

RNA, this showed that the normal chromatin and the chromatin from urethane-treated rats was identical. The activity of Mn^{2+} plus $(NH_4)_2SO_4$ -dependent RNA polymerase activity of isolated lung nuclei was not affected by urethane injection. The two RNA polymerase activities of liver nuclei were not inhibited by the carcinogen. Mg^{2+} -stimulated nuclear RNA

IN VIVO, FOR
INDUCED CHROMOSOME ABERRATIONS
WITH 13 COMPOUNDS [abstract]
(Biol. Med. Res. Div., J. Natl. Cancer Inst., Wash. D.C. 20541; Grauwiler, J. M. 1975.

Carcinogenesis Abstracts

Vol. 13, No. 7

July, 1975

IDENTIFICATION OF
CARCINOGEN INDUCED
CHROMOSOME ABERRATIONS IN
HUMAN CELLS BY NEUTRAL
METAPHASE PREPARATION

Evans, C. H. (Natl. Cancer Inst., Bethesda, Md. 20014); DiPaolo, J. A. 1975. Res. 16:64; 1975.

3716

A GAS-CHROMATOGRAPHIC METHOD FOR THE PREPARATION OF ^{14}C -LABELED VINYL CHLORIDE.

(Eng.) Wagner, E. R. (Dow Chemical Co., Midland, Mich. 48640); Muelder, W. M.; Watanabe, P. G.; Hefner, R. E., Jr.; Braun, W. H.; Gehring, P. J. *J. Labelled Compd.* 11(4):535-542; 1975.

A method for producing vinyl- $^{14}C_2$ chloride (^{14}C -VC) by the dehydrohalogenation of 1,2-dichloroethane- $^{14}C_2$ (^{14}C -DCE) is described. ^{14}C -VC is produced as a gas mixed with helium by passing ^{14}C -DCE over a carbon catalyst at high temperatures. A modified Hewlett-Packard model 5750 gas chromatographic column is used. The large separation coil (2.4 m x 3 mm) is packed with 80-90 mesh Dow Corning 410 Gum on Chromosorb W (acid washed). The smaller pyrolysis tube (90 cm x 3 mm) is packed with a charcoal mixture of 20 g Chromosorb W and 10 g Darco G-60 charcoal powder. An external thermocouple allows independent heating of this portion of the column. The tube is connected to a thermal conductivity detector with a collecting syringe at the terminal end. The catalyst is heated to 470-480 C, and up to 10 μ l of liquid

3719 AFLATOXIN-INDUCED CHROMOSOME ABERRATIONS IN ORGANISMS
Noyes, W. F. (Roswell Park Inst., Buffalo, N.Y. 14203). *Proc. Am. Soc. Cancer Res.* 1975.

3720 MALIGNANT TRANSFORMATION BY BLEOMYCIN (BLM) AND MTX, AND BLEOMYCIN-INDUCED CHROMOSOME ABERRATIONS [abstract]. (Eng.) Benedetti, P. (Los Angeles, Los Angeles, Calif. 90008); Gardner, A. *Proc. Am. Soc. Cancer Res.* 1975.

3721 NON-SPECIFIC INDUCTION OF CHROMOSOME ABERRATIONS BY TUMOR PROMOTERS
(Eng.) Poirier, M. C. (Natl. Cancer Inst., Bethesda, Md. 20014); Lieberman, M. *Proc. Am. Soc. Cancer Res.* 16:43; 1975.

CARCINOGENESIS ABSTRACTS VOL. XIII

JULY 1975

R&S 025339

Carcinogenesis Abstracts
Vol. 13, No. 7
July, 1975

R&S 025340

^{14}C -DCE (3.4 mCi/mM) is injected into the tube; ^{14}C -VC is collected in 1 ml aliquots. The effluent gas is bubbled into scintillation vials of Conciflour, 2-methoxyethanol and toluene (1:1.8:11) in order to measure specific activity of the synthesized gas. With a gas flow of about 30 ml of He/min, the thermal conductivity detector revealed four peaks of activity. Analysis by infra-red spectrometry identified the peaks as impurities, HCl, ^{14}C -VC, and unreacted ^{14}C -DCE. Gross contamination is avoided since the gaseous products exit at distinct intervals with little mixing. Further analyses by the gas chromatography and mass spectrometry showed that a minimum value of 46% (expressed on a mole basis) ^{14}C -VC with a specific activity of 2.6 Ci/mM is generated from 5.5 μl ^{14}C -DCE. The level of radioactivity of the ^{14}C -VC declined over time (50% in nine hours). The polymerization of the gas on the walls of the collecting syringe is thought to be responsible for this. The mass spectrum of the synthesized ^{14}C -CV was identical with that of the VC standard. This procedure yields a product with 96-97% purity. The amount of ^{14}C -VC produced was limited by the amount of ^{14}C -DCE, temperature, and He flow rate.

3717 THE MICRONUCLEUS TEST AS A SIMPLE MODEL, *IN VIVO*, FOR THE EVALUATION OF DRUG-INDUCED CHROMOSOME ABERRATIONS: COMPARATIVE STUDIES WITH 13 COMPOUNDS [abstract]. (Eng.) Matter, B. E. (Biol. Med. Res. Div., Sandoz Ltd., Basle, Switzerland); Grauwiler, J. *Mutat. Res.* 29(2):198-199; 1975.

3718 IDENTIFICATION OF *IN VITRO* CHEMICAL CARCINOGEN INDUCED NEOPLASTIC TRANSFORMATION OF MAMMALIAN CELLS BY NONIMMUNE LEUKOCYTES [abstract].

3722 STUDIES ON THE EFFECTS OF CARCINOGENS ON THE MATHEMATICAL MODELING OF THE RISK OF CANCER [abstract]. (J. Nat. Cancer Res. Inst., Nagasaki, Japan); Nishio, O. *Gen. Environ. Health* 16:1-10; 1975.

3723 THE RISK OF NEOPLASIA [abstract]. (J. Nat. Cancer Res. Inst., Nagasaki, Japan); Head, R. A.; Lacey, P. *Br. J. Cancer* 32:16:46; 1975.

3724 RAPID PHOTOGRAPHIC DETECTION OF TRILOTRIACETATE IN THE NEW ENGLAND ENVIRONMENTAL SCIENCE CENTER.

3725 PHORBOL 12,13-DIBOLYL 14-ACETATE (PDBA) INDUCED MOUSE SKIN [abstract]. (Univ. Medical Center, Groningen, The Netherlands); Duuren, B. L.; *Br. J. Cancer* 32:16:21; 1975.

3726 THE EFFECTS OF PLASMA MEMBRANE DAMAGE ON THE RATE OF CELL GROWTH (Eng.) Witz, G. *Proc. Am. Assoc. Cancer Res.* 16:1-10; 1975.

3727 REDUCTION OF THE RISK OF CANCER IN THE