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Authors: Suyog N. Jain, Parag R. Gogate



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Acid Blue 113 removal from aqueous solution using novel biosorbent based on NaOH treated and surfactant modified fallen leaves of *Prunus Dulcis*

Suyog N. Jain, Parag R. Gogate*

Chemical Engineering Department,
Institute of Chemical Technology,
Nathalal Parekh Marg,
Matunga, Mumbai 400019, India

*Corresponding author

Tel.: +91 22 33612024, Fax: +91 22 33611020;

E-mail address: pr.gogate@ictmumbai.edu.in

Highlights

- Biosorbent was synthesized by NaOH and surfactant treatment of dead leaves of *Prunus Dulcis*.
- Almost 100% dye removal for 100 mg L⁻¹ of acid blue 113 was obtained for surfactant modified biosorbent.
- Maximum biosorption capacity was estimated as 97.09 mg g⁻¹ for surfactant modified biosorbent.
- Regeneration studies for 3 cycles ensured potential of the synthesized biosorbent.
- Langmuir and Temkin isotherm models were in better agreement to the equilibrium data.

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