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Solid-state photocrosslinking of hyaluronan microfibres

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Highlights

The series of photocurable HYA was prepared under mild reaction conditions.

Photocurable HYA was processed to a microfibrillar structure by a wet-spinning method.

Water solubility of HYA microfibres was reduced by the solid-state photocrosslinking.

The nature of a polymer structure had a great impact to a final crosslink ratio.

We examined changes in mechanical properties of the particular fibres.

Abstract

Hyaluronan (HA) was chemically modified to a photocurable derivative by the acylation with a mixed anhydride of *trans*-cinnamic acid and characterized by UV, IR and 2D NMR spectroscopy. Photocurable HA was processed to a microfibrillar structure by wet-spinning technology. Water solubility of otherwise water-soluble HA

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