Electronic Supplementary Information

Structural Adjustment During Intercalation of Macrocyclic Crown Ether into LDH via Swelling/Restoration Reaction: Staging Formation and Mechanism Insights

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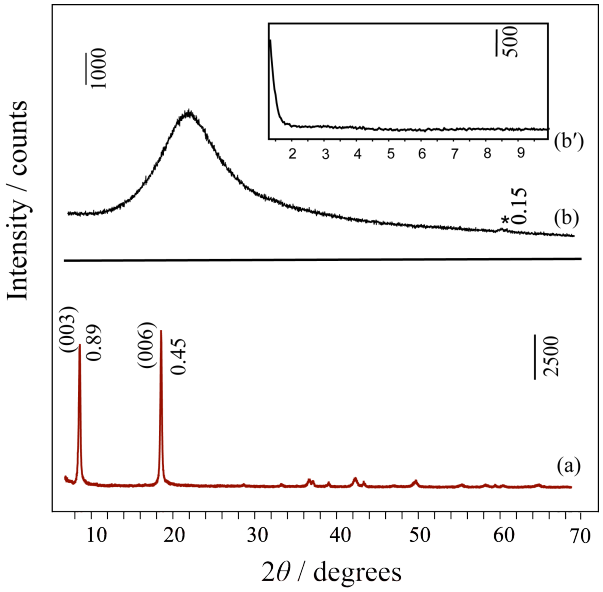


Fig. S1 XRD patterns of the precusor MgAl–NO_3–LDH (a) and the wet colloidal aggregate of NO_3–LDH in formamide (b, b'). *d*-value in nanometers.

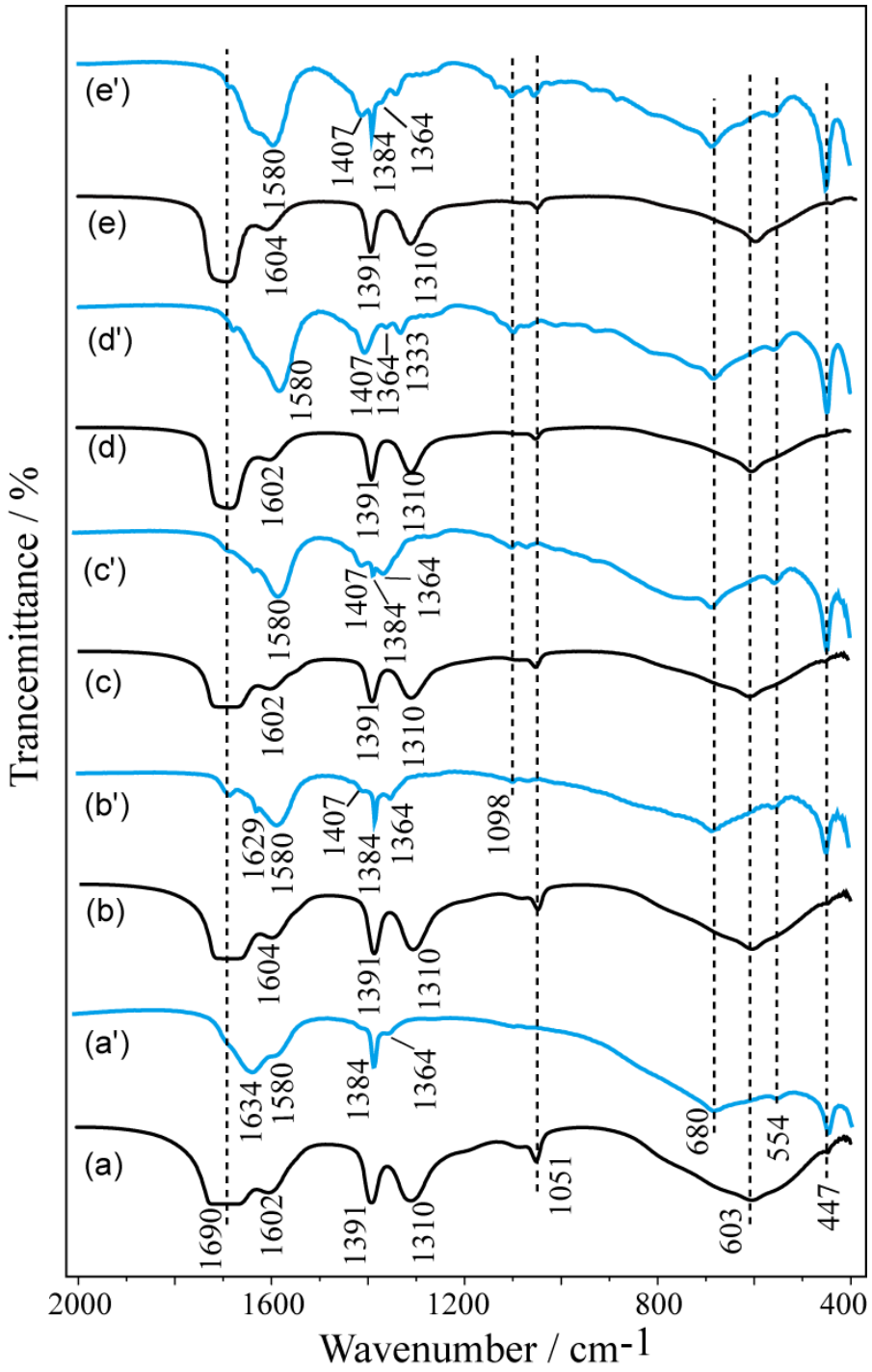


Fig. S2 FT-IR spectra of the restored samples (unwashed and water-washed 4 times) of T0.125L (a, a'), T0.25L (b, b'), T0.5L (c, c'), T2L (d, d'), and T2L-less NaOH (e, e'), respectively.

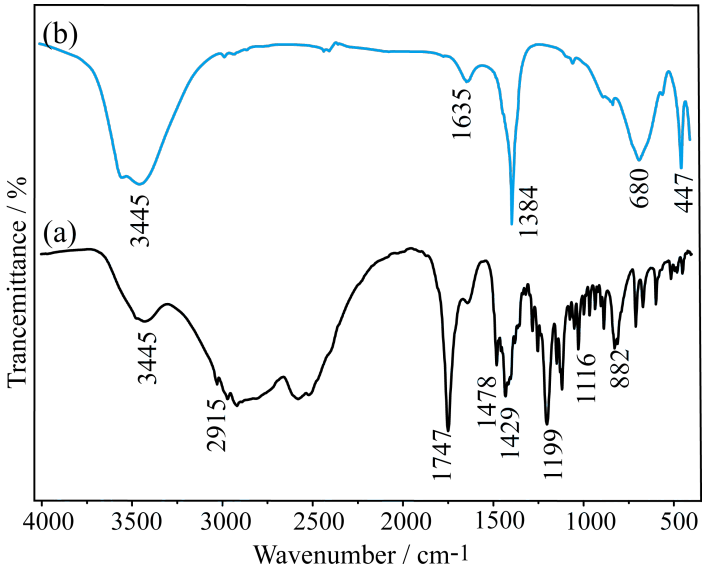


Fig. S3 FT-IR spectra of the precursors HCl-type TECA (a) and MgAl–NO_3–LDH (b), respectively.

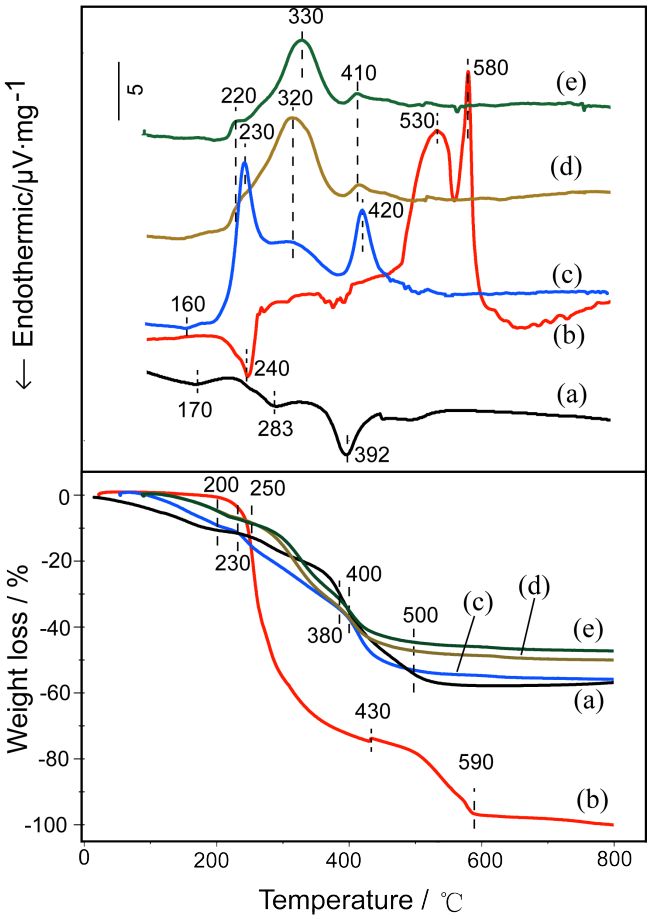
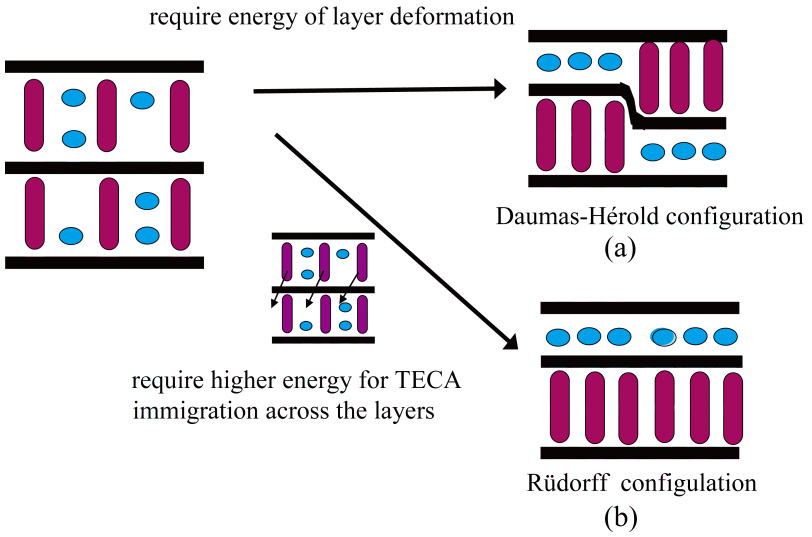
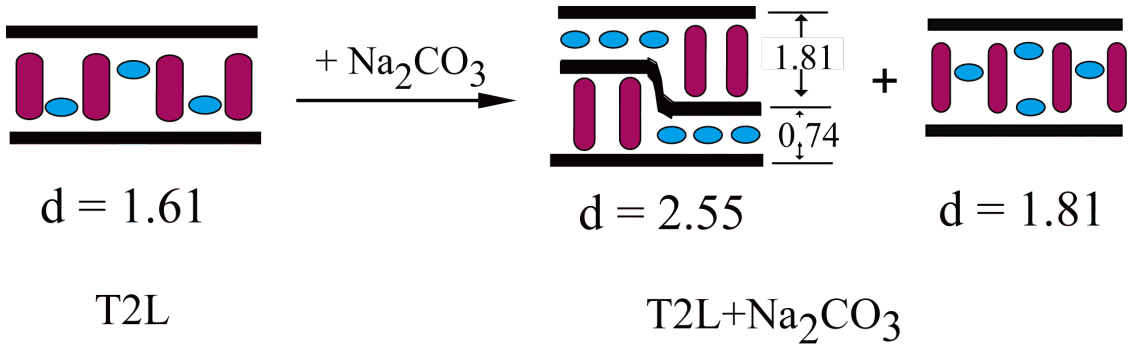


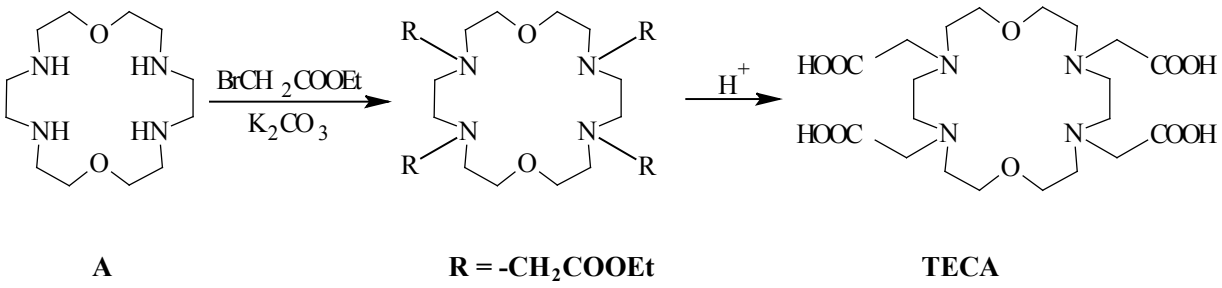
Fig. S4 TG-DTA curves of the precursors MgAl–NO_3–LDH (a) and TECA (b), and composites T2L (c), T0.5L (d) and T0.25L (e), respectively.



Scheme S1. Two configulations of the staging structure.



Scheme S2. The formation process of the composite T2L+Na_2CO_3.



Scheme S3. Synthetic route of TECA.