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Synthesis and evaluation of functional alginate hydrogels based on click chemistry for drug delivery applications

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Highlights

- Alginate hydrogels were cross-linked via Diels-Alder click chemistry
- Alginate was modified with furan groups to different extents
- Hydrogels showed pH-sensitivity and pulsatile swelling
- Hydrogels were tested for the controlled release of vanillin

ABSTRACT

Environment-sensitive alginate-based hydrogels for drug delivery applications are receiving increasing attention. However, most work in this field involves traditional cross-linking strategies which led to hydrogels with poor long-term stability. Herein, a series of chemically

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