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Heinz bodies observed in 35% of the erythrocytes in 3 of the 4 men. Examn. of 36 workers with daily $C_6H_5NH_2$ exposures with an av. concn. of 0.54 p.p.m. showed no significant abnormalities. C. L. Campbell

Experiences with unusual materials and operations. E. C. Hyatt and M. F. Milligan (Los Alamos Sci. Lab., Los Alamos, New Mex.). *Am. Ind. Hyg. Assoc. Quart.* 14, 289-93(1953).—Problems encountered and control measures required are described for operations involving handling of As, AsH_3 , $Ba(NO_3)_2$, H_3BO_3 , Be, Nb, La, Ta, Ti, Th, U, chloromaleic compds., C_6H_6 , cyclotrimethylene trinitramine (RDX), tributyl phosphate, and trinitrotoluene (TNT). C. L. Campbell

Ultra-low-pressure aerosols. Francis A. Mina (Zonite Products Corp., New Brunswick, N.J.). *Modern Packaging* 27, No. 11, 176-8, 242-4(1954).—The crit. relation between alc. concn. and amt. of propellant of limited miscibility forms the basis for spraying alc.-based products to a fine degree of atomization by the use of internally produced pressures as low as 11-15 lb./sq. in. gage. Charts of pressure-temp. relations of varying concns. of Freon 114 propellant in EtOH solns. are shown. Eric Engel

Review of literature on health hazards of metals. I. Copper. Sherman S. Pinto. *Arch. Ind. Hyg. Occupational Med.* 10, 77-8(1954). C. L. Campbell

Destruction of mineral particles and fibers in the lung after exposure to asbestos dust. J. F. Knox and J. Beattie. *Arch. Ind. Hyg. Occupational Med.* 10, 30-6(1954).—Examn. of lungs from 27 cases with asbestos exposures showed that the greatest portion of particles were in the 5 to 25 μ range, and that in early exposure an appreciable portion was found above 25 μ in length, with this fraction decreasing after the 8th yr. following the last exposure. C. L. Campbell

Hydrothermal treatment of synthetic asbestos. I. Treatment of the system $2NaF \cdot CaO \cdot 3MgO \cdot Fe_2O_3 \cdot 8SiO_2$. Hajime Saito (Yamanashi Univ., Kofu). *J. Chem. Soc. Japan, Ind. Chem. Sect.* 55, 415-17(1952).—Fine flexible fibers were obtained by subjecting the crystals of $2NaF \cdot CaO \cdot 3MgO \cdot Fe_2O_3 \cdot 8SiO_2$, obtained by the fusion process, to autoclaving at 300-350°. T. Katsurai

Mineral content of the lungs after exposure to asbestos dust. J. F. Knox and J. Beattie. *Arch. Ind. Hyg. Occupational Med.* 10, 23-9(1954).—A study of lungs from 27 cases with histories of asbestos textile exposure for 5 to 33 yrs. showed that the mean rate of mineral-matter accumulation was 0.25 mg./yr. of dried lung/yr. As survival time following the last exposure increased, the mineral content of the lung decreased, with variable rates observed. Severity of asbestotic lesions varied with the sum of the exposures and survival time rather than with mineral content of the lung. C. L. Campbell

Some reactions between inert dusts and proteins. R. F. Hounam. *Arch. Ind. Hyg. Occupational Med.* 9, 284-90(1954).—A study of mineral dusts including SiO_2 , kaolin, asbestos, anthracite, graphite, Carborundum, slate, limestone, coal, bone ash, cement, bituminous coal, and CaO showed that dusts suspended in distd. H_2O may be coagulated by proteins such as gelatin, and blood serum and egg albumin in accordance with the residual charge of the materials. C. L. Campbell

Notes on mica-dust inhalation. Harry Heimann (U.S. Public Health Service, Washington, D.C.), Samuel Moskowitz, C. R. Harihara Iyer, M. N. Gupta, and N. S. Mankiker. *Arch. Ind. Hyg. Occupational Med.* 8, 531-2(1953); cf. *ibid.* 8, 420-35.—On a study of 61 workers processing crude muscovite mica contg. less than 1% free SiO_2 , only minimal lung markings, with no nodular or conglomerate fibrosis, were found. Dust exposures included 6-130 million particles/cu. ft. of air, av. 40, for sieving or sizing mica splittings; 44-300, av. 135, for pulverizing scrap mica; and 2-21, av. 10, for other operations. C. L. Campbell

Size determination of silica particles collected on membrane filters. W. C. Burke, Jr. (Univ. of California, Los Angeles). *Am. Ind. Hyg. Assoc. Quart.* 14, 299-302(1953).—The particle size ranges of air-borne SiO_2 dust can be detd. by collecting dust on a sampler contg. a membrane filter, dissolving the filter in an org. solvent such as 60% Cellosolve and 40% CH_3COCH_3 , and examg. the suspension in a turbidimeter. C. L. Campbell

Silicosis in mica mining in Bihar, India. Harry Heimann (U.S. Public Health Service, Washington, D.C.), Samuel Moskowitz, C. R. Harihara Iyer, M. N. Gupta, and N. S.

Mankiker. *Arch. Ind. Hyg. Occupational Med.* 8, 420-35(1953).—A study of 329 mica miners, including chem. analyses, dust counts, and phys. examns., showed that the rock dust encountered contained from 11 to 67% free SiO_2 , medium 42%, and dust concns. varied from 7 to 800 million particles/cu. ft. of air. Nodular and conglomerate silicosis was found in 34.1% of exposed workers, with pulmonary tuberculosis in 18.6%. C. L. Campbell

Pneumoconiosis in the tungsten-carbide tool industry. Report of three cases. Charles W. Miller, Martin W. Davis, Alfred Goldman, and John P. Wyatt (Washington Univ., St. Louis, Mo.). *Arch. Ind. Hyg. Occupational Med.* 8, 453-65(1953).—Three men processing WC machine cutting tools developed lung markings and hyperglobinemia, as a specific reaction to exposures to materials including WC, Ta, Ti, Co, SiC_2 , Al_2O_3 , and diamond soot. Co is considered the causative agent of the conditions observed. C. L. Campbell

Fluctuations of breath radon in subjects seated at rest. E. J. Martin and J. K. W. Ferguson (Univ. Toronto, Can.). *Arch. Ind. Hyg. Occupational Med.* 8, 574-81(1953).—Four men with abnormally high Ra burdens were examd. seated at rest with a breath-sampling app. (cf. *C.A.* 46, 5100g) in which expired air is collected in a gasometer, transferred to a sample bottle, and the Rn content detd. with ionization chambers equipped with amplifying and counting units. The av. Rn output varied from 0.76 to 4.41×10^{-12} curies/l. of expired air and from 5.98 to 38.1×10^{-12} curies per min. of breathing. Doses of $NaHCO_3$ and NH_4Cl had no effect on these values, although heavy meals increased curies/min. in 2 of 3 subjects, and curies/l. in one of these. C. L. Campbell

Appearance of a carcinoma following single exposure to a refrigeration ammonia-oil mixture. Report of a case and discussion of the role of co-carcinogenesis. Michael B. Shimkin (Univ. of California School of Med., San Francisco), A. A. De Lorimier, J. Russell Mitchell, and Travis P. Burroughs. *Arch. Ind. Hyg. Occupational Med.* 9, 186-93(1954).—A single exposure to a corrosive mixt. of NH_3 and lubricating oil under pressure was responsible for the development of an epidermal carcinoma within 6 months. Previous skin contact with the same agents, the formation of a blister, the use of tannic acid and other ointments, the formation of a fistula, and the incision for the initial biopsy are included among the factors suspected as involved. C. L. Campbell

Occupational arsenic poisoning. Report of a case. May R. Mayers (State Dept. of Labor, New York, N.Y.). *Arch. Ind. Hyg. Occupational Med.* 9, 384-8(1954).—A worker incurring heavy exposures by skin contact, inhalation, and ingestion of As in the form of Paris green for 20 yrs. developed gastrointestinal disturbances, exfoliative dermatitis, trophic skin changes, chronic irritation of the eyes and upper respiratory tract, and polyneuritis. The symptoms progressed during the 15 yrs. between the last exposure and death. C. L. Campbell

Aplastic anemia following exposure to carbon tetrachloride. Bernard Straus (Veterans Admin. Hosp., Bronx, N.Y.). *J. Am. Med. Assoc.* 155, 737-9(1954).—There were 3 fatalities in 3 patients with aplastic anemia following chronic exposure to CCl_4 . In one case overt injury to the liver was also sustained. Chronic exposure to CCl_4 may result in irreversible bone-marrow damage. E. J. V. L.

Absence of toxic manifestations in workers exposed to chlordan. Walter C. Alvarez and Samuel Hyman. *Arch. Ind. Hyg. Occupational Med.* 8, 480-3(1953).—A study of 24 men, aged 21 to 49 yrs., with occupational exposures to chlordan revealed no evidence of any damage to the liver, kidneys, skin, nervous system, and blood-forming organs. C. L. Campbell

The engineering and medical control of a lead hazard—a plant study. Clarence C. Maloof, Harold Bavley, and Geo. W. Boylan (Div. of Occupational Hyg., Boston, Mass.). *Am. Ind. Hyg. Assoc. Quart.* 15, 64-8(1954).—The Pb exposures in a plant where $2PbCO_3 \cdot Pb(OH)_2$ and $PbSiO_3$ are compounded into plastic sheets were reduced from 5.30 to 0.08 mg./cu. m. of air, 3.50 to 1.69, and 0.25 to 0.09 by the application of enclosures and exhaust ventilation. The effectiveness of these measures was demonstrated by medical findings among exposed workers. C. L. Campbell

Methyl chloride intoxication. Report of fifteen cases. Howard J. Hansen, N. K. Weaver, and F. S. Venable (Esso