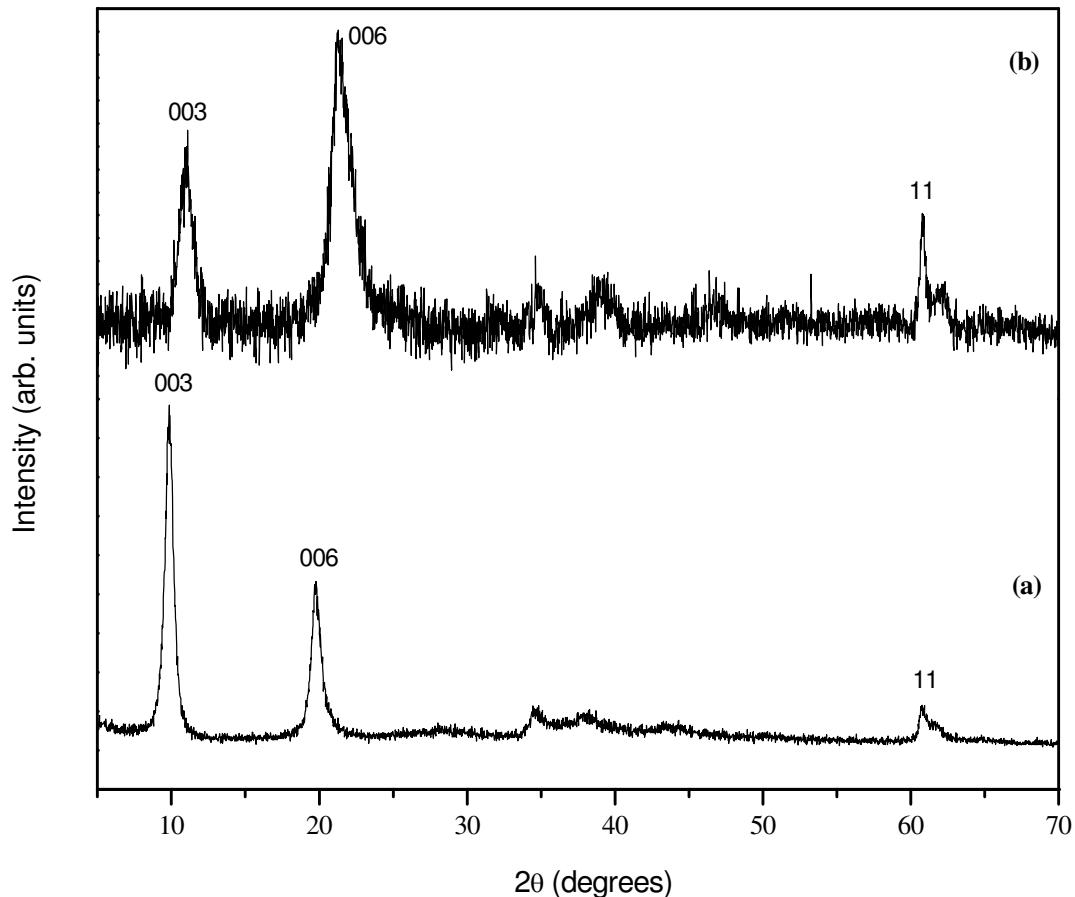
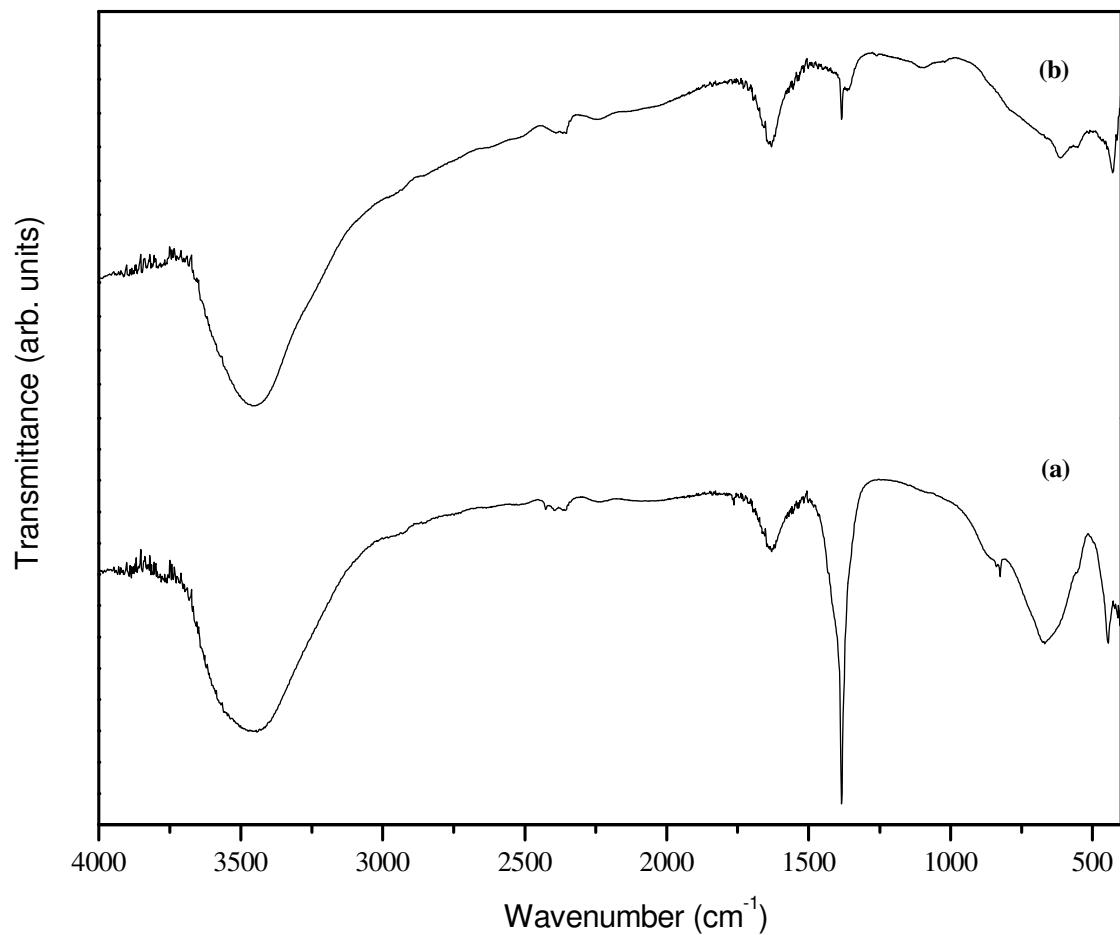


SI. 1. PXRD patterns of Mg/Al- NO_3 ($x = 0.33$) LDH (a) before and (b) after Iodide exchange.



The increase in the relative intensity of the 006 reflection relative to the 003 is an indication of the increased electron density in the interlayer, resulting from the incorporation of a heavy scatterer such as Γ in the place of light atoms, NO_3^- . The decrease in c -parameter from 8.9 Å to 8.2 Å is on account of substitution of NO_3^- in the interlayer by Γ .

SI. 2. IR spectrum of Mg/Al-NO₃ ($x = 0.33$) LDH (a) before and (b) after I⁻ exchange.



SI 3. Br⁻ uptake isotherms of Mg/Al-NO₃ and Mg/Al-Cl LDHs

