with respect to SiO_2: chrysotile- and anthophyllite-asbestos. True, chrysotile-asbestos shows relatively high solubility from magnesium, whose content in mineral is approximately 40%. The concentration of magnesium in Ringer's solution in 12 days contact with chrysotile-asbestos (12 mg%) was less than after contact with magnesium carbonate (22 mg%) and sovelite[1] (20 mg%). It seemed that detecting less than magnesium carbonate or sovelite, solubility with respect to magnesium, chrysotile-asbestos possesses the greatest tendency to fibrosis. For example the hydroxyproline content in lungs of animals in which sovelite was introduced, turned out to be equal to 2200 µg, and after the introduction of chrysotile-asbestos - 4200 µg. Magnesium carbonate turned out to be virtually not fibrogenous.

At the same time the dust of brucite ($MgO \cdot H_2O$) possesses both high solubility with respect to magnesium and a high tendency to fibrosis.

Thus, neither a mechanical nor chemical hypothesis can explain the emergence of fibrosis with asbestosis.

We focused attention on the mineralogical and crystal features of asbestos, and also the properties of their surface.

Chrysotile-asbestos is a fibrous variety of chrysotile, one of the forms of serpentine.

Serpentine ores consists almost completely of serpentine mineral. According to A. T. Betekhtin (1950) the crystals of asbestos consists of a layer of silicon-oxygen tetrahedrons (SiO_4) and a layer formed from paired sheets of hydroxyl ions of

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[1]Material which consists of 15% asbestos and 85% calcined dolomite.

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