mours of epithelial origin were histologically similar to the types of lung cancer found in human pathology. The dose of benzo(a)pyrene was found to affect the histological structure of the cancer cells observed: smaller doses of the carcinogen were related to a lower frequency of squamous epithelial lung carcinoma and a trend towards the development of tumours of the adenoid type. (03565)

CIS 75-1399 Use of anaphase studies for estimating bone-marrow chromosome aberrations in the hygienic assessment of the mutagenic effect of polymer building materials (Ispol'zovanie anafaznogo metoda učeta hromosomnyh perestroek v kostnom mozge pn gigieničeskoj ocenke mutagennogo êffekta polimernyh stroitel'nyh materialov). Bokov A.N., Gus'kova S.J., Gus'kov E.P., Mas'ko V.I. *Gigiena i sanitarija*, Moskva, USSR, Aug. 1974, No.8, p.17-20. 6 ref. (In Russian)

Literature review and results of animal experiments concerning the chromosome aberrations induced by exposure to polymer-containing concretes and putties. It was found that polymer concretes which produced no chronic toxic action in animals had no cytogenic effect. Polymer putties containing unsaturated hydrocarbons, patrol, divinyl and xylene caused changes characteristic of certain toxic effects and an increase (by a factor of almost 2) in the number of chromosome aberrations as compared with a control group. (03566)

CIS 75-1400 Polychlorinated biphenyls. Storage, distribution, excretion, and recovery: liver morphology after prolonged dietary ingestion. Burse V.W., Kimbrough R.D., Villanueva E.C., Jennings R.W., Linder R.E., Sovocool G.W. *Archives of Environmental Health*, Chicago, USA, Dec. 1974, Vol.29, No.6, p.301-307. Illus. 18 ref. (In English)

Rats were fed 6.6 to 3.89mg/kg/day of various Aroclors, and organs and tissues were analysed after 0.5 to 10 months' exposure. PCBs were highest in adipose tissue where a steady state was reached in 4 months. Little PCB-derived material was excreted in urine. Enlarged liver cells with vacuolated cytoplasm and inclusions were noted. Aroclors 1016 and 1242 were less persistent in the rat and have less effect on the liver than Aroclors 1254 or 1260. (03573)

CIS 75-1401 Laboratory results of some biological measures in workers exposed to lead. Secchi G.C., Alessio L. *Archives of Environmental Health*, Chicago, USA, Dec. 1974, Vol.29, No.6, p.351-354. 20 ref. (In English)

Erthrocyte ALA-dehydratase (ALAD) activity and blood lead values were studied in different groups of subjects not occupationally exposed to lead and compared with values for exposed workers. The results lead to the conclusion that measurement of ALAD activity is more useful in evaluating possible exposure of general population groups to minimal quantities of lead than in the surveillance of workers in the lead industries. (03579)

CIS 75-1402 Lead poisoning and multiple sclerosis. Westerman M.P., Bruetman M., Pfitzer E. *Archives of Environmental Health*, Chicago, USA, Dec. 1974, Vol.29, No.6, p.355-356. 14 ref. (In English)

5 individuals with typical clinical findings of multiple sclerosis were evaluated for lead poisoning using current in vivo methods. These included measurements of lead stores, mobilisable lead, and blood and urine levels. The results showed no association between lead poisoning and multiple sclerosis and suggest that multiple sclerosis in humans is not a result of lead poisoning. (03580)

CIS 75-1403 Haemostatic phenomena in vinyl chloride disease (Hämostaseologische Aspekte bei der Vinylchlorid-Krankheit). Bachner U., Etzel F., Lange C.E., Marsteller H.J., Valtman G. *Deutsche medizinische Wochenschrift*, Stuttgart, Germany (Fed.Rep.), 22 Nov. 1974, Vol.99, No.47, p.2409-2410. 8 ref. (In [redacted])

The authors examined 70 workers employed in the polyvinyl chloride industry and noted that in 30% of the cases observed [redacted] constituted the earliest and most frequent sign of exposure to vinyl chloride monomer. The incidence of [redacted] increased in proportion to the degree of thrombocytopenia (minimum values 17,000/mm³). Results of laparoscopy, histological analyses and haemostatic function tests. A check-up made one year after termination of exposure revealed a tendency to persistent thrombocytopenia, especially pronounced among a group showing varicosity of the oesophagus and reduced plasminogen levels. (03581)

HUMAN EPIDEM IOLOGY

CIS 75-1404 Chemical products and carcinogenesis (Chemicaliën en het ontstaan van kanker). Henderson P.T., Seutter-Berlage F. *Natuur en techniek*, Maastricht, Netherlands, Apr. 1975, Vol.43, No.4, p.210-227. Illus. 2 ref. (In Dutch)

After an introduction on xenobiotics (substances which are foreign to the human body) and the uninhibited proliferation of the cancerous cell, the authors study the question of carcinogenesis due to chemical products: carcinogenic constituents of tar (polycyclic aromatic hydrocarbons), aromatic amines (aniline dyes and dyes containing azo compounds) vinyl chloride (angiosarcoma of the liver), nitrites and nitroso-amines. In a chapter devoted to natural substances which are carcinogenic, the aflatoxins and cycasin are given as examples. Other subjects dealt with include the activation and inhibition of carcinogenic substances (role of enzymes), mutagenesis (insertion of carcinogenic molecules in the DNA helix) and prevention of cancer. (03585)

CIS 75-1405 Effects of chlorine dioxide (ClO_2) on rats (discontinuous exposure) (Action du bioxyde de chlore (ClO_2) sur le rat en exposition discontinue). Paulet G., Desbrousses S. *Archives des maladies professionnelles*, Paris, France, Sep. 1974, Vol.35, No.9, p.797-803. Illus. (In French)

The authors investigated the effects on animals of short (15min) and repeated (2 to 4 times a day) exposure to atmospheres containing 5, 10 and 15ppm ClO_2. The results of the experiments showed that discontinuous exposures of 15min did not result in lung damage in the case of concentrations below 5ppm, which are considerably higher than the concentrations found in factories where this gas is used. (03586)

CIS 75-1406 Contribution of infrared thermography to diagnosis and supervision of disorders due to exposure during vinyl chloride polymerisation processes - Table No.52 (acroosteolysis) of the Schedule of occupational diseases (Apport de la thermographie infrarouge au diagnostic et à la surveillance des affections consécutives aux opérations de polymérisation du chlorure de vinyle - Tableau n°52 (acro-ostéolyse) des maladies professionnelles). Réty J., Lazard P., Barrod J., Schmitt M. *Archives des maladies professionnelles*, Paris, France, July-Aug. 1974, Vol.35, No.7-8, p.733-738. Illus. (In French)

The use of thermography in examining 3 persons with radiologically visible acroosteolysis, one person with completely resicilliad bone lesion and 2 healthy controls brought to light certain vascular disorders among the 4 first-mentioned subjects; it was impossible to ascertain whether these vascular disorders preceded and had a causative effect on the bone damage or not. Infrared thermography would apoear to be of considerable use in studying the pathogenesis of this disease, and from the forensic point of view, as well as assisting diagnosis if the syndrome precedes the bone lesion. (03590)

CIS 75-1407 Morphological changes of the blood and bone marrow in chronic experimental poisoning with mercury vapours in rabbits (Zmiany morfologiczne krwi i szpiku w przewlekłym doświadczalnym zatruciu parami rtęci u królików). Kośmider S., Węgiel A., Pigoń-Węgiel A. *Medycyna pracy*, Łódź, Poland, 1974, Vol.25, No.6, p.525-531. 22 ref. (In Polish)

Results of experiments in rabbits exposed to concentrations of 2-2.5mg/m³ metal mercury for 3h per day over 12 weeks. The authors found no appreciable change in haemoglobin levels or red blood cell, granulocyta or lymphocyte counts in the peripheral blood. There was however a larger proportion of erythroblasts in the bone marrow than in controls and an increase in the maturation index of the cells of the erythroblast line. Megakaryocytes showed no pathological changes. The discrepancies in the results obtained can be explained by the relative lack of precision of morphological examinations and differences in individual susceptibility. (03591)

CIS 75-1408 Elements of industrial toxicology (Eléments de toxicologie industrielle). Weil E. Published by Masson, 120 boulevard Saint-Germain, 75006 Paris, France, 1975. 347p. Illus. 64 ref. Price: FF.187.00. ISBN 2-225-40403-8 (In French)

This general work, which explores occupational toxicology in its complexity by following the fate of the substance down to cell level, utilises the latest results of physicochemical, biochemical, clinical, analytical and therapeutic research. It is composed of 8 main sections: the poison and ...the atmosphere; ...the organism; ...the clinical examination; ...laboratory tests; ...preventive measures; ...the antidote. Metabolic breakdown processes and conjugation mechanisms are clearly presented, and the complexity of the toxic effects (which depend chiefly on the dose or concentration, the nature and chemical properties of the substance involved, duration of exposure, etc.) brought out. A large place is devoted to interpretation of analytical results and to the correlations between different chemical and biochemical parameters. The part dealing with prevention refers to the relevant French regulations. 32 tables, the last of which indicates physicochemical properties, synonyms, Soviet and U.S. TLVs, hazards and effects of the principal industrial toxins, are appended. Alphabetical index. (03595)

130 OCCUPATIONAL PATHOLOGY

CIS 75-1409 Occupational medicine survey in personnel exposed to oil mists (Arbeitsmedizinische Erhebungen bei ölnebelexponierten Personen). Drasche H., Finzel L., Martschei H., Meyer R. *Zentralblatt für Arbeitsmedizin und Arbeitsschutz*, Heidelberg, Germany (Fed.Rep.), Oct. 1974, Vol.24, No.10, p.305-312. 20 ref. (In German)

Results of a survey on the incidence of respiratory symptoms (cough, expectoration, dyspnoea) in 443 workers with year-long exposure to cutting oil mists (40-150mg/m³) and a control group. A review of the composition of cutting oils and of the published literature on the biological effects of oil mists is followed by a statistical analysis of the results: smokers and non-smokers, age, duration of exposure, frequency of colds. No irritative effect of oil mists was observed, and indeed the possibility that they exert a protective effect on the bronchial system is debated. (03319)