

Effect of the grinding degree on concentration of active sorption centers in technical cellulose

© **Tatiana V. Smotrina**,*⁺ **Yury B. Grunin**, and **Innokenty A. Nikolaev**

Department of Physics. Mari State Technical University. Lenin St., 3. Yoshkar-Ola, 424000.

Mari El Republic. Russia. Phone: +7 (8362) 68-68-04. E-mail: tatyana-smotrina@yandex.ru

*Supervising author; ⁺Corresponding author

Keywords: *cellulose, hemicellulose, grinding degree, sorption isotherm, sorption properties.*

Abstract

The analysis of sorption isotherms of water steam by technical cellulose is carried out according to quasichemical and theoretical-probabilistical sorption models. The correlations of dependences of active centers concentration, integral sorption heats and arbitrary degrees of crystallinity on cellulose grinding degree which provides hemicellulose distribution in cell wall are discovered.