

NUCLEAR MAGNETIC RESONANCE IMAGING OF SODIUM-23 IN CORES

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ABSTRACT

Sodium (^{23}Na) is an NMR-active nucleus with considerable petrophysical importance because sodium is the predominant cation in reservoir brines. This paper presents the first NMR images of ^{23}Na inside cores. Several core applications are demonstrated, including measuring core salinity, 1-D profiling, and 3-D imaging of brine ingress into cores.