

SUPPORTING INFORMATION

Preparation and characterization of novel polysulfone-red mud composite capsules for the removal of fluoride from aqueous solutions

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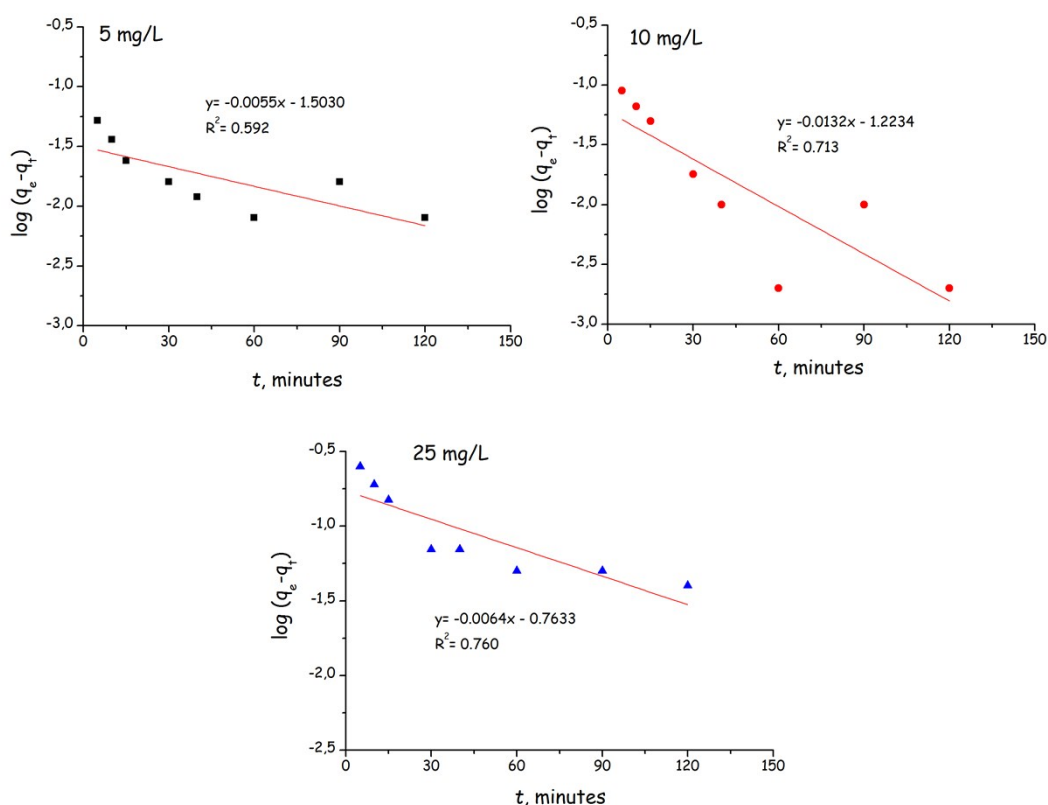


Figure S1. Linear plot of pseudo first-order kinetic model (Concentrations of fluoride: 5, 10 and 25 mg/L, initial pH: 3.0, amount of capsule prepared with mass ratio of red mud to PSF (1:1, g:g): 12.5 g/L, shaking speed: 150 rpm, temperature: 25 ± 1 °C).

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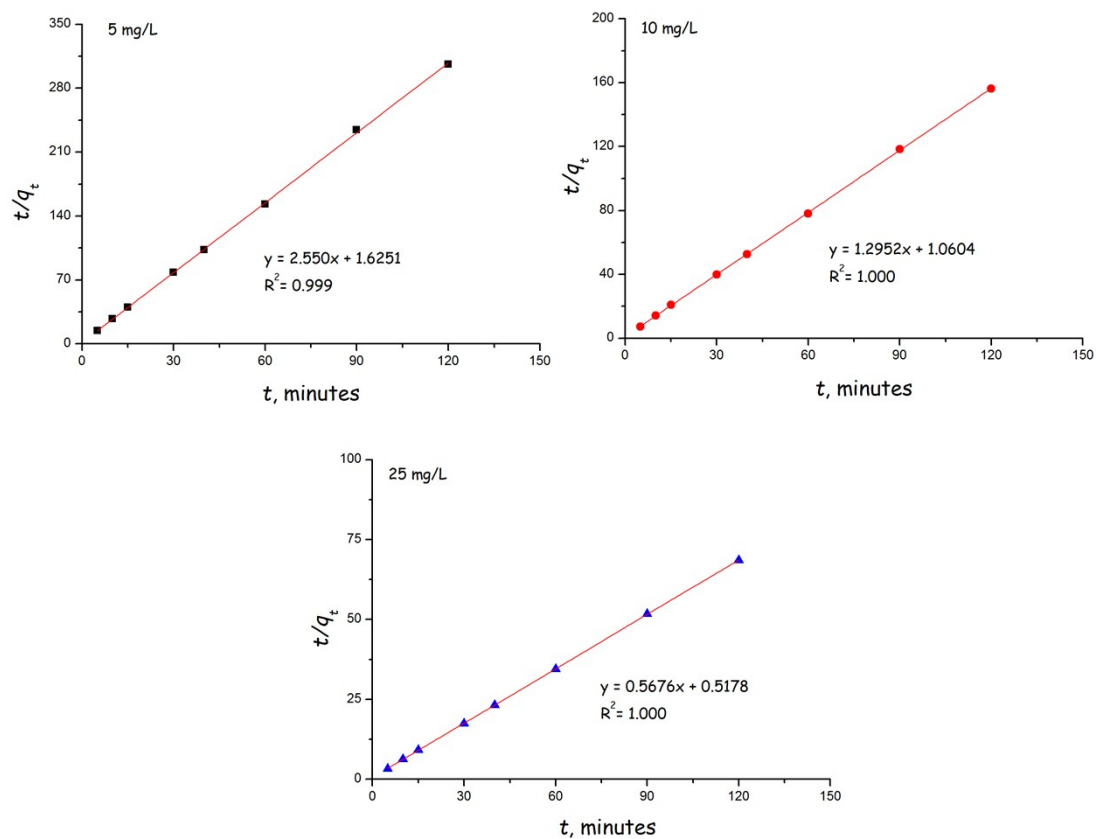


Figure S2. Linear plot of pseudo second-order kinetic model (Concentrations of fluoride: 5, 10 and 25 mg/L, initial pH: 3.0, amount of capsule prepared with mass ratio of red mud to PSF (1:1, g:g): 12.5 g/L, shaking speed: 150 rpm, temperature: 25±1 °C).

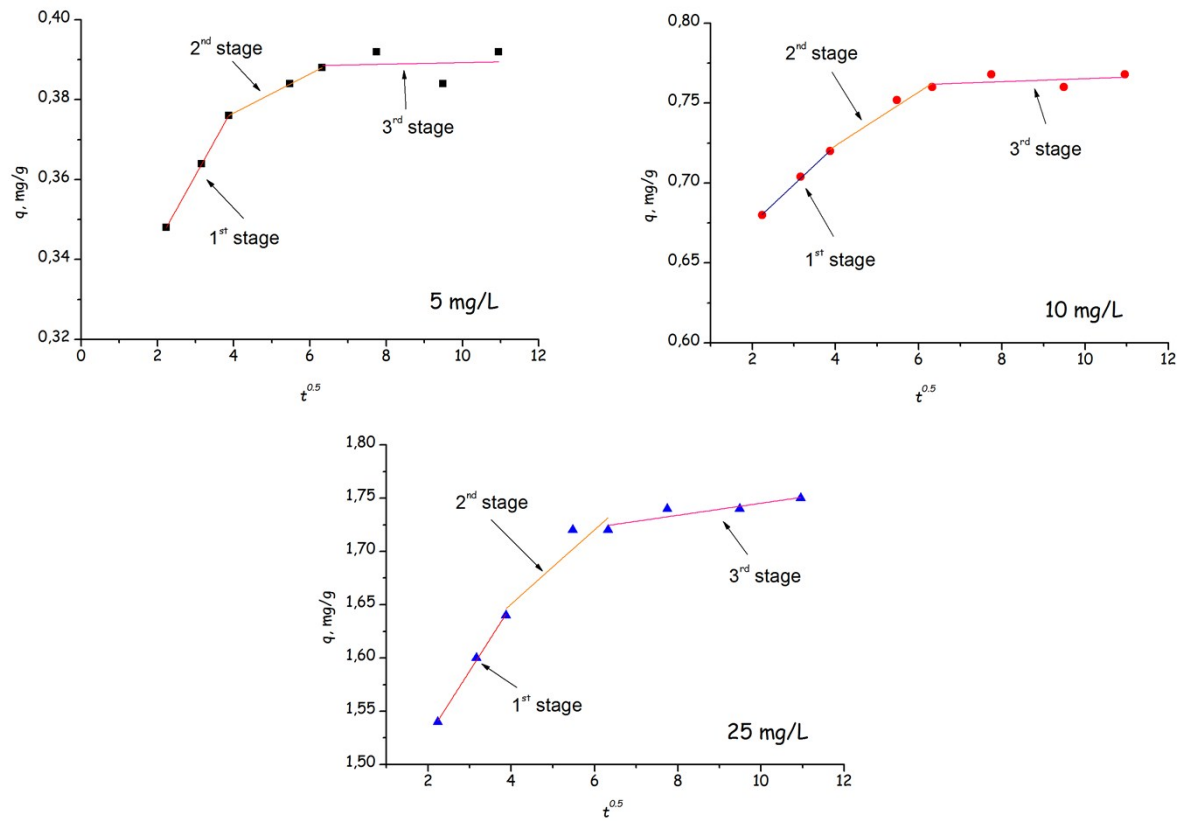


Figure S3. Plot of intra-particle diffusion model. (Concentrations of fluoride: 5, 10 and 25 mg/L, initial pH: 3.0, amount of capsule prepared with mass ratio of red mud to PSF (1:1, g:g): 12.5 g/L, shaking speed: 150 rpm, temperature: 25±1 °C).

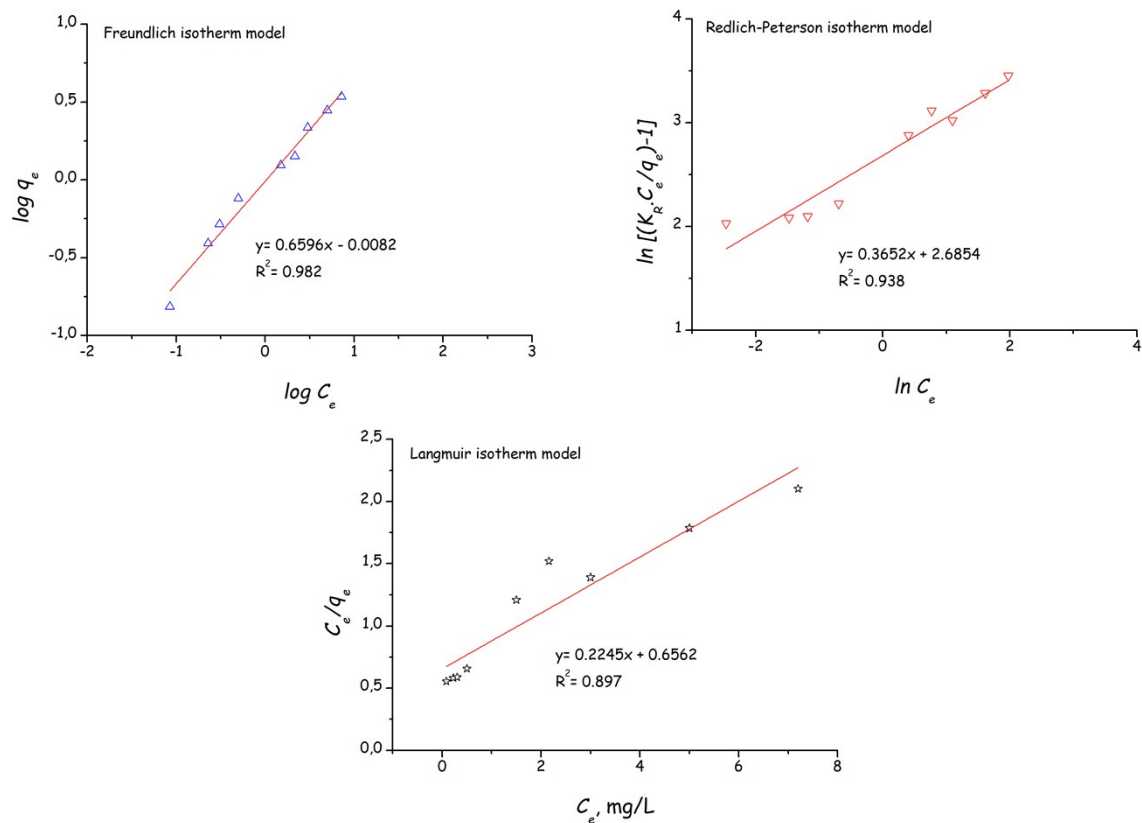


Figure S4. Linear plots of Langmuir, Freundlich and Redlich-Peterson isotherm models for the sorption of fluoride from aqueous solution (initial pH: 3.0, contact time: 1 h, amount of capsule prepared with mass ratio of red mud to PSF (1:1, g:g): 12.5 g/L, shaking speed: 150 rpm, temperature: 25 ± 1 °C).