



Figure S1. Variation in the relative intensity of reflections of selected impurity and LDH phases with starting Mg/Al ratio. ◆ = LDH 003 reflection; Δ = gibbsite in coprecipitated samples; + = boemite in samples prepared by hydrothermal one-step method with acetate:Al < 1; o = boemite in samples prepared by hydrothermal one-step method with acetate:Al > 1; * = brucite in samples prepared by atmospheric one-step method with acetate:Al < 1; ◇ = brucite in samples prepared by hydrothermal one-step method with acetate:Al < 1.