Isomer selective ion-exchange intercalation of nitrophenolates into the layered double hydroxide [LiAl₂(OH)₆]Cl·xH₂O

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---Figures captions---

1. **Figure 1** TGA trace for [Li-Al-4-NP] intercalate
2. **Figure 2** TGA trace for [Li-Al-2,4-DNP] intercalate
3. **Figure 3** IR spectra of [Li-Al-2,4-DNP] intercalate
4. **Figure 4** Extent of reaction (α) vs. time (t) for the intercalation of 2,4-DNP into [Li-Al] LDH over a range of temperatures: 70 °C (●), 85 °C (■), 90 °C (▼), and 95 °C (▲)
5. **Figure 5** Sharp-Hancock plots corresponding to the data sets shown in figure 4 for the intercalation of 2,4-DNP into [Li-Al] LDH: 70 °C (●), 85 °C (■), 90 °C (▼), and 95 °C (▲)
6. **Figure 6** Arrhenius plot for the determination of the activation energy for the intercalation of 2,4-DNP into [Li-Al] LDH.
7. **Figure 7** Percentage of NPs intercalated for the competitive reaction between 4-NP vs. 2,4-DNP in different solvent systems at 80 °C.
--Figure 5--

![Graph showing the relationship between $\ln(-\ln(1-\alpha))$ and $\ln((t-t_0)/s)$]

--Figure 6--

![Graph showing the relationship between $\ln k (s^{-1})$ and $1/T*10^3$ (K)]
Figure 7

% selectivity of 4-NP or 2,4-DNP

50% solvent/water (V/V)