the quantitative aspects of VC metabolism better than do rats or mice.

Descriptors: RAT MOUSE GERBIL HUMAN CARCINOGEN

Concept Codes: BIOCHEM STUD-GENERAL(10060); PHYSIOLOGY-COMPARATIVE(12003); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(+13002); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,INDUSTRIAL(22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015)

Biosystematic Codes: CERCOPITHECIDAE(86205); HOMINIDAE(86215); CRICETIDAE(86310); MURIDAE(86375)

70056329

RADIOLOGICAL OBSERVATIONS DURING TRANS PYLORIC TUBE FEEDING IN INFANTS OF LOW BIRTH WEIGHT

MERTEN D F; MUMFORD L; FILSTON H C; BRUMLEY G W JR; EFFMANN E L; GROSSMAN H
DUKE UNIV. MED. CENT., BOX 3834, DURHAM, N.C. 27710, USA.
RADIOLOGY 136 (1), 1980, 67-75. Coden: RADLA
Language: ENGLISH

Perforation of the duodenum is a serious complication of transpyloric tube feeding in infants of low birth weight. Polyvinyl chloride and (less commonly) silicone tubes are implicated. Altered radiographic configuration of the tube in the region of the superior or inferior flexure associated with clinical deterioration, pneumoperitoneum, peritonitis or a retroperitoneal fistula is diagnostic of duodenal perforation. Configuration of the tube may vary during uncomplicated transpyloric alimentation and is frequently incompatible with the expected anatomical course. Contrast examination may demonstrate normal anatomy or mobility of the distal duodenal loop as an adaptation to rigidity of the tube. Possibility of perforation appears to be increased at or adjacent to the flexures.

Descriptors: HUMAN DUODENAL PERFORATION PERITONITIS PNEUMO PERITONEUM RETROPERITONEAL FISTULA POLY VINYL CHLORIDE SILICONE

Concept Codes: PHOTOGRAPHY-METHS,MATLS,APPARAT(01012); RADIATION BIOL-RADTN,ISOTOP TECH(06504); BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(10060); ANATOMY/HISTOL-RADIOLOGIC(+11106); CHORDATE BODY REGNS-ABDOMEN(11314); MOVEMENT(12100); PATHOLOGY-DIAGNOSTIC(12504); PATHOLOGY-INFLAMMATN,INFLAM DIS(-

12508); PATHOLOGY-NECROSIS(12510); NUTRITION-GENL,NUTR STATUS,METHS(+13202); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-PATHOLOGY(+14006); COELOM MEMBRANES,MESENTERIE-S,ETC(18200); PEDIATRICS(+25000); DEVELOPMNTL BIOL-PATHOLOGICAL(+25503)

Biosystematic Codes: HOMINIDAE(86215); BIOSIS INTERNAL USE(97000)

70054660

MIGRATION OF INDIRECT FOOD ADDITIVES A PHYSICAL CHEMICAL APPROACH

KASHTOCK M E; GIACIN J R; GILBERT S G
DIV. CHEM. PHYS., US FOOD DRUG ADM., 200 C ST. S.W., WASHINGTON, D.C. 20204, USA.
J FOOD SCI 45 (4), 1980, 1008-1011. Coden: JFDSA
Language: ENGLISH

Active site binding of vinyl chloride monomer by polyvinyl chloride was demonstrated in 2 of 3 unplasticized resins, by equilibrium partitioning studies. The magnitude of this effect was less than what was observed in previous studies. The potential for active site binding to be a limiting factor for the migration of indirect food additives may depend upon chemical and morphological features of the particular resin used to manufacture the food contact article. Inverse phase gas-solid chromatographic studies have also shown active site binding in the unplasticized resin sample studied by this method. Simple dissolution was the predominant mode of monomer/polymer interaction for the plasticized counterpart of this resin. These studies showed the potential for obtaining reliable data for interaction of polymer resins with indirect food additive type molecules by this more quickly performed technique.

Descriptors: RESINS ACTIVE SITE BINDING CHROMATOGRAPHY

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); MOVEMENT(12100); FOOD TECH-GENL STUDS,METHS(+13502); FOOD TECH-EVALNS PHYS,CHEM PROPS(+13530); FOOD TECH-PREP,PROCESSNG,STORAGE(+13532); TOXICOL-FOOD,RESIDS-ADDIT,PRESRV(+22502)

70054657

DETERMINATION OF OLIGOMERS IN VINYL CHLORIDE POLYMERS BY STERIC EXCLUSION CHROMATOGRAPHY

GILBERT J; SHEPHERD M J; WALLWORK M A
FOOD SCI. DIV., MINIST. AGRIC. FISH. FOOD, HALDIN HOUSE,
QUEEN ST., NORWICH NR2 4SX, NORFOLK, ENGL., UK.
J CHROMATOGR 193 (2). 1980. 235-242. Coden: JOCRA
Language: ENGLISH

Low MW materials were isolated from poly(vinyl chloride) resins by diethyl ether Soxhlet extraction and these were subsequently fractionated on a combination of steric exclusion columns. Estimations of oligomer levels in the isolated MW fractions were made on the basis of gravimetric measurements and micro Cl determinations. The presence in each fraction of a large number of species was demonstrated by high-performance steric exclusion chromatography and mass spectrometry was employed for attempted characterization. [The quantification of constituents in plastic food packaging materials is discussed.]

Descriptors: PLASTIC FOOD PACKAGING MASS SPECTROMETRY

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010);
BIOCHEM METII-GENERAL(+10050); BIOCHEM. STUD-GENERAL(10060);
BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100); FOOD
TECH-GENL STUDS,METHS(13502); FOOD TECH-PREP,PROCESSNG,STORAG-
E(+13532); TOXICOL-FOOD,RESIDS,ADDIT,PRESRV(+22502)

70054080

POLY VINYL CHLORIDE WORK BOOTS IN THE MANAGEMENT OF SHOE DERMATITIS IN INDUSTRIAL WORKERS

MATHIAS C G T; MAIBACH H I
DEP. DERMATOL., UNIV. CALIF. MED. CENT., ROOM 342-A, SAN
FRANCISCO, CALIF. 94143, USA.
CONTACT DERMATITIS 5 (4). 1979 (RECD. 1980). 249-250.
Coden: CODED

Language: ENGLISH

A sugar refinery worker developed allergic contact dermatitis of his feet secondary to rubber accelerators in his work boots. The dermatitis resolved when polyvinyl chloride work boots were substituted. The importance of controlling hyperhidrosis in the management of foot dermatitis in workers is discussed.

Descriptors: SUGAR REFINERY WORKER HYPER HIDROSIS ALLERGIC CONTACT DERMATITIS RUBBER ACCELERATOR

Concept Codes: CHORDATE BODY REGNS-EXTREMITIES(11318);
PATHOLOGY-INFLAMMATN,INFLAM DIS(12508); FOOD TECH-SUGAR(13524);
URIN SYST/EXT SECR-PATHOLOGY(+15506); INTEGUMENT
SYST-PATHOLOGY(+18506); TOXICOL-ENVIRONMNTL,INDUSTRI(+22506);
IMMUNOL/IMMUNOCHEM-IMMUNOPATHOL(34508); ALLERGY(+35500); ENVI-
RON HEALTH-OCCUPATNL HEALTH(+37013)

Biosystematic Codes: HOMINIDAE(86215)

70052153

INFLUENCE OF VINYL CHLORIDE MONOMER AND ARSENIC TRI OXIDE ON RAT LIVER CELL PROLIFERATION AFTER PARTIAL HEPATECTOMY

NORPOTH K; GOTTSCHALK D; GOTTSCHALK I; WITTING U; THOMAS H;
EICHNER D; SCHMIDT E H

INST. STAUBLUNGENFORSCH. ARBEITSMED., UNIV. MUENSTER,
WESTRING 10, D-4400 MUENSTER, W. GER.

J CANCER RES CLIN ONCOL 97 (1). 1980. 41-50. Coden:
JCROD

Language: ENGLISH

Male Wistar rats (240-320 g body wt) were partially (2/3) hepatectomized and immediately thereafter exposed to inhalation of vinyl chloride monomer (VCM) over 28 h at concentrations of 0, 50, 125 and 500 ppm. Following partial hepatectomy, rats of 130-150 g were infused by the caudal vein over 28 h with As2O3 (AT) at concentrations of 0, 1, 2 and 10 mg/ml. The total volume of the infusion was 16.8 ml. Following treatment, the liver was removed and proliferative activity in the tissue was studied. With preparations from VCM-treated animals, investigations were made of the mitotic index (histologically), the 3H-thymidine index (autoradiographically) and the incorporation of 3H-thymidine in DNA (using liquid-scintillation counting). DNA synthesis in nuclei of these tissues was studied by impulse-cytophotometry determining the proportions of cells in S-phase to those in G1. Incorporation of 3H-thymidine and mitotic activity was also determined using tissue from AT-treated animals. The tissue alkaline phosphatase activities in liver preparations from VCM- and AT-treated animals were also measured. In all measured parameters, an increase was observed over values found in controls and those increases were dose-related. Administration of VCM or AT leads to stimulation of cell proliferation in regenerating rat liver. The increase of alkaline phosphatase activity could not be referred to preferential effects of VCM and AT on endothelial cells. As shown by histochemical investigations, the alkaline phosphatase activity was localized mainly in bile-duct canaliculi, not in sinusoids. [VCM and AT are carcinogens.]

Descriptors: CARCINOGEN ALKALINE PHOSPHATASE DNA SYNTHESIS

Concept Codes: PHOTOGRAPHY-METHS,MATLS,APPARAT(01012);
MICROSCOPY-CYTOLOG,CYTOCHEM TECH(01054); MICROSCOPY-HISTOL,HIS-
TOCHEM TECH(01056); CYTOLOGY/CYTOCHEM-ANIMAL(+02506);
RADIATION BIOL-RADTN,ISOTOP TECH(06504); BIOCHEM STUD-GENERAL-
(10060); BIOCHEM STUD-NUCL ACD,PURNS,PYRM(10062); BIOCHEM
STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); MINERALS(10069);
ENZYMES-PHYSIOLOGICAL STUDIES(10808); ANATOMY/HISTOL-EXPERIME-
NTAL(11104); ANATOMY/HISTOL-RADIOLOGIC(11106); ANATOMY/HISTOL-
-REGEN,TRANSPLANT(+11107); METABOLISM-PROTNS,PEPTOS,AM ACDS(1-
3012); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE
SYST-PATHOLOGY(+14006); CARDIOVASC SYST-GENL STUDS,METHS(1450-
1); RESPIRATORY SYST-GENL STUD,METHS(16001); ROUTES OF
IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+2-
2501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: MURIDAE(86375)

70052127

EXAMINATION OF WORKERS IN POLYMERIZATION PROCESS OF VINYL CHLORIDE MONOMER

HASEGAWA H; SATO M; OKONOGI K; SHIMADOKA A; TSURUTA H
NATL. INST. IND. HEALTH, NAGAO 6-CHOME, TAMA, KAWASAKI,
KANAGAWA 213, JPN.IND HEALTH 17 (3). 1979 (RECD. 1980). 153-186. Coden:
INHEA

Language: ENGLISH

The results of health examinations of VCM [vinyl chloride monomer] workers in 1975 or 1976 are described. All workers examined were healthy, and liver or spleen enlargement was not observed. Worker blood catalase activity was seriously significant for VCM exposure. The decrease of blood catalase activity in rats exposed to VCM corresponds to the concentration of VCM. The decrease of catalase activity in man was significant when the activity value was < 90%. When the activity value was in normal range, the difference between the value and that obtained by later tests was considered. Diastolic blood pressure rose in some cases, but the rise could be explained by the results on catalase activity and blood platelets, etc. Although the activity of .gamma.-GTP [.gamma.-glutamyl transpeptidase] was an important factor for discerning the influence of VCM, it should be carefully treated by taking into account the other tests results when the increase is small. Measurement of serum lipids such as triglycerides and free fatty acids, etc. should be considered as a co-factor with the synthetic result of .gamma.-GTP, blood platelets, reticulocytes, blood pressure and catalase activity. As the result of tracing VCM workers for approx. 1 yr who were exposed to VCM of 0.2 ppm or less for at least 1 yr, it was assumed that serum proteins and serum bilirubin were scarcely influenced. Measurement of aspartate transaminase, alanine transaminase and alkaline phosphatase may be necessary for finding some disordered states of the liver, but not as serious for finding VCM influence in the 1st screening. As a screening test for VCM workers, blood catalase activity, .gamma.-GTP, blood platelets, reticulocytes and blood pressure should be studied, and the results of the tests should be considered together. Since .gamma.-GTP value increases by daily drinking and decreases fairly quickly by discontinuation of drinking, the test must be carried out in an accustomed life-style, and the result should be carefully considered by making reference to the amount of drink if the worker drank habitually. The amount of VCM in the blood of workers was several ppb, and in 1976 it was less than that in 1975. In some workers, although the metabolic speed of VCM in the body was considered to be rapid, VCM in the blood was detected after 48 h apart from VCM works. [VCM is a carcinogen.]

Descriptors: RAT CARCINOGEN LIVER PLATELETS RETICULOCYTES
BLOOD PRESSURE CATALASE GAMMA GLUTAMYL TRANS PEPTIDASE
ASPARTATE TRANS AMINASE ALANINE TRANS AMINASE ALKALINE
PHOSPHATASE SERUM LIPIDS DRINKING

Concept Codes: BEHAVIOR BIDL-HUMAN BEHAVIOR(07004); CLIN
BIOCHEM-GENL STUDIES(+10006); BIOCHEM STUD-GENERAL(10060);
BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACD(10064); BIOCHEM
STUD-PORPHYRINS,BILE PIGM(10065); BIOCHEM STUD-LIPIDS(10066);

ENZYMES-PHYSIOLOGICAL STUDIES(+10808); METABOLISM-GENL
STUD,METAB PATHW(+13002); METABOLISM-LIPIDS(13006); METABOLIS-
M-PROTNS,PEPTDS,AM ACD(13012); METABOLISM-PORPHYRINS,BILE
PIGM(13013); CARDIOVASC SYST-PHYSIOL,BIOCHEM(14504); BLOOD/B-
ODY FLDS-BLOOD,LYMPH STUD(15002); BLOOD/BODY FLDS-BLOOD CELL
STUDS(15004); BLOOD/BODY FLDS-BLD,LYM,RES PATH(15006);
PSYCHIATRY-ADDICTION(INC SMOKNG)(21004); TOXICOL-GENL/EXP
STUDS,METHS(+22501); NEOPL(SMS/NEOPL AGNTS-CARCINOGENS(+24007);
ENVIRON HEALTH-OCCUPATNL HEALTH(+37013)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

70049504

EMBRYO TOXIC EFFECTS OF DI-2 ETHYLHEXYL PHTHALATE AND DI-N BUTYL PHTHALATE IN MICE

SHIOTA K; CHOU M J; NISHIMURA H

DEP. ANAT., FAC. MED., KYOTO UNIV., KYOTO 606, JPN.

ENVIRON RES 22 (1). 1980. 245-253. Coden: ENVRA

Language: ENGLISH

Two major compounds of PVC [polyvinyl chloride] plasticizers, di-2-ethylhexyl phthalate (DEHP) and di-n-butyl phthalate (DBP), were mixed with food at levels of 0.05, 0.1, 0.2, 0.4 and 1.0 wt% and given to pregnant mice of ICR-JCL strain throughout gestation. Treatment with 0.2, 0.4 and 1.0% DEHP and 1.0% DBP resulted in decreased maternal weight gain and increased resorption rate. All of the implanted ova died in utero at 0.4 and 1.0% level of DEHP. The malformation rate in term fetuses increased at 0.2% level of DEHP and 1.0% level of DBP, the difference from the control group being at the borderline level of significance. The major malformations observed in the treated groups were neural tube defects (exencephaly and spina bifida), suggesting that the phthalic acid esters [PAE] could interfere with the closure of neuropores in developing embryos. Treatment with the compounds caused intrauterine growth retardation and delayed ossification with an apparently dose-related response pattern. These results indicate that DEHP and DBP at a high dose level could be embryotoxic and possibly teratogenic to mice. The maximum no-effect level of the PAE on mouse fetuses was 70 mg/kg per day, which is far higher than the estimated human current intake from the environment.

Descriptors: HUMAN COMPARISON POLY VINYL CHLORIDE PLASTICIZER NEURAL TUBE DEFECT INTRA UTERINE GROWTH RETARDATION TERATOGENESIS

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL(10060); PATHOLOGY-GENERAL STUDIES(12502); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); REPRODUCT SYST-GENL STUDS,METHS(16501); DENTAL/ORAL BIOL-GENL STUD,METHS(19001); NERVOUS SYST-GENL STUDS,METHS(20501); NERVOUS SYST-PATHOLOGY(+20506); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+2-2501); TOXICOL-ENVIRONMNTL,INDUSTR(22506); DEVELOPMNTL BIOL-PATHOLOGICAL(+25503); DEVELOPMNTL BIOL-EXPERIMENTAL(+255-04); DEVELOPMNTL BIOL-GEN MORPHGENSIS(25508); DEVELOPMNTL BIOL-DESCRIP TERATOL(25552); DEVELOPMNTL BIOL-EXPER TERATOL(+25554); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

microscopy [SEM] using latex replicas. The latex replica was composed of a blend of vinyl chloride latexes using a plasticized vinyl chloride copolymer with a vinyl chloride copolymer. The polymerized latex produced a cast of the pulmonary arterial vascular tree, including the capillary patterns, which freely anastomose, thereby draining blood into pulmonary veinules and veins. Latex was injected via a gravity flow system modified from its earlier application in guinea pig lungs. Apparently normal lungs from 2 recently deceased humans (dead for 5-6 h and held in refrigeration) were perfused with heparinized Ringer's solution and subsequently injected with latex. Resulting latex casts of the capillaries revealed a 3-dimensional network arranged in irregular vascular rings or ovals. This pattern was most conspicuous in deep and intermediate bronchopulmonary segmental areas. Subpleural capillaries produced casts that often terminated blindly, as observed with stereo SEM, suggesting that these vessels may tend to form thrombi more easily compared to capillaries from other regions of lung alveoli. Pulmonary arteriolar replicas contained indentations representing endothelial cell nuclei. Capillary replicas projected oval evaginations that may represent discrete loci or capillary mural attenuations.

Descriptors: GUINEA-PIG APICAL BRONCHO PULMONARY SEGMENT ENDOTHELIAL CELL THROMBUS

Concept Codes: ELECTRON MICROSCOPY(01058); CYTOLOGY/CYTOCHEM-HUMAN(+02508); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-CARBOHYDR.(10068); EXTERN EFF-COLD(10616); ANATOMY/HISTO-L-MICRO,ULTRAMICRSC(+11108); CHORDATE BODY REGNS-THORAX(11312); PATHOLOGY-NECROSIS(12510); CARDIOVASC SYST-GENL STUDS,METHS(+14501); CARDIOVASC SYST-ANATOMY(+14502); CARDIOVASC SYST-BLD VESS PATHOL(+14508); BLOOD/BODY FLOWS-BLOOD,LYMPH,STUD(+15002); RESPIRATORY SYST-GENL STUD,METHS(+16001); RESPIRATORY SYST-ANATOMY(+16002); RESPIRATORY SYST-PATHOLOGY(+16006); COELOM MEMBRANES,MESENTERIES,ETC(18200); TEMPERATURE-GENL,METHS(23001); TEMPERATURE-HYPO,HYPERTHERMIA(23006)

Biosystematic Codes: HOMINIDAE(86215); CAVIIDAE(86300)

70048864

SCANNING ELECTRON MICROSCOPIC EXAMINATION OF HUMAN PULMONARY CAPILLARIES USING A LATEX REPLICATION METHOD

KENDALL M W; EISSMANN E

DEP. ANAT., SCH. MED. SCI., UNIV. NEV., RENO, NEV. 89557, USA.

ANAT REC 196 (3). 1980. 275-284. Coden: ANREA

Language: ENGLISH

Human pulmonary microvasculature from the apical bronchopulmonary segment was studied by scanning electron

70047854

EXPOSURE OF PATIENTS TO ETHYLENE OXIDE DURING CARDIO
PULMONARY BYPASS USING GAS STERILIZED PUMP COMPONENTS

LINDOP C R; WILLCOX T W; MCKEGG P M; HARRIS E A

CLIN. PHYSIOL. DEP., GREEN LANE HOSP., AUCKLAND 3, N.Z.

J THORAC CARDIOVASC SURG 79 (6). 1980. 845-850. Coden:
JTCSA

Language: ENGLISH

Ethylene oxide (EO), absorbed by polyvinyl chloride (PVC) and rubber components of the cardiopulmonary bypass (CPB) circuit during sterilization, is subsequently eluted by the circulating blood-prime mixture and enters the patient. The amount of EO available for elution is diminished by increasing the airing period of the tubing after sterilization, but it is still appreciable after 72 h airing. When tubing is used after 24 h airing, the amount of EO which enters the patient during 90 min of CPB is probably at least 70 mg. During the first few hours after CPB, the amount of EO recoverable from the patient's blood rapidly diminishes, probably because of the binding of EO in irreversible chemical combination.

Descriptors: BLOOD POLY VINYL CHLORIDE

Concept Codes: CLIN BIOCHEM-GENL STUDIES(10006); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL(10060); ANATOMY/HISTOL-SURGERY(11105); METABOLISM-GENL STUD,METAB PATHW(13002); CARDIOVASC SYST-GENL STUDS,METHS(+14501); BLOOD/BODY FLDS-GENL STUDS,METHS(+15001); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(+15002); RESPIRATORY SYST-GENL STUD,METHS(16001); TOXICOL-GENL/EXP STUDS,METHS(+22501); DISINFECTION,DISINFECTANTS,STERL(+39500)

Biosystematic Codes: HOMINIDAE(86215)

70047759

CUMULATIVE EFFECTS OF REPEATED DOSES OF COMPOUNDS
TRANSFORMED INTO REACTIVE METABOLITESPESSAYRE D; WANDSCHEER J-C; DESCATOIRE V; DOLDER A; DEGOTT C
; BENIAMOU J-PUNITE RECH. PHYSIOL. HEPATIQUE. HOP. BEAUJON. 92118 CLICHY,
FR.

BIOCHEM PHARMACOL 29 (7).1980. 1041-1048. Coden: BCPCA

Language: ENGLISH

Several drugs and chemicals are transformed in the liver by cytochrome [cyt] P-450 into reactive metabolites that may destroy hepatic cyt P-450, deplete hepatic glutathione, and covalently bind to hepatic proteins. The possibility was investigated that daily administration of the parent compounds may have cumulative effects on some of these phenomena. Rats received 1-3 i.p. doses of bromobenzene [BB], 0.25 mmol/kg daily, trichloroethylene, 1 mmol/kg daily, or vinyl chloride, 0.5 mmol/kg daily. Cyt P-450 concentration was not significantly decreased after a single dose, but was progressively decreased after repeated doses of the 3 compounds. Although hepatic glutathione concentration was decreased 4 h after the administration of a single dose of BB, it was not decreased 24 h after a single or repeated doses of BB. The amount of metabolite irreversibly bound to proteins progressively increased in the liver during repeated

administration of the 3 compounds. Daily administration of compounds transformed into reactive metabolites may lead to a progressive decrease in hepatic cyt P-450 concentration and to the accumulation of metabolites irreversibly bound to proteins in the liver.

Descriptors: RAT LIVER BROMO BENZENE TRI CHLORO ETHYLENE VINYL CHLORIDE CYTOCHROME P-450 GLUTATHIONE DEPLETION PROTEIN BINDING TOXICITY DRUGS PHARMACO KINETICS

Concept Codes: BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,AMINO ACID(10064); BIOCHEM STUD-PORPHYR-NS,BILE PIGM(10065); ENZYMES-GEN,COMPAR STUD,COENZYMES(+10802); ENZYMES-CHEM,PHYSICAL STUDIES(+10806); CHORDATE BODY REGNS-ABDOMEN(11314); METABOLISM-GENL STUD,METAB PATHW(+13002); DIGESTIVE SYST-PHYSIOL,BIOCHEM(+14004); DIGESTIVE SYST-PATHOLOGY(+14006); PHARMACOL-DRUG METAB,METAB STIMU(+220-03); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-PHARMACOLOGICAL(+22504)

Biosystematic Codes: MURIDAE(86375)

70042628

ASSESSMENT OF THE TERATOGENIC POTENTIAL OF PLASMA SOLUBLE EXTRACTS OF DI ETHYLHEXYL PHTHALATE PLASTICIZED POLY VINYL CHLORIDE PLASTICS IN RATS

LEWANDOWSKI M; FERNANDES J; CHEN T S
DEP. TOXICOL., ARNARSTONE LAB., INC., MCGAW PARK, ILL.
60085, USA.
TOXICOL APPL PHARMACOL 54 (1). 1980. 141-147. Coden:
TXAPA

Language: ENGLISH

Plasma extracts of 2 polyvinyl chloride (PVC) plastics (designated PL-130 and PL-146) containing diethylhexyl phthalate (DEHP) as a plasticizer and used in the manufacture of parenteral fluid storage bags were administered i.v. to pregnant rats daily from day 6-15 of gestation. Two groups of rats received PL-130 extracts in doses equivalent to 1.3 and 4.7 mg DEHP/kg per day, and 2 groups received PL-146 extracts in doses equivalent to 1.4 and 5.3 mg DEHP/kg per day. The higher doses are similar to those predicted to be received by a 60-kg human undergoing an exchange transfusion of 21-day-old blood. A control group of rats received the plasma vehicle only. No differences were seen in the growth rates or behavior of the control and treated groups. There were no significant effects on fetal weights, or on crown-rump and transumbilical distances in offspring. The number of live and resorbed fetuses was not significantly different in control and treated groups. The incidence of gross external, skeletal and visceral defects among offspring was similar in all groups, and there was no statistically significant difference between control and treated groups. Plasma extracts of PL-130 and PL-146 were not teratogenic when administered i.v. to pregnant rats during the critical period of organogenesis.

Descriptors: HUMAN COMPARISON PARENTERAL FLUID STORAGE BAG
TERATOGENESIS NEGATIVE

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010);
BIOCHEM STUD-GENERAL(10060); PATHOLOGY-COMPARATIVE(12503);
METABOLISM-GENL STUD,METAB PATHW(13002); CARDIOVASC SYST-GENL
STUDS,METHS(14501); BLOOD/BODY FLDS-GENL STUDS,METHS(15001);
BLOOD/BODY FLDS-BLOOD,LYMPH STUD(*15002); REPRODUCT SYST-GENL
STUDS,METHS(16501); ROUTES OF IMMUNIZ,INFECT,THERAP(22100);
TOXICOL-GENL/EXP STUDS,METHS(*22501); TOXICOL-ENVIRONMNTL,IND-
USTR(22506); DEVELOPMNTL BIOL-PATHOLOGICAL(*25503); DEVELOPMN-
TL BIOL-EXPERIMENTAL(25504); DEVELOPMNTL BIOL-GEN MORPHGENSIS-
(25508); DEVELOPMNTL BIOL-EXPER TERATOL(*25554)

Biosystematic Codes: HOMINIDAE(86215); MURIDAE(86375)

70028109

RELEASE OF DI ETHYL-2-HEXYL PHTHALATE IN STORED BLOOD IN CONTACT WITH POLY VINYL CHLORIDE

FRIOCOURI M P; PICART D; SALEUN J P; FLOCH H H
LAB. BIOCHEM., FAC. MED., BP 815, 29279 BREST CEDEX, FR.
REV FR TRANSFUS IMMUNO-HEMATOL 22 (4). 1979. 343-358.
Codon: RFTID

Language: FRENCH

Softness and flexibility of PVC [polyvinyl chloride] are due to the addition of plasticizers in high concentrations; the

most frequently used for blood storage bags is DEHP [diethyl-2-hexyl phthalate]. In this study, a method for labeling DEHP with ¹⁴C from ¹⁴C phthalic anhydride was given. A piece of PVC from a commercial blood bag was labeled with ¹⁴C DEHP and was used to follow the kinetics of DEHP leaching in blood during storage. It was also used to study the influence of some parameters such as the amount of blood lipids, shaking, and plastic sterilization on this leaching. DEHP leaching was a 3-step phenomenon and the level was not correlated to the lipid content of the blood. Thermal treatment of PVC and shaking had an influence on leaching. DEHP was not metabolized during blood storage at 4.degree. C and could not be detected as a free molecule; it was absorbed on plasmatic proteins.

Descriptors: PLASTICIZERS

Concept Codes: RADIATION BIOL-RADTN,ISOTOP,TECH(06504);
BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-PROTEINS,PEPTIDES,A-
MINO ACD(10064); BIOCHEM STUD-LIPIDS(10066); EXTERN
EFF-PHYSICAL,MECH EFFECTS(10612); EXTERN EFF-COLD(10616);
METABOLISM-GENL STUD,METAB PATHW(13002); BLOOD/BODY FLDS-GENL
STUDS,METHS(*15001); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(*15002);
TEMPERATURE-GENL,METHS(23001); TEMPERATURE-CRYOBIOLOGY(23001)

Biosystematic Codes: VERTEBRATA-UNSPECIFIED(85150)

70028019

PH PARTIAL PRESSURE OF CARBON DIOXIDE AND PARTIAL PRESSURE OF OXYGEN IN HIGH VOLUME PLATELET CONCENTRATES PREPARED BY DISCONTINUOUS FLOW CENTRIFUGATION AND STORED IN POLY VINYL CHLORIDE AND POLY ETHYLENE CONTAINERS

ROSENSTEIN R; LAWE J E; NORTH J G
VETERANS ADM. MED. REG. OFF. CENT., WHITE RIVER JUNCTION,
VT. 05001, USA.

AM J CLIN PATHOL 73 (3). 1980. 397-399. Coden: AJCPA
Language: ENGLISH

High-volume (200 ml) [human] platelet concentrates prepared by discontinuous-flow centrifugation, with counts as high as approximately 2.0 times, 1012/l, were stored in 600 ml-capacity polyvinylchloride bags or 800 ml capacity polyethylene bags. Polyvinylchloride and polyethylene bags appeared adequate for 24 h storage of platelet concentrates with counts greater than 0.5 times, 1012/l. At 24 h the platelet concentrates in polyvinylchloride bags showed a reduction in pH and an increase in PCO2 [CO2 partial pressure] that were proportional to the platelet count. Only with storage in polyethylene bags did the pH and PCO2 of the platelet concentrates show little change for periods of as long as 120 h.

Descriptors: HUMAN

Concept Codes: BIOCHEM-GASES(10012); BIOCHEM STUD-GENERAL(1-0060); BIOPHYS-GENERAL BIOPHYS TECH(10504); MOVEMENT(12100); BLOOD/BODY FLDS-GENL STUDS,METHS(+15001); BLOOD/BODY FLDS-BLOOD CELL STUDS(+15004)

Biosystematic Codes: HOMINIDAE(86215)

70025664

COMPATIBILITY OF VERAPAMIL HYDRO CHLORIDE INJECTION IN COMMONLY USED LARGE VOLUME PARENTERALS

CUTIE M R; LORDI N G
DEP. PHARM., COLL. PHARM., RUTGERS UNIV., BUSCH CAMPUS, NEW
BRUNSWICK, N.J. 08903, USA.

AM J HOSP PHARM 37 (5). 1980. 675-676. Coden: AJHPA
Language: ENGLISH

The visual and chemical compatibilities of verapamil hydrochloride injection in 10 commonly used large-volume solutions packaged in glass, polyolefin or polyvinyl chloride containers were studied. The mixtures, each containing 40 mg/l of verapamil hydrochloride, were stored away from light for up to 48 h at 25.degree. C. The solutions were examined visually for haze, precipitate formation, color change, and evolution of gas immediately after mixing and at 0.25, 1, 3, 8, 24 and 48 h. Spectrophotometry and TLC were used to test for drug decomposition or chemical incompatibilities. All test methods used showed that no significant degradation of verapamil hydrochloride had taken place in the solutions or through contact with the containers. Slightly higher spectrophotometric readings for dextrose-containing solutions, though within experimental error, could have indicated the presence of dextrose degradation products. Evidence from this study suggests that verapamil hydrochloride is compatible with the large-volume parenterals studied.

Descriptors: DEXTROSE GLASS POLY OLEFIN POLY VINYL CHLORIDE
DRUG DEGRADATION

Concept Codes: COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM METH-GENERAL(+10050); BIOCHEM METH-CARBOHYDRATES(+100-58); BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-CARBOHYDR.(100-68); BIOPHYS-GENERAL BIOPHYS TECH(10504); BIOPHYS-MOLECUL PROP,MACROMOLEC(10506); EXTERN EFF-TEMPERATURE(10614); MOVEMENT(12100); PHARMACOL-GENERAL STUDIES(+22002); PHARMACOL-DRUG METAB,METAB STIMU(+22003); TOXICOL-PHARMACOLOGICAL(2250-4); TEMPERATURE-GENL,METHS(23001)

70024649

HEPATIC LESIONS CAUSED BY VINYL CHLORIDE MONOMER IN HUMANS 8 CLINICO PATHOLOGICAL CASES

PIALAT J; PASQUIER B; PHAN M; KOPP N
LAB. ANAT. PATHOL., CENT. HOSP. UNIV. LYON, FAC. ALEXIS
CARREL, RUE GUILLAUME-PARADIN, 69372 LYON CEDEX 2, FR.

ARCH ANAT CYTOL PATHOL 27 (6). 1979 (RECD. 1980).
361-375. Coden: AACPD

Language: FRENCH

Six hepatic angiosarcomas, 1 hepatoma and 1 hepatic fibrosis with portal hypertension in patients chronically exposed to vinyl chloride monomer (VCM) are reported. The industrial methods of synthesis and current knowledge on the carcinogenic role of VCM are reviewed. Histogenetic and pathogenetic concepts of fibrosis and angiosarcomas of liver are discussed.

Descriptors: CARCINOGENESIS ANGIO SARCOMA HEPATOMA FIBROSIS
PORTAL HYPERTENSION

Concept Codes: MICROSCOPY-HISTOL,HISTOCHEM TECH(01056); CYTOLOGY/CYTOCHEM-HUMAN(02508); SOCIAL BIOL/HUMAN ECOLOGY(055-00); BIOCHEM METH-GENERAL(10050); BIOCHEM STUD-GENERAL(10060); ANATOMY/HISTOL-MICRO,ULTRAMICRSC(11108); PATHOLOGY-COMPARATIVE(12503); METABOLISM-GENL STUD,METAB PATHW(13002); DIGESTIVE SYST-GENL STUDS,METHS(14001); DIGESTIVE SYST-PATHOLOGY(+14006); CARDIOVASC SYST-GENL STUDS,METHS(14501); CARDIOVASC SYST-BLD VESS PATHOL(+14508); TOXICOL-ENVIRONMNTL,INDUSTR(+22506); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007); ENVIRON HEALTH-OCCUPATNL HEALTH(37013); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015)

Biosystematic Codes: HOMINIDAE(86215)

70022724

THE RESISTANCE OF PACKAGING FOILS AGAINST THE LESSER GRAIN BORER RHIZOPERTHA-DOMINICA THE DRUGSTORE BEETLE STEGOBIUM-PANICEUM THE RUST-RED FLOUR BEETLE TRIBOLIUM-CASTAN-EUM AND LARVAE OF THE INDIAN MEAL MOTH PLODIA-INTERPUNCTELLA

SCHMIDT H-U

PFLANZENSCHUTZAMT BERL., ALTKIRCHER STR. 1-3, D-1000 BERLIN 33, W. GER.

MATER ORG (BERL) 14 (4), 1979 (RECD. 1980), 241-258.
Codon: MTOGA

Language: GERMAN

The resistance of packaging foils made of cellulose acetate, cellophane, polyacrylonitrile, polyethylene, polyester, polypropylene, polystyrene and polyvinyl chloride (PVC) against 4 stored-products pests was tested with an apparatus especially developed for these experiments. PVC foils (60 .mu.) as well as foils of polyester (50 .mu.) and polypropylene (30 .mu.) were not penetrated by *S. paniceum* and *T. castaneum*, and not as often as the other materials by *P. interpunctella*, but foils of cellulose acetate (50 .mu.), cellophane (50 .mu.) and low, dense polyethylene (50 .mu.) were penetrated and not insect resistant. The smoothness, rigidity and thickness could be the reasons for the insect resistance of the tested material. The gnawing ability of the insects might be influenced by the shape and size of the mouthparts as well as the position of the mandibles in relation to the axis of the body. Only 1 PVC foil was resistant against the lesser grain borer (*R. dominica* F.) but, since this pest is almost exclusively important in exports to the tropics, the majority of the tested packaging foils will protect the packed goods sufficiently against stored-products insects of central Europe.

Descriptors: CELLULOSE ACETATE CELLOPHANE POLY ACRYLONITRILE POLY ETHYLENE POLY ESTER POLY PROPYLENE POLY STYRENE POLY VINYL CHLORIDE GNAWING MOUTH PARTS EUROPE

Concept Codes: BIOCHEM STUD-GENERAL(10060); FOOD TECH-PREP, PROCESSNG, STORAGE(+13532); DENTAL/ORAL BIOL-ANATOMY-(19002); PEST CONTRL GENL/PESTICS/HERBICS(+54600); ECONOM ENTOMOL-STORED PRODUCTS(+60008); ECONOM ENTOMOL-CHEM PHYS CONTRL(+60016); INVERTB PHYSIOL-INSECTA-MORPHOL(+64074)

Biosystematic Codes: COLEOPTERA(75304); LEPIDOPTERA(75330)

70022633

MATING DISRUPTION WITH SYNTHETIC SEX ATTRACTANTS CONTROLS DAMAGE BY EUCOSMA-SONOMANA LEPIDOPTERA TORTRICIDAE OLETHREUTINAE IN PINUS-PONDEROSA PLANTATIONS 1. MANUALLY APPLIED POLY VINYL CHLORIDE FORMULATION

SARTWELL C; DATERMAN G E; SOWER L L; OVERHULSER D L; KOERBER T W

PAC. NORTHWEST FOR. RANGE EXP. STN., US AGRIC. RES., FOR. SERV., CORVALLIS, OREG. 97331, USA.

CAN ENTOMOL 112 (2), 1980, 159-162. Codon: CAENA

Language: ENGLISH

A chemical mixture highly attractive to males of western pine shoot borer, *E. sonomana* Kearfott, were dispensed from manually applied polyvinyl chloride releasers on 15 ha of

ponderosa pine plantations during spring 1978 near Bly, Oregon [USA]. Mating disruption treatments, replicated 4 times, were 3.5 g/ha from 100 releasers/ha spaced at 10 m and 14 g/ha from 400 releasers/ha spaced at 5 m. Both were equally effective; the number of damaged terminal shoots was reduced 83.0% with the low dosage and 84.2% with the high dosage.

Descriptors: TERMINAL SHOOTS POLY VINYL CHLORIDE RELEASER OREGON USA

Concept Codes: GENERAL FIELD METHODS(01008); GENERAL FIELD APPARATUS(01010); BEHAVIOR BIOL-ANIMAL BEHAVIOR(+07003); BEHAVIOR BIOL-ANIMAL COMMUNICATN(+07006); BIOCHEM STUD-GENERAL(10060); ENDOCRINE SYST-GENERAL STUDIES(+17002); PLANT PHYSIOL-GROWTH, DIFFERENTIAT(+51510); ECONOM ENTOMOL-TREE, ORN, WO PRODS(+60010); ECONOM ENTOMOL-BIOLOGICAL CONTRL(+60014); INVERTB PHYSIOL-INSECTA-PHYSIOL(+64076)

Biosystematic Codes: CONIFEROPSIDA (CONIFERAE)(25102); LEPIDOPTERA(75330)

70020350

A COMPARISON BETWEEN IN-VITRO TOXICITY OF POLY VINYL CHLORIDE POWDERS AND THEIR TISSUE REACTION IN-VIVO

PIGOTT G H; ISHMAEL J
IMP. CHEM. IND. LTD., CENT. TOXICOL. LAB., ALDERLEY PARK,
MACCLESFIELD SK10 4TJ, CHESHIRE, ENGL., UK.
ANN OCCUP HYG 22 (2). 1979 (RECD. 1980). 111-126.
Codon: AOHYA

Language: ENGLISH

A range of formulations of PVC [polyvinyl chloride] was subjected to an in vitro test [rat peritoneal macrophage cultures] for cytotoxicity in vivo [specific pathogen-free rats] assessment of fibrogenicity. The majority of the formulations show low cytotoxicity. In the case of emulsion paste polymers the cytotoxic effects observed were attributed to the presence of industrial surfactant in the formulation. All powders tested in vivo, including an example of an emulsion paste polymer, showed minimal in vivo tissue reaction when administered by either intratracheal or i.p. injection. The tissue reaction to PVC consisted of either a foreign-body reaction or a thin fibrous capsule only and was quite distinct from the progressive changes induced by alpha. quartz.

Descriptors: SPECIFIC PATHOGEN-FREE RAT RAT PERITONEAL MACROPHAGES FOREIGN BODY REACTION INDUSTRIAL SURFACTANT ALPHA QUARTZ

Concept Codes: CYTOLOGY/CYTOCHEM-ANIMAL(+02506); COMPARATIVE BIOCHEM-GENL STUDIES(10010); BIOCHEM STUD-GENERAL(10060); MINERALS(10069); CHORDATE BODY REGNS-ABDOMEN(11314); PATHOLOGY-NECROSIS(12510); METABOLISM-GENL STUD,METAB PATHW(+13002); MINERALS(13010); RESPIRATORY SYST-GENL STUD,METHS(16001); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); TOXICOL-ENVIRONMNTL,INDUSTRI(22506); LABORATORY ANIMALS-GNOTOBIOLOGY(28004); TISS CULTURE-APPARAT,METHS,S.MEDIA(32500); IN VITRO STUDS-CELLULR,SUBCELL(32600); IMMUNOL/IMMUNOCHEM-GEN METH(34502); IMMUNOL/IMMUNOCHEM-IMMUNO-PATHOL(+34508); ENVIRON HEALTH-AIR,WATR,SL POLLN(37015)

Biosystematic Codes: MURIDAE(86375)

70017687

EFFECTS OF GONADECATOMY ON FOREIGN BODY TUMORIGENESIS IN CBA-H MICE

MICHELICH V J; BRAND K G
DEP. MICROBIOL., UNIV. MINN. MED. SCH., MAYO BOX 196,
MINNEAPOLIS, MINN. 55455, USA.

J NATL CANCER INST 64 (4). 1980. 807-808. Codon: JNC1A

Language: ENGLISH

Sarcomas were induced by s.c. implantation of unplasticized polyvinylchloride-vinylacetate films in gonadectomized and normal male and female CBA/H mice. Gonadectomy did not demonstrably influence tumor incidence and tumor latencies in males but significantly prolonged tumor latencies in females. Estrogen apparently influences the pace of foreign-body tumorigenesis in CBA/H mice.

Descriptors: POLY VINYL CHLORIDE VINYL ACETATE CARCINOGEN SARCOMA ESTROGEN SEX DIFFERENCE

Concept Codes: GENETICS/CYTOGENET-SEX DIFFERENC(+03510);

BIOCHEM STUD-GENERAL(10060); BIOCHEM STUD-STEROLS,STEROIDS(10067); ANATOMY/HISTOL-EXPERIMENTAL(+11104); REPRODUCT SYST-GENL STUDS,METHS(16501); REPRODUCT SYST-PHYSIOL,BIOCHEM(+16504); ENDOCRINE SYST-GONADS,PLACENTA(+17006); INTEGUMENT SYST-GENL STUDS,METHS(18501); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501); NEOPLSMS/NEOPL AGNTS-CARCINOGENS(+24007)

Biosystematic Codes: MURIDAE(86375)

70013433

ROLE OF RESPIRATION IN VINYL CHLORIDE MONOMER EXCRETION IN RATS

ZUCCATO E; MARCUCCI F; MUSSINI E
IST. RIC. FARMACOL. MARIO NEGRI, VIA ERITREA 62 20157 MILAN, ITALY.

TOXICOL LETT (AMST) 5 (3-4). 1980. 213-218. Codon: TOLED

Language: ENGLISH

Amounts of 1, 5 and 10 mg/kg vinyl chloride monomer (VCM) in aqueous solution were injected i.v. into male rats with cannulated tracheas. Respiratory activity was regulated to permit investigation of the effect of modifying pulmonary ventilation on VCM excretion in blood and expired air assayed at different intervals for VCM. VCM excretion rate was found to be directly proportionate to pulmonary ventilation. When respiration was stopped for 1 min after VCM injection, there was no decrease in blood VCM, the main route elimination of i.v. injected VCM thus being pulmonary.

Descriptors: BLOOD

Concept Codes: BIOCHEM STUD-GENERAL(10060); PHYSIOLOGY-COMPARATIVE(12003); METABOLISM-GENL STUD,METAB PATHW(+13002); CARDIOVASC SYST-GENL STUDS,METHS(14501); BLOOD/BODY FLDS-GENL STUDS,METHS(15001); BLOOD/BODY FLDS-BLOOD,LYMPH STUD(+15002); RESPIRATORY SYST-GENL STUD,METHS(16001); RESPIRATORY SYST-PHYSIOL,BIOCHEM(+16004); ROUTES OF IMMUNIZ,INFECT,THERAP(22100); TOXICOL-GENL/EXP STUDS,METHS(+22501)

Biosystematic Codes: MURIDAE(86375)