

113968. PALKIN, V. N. (Med. Inst., Novosibirsk, USSR.) O spetsificheskikh pnevmoniyakh pri silikozе. [Non-specific pneumonias accompanying silicosis.] GIG TR PROF ZABOL 13(2): 59-60, 1969. --Observations of 22 patients suffering from silicosis and non-specific pneumonia revealed that the course and outcome of non-specific pneumonia in such cases is highly dependent on the condition of the bronchial tree. In cases of chronic deforming bronchitis, the pneumonia is protracted and results in the formation of large foci of fibrosis in the silicotic lung. Chronic deforming bronchitis was chiefly observed in patients who had long ceased to have contact with mineral dust. --A. M. H.

113969. KHADZIMEVA, E. D. (Inst. Ind. Hyg. Occup. Dis., Acad. Med. Sci., USSR, Moscow, USSR.) Vliyaniye kaprolaktama na proizvoditel'nyuyu funktsiyu belykh mysy. [Effect of caprolactam on the reproductive function of white rats.] GIG SANIT 34(7): 25-28, 1969. [Engl. sum.] --The effect of caprolactam was studied on the reproductive functions of albino rats. A dynamic inhalation poisoning of 107 albino female rats after their impregnation with caprolactam at different concentrations proved this substance to affect the conception, the multiplication, the fertility, the course of pregnancy, and the intra-uterine development of the fetus in experimental animals. --L. L.

113970. TZRAEL'SON, Z. I., [Editor.] Toksikologiya novykh khimicheskikh veshchestv, vnedryaemykh v rezinovuyu i shlanuyu promyshlennost'. [The toxicology of new chemicals being introduced into the rubber and tire industries.] 238p. Illus., Meditsina: Moscow, 1968. Pr. 82 kopecks. From: REF ZH OTD VYP FARMAKOL KHMOTER SREDSTVA TOKSIKOL, 1969, No. 1, 54, 886.

113971. KULENSKAYA, I. L. (Dep. Ind. Hyg., Kharkov Inst. Postgrad Med., Kharkov, USSR.) Nekotorye izmeneniya mediatornogo obmena pri ostrom i khronicheskom otravlenii serouglerodom. [Some changes of acetylcholine metabolism in acute and chronic poisoning with carbon disulfide.] GIG SANIT 34(1): 28-33, 1969. [Engl. sum.] --In chronic intoxication with CS₂ at a concentration of 10 mg/m³ certain periodical changes were noted in the cholinergic system of the blood and the acetylcholine content norepinephrine. After chronic intoxication for a period of 1 1/2 mo. a fall of acetylcholine concentration was noted in the cerebrum, the liver, the kidneys and the spleen. A certain tendency to decrease the acetylcholinesterase activity in the spleen was also noted. The norepinephrine content in the cerebrum and the heart and the epinephrine content in the adrenal glands represented no significant changes. Norepinephrine was discovered in the adrenal glands in some of the rabbits. After acute poisoning with CS₂ (12, 500 mg/m³) for 2 hr. the acetylcholinesterase activity decreased in the blood and increased in the cerebrum. The concentration of acetylcholine in the spleen diminished. Acute CS₂ poisoning brought about a pronounced fall of catecholamine content in the cerebrum, the heart and the adrenal glands. More pronounced shifts of the cholinergic system developed in chronic intoxication and in the sympathico-adrenal system in acute poisoning. The acetylcholine system is a sensitive test for detecting functional changes in the action of noxious industrial factors of small intensity. --C. M. M.

113972. BARSEGYAN, G. B. (Dep. Ind. Hyg., Yerevan Med. Inst., Yerevan, USSR.) Predel' no dopustimaya kontsentratsiya 1,3-dikhlorbutena-2 v vozdukhе proizvodstvennykh pomeshchenii. [Maximum permissible concentrations of 1,3-dichlorobutene-2 in the air of industrial premises.] ZH EKSP KLIN MED 9(6): 66-72, 1969. --Studies conducted on white mice, rats, rabbits and humans showed that the concentration of this compound is 0.01 mg/l in a chronic experiment. The recommended permissible concentration for working establishments is 0.001 mg/l. --S. T.

113973. DOSKIN, V. A. (Dep. Hyg. Child. Adolescents, I. M. Sechenov Inst Moscow Med. Inst., Moscow, USSR.) O chuvstvitel'nosti organizma podrostkov i yunoshki k promyshlennym yadam. [Sensitivity of adolescents and youths to industrial poisons.] GIG SANIT 34(9): 99-103, 1969. --The available literature on the effect of industrial toxic substances on growing adolescents and youths is reviewed. --J. S.

113974. ALEKPEROV, I. I., V. G. KNABENGOF, and M. I. VINOKUROVA. (E. M. Elendi-Zad Inst. Ind. Hyg., Occup. Dis., Baku, USSR.) Funktsional'noe sostoyaniye serdечно-sosudistoi sistemy u rabotayushchikh s uglevodorodami nefli. [Functional state of the cardiovascular system of persons who work with petroleum hydrocarbons.] GIG TR PROF ZABOL 13(2): 49-50, 1969. --Clinical studies of 50 petroleum industry workers (20 to 40 yr of age), who worked under conditions of direct contact with petroleum products, were contrasted with data on 20 institutional workers of the same age distribution to detect functional shifts in the cardiovascular system under the influence of exposure to such products as styrene, divinyl, ethylbenzene, etc. ECG changes were basically expressed in small dystrophic alterations of the myocardium resulting in a slightly impaired myocardial conductile function. Oscillographic study of the vascular tones revealed a prevalence of cases with a reduced mean arterial pressure, a condition typical for persons frequently exposed to hydrocarbons. The oscillographic index, which reflects the effects of autonomic regulation,

was asymmetric. Capillaroscopy revealed spastic-tonic functional reactions with impaired resistance. --A. M. H.

113975. PENKOVICH, A. A. (Inst. Ind. Hyg. Occup. Dis., Gorki, USSR.) K otsenke izmenenii v malom kruge krovoobrashcheniya u bol'nykh pylevymi zabolevaniyami legkh. [Assessment of changes in pulmonary circulation in pneumoconiosis patients.] GIG TR PROF ZABOL 13(5): 40-43, 1969. --The character, frequency and expressivity of shifts caused by changes in pulmonary circulation in patients with occupational bronchitis and pneumoconiosis were evaluated on the basis of ECG, polycardiography and pulmonary rheography data. Morphological deviations and functional disturbances in the apparatus of external respiration are significant in the development of changes in pulmonary circulation in pneumoconiosis patients. The use of these methods sometimes reveals even at early stages of pulmonary insufficiency, a number of functional shifts in pulmonary circulation, which can be regarded as the result of an increase of pulmonary arterial resistance. --J. S.

113976. VAZIN, A. N., and E. I. PLOKHOVA. (Inst. Ind. Hyg., Occup. Dis., Gorki, USSR.) Dinamika soderzhaniya adrenalino-podobnykh veshchestv v krovi krolikov pri khronicheskom vozdeystvii parov vinilkhlorda. [Dynamic changes in epinephrine-like substances in rabbit blood following chronic exposure to vinyl chloride fumes.] GIG TR PROF ZABOL 13(6): 46-47, 1969. --Chronic action of vinyl chloride fumes causes profound functional changes in the anterior and, most particularly, in the posterior nuclei of the hypothalamus. This leads to hyperadrenism, resulting in a pathological toxic angioneurosis. --R. B. C.

113977. VOL'POVSKAYA, R. N., and I. D. MAKULOVA. (Inst. Ind. Hyg. Occup. Dis., Acad. Med. Sci., USSR, Moscow, USSR.) K voprosu o tsechenii angiodistonicheskikh sostoyaniy s arterial'noi gipertoniyei toksicheskoi etiologii. [Course of angiodystonic conditions with arterial hypertension of toxic etiology.] GIG TR PROF ZABOL 12(11): 12-15, Illus. 1968. [Engl. sum.] --Observations were made for as long as 6-10 yr or more on 69 motor car drivers up to the age of 40 (65 males and 4 females) with a long record of chronic CO poisoning (38 persons) and chronic poisoning with ethylated gasoline and CO (31 persons). Note was taken of the intensity of the angiodystonic syndrome, such as encephalia, vertigo, diencephalic crises and manifestations of coronary spasms. As well as increasing organic symptoms which were apparent in 15 cases, 25 persons developed hypertensive disease within the observation period (mostly at the age of 40-45). Hypertensive disease ordinarily proceeded against the background of residual manifestations or remote consequences of the sustained poisoning, being distinguished by a specific evolution. Pronounced vegetative symptoms, diencephalic crises, syncope, short lapses of consciousness endocrine disturbances in association with an organic brain lesion or affection of the peripheral nervous system were noted. The toxic angiodystonic syndrome as well as arterial hypertension furthered the development of hypertensive disease. --L. M. L.

113978. SEDOV, A. V., and A. N. MAZIN. (Inst. Biophys., Min. Health USSR, Moscow, USSR.) K voprosu o normirovani vrednykh primesei vo vdykhaemykh gazovykh smesyakh. [Problem of standardization of noxious admixtures in inhaled gaseous mixtures.] GIG SANIT 33(2): 82-84, 1968. --Data on gaseous toxic substances (CO₂, CO, NH₃) in exhaled air compiled from their maximum permissible concentrations in the air of industrial establishments show that their maximum permissible concentrations do not depend on their concentrations in air exhaled by humans. --L. K. R.

113979. VENGERSKAYA, Kh. Ya., and N. M. DEMIDENKO. (Tashkent Med. Inst., Tashkent, USSR.) Metod opredeleniya pentakhlorfenola v vozdukhе pri oshchekhozyaystvennykh rabotakh. [Method for determining pentachlorophenol in the air during agricultural work.] GIG SANIT 33(2): 57-58, 1968. --This method consisted of using liquid media (a 0.8% solution of sodium carbonate, 0.01 and 0.001 N solutions of sodium hydroxide, acetone and ethyl alcohol, as well as silica gel) and certain fillers. The reaction was verified with various agents. The best effect was obtained with the reaction with piramidon (dimethylaminoantipyrine). The sensitivity of the method is 0.5 µg. --L. K. R.

113980. MATYSYAK, V. G. O vliyani parov benzina na menstrual'nyuyu i deforodnyuyu funktsii i ginekologicheskuyu zabolevaemost' rabotnits rezinovoi promyshlennosti. [The effect of gasoline vapors on the menstrual and childbearing functions and the gynecological morbidity of female workers at a synthetic rubber factory.] TR AZERBAIJAN-SSSR INST GIG TR PROF ZABOL 2: 74-80, 1968. Translated from REF ZH OTD VYP FARMAKOL KHMOTER SREDSTVA TOKSIKOL, 1969, No. 11, 54, 1199. --Examinations were made of 3017 female workers (19-40 yr old) in the synthetic rubber industry, whose length of service in the industry was 6-16 yr. There were disturbances of the menstrual cycle and menopausal disorders. A decrease in the average number of pregnancies, and increase in the frequency of spontaneous abortions and premature births, in the number of infants born dead; and