

Supplementary material

Effect of Sand Co-Presence on Cr^{VI} Removal in $\text{Fe}^0\text{-H}_2\text{O}$ System

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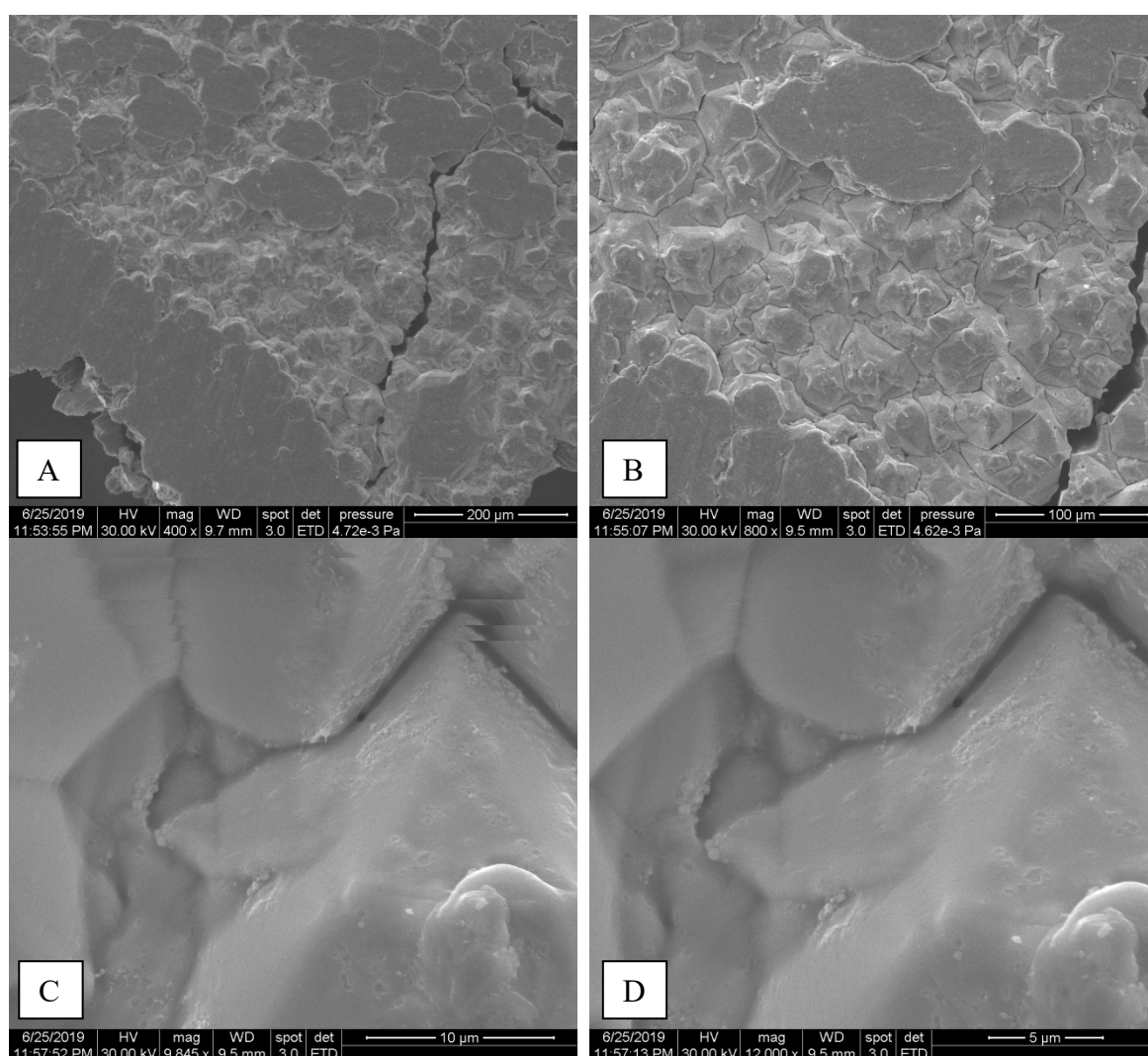


Figure S1. SEM micrograph of fresh Fe^0 at different magnifications

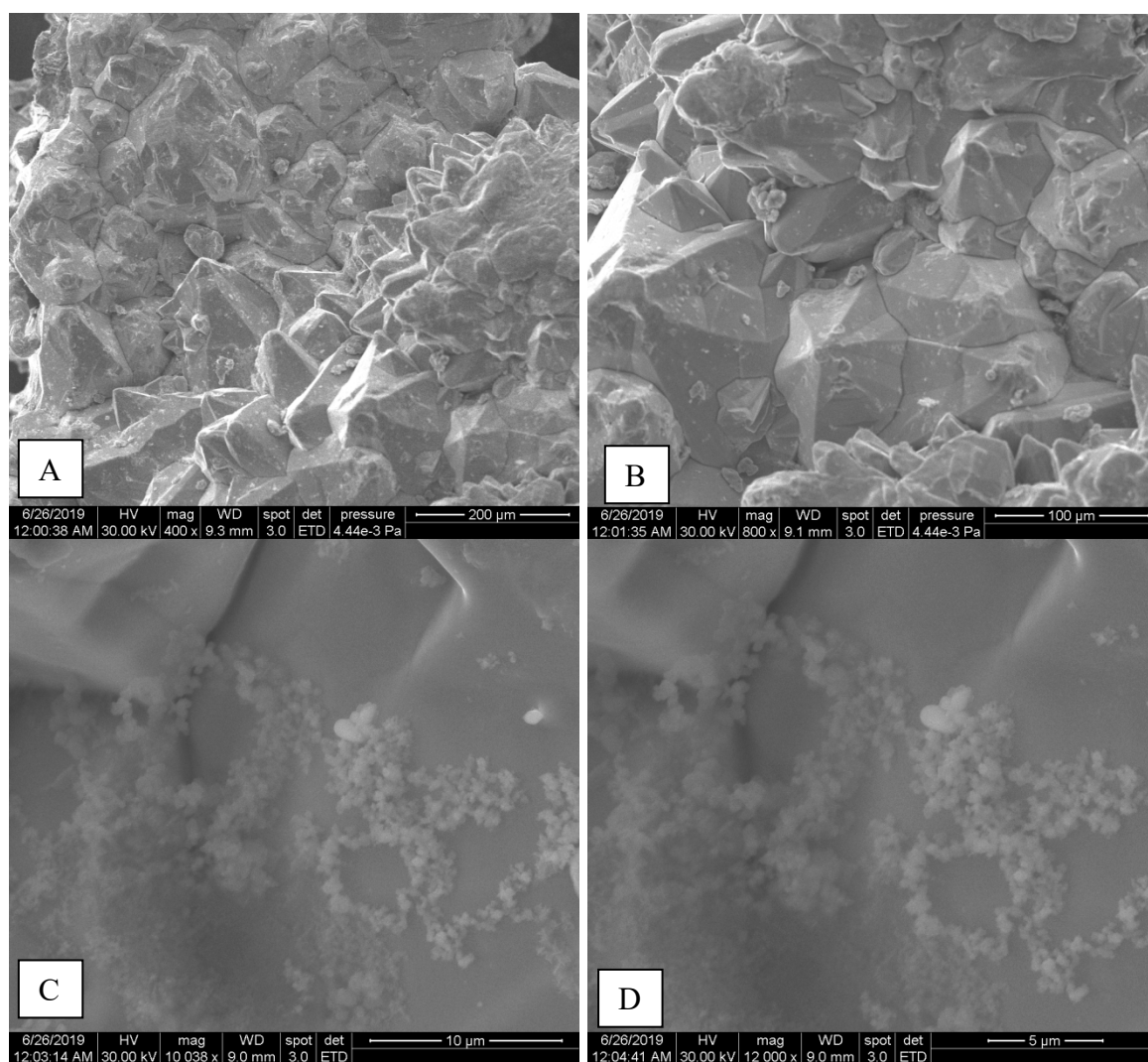


Figure S2. SEM micrograph of exhausted Fe^0 from 100% Fe^0 system at different magnifications

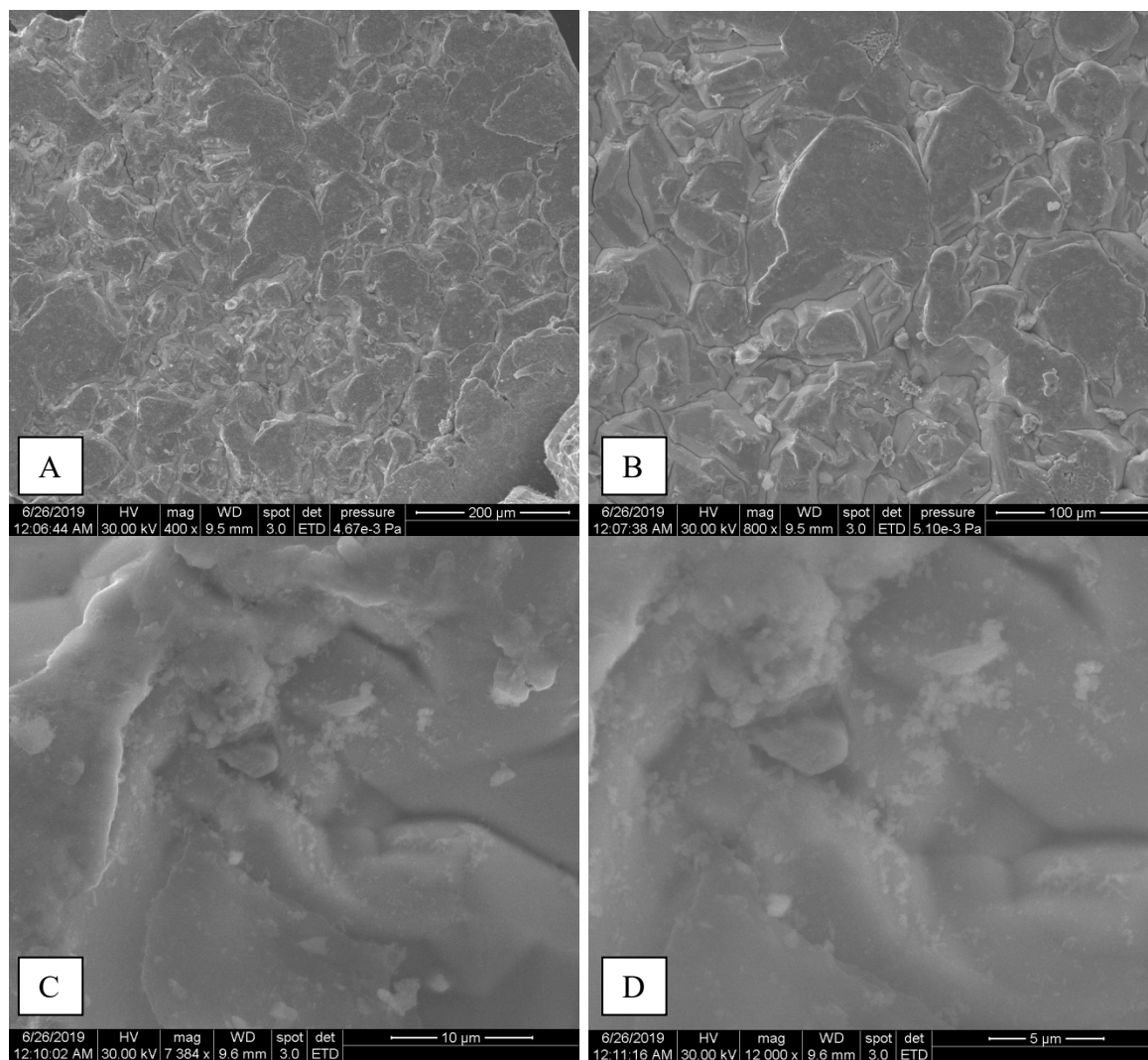


Figure S3. SEM micrograph of exhausted Fe^0 from 50% Fe^0 system at different magnifications

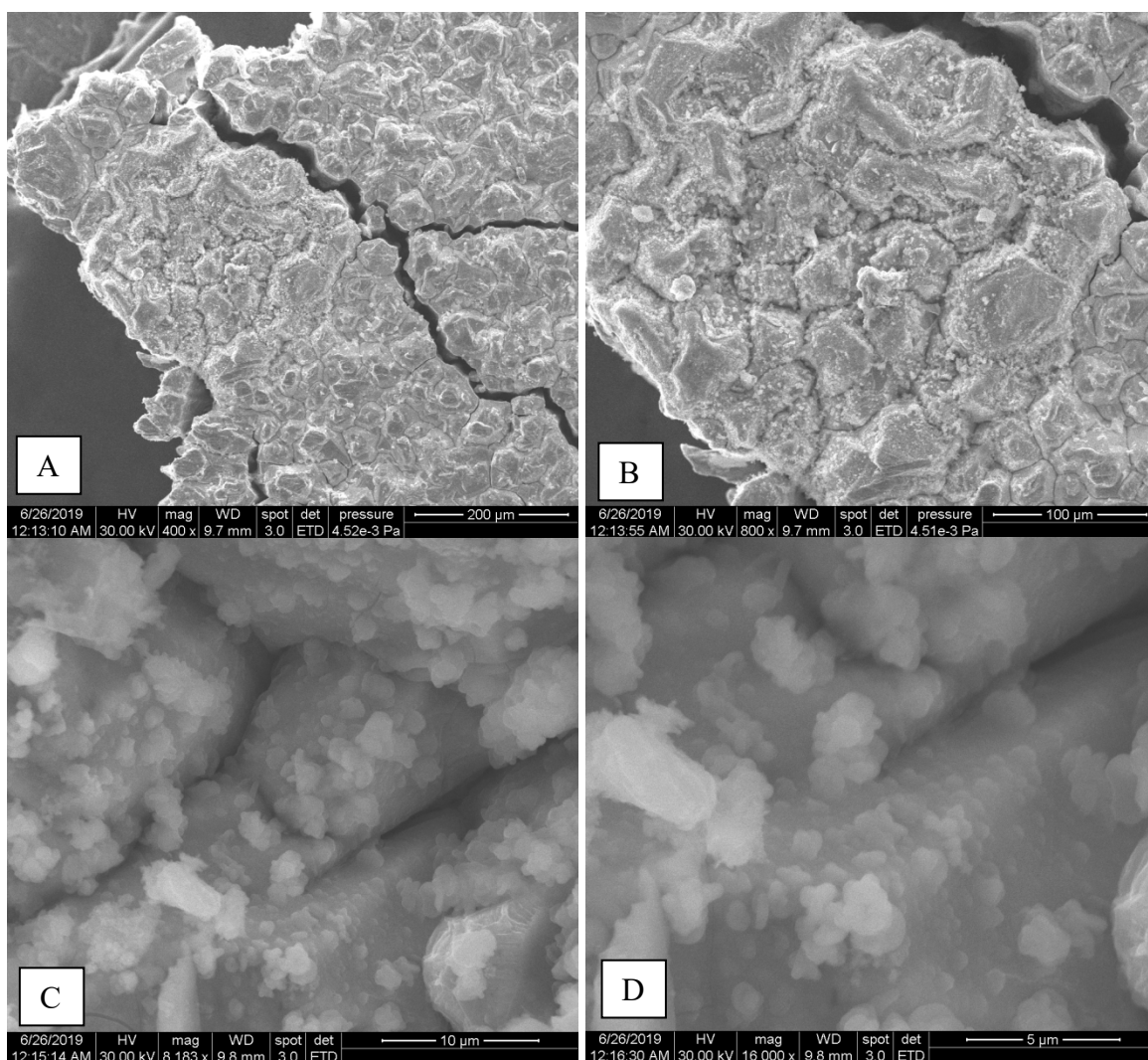


Figure S4. SEM micrograph of exhausted Fe^0 from 20% Fe^0 system at different magnifications

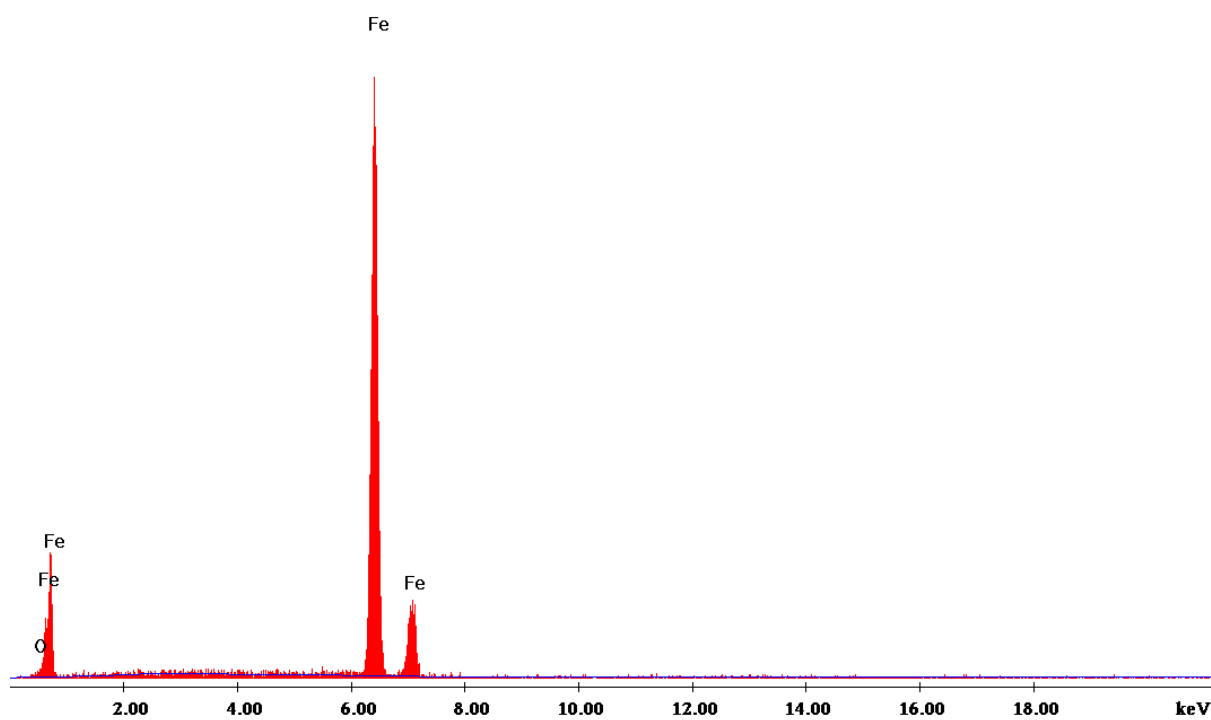


Figure S5. EDX pattern of fresh Fe⁰

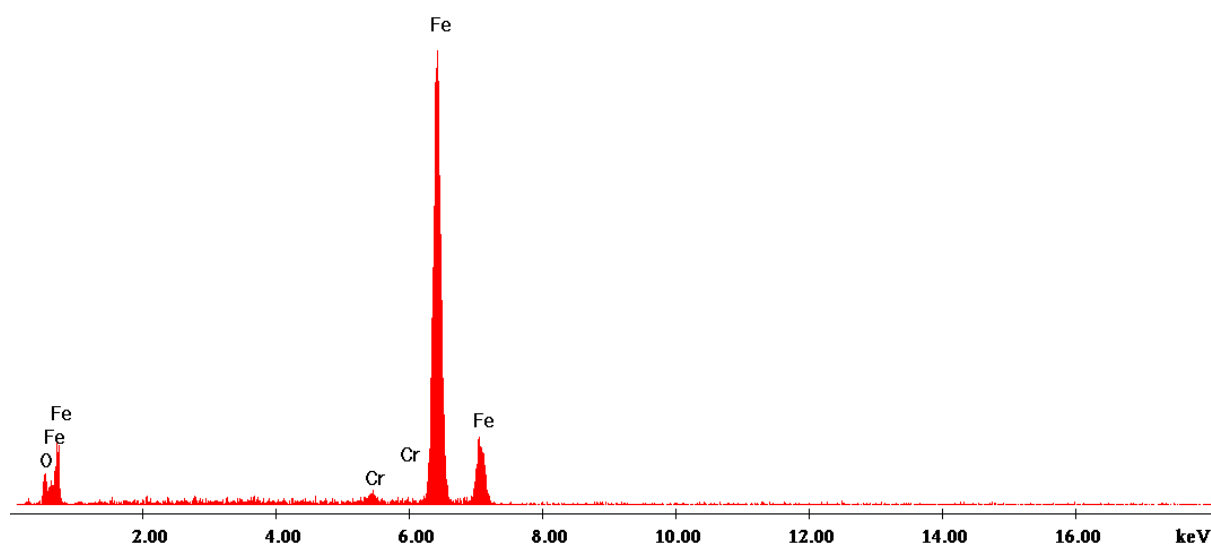


Figure S6. EDX pattern of exhausted Fe⁰ from "Fe⁰ only" system

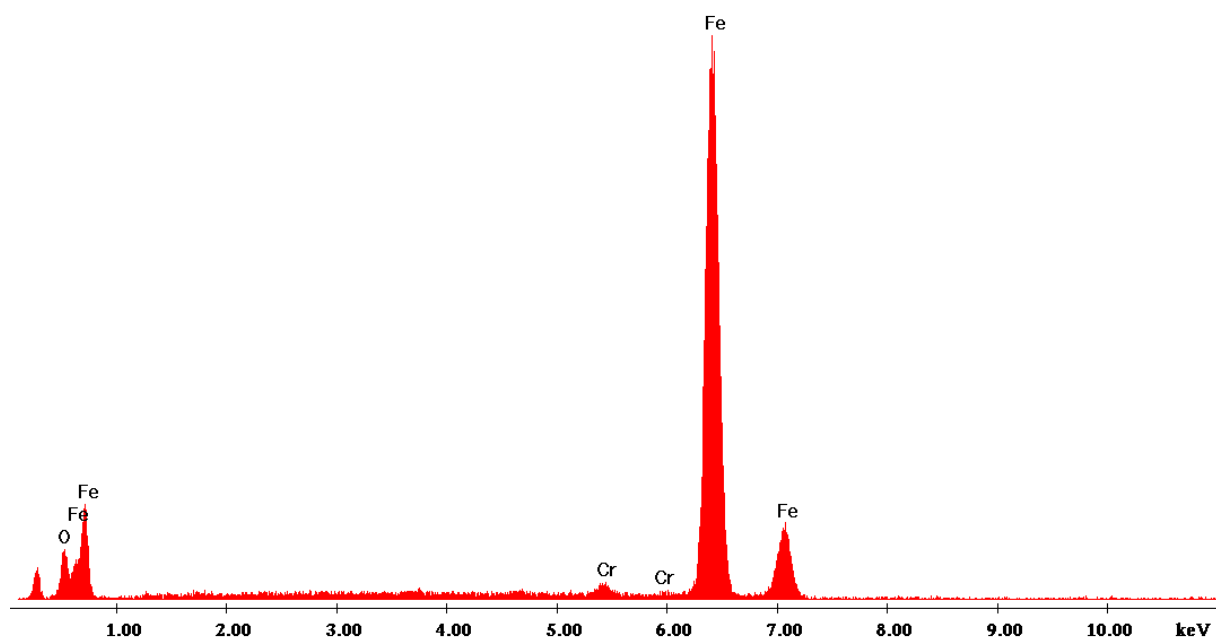


Figure S7. EDX pattern of exhausted Fe^0 from "50% Fe^0 + 50% sand" system

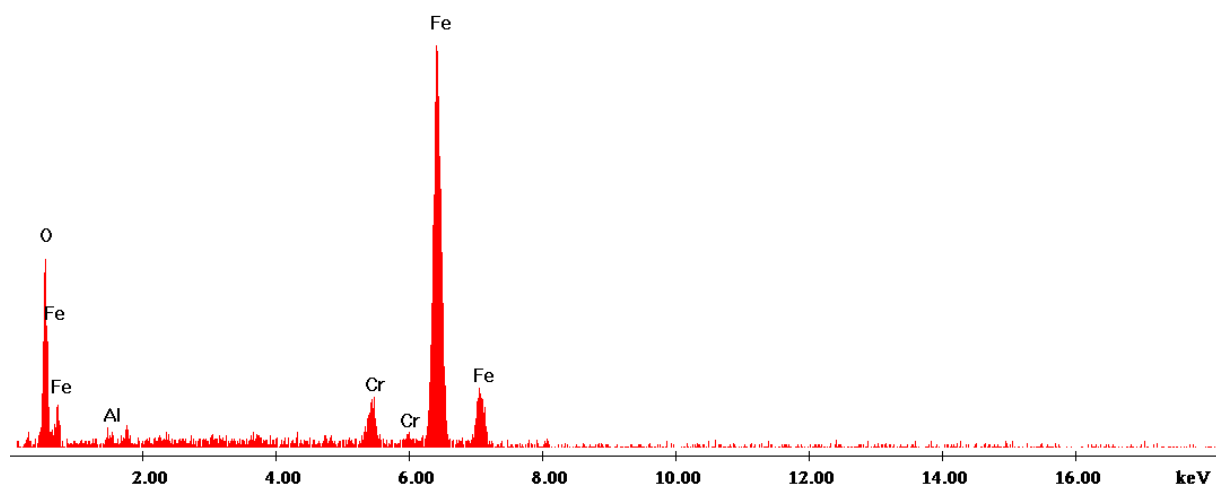


Figure S8. EDX pattern of exhausted Fe^0 from "20% Fe^0 + 80% sand" system

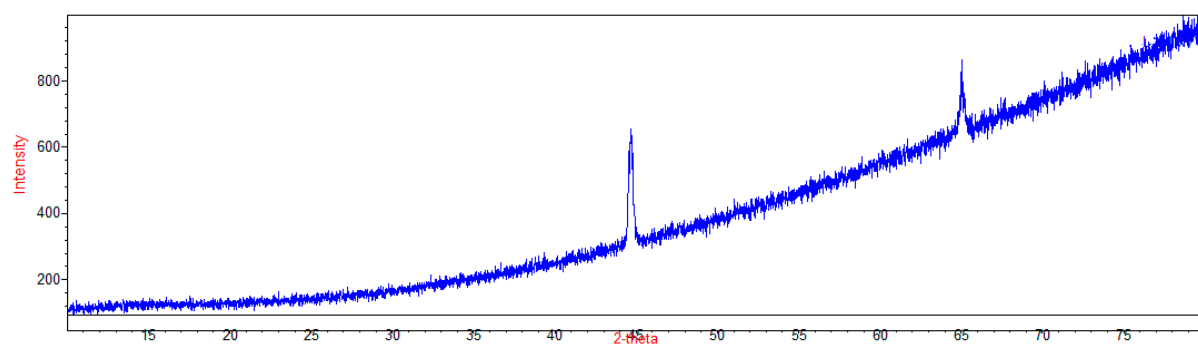


Figure S9. XRD pattern of fresh Fe⁰

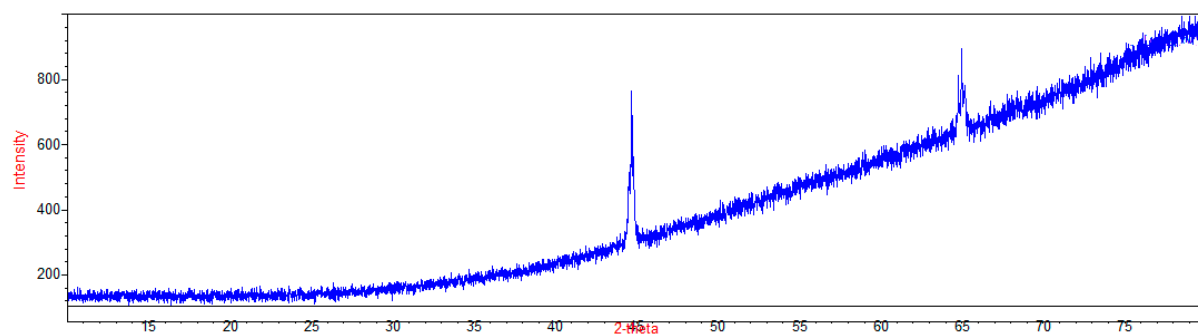


Figure S10. XRD pattern of exhausted Fe⁰ from 100% Fe⁰ system

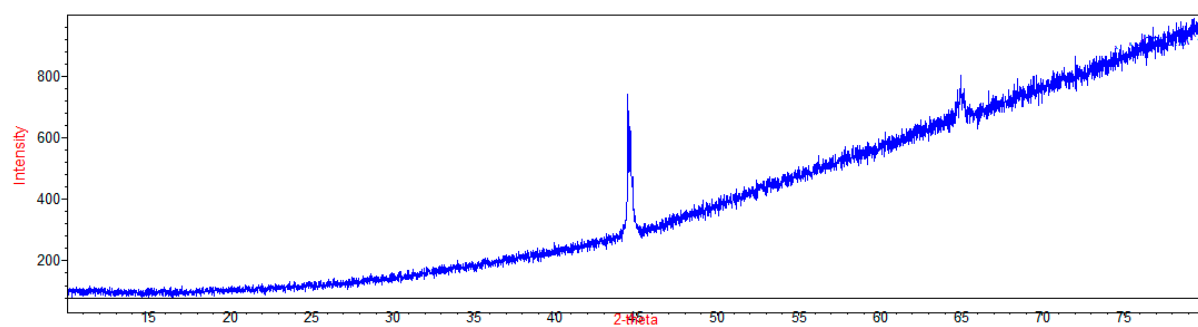


Figure S11. XRD pattern of exhausted Fe⁰ from 50% Fe⁰ system

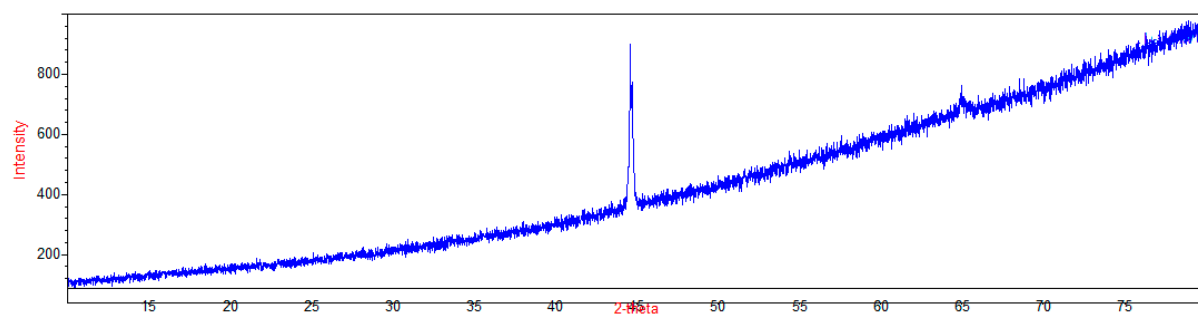


Figure S12. XRD pattern of exhausted Fe⁰ from 20% Fe⁰ system

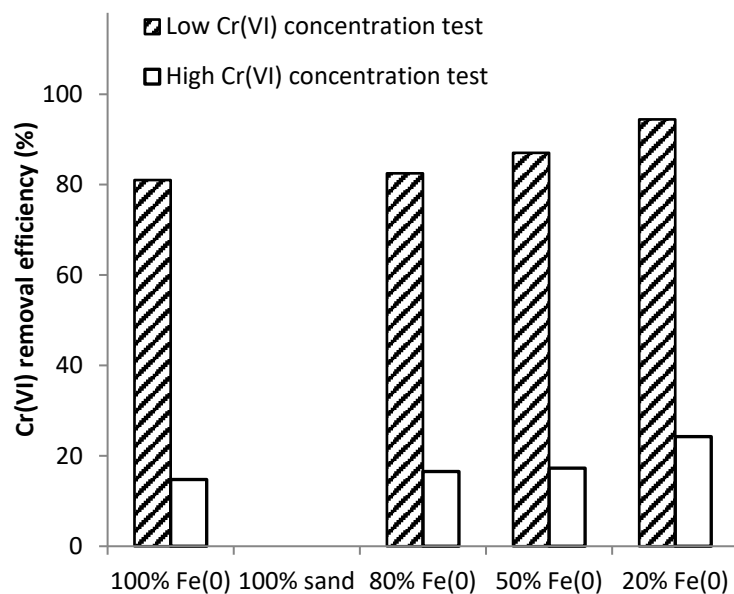


Figure S13. Profiles of Cr^{VI} removal efficiencies for non-disturbed batch experiments, after 40 experimental days.

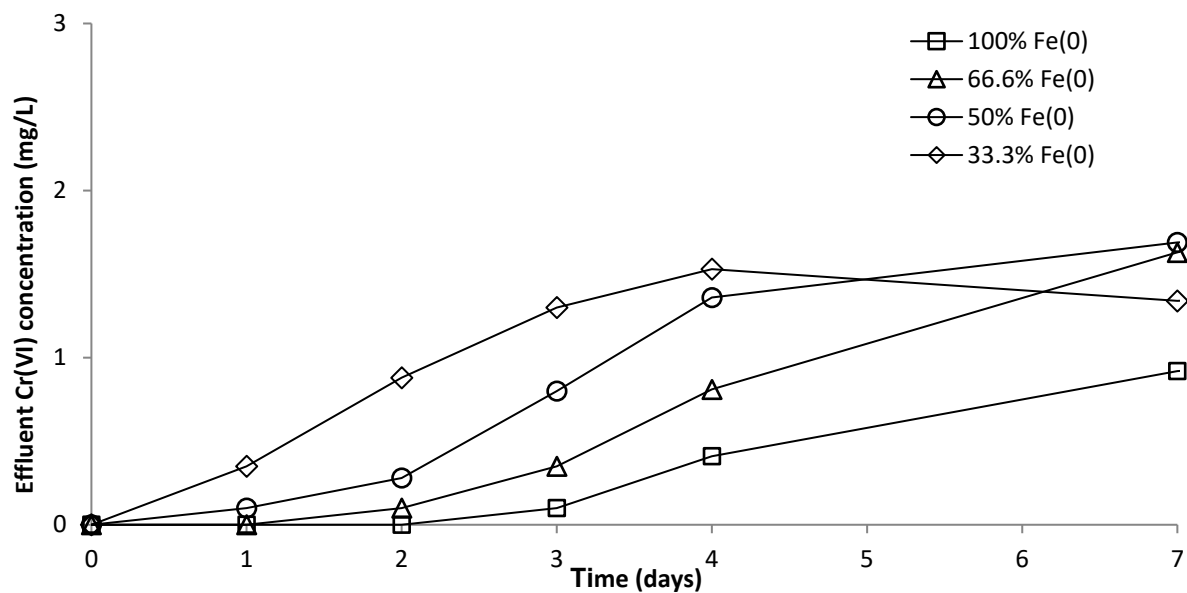


Figure S14. Evolution of Cr^{VI} breakthrough at pH 6.5, for columns having fixed Fe^0 volume and variable total reactive zone volume V_2 .

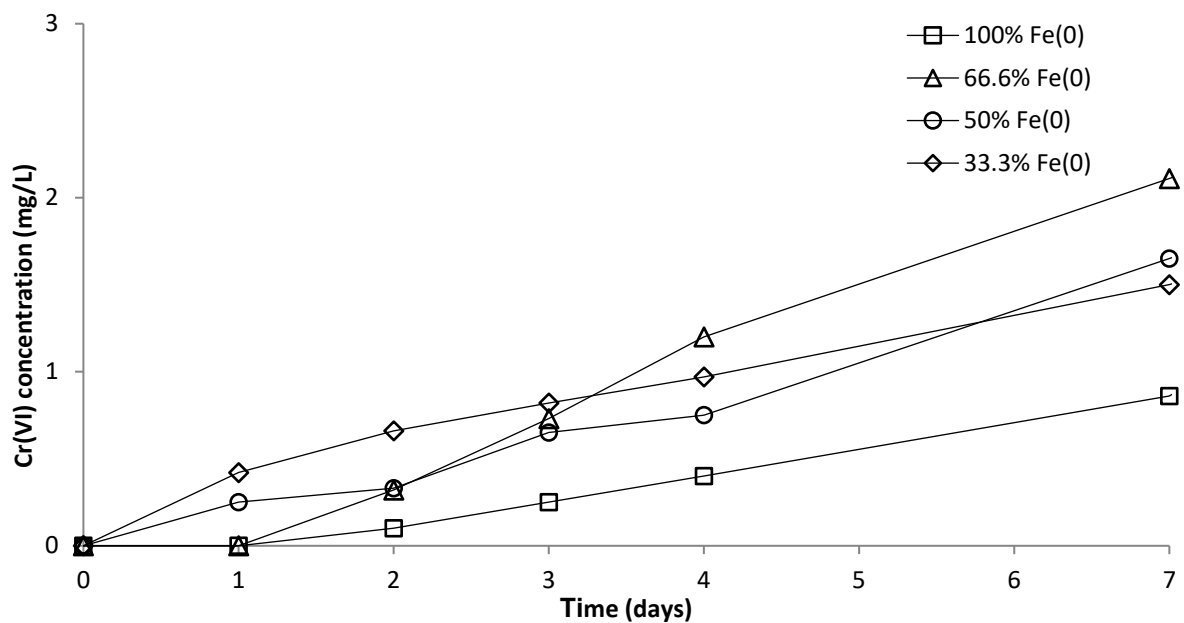


Figure S15. Evolution of Cr^{VI} breakthrough at pH 7.1, for columns having fixed Fe^0 volume and variable total reactive zone volume V_2 .

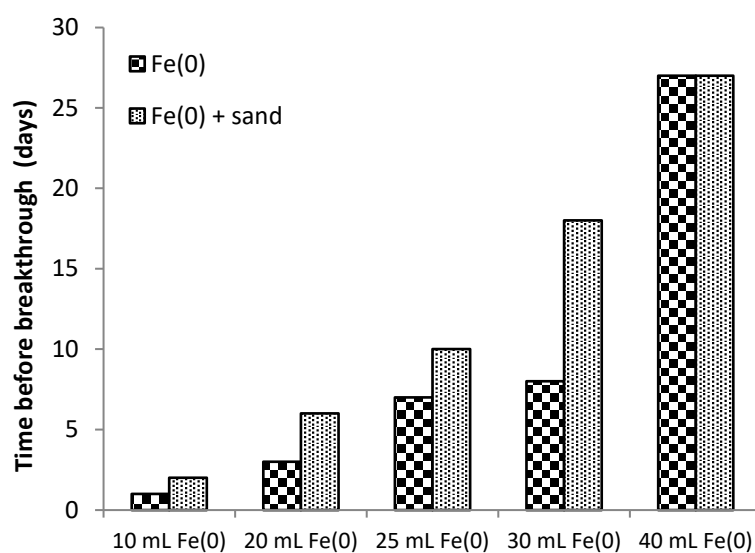


Figure S16. Evolution of Cr^{VI} breakthrough, for columns having variable Fe^0 volume and fixed total reactive zone volume V_2 .