

CRYSTALLOGRAPHY AND SILICOSIS. F. ZRENNER, Beitr. Silikose-Forsch., 1949, no. 4, p. 29.

DUST-SILICOSIS-TUBERCULOSIS. P. BEYERSDOFER, Glashütte **75**:131, 1948; abstracted, J. Am. Ceram. Soc. **32**:138, 1949.

The human organism may be protected against the dangers of suspensions of ultrafine silica dust (aerosols) only if there is intimate familiarity with the colloid-physical/chemical facts concerning the enormously increased reactivity of fine silica particles in contact with the inner surfaces of organs, especially the lungs. The reactivity is particularly increased in the moment of the destruction of the network of Si^{4+} and O^{2-} ions in the quartz crystal during grinding. The organism is petrified by the products of such reactions at the place of the interchange of the silica with organic solutions. This is the principal reason silicate dusts are always dangerous for the human organism, while many other rocks, e. g., limestone, gypsum, fluor spar, act only as agents that physically stop up the capillaries of the tissues and thus gradually cause them to cease functioning. Silica dust is additionally dangerous because of its tuberculosis-promoting action, as the investigations of Holzapfel (*Chem. Abstr.* **43**, 5823g) demonstrate. In this disease the freshly formed dust is particularly active, whereas aged quartz dust is not so active.

ADAPTED FROM CHEM. ABST.

PNEUMOCONIOSIS IN GERMANY. E. J. KING, A. H. A. WYNN, G. NAGELSCHMIDT and L. A. COCHRANE, Research Report 10, May 1950, British Ministry of Fuel and Power.

King and colleagues report a two to three weeks' visit paid by them to the Pneumoconiosis Congress at Münster, Westfalen (Westphalia), Germany, in November 1949, and to the various centers concerned with research on the pneumoconioses. They crowd into 25 pages terse, extremely interesting descriptions of what is going on and who is doing the work in Germany.

PHILIP DRINKER, Boston.

ALUMINIUM DUST IN THE LUNGS. FRIEDRICH JAMIN, Sitzungsber. phys.-med. Soz. Erlangen **73**:25, 1942.

The pathological, biochemical and physiological effects of the inhalation of Al dust are described. Thirty references are given.

W. C. TOBIE [CHEM. ABST.].

ACUTE VANADIUM PENTOXIDE POISONING. M. REJSKOVÁ, M. Pracovní Lékařství **2**:224-227 (Nov.) 1950.

Five cases of acute vanadium pentoxide poisoning following a short period of exposure are reported. The clinical picture was identical with that described in the literature; in all cases irritation of the upper respiratory tract, with the objective finding of hyperemia and damage to the mucosa, was present. In one case it was necessary to consider the possibility of psychological disturbances (the tendency to weep frequently) due to absorption. Otherwise no disturbances could be found which pointed to degenerative foci in the central nervous system, the stomach or the kidneys.

ENGLISH SUMMARY.

Industrial Toxicology

CASTOR BEAN: AN INDUSTRIAL HAZARD AS A CONTAMINANT OF GREEN COFFEE DUST AND USED BURLAP BAGS. K. D. FIGLEY and F. F. A. RAWLING, J. Allergy **21**:545 (Nov.) 1950.

Since April 1949 Figley and Rawling have discovered nine cases of sensitivity to the castor bean allergen. All nine patients suffered severe acute allergic rhinitis and/or asthma after inhaling the allergen. Four of them worked in the office of a coffee-roasting plant in Toledo, Ohio; a fifth sealed cartons containing sacks of roasted coffee in the same plant. Two other patients had worked in the warehouse of another coffee roasting plant in Toledo. Thus 7 patients were connected with the coffee-processing industry. Patients 8 and 9 worked in factories devoted to stamping small metal parts, in no way connected with the coffee industry. All nine