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Supramolecular structure of cellulose

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Abstract

The analysis of models of fibrillar structure of cellulose is done. It's shown the development of concepts of supramolecular organization and properties of cellulose. Scheme is proposed for the structure of the plant polymer, based on the results of numerous studies using modern methods of analysis. The scheme supposes the dominant contribution of the surface layers of supramolecular structures at various levels in the content of the "amorphous regions" of cellulose. It is established that the method of low temperature adsorption of nitrogen molecules due to their low penetrating power and labile structure of cellulose as an adsorbent gives very limited information about the structure and properties of this biopolymer.

Content