

Supplementary information

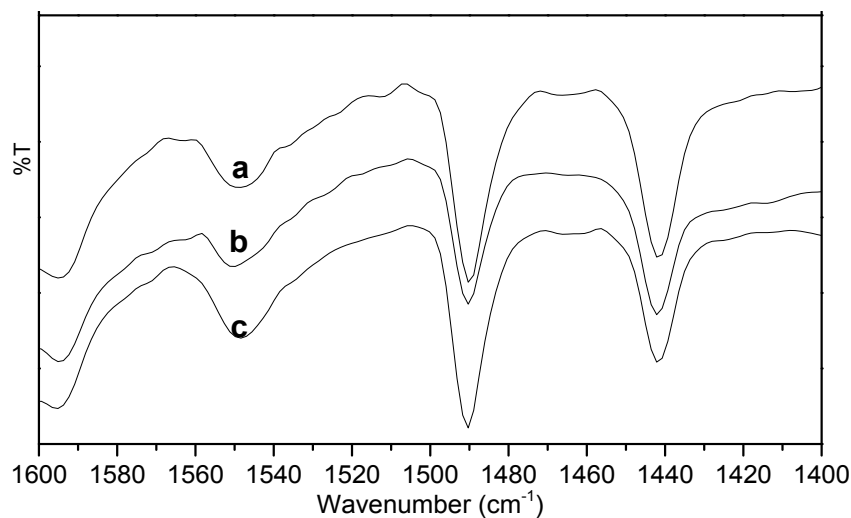


Fig Pyridine FT-IR spectra of (a) MSAclay (b) pTSAclay and (c) PDSAclay

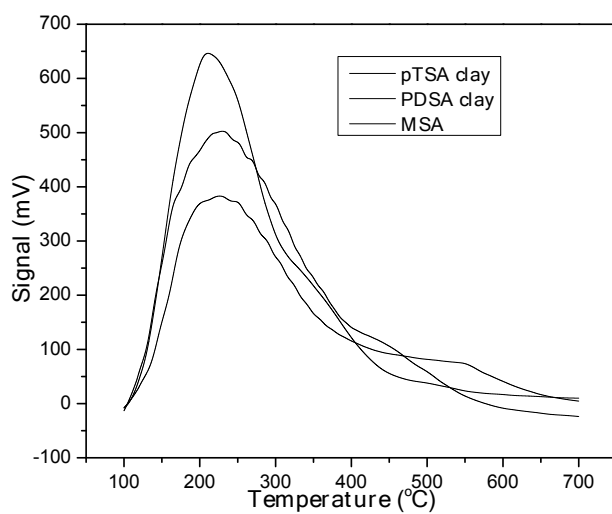


Fig NH_3 -TPD signals of acid treated clay samples.

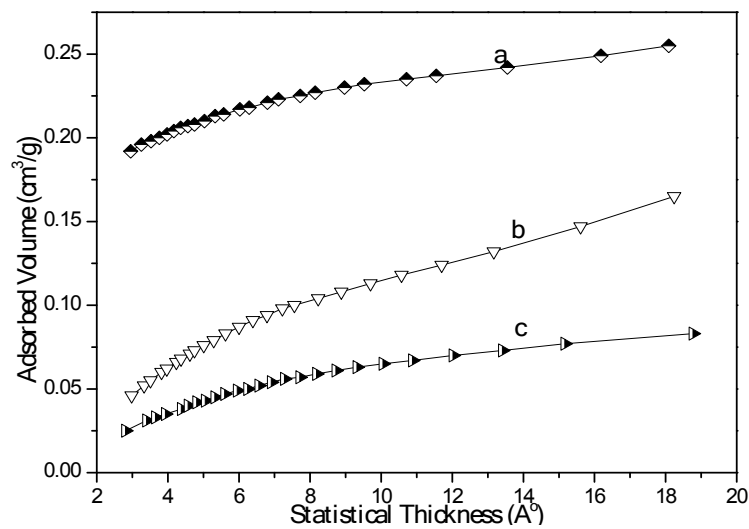


Fig t-plots of (a) pTSAclay (b) MSAclay and (c) PDSAclay.

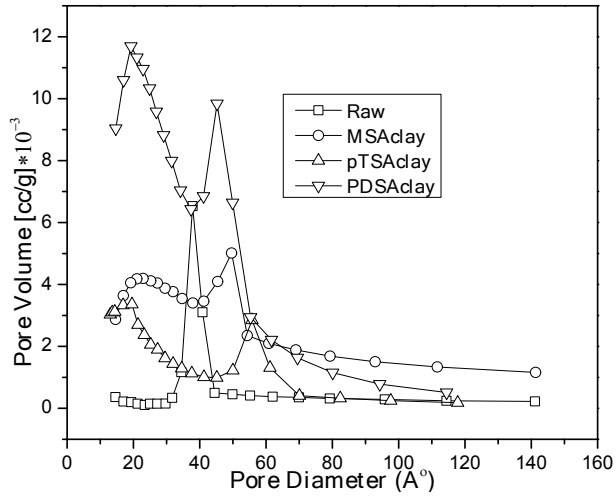


Fig BJH curves of (a) pTSAclay (b) MSAclay and (c) PDSAclay.

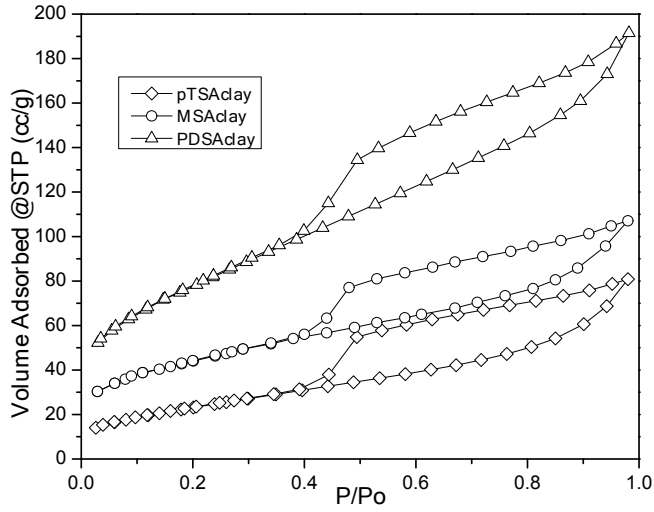


Fig Adsorption-desorption isotherm plots of pTSAclay, MSAclay and PDSAclay.

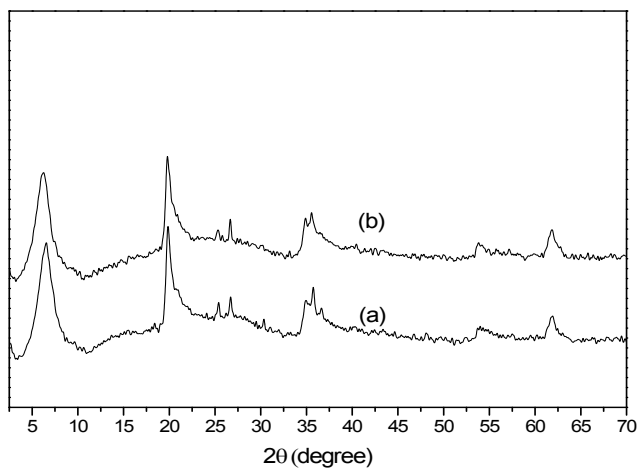


Fig XRD pattern of (a) 1PDSA and (b) used catalyst in the reaction.
To show the there is no intercalation of reactant and product molecules in the clay samples.