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Synthesis and film formation of furfuryl- and maleimido carbonic acid derivatives of dextran

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Abstract

Carbonic acid derivatives of dextran possessing furfuryl- and maleimido moieties were synthesized and processed into thin films by spin coating. First, products with different degrees of substitution (DS) of up to 3.0 and substitution patterns were obtained and characterized by NMR- and FTIR spectroscopy, as well as elemental analysis. Thin films possessing maleimide groups were obtained by spin coating of maleimido dextran (furan-protected) and dextran furfuryl carbamate that was converted with bismaleimide. The removal of the protecting group (furan) on the thin film was monitored by

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