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# Smart polyacrylamide–cholic acid hybrid composite hydrogel: Development, characterization, and encapsulation study of methylene blue dye


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## Abstract

Hybrid hydrogel composed of a polymer integrated with bile salt, represent a smart material with outstanding mechanical properties. It is essential to investigate bile salt-based hydrogels efficacy in the dye removal process because their interactions with methylene blue dye have not received as much attention. In this work, the Polyacrylamide-Cholic acid (PA-CA) physical hydrogel has been synthesised where



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