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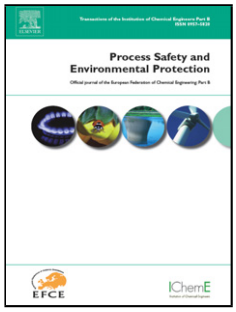

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Author: Swapnila Roy Papita Das Shubhalakshmi Sengupta

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Treatability Study using Novel Activated Carbon prepared from Rice Husk: Column study, Optimization using Response Surface Methodology and Mathematical Modeling

SwapnilaRoy[a,1], PapitaDas[a,2], Shubhalakshmi Sengupta[a,3]

Department of Chemical Engineering, Jadavpur University, Kolkata 700032, India[a]

Corresponding mail address:

papitasaha@gmail.com

Research Highlights

- Activated carbon was synthesized from rice husk and was used for the removal of fluoride present in water
- A two-level three factor (2^3) full factorial central composite design was used for optimization of the fluoride removal process
- The optimum conditions were found to be initial fluoride concentration of 50 mg L^{-1}, flow rate of 10 ml $min^{-1}$and bed height of 3 cm
- The Thomas model showed excellent fit to the dynamic fluoride adsorption data