

Effect of Dispersion of Montmorillonite on the Sorption of Organics. Z.Z. ZHANG\*, D.L. SPARKS, and N. SCRIVNER, Univ. of Delaware and DuPont Company.

During previous studies of sorption of acetonitrile and acrylonitrile on different homoionic montmorillonites, we have observed that, when the concentrations of nitriles were above 0.5 M, the layers of K-montmorillonite did not expand as they would in pure water, but were collapsed to a c-axis spacing of  $\sim 1.25$  nm. It was concluded that the downward curvature of the isotherms for K-montmorillonite was caused by a decrease on the interfacial volume as the layers were collapsed. To further verify this conclusion, we decided to examine the effect of clay dispersion on the sorption of nitriles. Sorption on fully expanded clay layers was determined by adding water to dry clay and then adding organic solutions. The results obtained will be integrated with earlier data to yield mechanistic information for sorption of nitriles.