1991 SCA Conference Paper Number 9114

PROTON MR TWO - COMPONENT CHEMICAL SHIFT IMAGING OF FLUIDS IN POROUS MEDIA

C.T. Chang and C.M. Edwards
Engineering Imaging Laboratory
Texas A&M University
College Station, TX 77843-3116

ABSTRACT

An NMR chemical shift imaging modality is presented for quantitative determination of the spatial distribution of water and oil saturation in porous samples. It is applicable to those samples for which the two resonance lines overlap severely, and for which significant signal decay occurs during the chemical shift evolution period. We have used this method to demonstrate the separation of water and oil images in sand packs and core samples.