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Polymer-enhanced ultrafiltration for heavy metal removal: Influence of chitosan and carboxymethyl cellulose on filtration performances

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Highlights

- Removal of Ni(II) by UF membranes falls drastically in salty conditions
- Polymer addition increases Ni(II) removal with both chitosan and CMC
- 5 • Chitosan should be chosen in acid or basic conditions due to better rejection
- CMC should be preferred at natural pH due to better flux and easier implementation
- Impact of polymer is weak for real effluents due to competition between ions

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