Supporting Information

Oxygen evolving reactions catalysed by manganese- oxo-complexes adsorbed on clays

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Additional UVVis spectra

Figure S1. Diffuse reflectance UVVis spectra of complex **1** as solid (mixed with BaSO4, solid line) and adsorbed on kaolinite and montmorillonite clays (dashed and dotted lines).

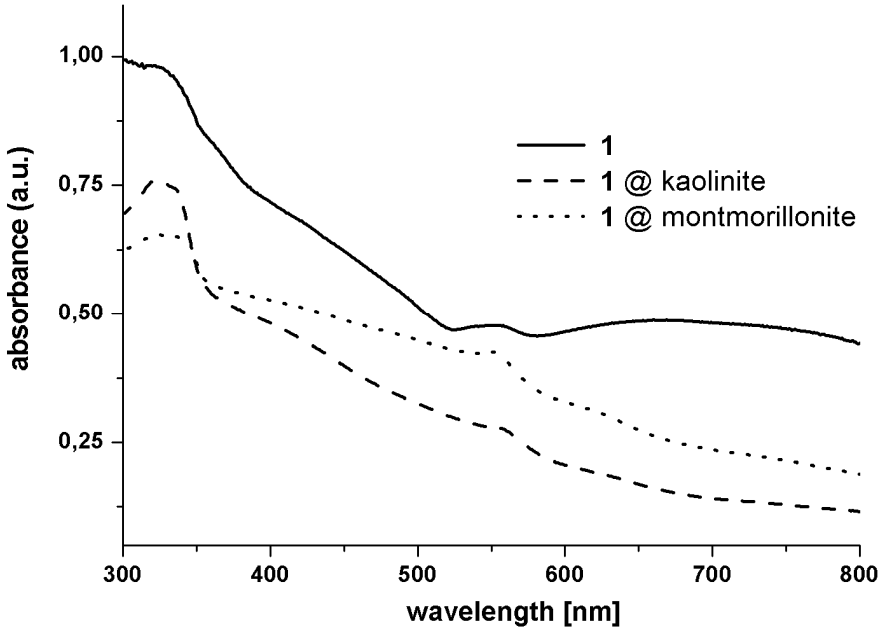


Figure S2. Diffuse reflectance UVVis spectra of complex **3** as solid (mixed with BaSO4, solid line) and adsorbed on kaolinite and montmorillonite clays (dashed and dotted lines).

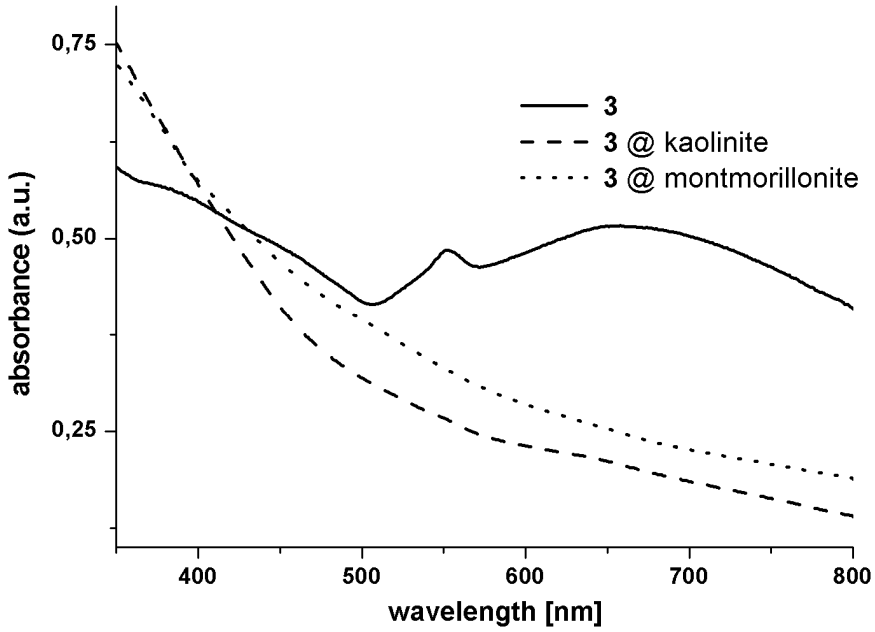
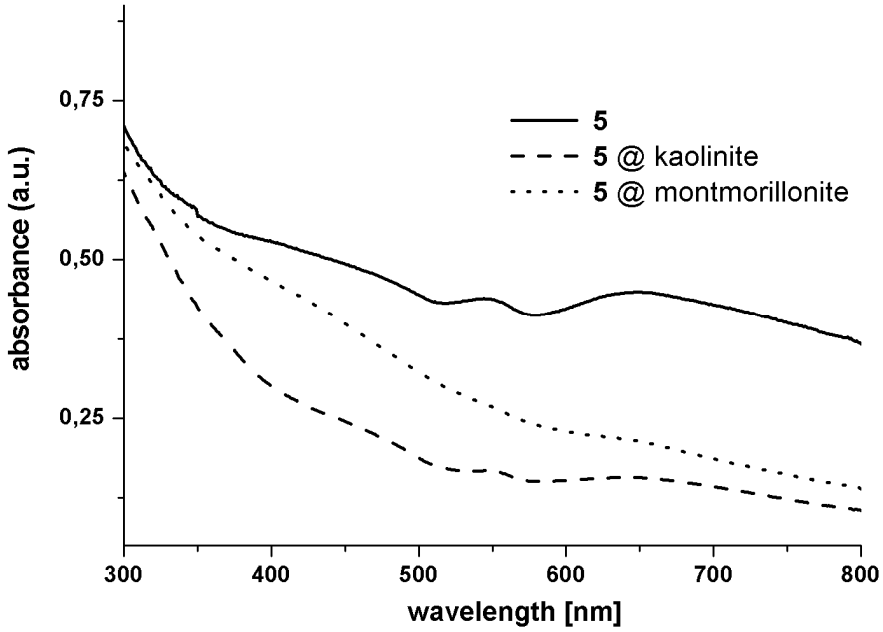


Figure S3. Diffuse reflectance UVVis spectra of complex **5** as solid (mixed with BaSO4, solid line) and adsorbed on kaolinite and montmorillonite clays (dashed and dotted lines).



Additional oxygen evolution traces

Figure S4. Control measurements: traces of oxygen evolution for reactions of kaolinite clay (70mg suspended in 1 mL of H_2O) with the studied oxidation agents. Concentrations of the oxidants after injection: H_2O_2: 2mM, HSO_5^- / Ce^{IV}: 50mM.

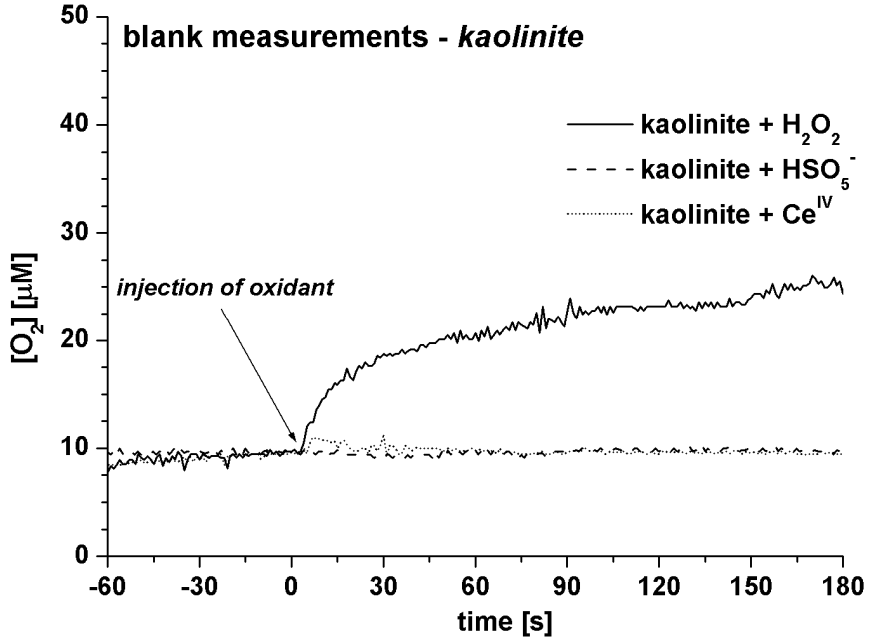


Figure S5. Control measurements: traces of oxygen evolution for reactions of montmorillonite clay (30mg suspended in 1 mL of H_2O) with the studied oxidation agents. Concentrations of the oxidants after injection: H_2O_2: 2mM, HSO_5^- / Ce^{IV}: 50mM.

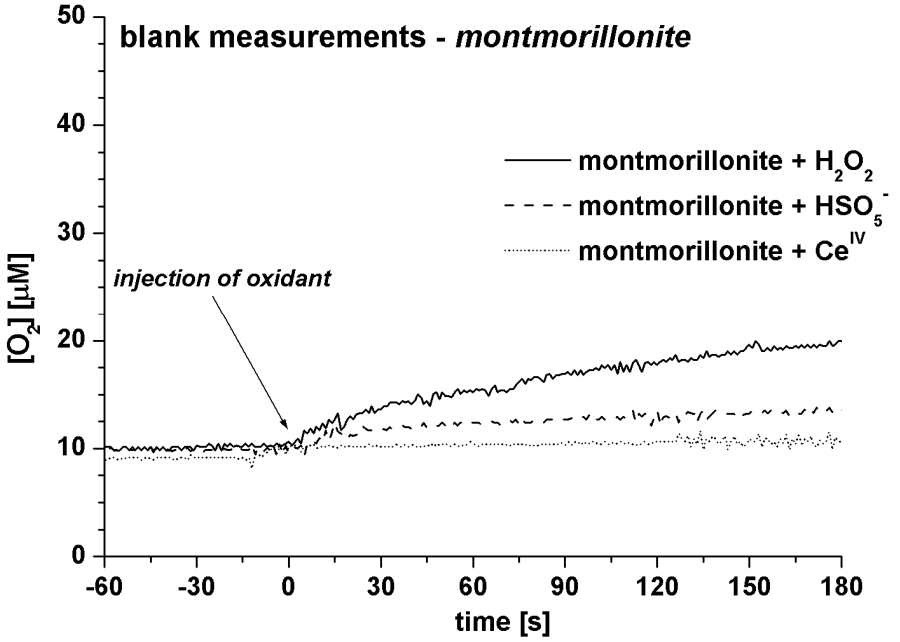


Figure S6. Traces of oxygen evolution for reactions of **1** with oxone, both in homogeneous solution and adsorbed on clay supports.

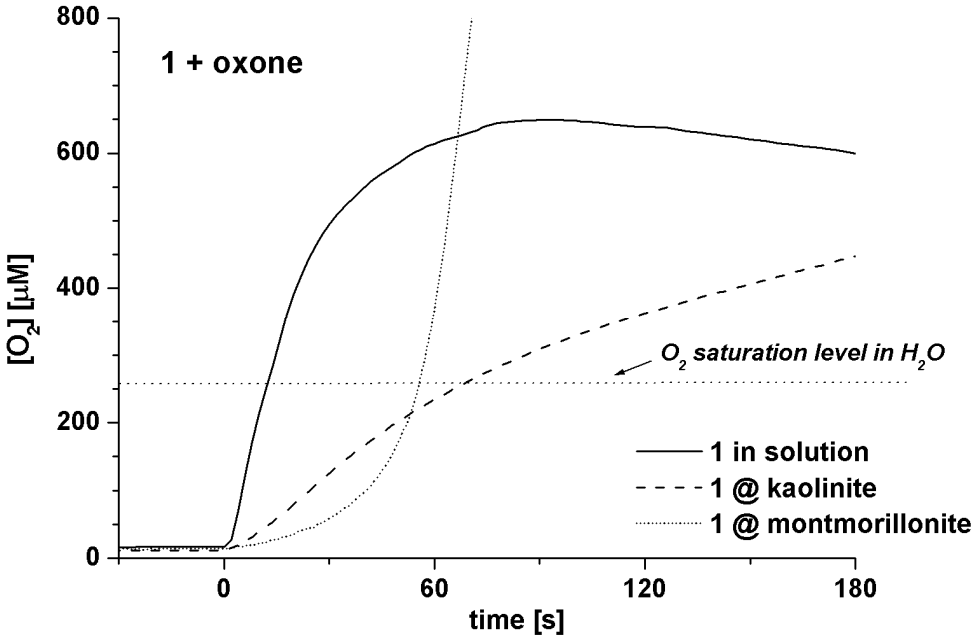


Figure S7. Traces of oxygen evolution for reactions of **2** with H_2O_2, both in homogeneous solution and adsorbed on clay supports.

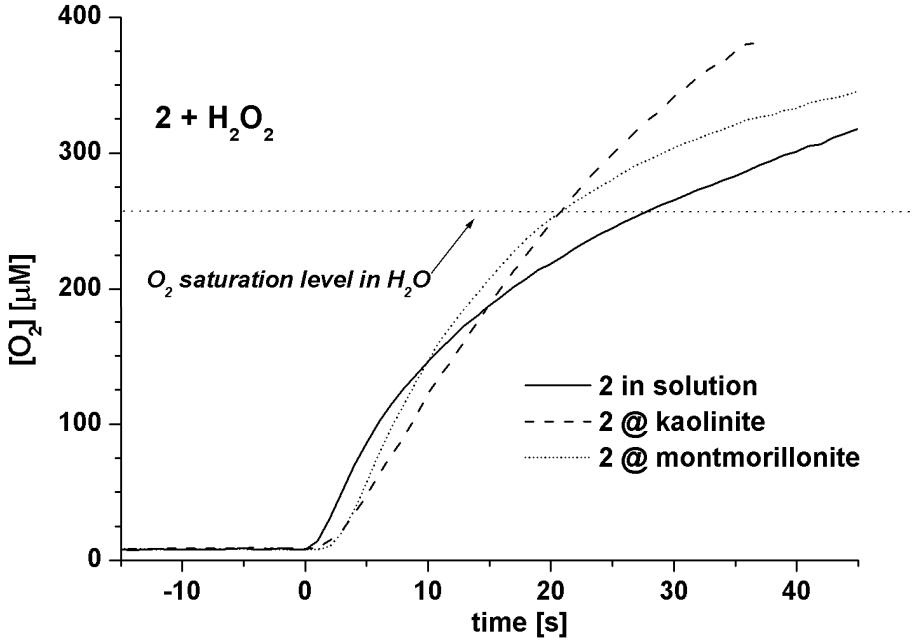


Figure S8. Traces of oxygen evolution for reactions of **3** with H_2O_2, both in homogeneous solution and adsorbed on clay supports.

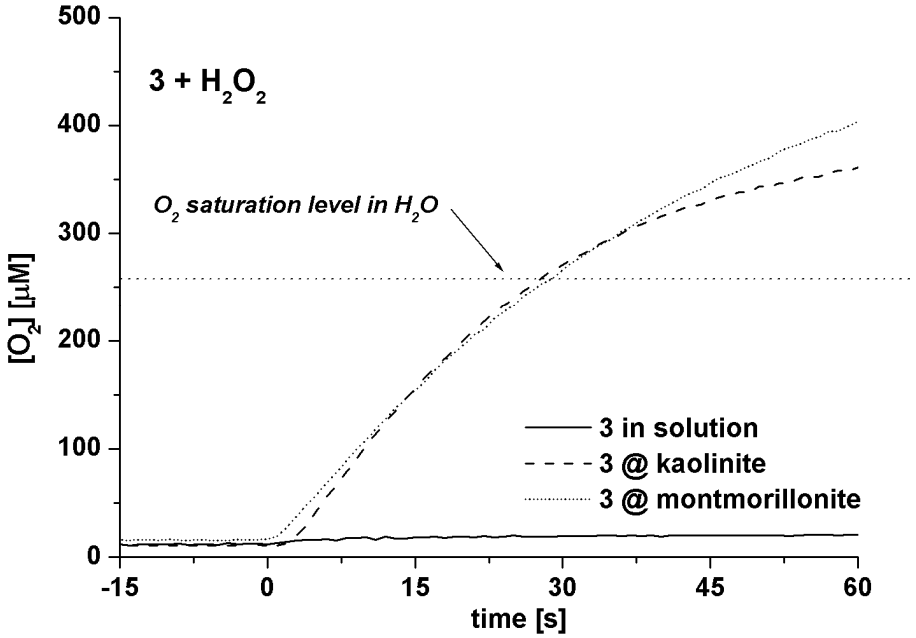


Figure S9. Traces of oxygen evolution for reactions of **3** with oxone, both in homogeneous solution and adsorbed on clay supports.

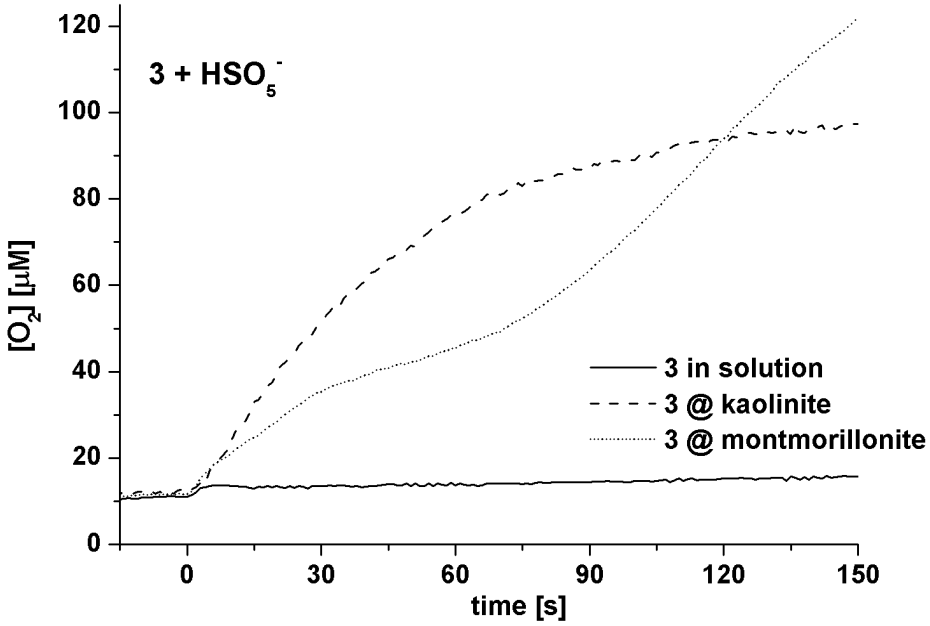


Figure S10. Traces of oxygen evolution for reactions of **4** with H_2O_2, both in homogeneous solution and adsorbed on clay supports.

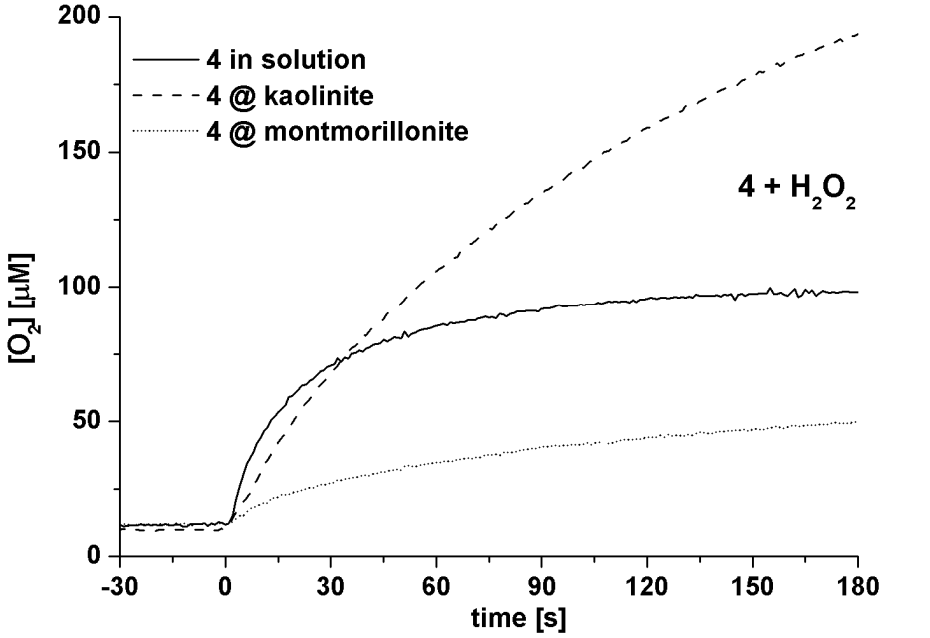


Figure S11. Traces of oxygen evolution for reactions of **4** with oxone, both in homogeneous solution and adsorbed on clay supports.

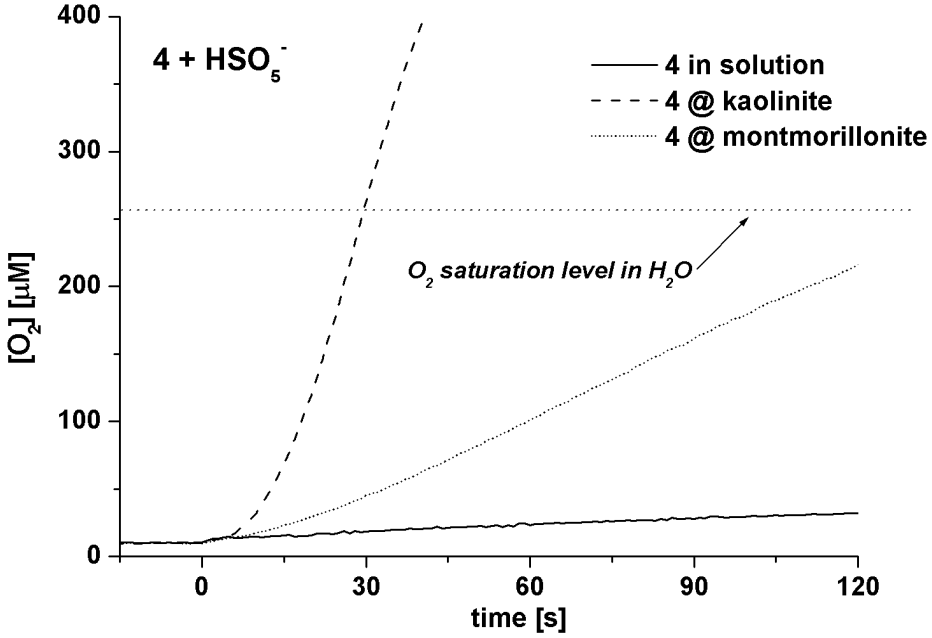


Figure S12. Traces of oxygen evolution for reactions of **5** with H_2O_2, both in homogeneous solution and adsorbed on clay supports.

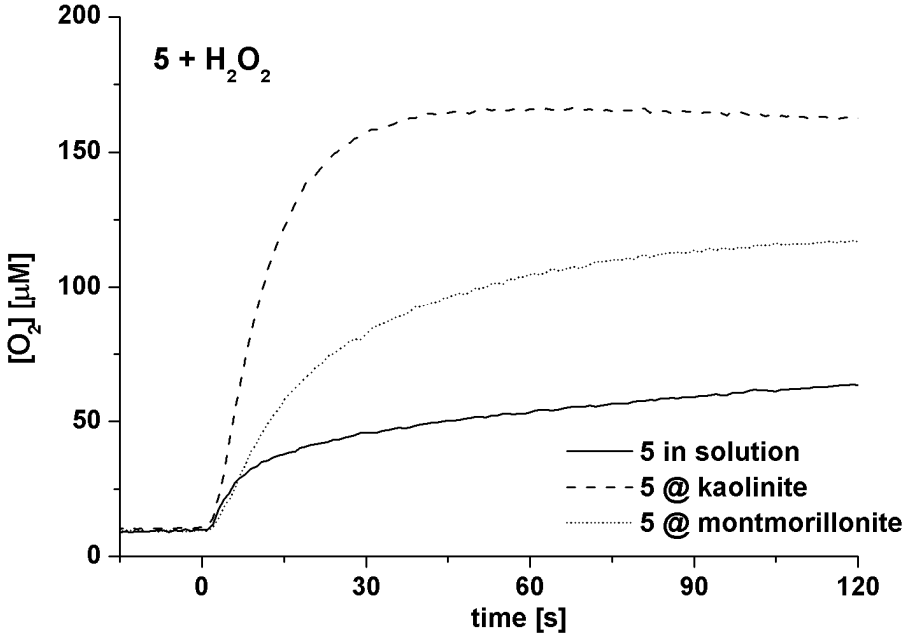


Figure S13. Traces of oxygen evolution for reactions of **5** with oxone, both in homogeneous solution and adsorbed on clay supports.

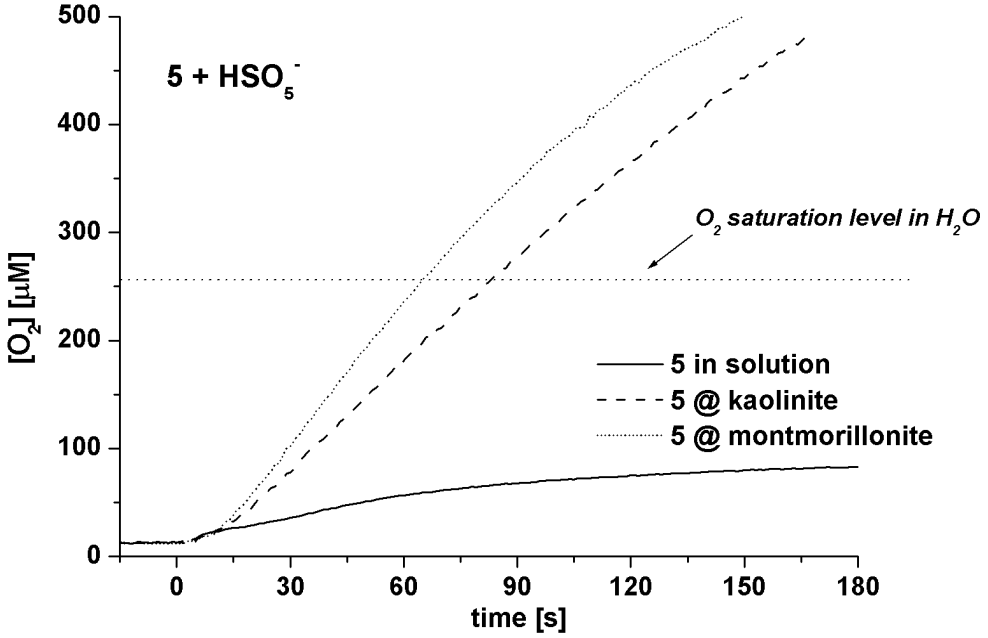


Figure S14. Control measurements concerning the adsorption of Ce^{IV} on clays. UVVis spectrum of a solution of $(NH_4)_2[Ce(NO_3)_6]$ in water (50mM, diluted 1 : 40) and spectra measured for 10 mL of the same solution after additions of kaolinite (700 mg) or montmorillonite (300 mg) clays (also diluted 1 : 40 for the measurements).