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Hybrid synthesis of novel material through acid modification followed ultrasonication to improve adsorption capacity for zinc removal

A. Saravanan, P. Senthil Kumar, A. Annam Renita

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Research Highlights

- Ultrasonic treatment was used to prepare the effective adsorbent for Zn(II) ions removal.
- The influencing parameters were optimized for the maximum Zn(II) ions removal.
- The different adsorption modelling was used to explain the adsorption process.
- The maximum monolayer sorption capacity was calculated as 80.91 mg/g.
- The quality treated water was produced by using the prepared novel adsorbent.

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