

Supporting Information for

**Synthesis of Mg-Al Mixed Oxides with Markedly High
Surface Areas from Layered Double Hydroxides with
Organic Sulfonates**

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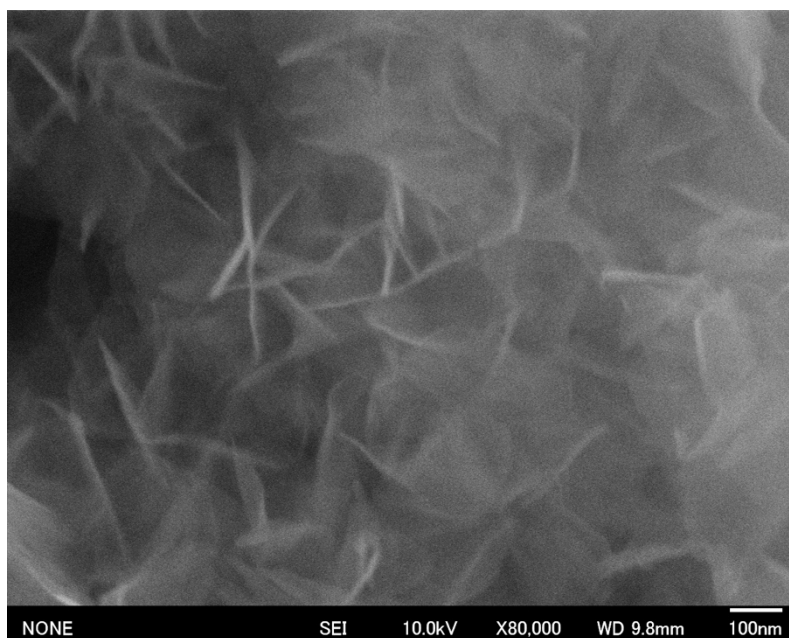


Figure S1. FE-SEM image characterizing MgAl-CO₃ used in this work, showing typical sand-rose morphology.

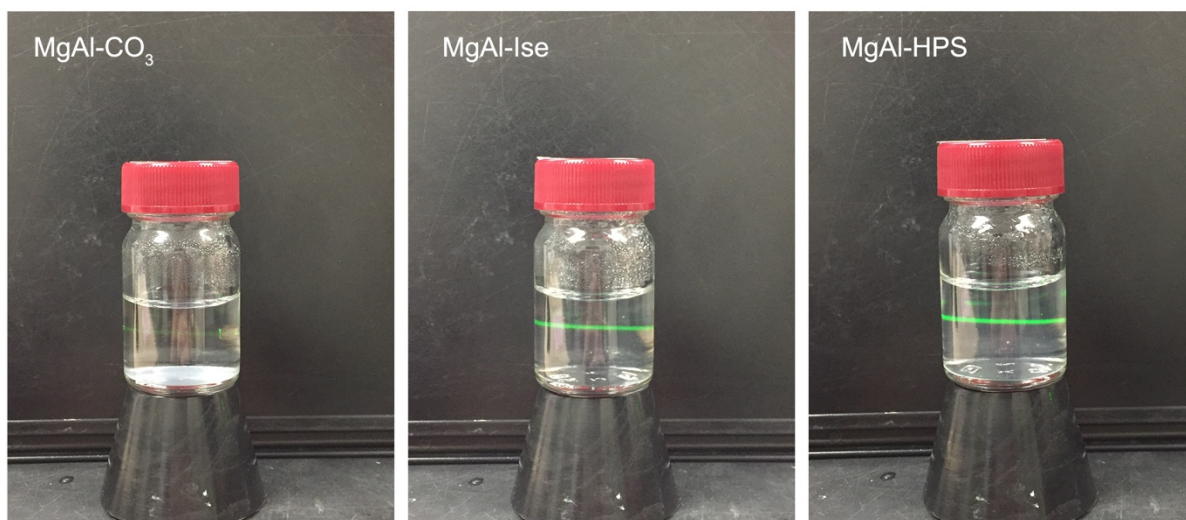


Figure S2. A photograph showing Tyndall effects of MgAl-Ise and MgAl-HPS dispersed in decarbonized water.

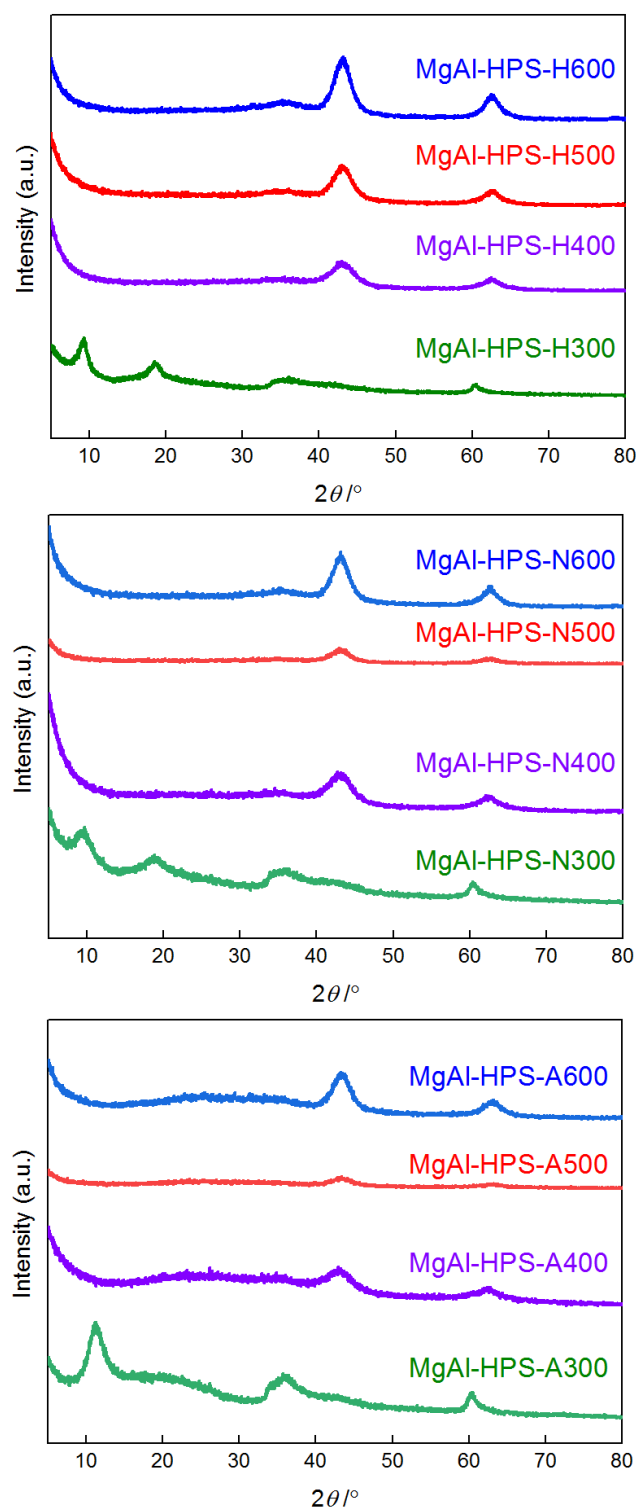


Figure S3. PXRD patterns characterizing MgAl-HPS treated at 300, 400, 500, or 600 °C under air (bottom figure), N₂ (middle figure), or 10% H₂ in helium (top figure) for 3 h.

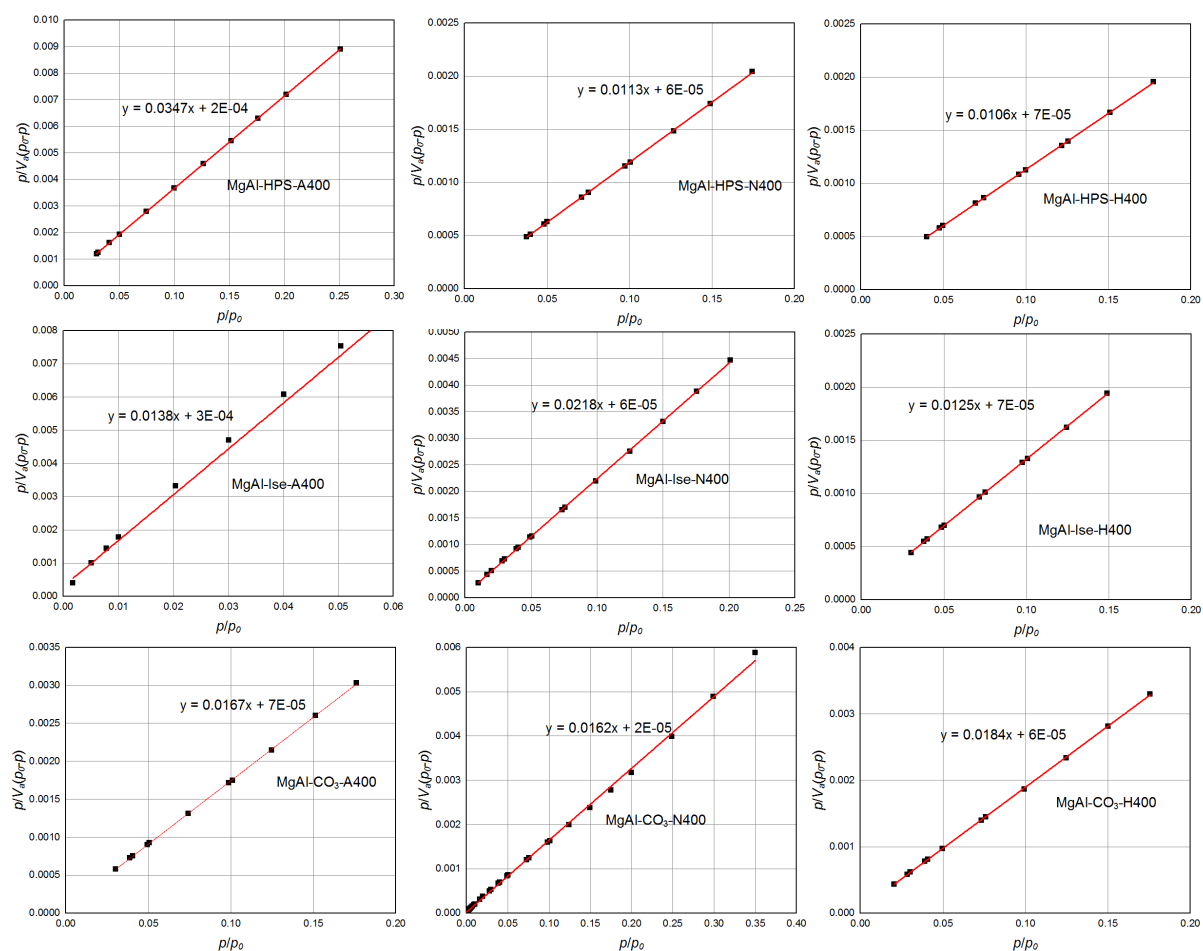


Figure S4. BET plots for samples obtained through thermal activation at 400 °C under various atmospheres.

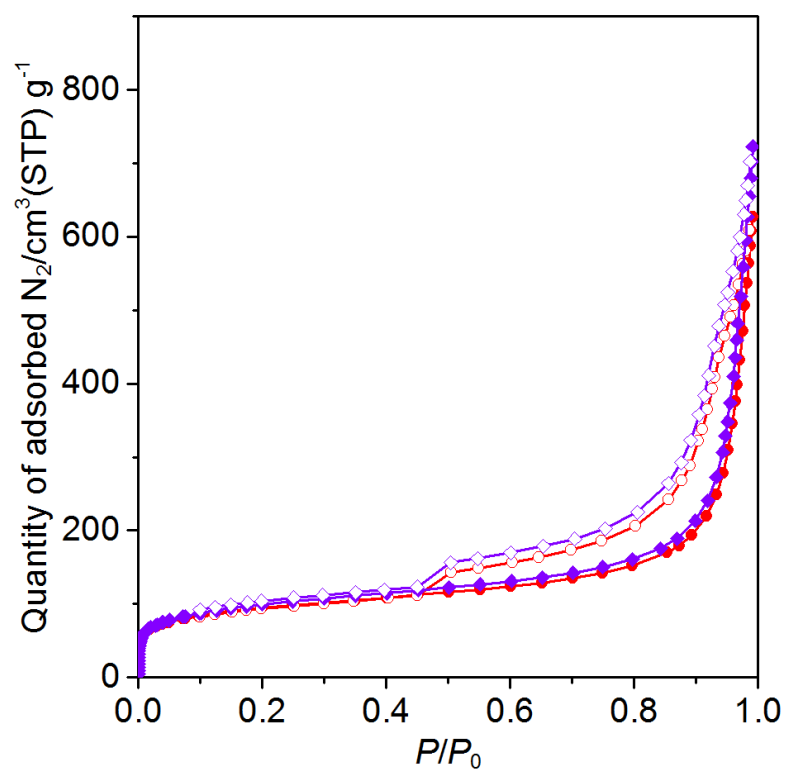


Figure S5. N₂ adsorption isotherm characterizing MgAl-Ise-H400 (red) and MgAl-Ise-H400-H400 (purple). The solid and open symbols represent the adsorption and desorption branches, respectively.