Thermochemical Utilization of Textolite Waste to Obtain Active Carbons with a Homogeneous Microporous Structure

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Keywords: active carbons; isotherm of adsorption; low temperature pyrolysis; PCB waste; parameters of the porous structure; thermochemical activation; phenol.

Abstract: The parameters of the process of thermochemical utilization of textolite waste are determined to obtain homogeneous porous carbon sorbents for ecological purposes, including pyrolysis of crushed textolite waste with subsequent activation of the resulting carbonizate with potassium hydroxide. The influence of the conditions of activation of carbonizates (mass ratio of carbonizate: KOH, temperature, duration of activation) on the formation of a porous structure and sorption activity of the obtained samples of active carbons (ACs) was studied. It was found that the adsorption capacity of the obtained AC samples for phenol is 1.75 times higher compared to the AC grade AG-3 widely used in the practice of wastewater treatment.

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