

Supporting Information

Micrometer-Sized Dihydrogenphosphate-Intercalated Layered Double Hydroxides: Synthesis, Selective Infrared Absorption Properties, and Applications in Agricultural Film

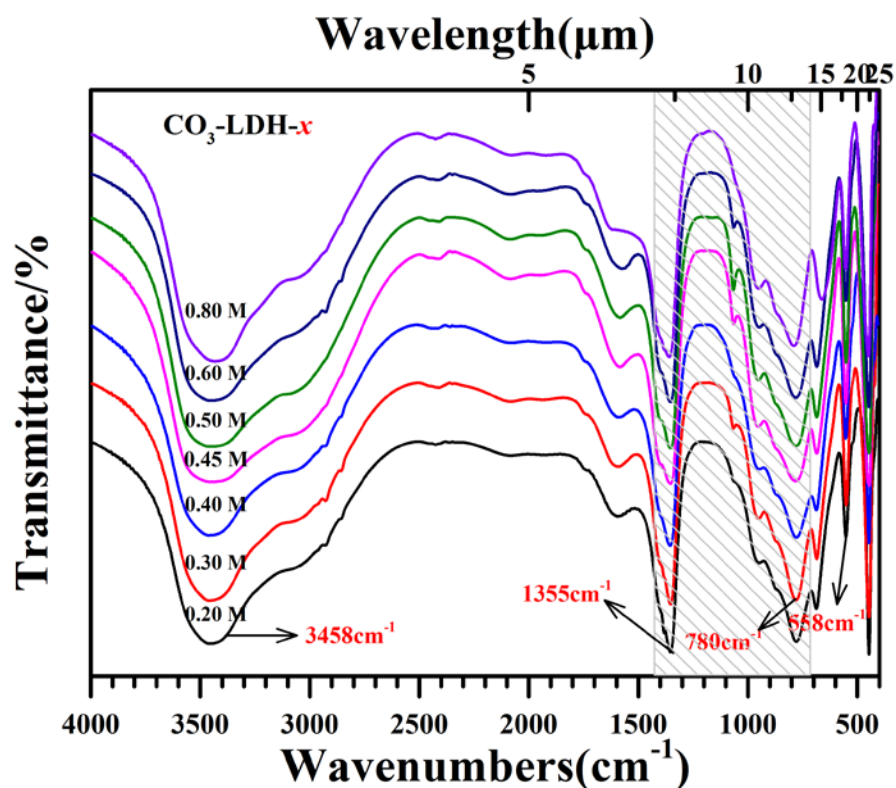


Figure S1. FT-IR spectra of $\text{CO}_3\text{-LDH-x}$ samples with different Mg^{2+} concentration.

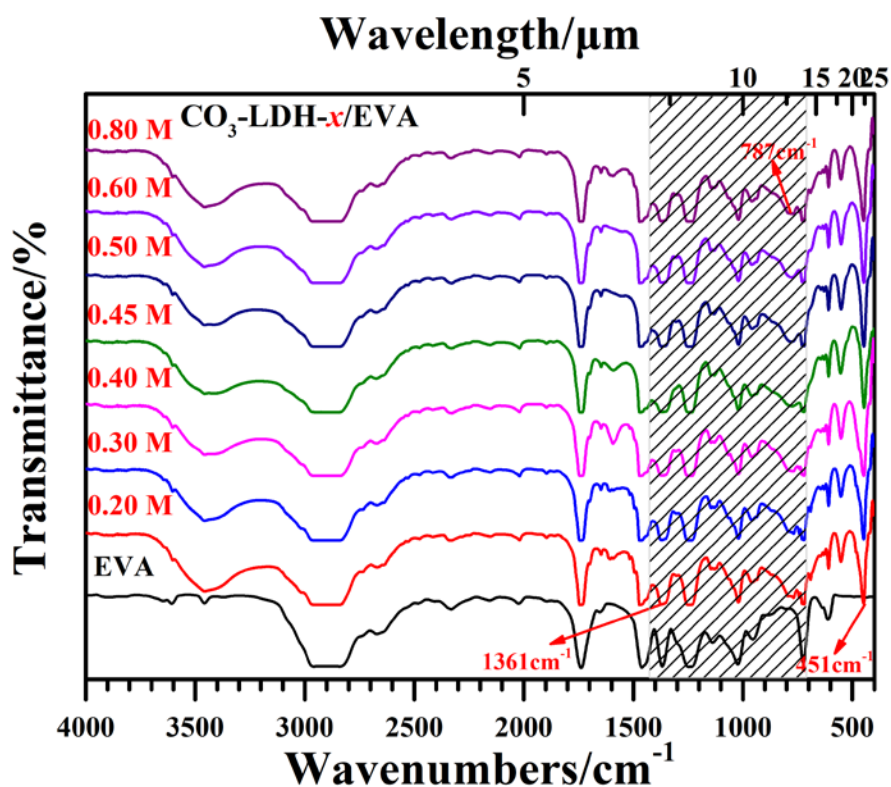


Figure S2. FT-IR spectra of $\text{CO}_3\text{-LDH-x/EVA}$ samples with different Mg^{2+} concentration.

Table S1. Chemical compositions (%) of MgAl-H₂PO₄-LDH samples

Samples	Mg (ppm)	Al (ppm)	P (ppm)	Formula*	M (g/mol)	P content (%)
H ₂ PO ₄ -LDH-0.20 M	91.13	50.89	58.55	Mg _{0.66} Al _{0.33} (OH) ₂ (H ₂ PO ₄) _{0.33} •0.67H ₂ O	102.86	9.95
H ₂ PO ₄ -LDH-0.30 M	85.78	47.19	52.97	Mg _{0.67} Al _{0.33} (OH) ₂ (H ₂ PO ₄) _{0.32} •0.67H ₂ O	102.09	9.72
H ₂ PO ₄ -LDH-0.40 M	72.47	41.24	51.09	Mg _{0.65} Al _{0.33} (OH) ₂ (H ₂ PO ₄) _{0.36} •0.67H ₂ O	105.49	10.58
H ₂ PO ₄ -LDH-0.45 M	81.65	44.40	50.22	Mg _{0.68} Al _{0.33} (OH) ₂ (H ₂ PO ₄) _{0.33} •0.67H ₂ O	103.30	9.90
H ₂ PO ₄ -LDH-0.50 M	87.25	46.99	53.29	Mg _{0.69} Al _{0.33} (OH) ₂ (H ₂ PO ₄) _{0.33} •0.67H ₂ O	103.54	9.88
H ₂ PO ₄ -LDH-0.60 M	83.91	46.46	54.63	Mg _{0.67} Al _{0.33} (OH) ₂ (H ₂ PO ₄) _{0.34} •0.67H ₂ O	104.03	10.13
H ₂ PO ₄ -LDH-0.80 M	76.01	43.65	52.43	Mg _{0.65} Al _{0.33} (OH) ₂ (H ₂ PO ₄) _{0.35} •0.67H ₂ O	104.52	10.38

*The amount of water was determined by TG-DTA.