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Analysis and comparative characteristics of the sorption isotherms of various cellulose

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Abstract

In this paper presented the analysis of hydrophilic properties of cotton and wood pulp, performed by the NMR relaxation and sorption measurements. The characteristic given for the processes occurring at different stages of hydration of the cellulose. The role of elementary fibrils defined in the dispersion processes of microfibrils at the initial stage of adsorption. The calculation is made for thermodynamic parameters of the system cellulose-water, reflecting the reasons for the differences of sorption properties of the investigated types of cellulose.