

Electronic Supplementary Information (ESI)

Supplementary Graphics

Figure 1. H₂S breakthrough curves of the ZnO commercial sorbent (Katalco_{JM}-F), Zn_F and Fe_F supported sorbent at the first sulphidation run.

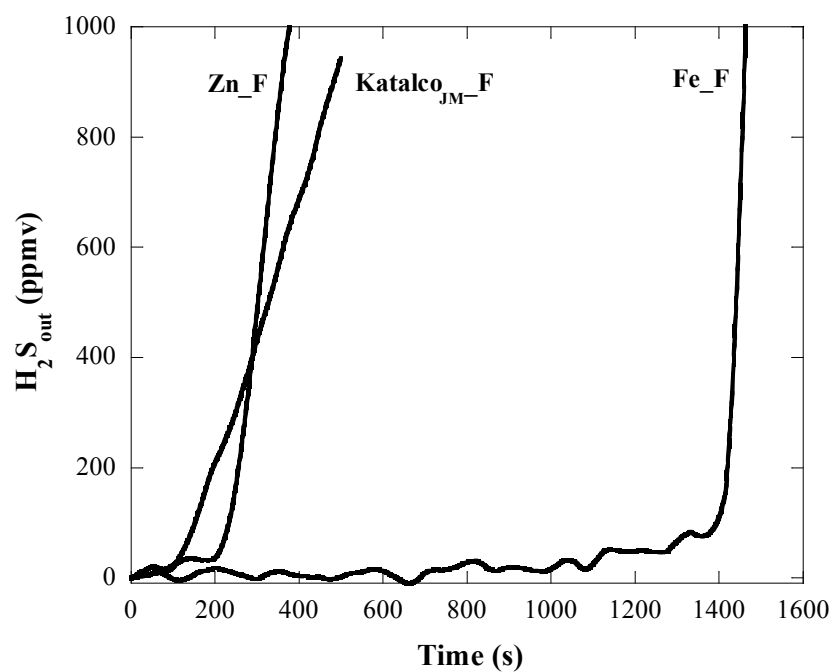


Figure 2. TCD profiles of the Fe₂S₃ (a), ZnS (b), and Katalco_{JM}S (c) sulphided sorbents, regenerated through a two-step (500 and 700 °C) treatment.

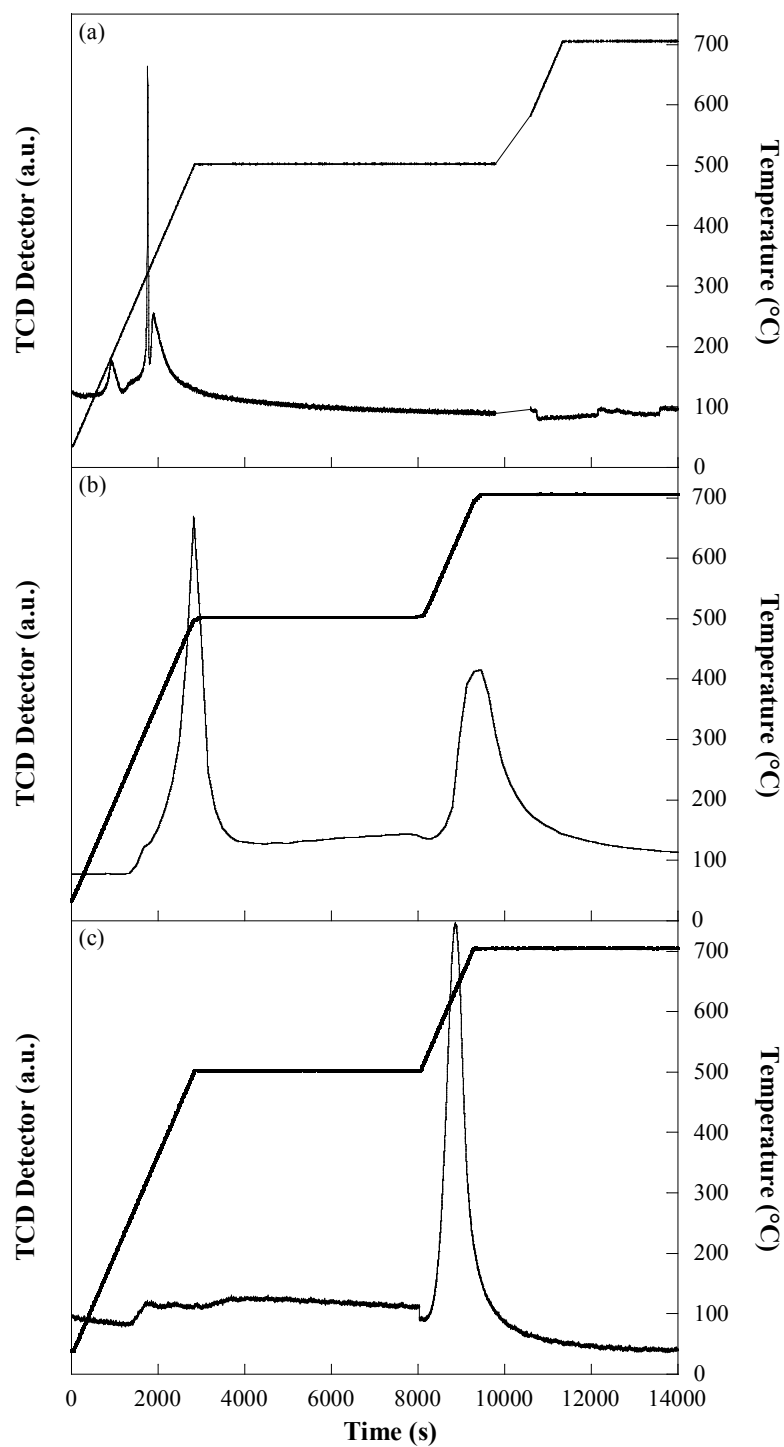


Figure 3. Wide-angle XRD patterns of the zinc oxide- and iron oxide-based sorbents in the regenerated (R) state compared with the fresh (F) and sulphided (S) ones. The main reflection planes are marked.

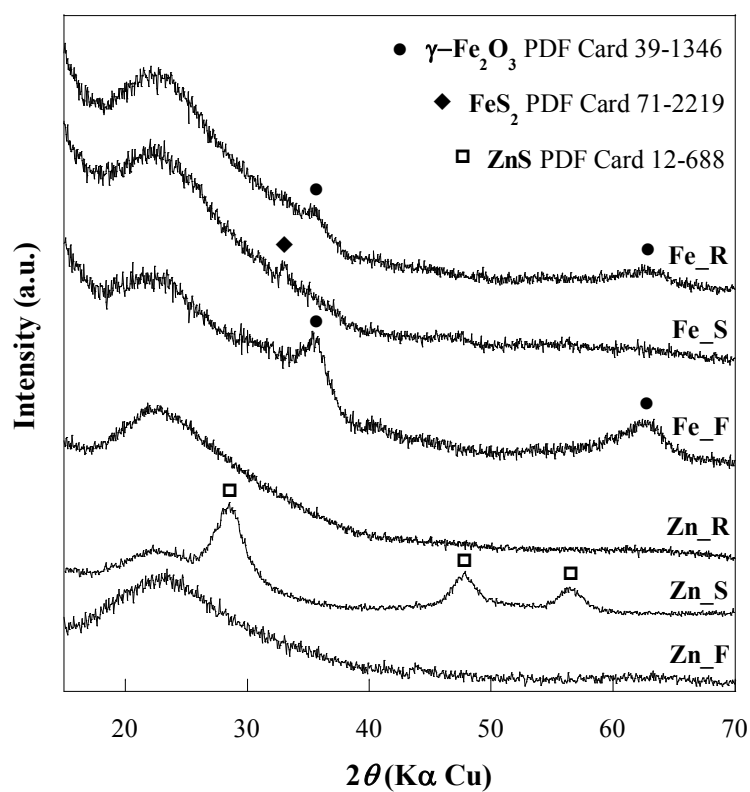


Figure 4. FTIR spectra of the zinc oxide- and iron oxide-based sorbents in the regenerated (R) state compared with the fresh (F) and sulphided (S) ones.

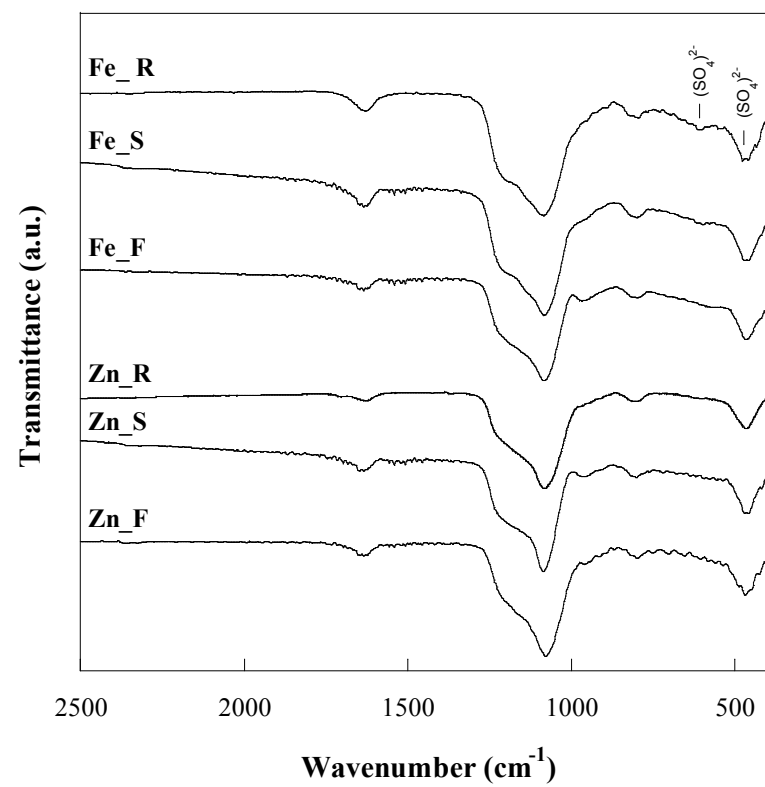


Figure 5. XRD patterns of the fresh (γ -Fe_F), sulphided (γ -Fe_S) and regenerated (γ -Fe_R) pure nanostructured maghemite sample (γ -Fe₂O₃, Aldrich commercial product).

