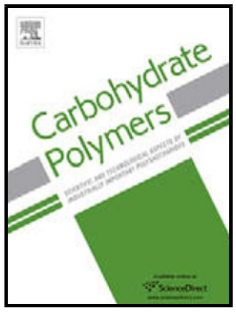

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Synthesis, thermal properties and cell-compatibility of photocrosslinked cinnamoyl-modified hydroxypropyl cellulose

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Highlights

- Cinnamoyl-modified HPC with DS 1.3 to 3.0 were synthesized by the esterification reaction of HPC with various amount of cinnamoyl chloride.
- Thermal analysis using DSC and TGA showed that the HPC-C with higher DS has a glass transition temperature and higher thermal stability.
- The UV-visible spectrum of each HPC-C changed by UV irradiation, and the reduction of the absorbance at 280 nm suggests the dimerization of cinnamoyl groups.
- The cell proliferation test revealed that the photocrosslinked HPC-C films have good compatibility with fibroblast cells.