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A Total Analysis of a Kentucky Coal: ^1H by VCT CRAMPS; ^{13}C by CPMAS NMR Minor Constituents by Spectroscopy using an Inductively Coupled Plasma

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ABSTRACT

The average chemical functionalities of hydrogen and carbon, inferred by high resolution Nuclear Magnetic Resonance (NMR) of a solid coal, were determined via NMR of ^1H utilizing Variable Cycle Time CRAMPS [1], and from NMR of ^{13}C utilizing CPMAS [2, 3]. Concentrations of the minor constituents As, Hg, Pb, and U, were determined from emission spectra of these species in an Inductively-Coupled Plasma [4].

Keywords: Analysis of a Kentucky Coal.
