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The possibility to decrease biological activity of chrysotile-asbestos

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Abstract

The paper presents a study of natural chrysotile and 15 samples modified using different temperature and pressure. The morphology, dimensions, chemical composition, crystalline structure, and technologic characteristics of the samples studied were similar. The numbers of negatively charged centers on the surface of fibers were about the same in all the samples. In two modified asbestos samples the number of positively charged centers was less than in the native one. In these samples the energy of interaction of charged centers with macromolecules of rodamin and eozin was also less than in the sample of natural chrysotile. It directly correlated with cytotoxicity and mutagenicity of them. The principal possibility to decrease the biological activity of asbestos has been discussed.

Keywords

Chrysotile-asbestos, Cytotoxicity, Mutagenicity