

Synthesis of Nanorods-like Mesoporous γ -Al₂O₃ with Enhanced Affinity towards Congo Red Removal: Effects of Anions and Structure-directing Agents

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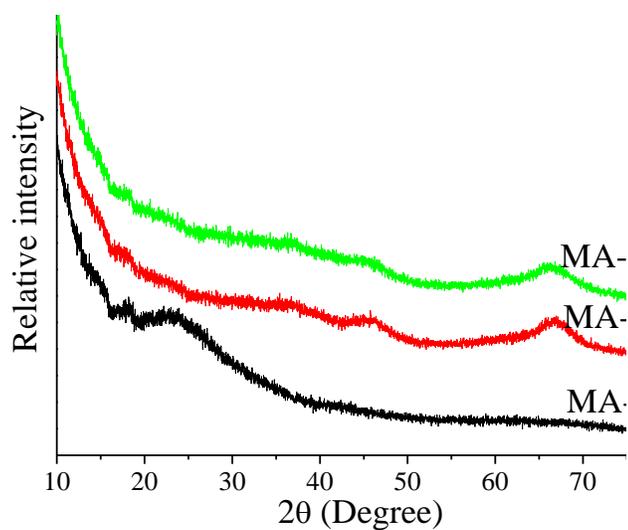


Fig. S1. Wide angle XRD patterns of the amorphous alumina prepared by using different aluminum precursors without hydrothermal treatment.

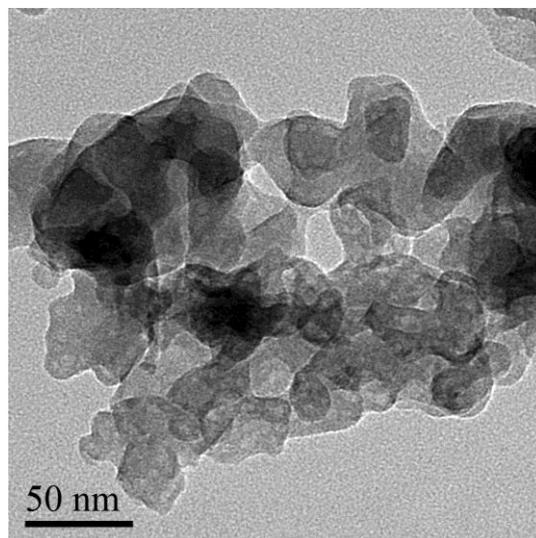


Fig. S2. TEM image of the amorphous alumina prepared from aluminum sulfate without hydrothermal treatment.

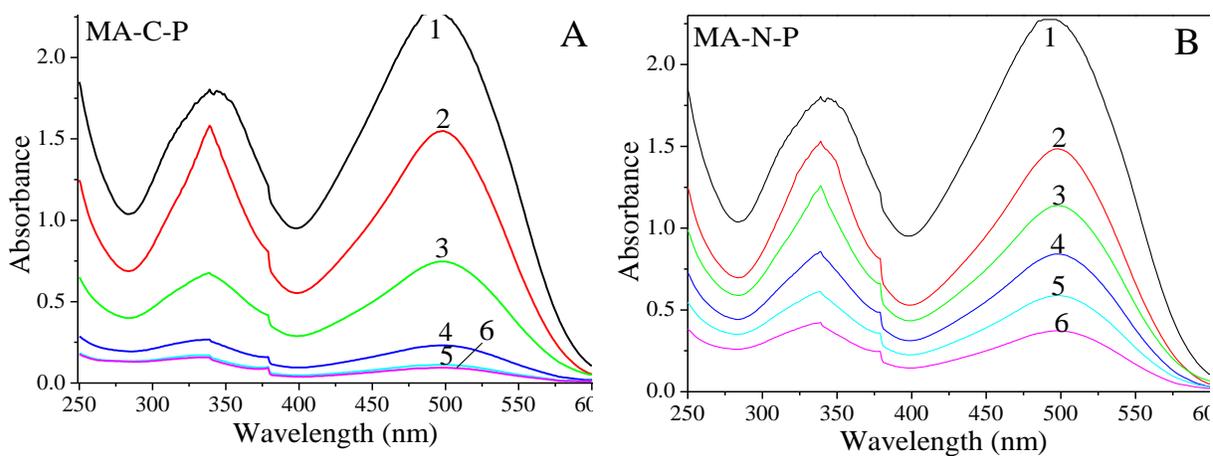


Fig. S3. The absorption spectra of Congo red in the presence of γ -Al₂O₃ prepared from aluminum chloride (A) and aluminium nitrate (B) after time intervals of (1) 0, (2) 2, (3) 5, (4) 10, (5) 30, (6) 60 min.

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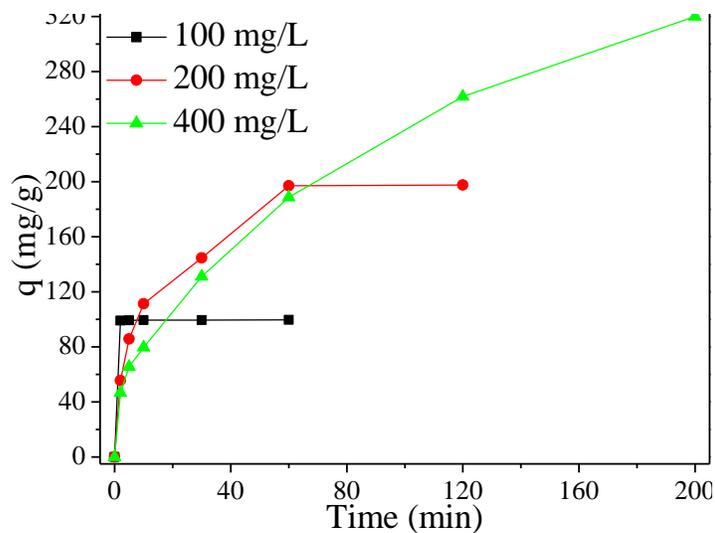


Fig. S4. Adsorption capacity of the sample MA-S-P with time at different initial concentration of Congo red.

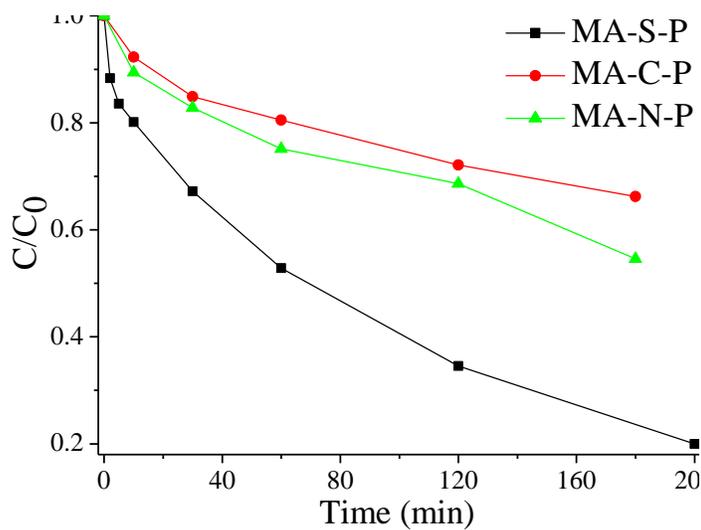


Fig. S5. Adsorption rate of Congo red with a concentration of 400 mg L⁻¹ on the γ -Al₂O₃ prepared from aluminium sulfate, aluminium chloride and aluminium nitrate using P123 as the SDA.

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Fig. S6. Picture of absorption of Congo red solution with a concentration of 200 mg L^{-1} on MA-S-P for a 120 min adsorption process, and then free sedimentation for 60 min.