sclerotic contracted kidneys were found in six cases. The histologic and the arteriographic study of three cases showed arteriosclerosis of the meningeal and cerebral vessels with thickening of the intima and obliteration of the blood vessels. The disease is of vascular origin and of arteriosclerotic and angiospastic character. It is caused by CS_2 poisoning as shown by the following facts: The patients were younger (average, 45 years) than those suffering from cerebral arteriosclerosis. Some patients showed polyneuritis and gastritis before or during the encephalopathy. The histologic type of the lesions in the blood vessels and in the white and gray matter was that which is peculiar to toxic changes of these structures.

ACTION OF ALUMINUM DUST ON ANIMAL ORGANISM. M. G. IVANOVA and I. S. OSTROVSKAYA, Gigiena i Sanit. 1950, no. 4, p. 21.

In experiments with rats and rabbits, involving either inhalation of Al dust, its introduction into tracheas in physiological solution suspensions or intravenous injection of such suspensions, it was clearly shown that an "aluminosis" results; this is a form of respiratory disease involving malformations in the respiratory organs which progress even after termination of administration of the dust. Pathological changes in the kidneys and occasionally in other organs were also found. The use of Al dust against silicosis is therefore highly questionable.

G. M. KOSOLAPOFF [CHEM. ABST.].

OCCUPATIONAL SKIN DISEASES IN WORKERS PREPARING SULFATHIAZOLE (IN GERMAN). GEORG SEEBERG, Acta dermat.-venereol. **24**:317, 1943.

This compound and intermediates in its manufacture were tested on the skin according to the Jadassohn-Bloch patch test. Sulfathiazole caused no reaction while monochloracetal gave a reaction in one case, acetylsulfathiazole in two, 2-aminothiazole-HCl in five and acetylsulfanil chloride in six of 13 workers. None of these compounds caused a reaction in controls not connected with the manufacture.

J. H. W. [CHEM. ABST.].

RETENTION OF BERYLLIUM IN ANIMAL TISSUES FOLLOWING INHALATION OF ITS SALTS. H. E. STOKINGER, L. T. STEADMAN and R. E. ROOT, Atomic Energy Commission, Unclassified Document 851, April 25, 1950.

The document is in abstract form; it is reproduced below in its entirety.

Data on beryllium deposition have been obtained by spectrographic analysis of tissues of animals following inhalation of beryllium salts as dusts and mists. This information is basic to a better understanding of the action of beryllium in the body. Data from five animal species are offered regarding: (1) distribution in the body, (2) accumulation and retention, (3) elimination and biologic half-time in lung, and (4) effect of atmospheric concentration and dietary restriction on distribution.

Deposition was confined chiefly to five sites in the animal body—lungs, pulmonary lymph nodes, bone, liver, and kidney, in order of decreasing magnitude. On the basis of total organ content, the skeleton retained the bulk of the beryllium in the body (50 to 80 per cent) if the inhaled aerosols were soluble compounds, such as $BeSO_4$ and BeF_2; the lungs retained the bulk of the Be if the compounds were insoluble, such as BeO. Per unit tissue weight, the lungs retained the highest beryllium content irrespective of the solubility of the aerosol.

At low exposure concentrations to soluble beryllium salts, 1 mg/m^3 or less, accumulation in the lungs rarely attained 10 μg/Gm. of fresh tissue despite continued daily exposure for several months. Bone beryllium values ranged from $\frac{1}{5}$ to $\frac{1}{10}$ that of the lungs. Beryllium values of the liver and kidneys amounted to but fractions of these values.

On the other hand, in the lungs of animals exposed to the insoluble BeO, fractions of milligrams to milligrams per gram of lung often accounted for more than 99 per cent of the beryllium stored in the body.

Accumulation of beryllium in the lungs has been found to progress linearly with time over relatively long periods in at least two species (rat and rabbit) despite low exposure concentrations and high water solubility of the aerosol. Elimination from the lungs, however, differed markedly among species, the half biologic-retention time (BR^{50}) for the rabbit being 23 days whereas