

Supplementary Material

ADSORPTION OF ANIONIC SURFACTANTS ONTO ALUMINA: CHARACTERISTICS, MECHANISMS AND APPLICATION FOR HEAVY METAL REMOVAL

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S1. The Fourier transform infrared spectroscopy (FT-IR) of unmodified alumina

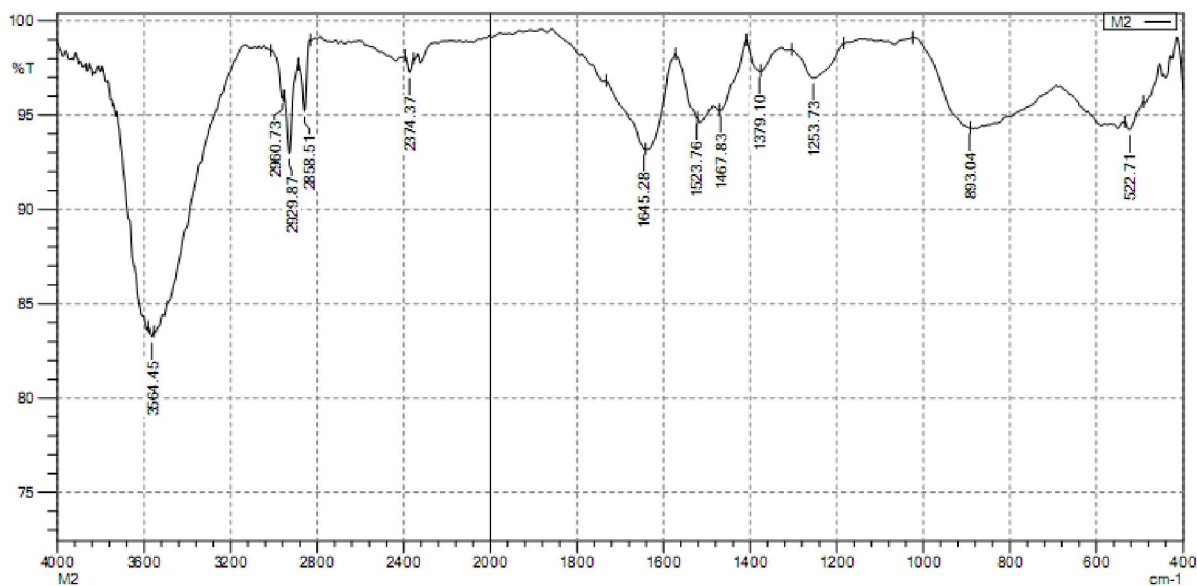


FIGURE. S1 The FTIR- spectra in the wavenumber range of 400– 4000 cm⁻¹ for γ -Al₂O₃ without adsorption

S2. The Fourier transform infrared spectroscopy (FT-IR) of SDS modified γ -Al₂O₃ after adsorption of cadmium

The FT-IR spectra of SDS modified γ -Al₂O₃ after adsorption of Cd²⁺ (Figure. S2) indicates that the specific peaks assign for the vibration of CH₂- in the wavenumber range of 2500 cm⁻¹- 3500 cm⁻¹ are still occurred but the intensity is much smaller compare with that of SMA. It implies that after adsorption of cationic Cd²⁺, the small number of SDS admicelles SDS remained γ -Al₂O₃. In other word, the adsorption of Cd²⁺ induced the less negatively SMA surface.

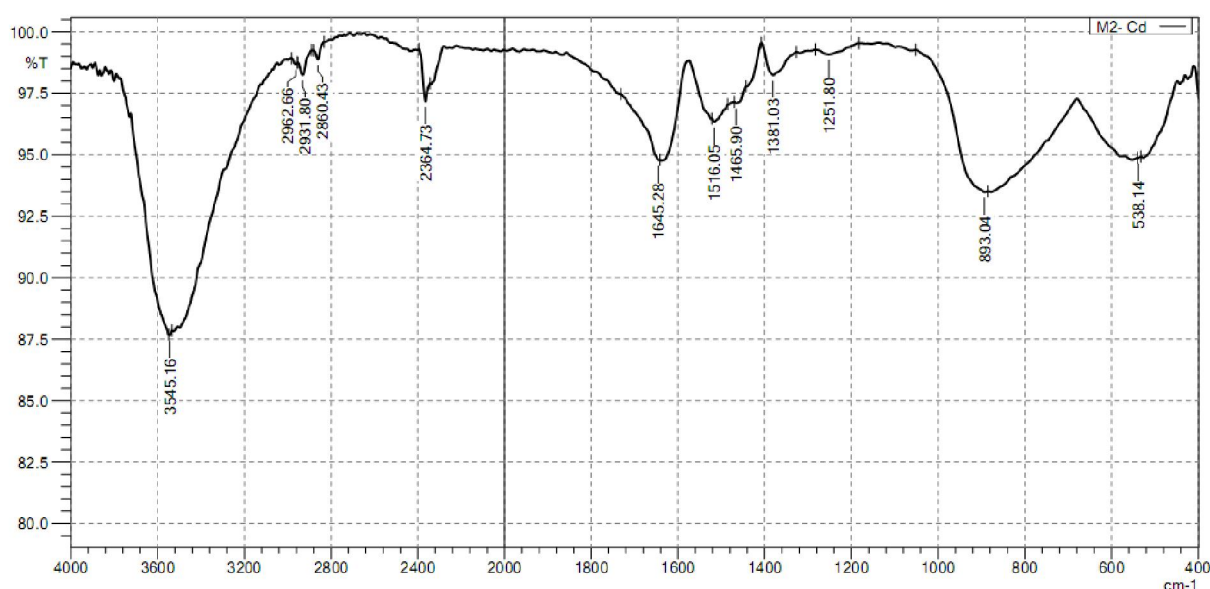


FIGURE. S2 The FTIR- spectra in the wavenumber range of 400– 4000 cm⁻¹ for SDS modified γ -Al₂O₃ after adsorption of cadmium.