

In Situ Spectroscopic Studies of Sulfate and Selenate Adsorption on Iron (III) (Hydr)oxides.

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Recent research in our laboratory has determined that both inner- and outer-sphere surface complexes of both sulfate and selenate can occur simultaneously on iron oxides. The influence that pH, ionic strength, iron oxide identity, and oxyanion loading level has on this continuum of surface complexes will be explained using results from in situ spectroscopic studies. The results from ATR-FTIR spectroscopic studies of sulfate adsorption on iron oxides will be presented. Findings from EXAFS spectroscopic investigations at the Se K-edge will also be shown.

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