Using UV-microscopy to study diffusion of melamine-urea-formaldehyde resin in cell walls of spruce wood.

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Using UV-Microscopy to Study Diffusion of Melamine-Urea-Formaldehyde Resin in Cell Walls of Spruce

Wood

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Summary

Using UV-microscopy, absorbance spectra of a cured melamine-urea-formaldehyde resin and secondary cell walls of spruce wood glued with this resin were determined. Analysis of the spectra showed that peaks characteristic for both coniferous lignin and melamine resin were present in cell walls of tracheids embedded in the resin. A quantitative estimate indicated a melamine content of the resin embedded cell walls of 6.2%. It could be demonstrated that UV-microscopy is well suited for the investigation of resin diffusion into the wood cell wall.

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