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Communication

A polysaccharide/tetraphenylethylene-mediated blue-light emissive and injectable supramolecular hydrogel

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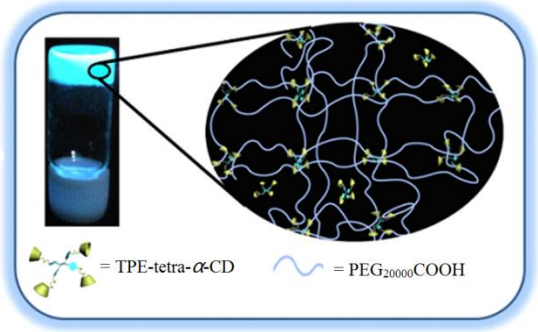
Graphical Abstract



A luminescent and injectable supramolecular hydrogel was successfully constructed through the non-covalent cross-linking of polymers mediated by tetraphenylethylene-bridged cyclodextrin oligomers, presenting the strong blue fluorescence, the reversible gelation behavior responsive to various external stimuli and the good mechanical property of shear thinning.

ABSTRACT
A luminescent and injectable supramolecular hydrogel was successfully constructed through the non-covalent cross-linking of polymers mediated by tetraphenylethylene-bridged cyclodextrin oligomers, presenting the strong blue fluorescence, the reversible gelation behavior responsive to various external stimuli and the good mechanical property of shear thinning.

Keywords:
Tetraphenylethylene
Supramolecular
Emissive
Injectable
Hydrogel

Supramolecular hydrogels are a class of soft materials using water as the dispersion medium and molecules taking advantage of noncovalent interactions as the gelation factor [1,2]. Owing to the dynamic and reversible interactions that hold the gel network,

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