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## Complex analysis of the porous structure of activated carbons prepared from biomass by activation with potassium hydroxide

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The paper presents results of the analysis of the microporous structure of activated carbons obtained from mahogany, ebony and hornbeam wood by carbonization and chemical activation with potassium hydroxide. The aim of the research was to evaluate the impact of the hydroxide to wood mass ratio on the porous structure of the obtained activated carbons. The calculations were carried out using the BET and DR methods, as well as the new LBET method. In this study, besides determined was the elemental composition of precursors, using energy-dispersive X-ray spectroscopy, as well as active carbons obtained from them. Also, for each sample of activated carbon pictures were taken at different magnifications, using a scanning electron microscopy. The obtained results of the research highlighted the significant potential of the production of activated carbons with very high adsorption capacity and large specific surface area from mahogany, ebony and hornbeam wood, by chemical activation with potassium hydroxide. Moreover, the presented research yielded a broad spectrum of information and shed a new light on the issues pertaining to the assessment of the effect of carbonaceous adsorbent production technology on the obtained parameters of the porous structure.

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