^{1}H NMR Study of Molecular Motions in Thiourea Pyridinium Halide Inclusion Compounds

M. Grottel[a], A. Pajzderska, and J.Wąsicki

Faculty of Physics, A. Mickiewicz University, 61-614 Poznań, Poland
[a] Department of Physics, Agricultural University, 60-637 Poznań, Poland

Reprint requests to Prof. J. W.

Z. Naturforsch. **58a,** 638 – 644 (2003); received September 5, 2003

The proton NMR second moment and spin-lattice relaxation time have been studied for polycrystalline inclusion compounds of thiourea pyridinium chloride, bromide, iodide and their perdeuterated analogues in a wide temperature range. The pyridinium cation reorientation around the pseudohexagonal C_6' symmetry axis over inequivalent barriers and hindered rotation of the thiourea molecule around its C=S bond have been revealed. The activation parameters of the both motions have been found.

Key words: NMR; Molecular Motion; Inclusion Compounds.