

polymers of asbestos (A. D. Fedoseev et al., 1966). Asbestos swells easily in water and alkaline solution, in consequence of which its total surface area is increased.

As has been shown earlier, chrysotile-asbestos possesses a tubular structure, which determines the high specific surface area and a number of colloidal properties, among which we attribute special importance to adsorptive properties.

Having compared the capability for adsorption of chrysotile-asbestos, serpentine, calcined chrysotile-asbestos, anthophyllite, tremolite, actinolite and magnesia-arfvedsonite, we established that the greatest capability for adsorption of ionic-molecular substances, and also albumin of the blood serum is possessed by chrysotile-asbestos, brucite and anthophyllite. Thus, after 3 days a charge of chrysotile-asbestos in 100 mg adsorbs 20-30 mg of albumin. The specific surface area of this dust turned out to be the greatest - $20 \text{ m}^2/\text{g}$. Asbestos easily adsorbs carbohydrates, amino acids etc. (Holzapfel, 1952).

According to contemporary ideas (K. Adamchik, 1952, Benson, Castle, 1958, McFee, Tye, 1964) upon fragmentation and swelling of silicates there occurs a rupture of internal ionic bonds and on the rupture surface nonsaturated ions will appear. The same nonsaturated ionic bonds can arise also as a result of hydration. The total quantity of charge is equal to the quantity of the destroyed bonds and is proportional to the total area of the particle, and also to the number silicon-oxygen tetrahedrons per unit of surface. It is possible to think that in the dust which possesses relatively larger specific surface area and a large number of fractures, a larger number of nonsaturated bonds is formed, and, as a consequence, physico-chemical and, in particular, its adsorptive activity will be higher. Obviously, there will be higher biological activity of such dust in relationship