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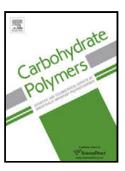
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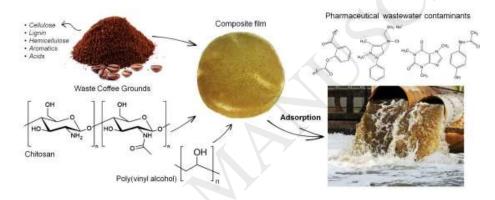
# Chitosan/waste coffee-grounds composite: An efficient and ecofriendly adsorbent for removal of pharmaceutical contaminants from water

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### Graphical abstract



## **Highlights**

- >Composite films based on chitosan and waste coffee grounds (WCG) were developed;
- >WCG-containing composites enhanced the adsorption of pharmaceuticals from water;
- >Maximum removal of pharmaceuticals was verified under mild experimental conditions;
- >The composite shows acceptable reusability in consecutive adsorption processes.

#### Abstract

Waste coffee-grounds (WCG), a poorly explored source of biocompounds, were combined with chitosan (Cs) and poly(vinyl alcohol) (PVA) in order to obtain composites. Overall, WCG showed a good interaction with the polymeric matrix and good dispersibility up to 10 wt-%. At 5 wt-% WCG, the composite exhibited a

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