Supporting Information

The Presence of Ferrihydrite Promotes Abiotic Formation of Manganese (Oxyhydr)oxides

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Summary—total number of SI pages equals 6. The SI section contains 5 Figures.
Figure SI-1. The instant XRD patterns of the intermediate products for oxidation of 24 mM Mn(II) at pH 7.5 (a), pH 8 (b), pH 8.5 (c) pH 9 (d) and RT in the absence of ferrihydrite. (Fe = feitknechtite (β-MnOOH); Ma = manganite (γ-MnOOH); Gr = groutite (α-MnOOH); Ha = hausmannite (Mn₃O₄)).
Figure SI-2. The instant XRD patterns of the intermediate products for oxidation of 24 mM Mn(II) at pH 6.5 (a), pH 7 (b), pH 7.5 (c), pH 8 (d), pH 8.5 (e) pH 9 (f) and RT in the presence of 3.33 g/L ferrihydrite. (Ma = manganite (γ-MnOOH); Ha = hausmannite (Mn₃O₄); Bu = buserite (δ-MnO₂)).
Figure SI-3. The instant XRD patterns of the intermediate products for different Mn(II) concentrations (8 mM (a), 24 mM (b), 40 mM (c), and 80 mM (d)) oxidation at pH 7 and RT in the presence of 3.33 g/L ferrihydrite. (Ma = manganite (γ-MnOOH)).
Figure SI-4. The instant XRD patterns of the intermediate products for different Mn(II) concentrations (8 mM (a), 24 mM (b), 40 mM (c), and 80 mM (d)) oxidation at pH 7 and 60 °C in the presence of 3.33 g/L ferrihydrite. (Ma = manganite (γ-MnOOH); Gr = groutite (α-MnOOH); G = goethite (α-FeOOH)).
Figure SI-5. The instant XRD patterns of the intermediate products for 24 mM Mn(II) oxidation at pH 9 and RT with an O2 flow rate of 0.04 m³ h⁻¹ in the presence (a) and absence (b) of 3.33 g/L ferrihydrite. (Bu = buserite (δ-MnO₂); Ha = hausmannite).