

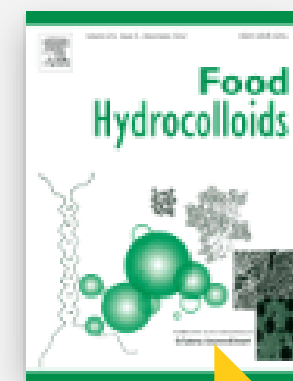
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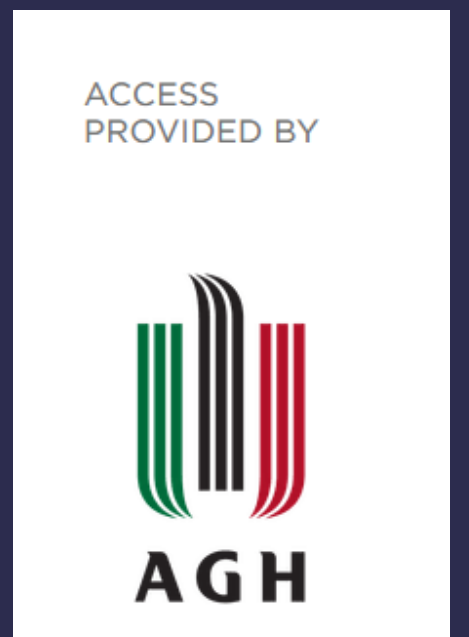
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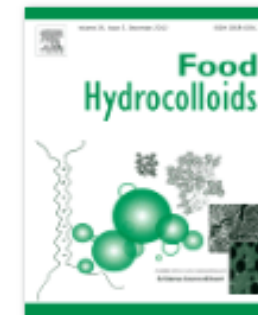
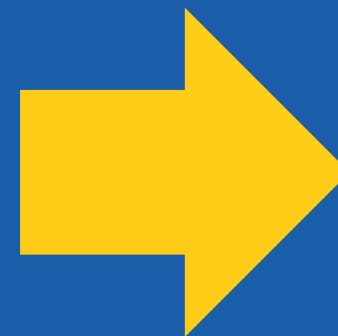
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Food Hydrocolloids Volume 148, Part A, March 2024, 109391

Construction and properties of curcumin/gum/gellan gum binary composite hydrogel system

Tian-Qi Zhou ^{a 1}, Xue-Chen Wang ^{a 1}, Ling-Yi Gao ^a, Jia-Nan Yan ^{a b}, Hai-Tao Wu ^{a b}

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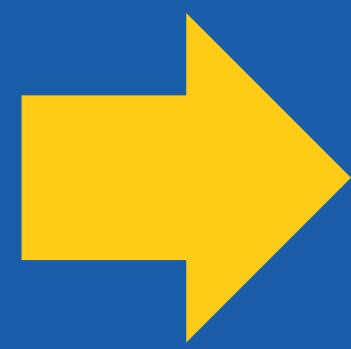
- The addition ratio between CG and GG exhibited a significant effect on the synergy.
- CG/GG binary composite gels exhibited good water holding capacity.
- The CG/GG binary composite gels mainly driven by hydrogen bonding forces.
- The CG/GG binary composite gels exhibited dense and homogeneous microstructures.

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Biomaterials
Volume 31, Issue 29, October 2010, Pages 7494-7502

Modified Gellan Gum hydrogels with tunable physical and mechanical properties

Daniela F. Coutinho^{a b c d}, Shilpa V. Sant^{c d}, Hyeongho Shin^{c e}, João T. O. Manuela E. Gomes^{a b}, Nuno M. Neves^{a b}, Ali Khademhosseini^{c d}  , Rui L. Reis^{a b}  

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Abstract

Gellan Gum (GG) has been recently proposed for tissue engineering applications. GG hydrogels are produced by physical crosslinking induced by temperature variation or by the presence of divalent cations. However, physical crosslinking methods may yield hydrogels that are weaker in physiological conditions due to the exchange of divalent cations for monovalent ones. Hence, this work presents a new class of GG hydrogels crosslinkable by both physical and chemical mechanisms. Methacrylate groups were incorporated in the GG chain, leading to the production of methacrylated Gellan Gum (MeGG) hydrogel with highly tunable physical and mechanical properties. The chemical modification was confirmed

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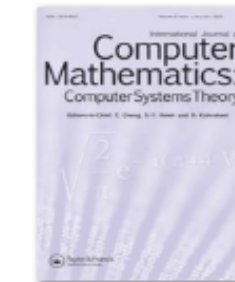
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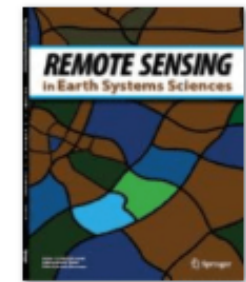
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