A PULSED NMR STUDY OF THE INTERFACIAL WATER OF A DISPERSE SUSPENSION OF BOEHMITE

by

D. O. Seevers

Chevron Research Company, La Habra Laboratory, La Habra, California

ABSTRACT

A MODEL is presented for interpreting the observed nuclear spin relaxation of the protons in the water molecules of the dispersing phase in terms of the modification of molecular motion in the solid-liquid interface. Data are presented for boehmite (Baymal)-water suspensions. Interpretations made in terms of the model yield values for: the amount of modified water, the reduced motional correlation times, the residence times, and activation energies associated with the times.