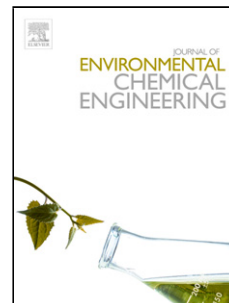


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Copper removal from aqueous solutions using a polyelectrolyte derived from sunflower oil: Physico-chemical aspects

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Highlights

- A safer and cleaner technology to remove copper ions from aqueous media is described.
- Polyelectrolytes synthesized from renewable raw materials are used for Cu ion removal.
- The surfactants obtained from sunflower oil in aqueous media are characterized.
- The copper ion/polyelectrolyte interaction for is studied for wastewater recovery.
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Abstract

Interactions between polymers and different metal ions represent an interesting field of study due their potential use for wastewater remediation. In turn, polymers with technological applications can be obtained from renewable raw materials. In this work, polyesters weighing 2822 Da were obtained from the reaction of an epoxidized biodiesel from sunflower oil. The polyesters were reacted with aqueous sodium hydroxide solutions to obtain polyelectrolytes. The polyelectrolytes were characterized with respect to their structure by Nuclear Magnetic Resonance Spectroscopy, Infrared Fourier Transform Spectroscopy

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