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## ECOLOGIC MODIFICATION OF WOOD USING ALKYLIMIDAZOLIUM-BASED IONIC LIQUIDS

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### Abstract

In this paper, the influence of two types of imidazolium-based ionic liquids (ILs) on the properties of sycamore maple (*Acer pseudoplatanus*) veneers, at 25 °C, 60 °C and 80 °C has been studied by using contact angle measurements and Fourier transform infrared spectroscopy analysis. The measurements showed that wood wettability is increased by IL treatment. It has been determined that the ILs decrease the crystallinity and improve the flexibility of the cellulose matrix. Also, it has been determined that at 60 °C and 80 °C delignification of wood occurred, thus making the studied ionic liquids useful alternatives to traditional toxic and expensive reagents used in wood industry.

*Key words:* FTIR spectroscopy, ionic liquids, surface energy, wood

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