Nuclear magnetic resonance study of bis(phosphinoyl)amines and bis(phosphinothioyl)amines. Haegele, Gerhard; Harris, Robin K.; Wazeer, Mohamed I. M.; Keat, Rodney. Sch. Chem. Sci., Univ. East Anglia, Norwich, UK. Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1972-1999) (1974), (18), 1985-9.

## **Abstract**

1H, 31P, and 13C NMR spectra were studied for 8 bis(phosphinoyl)amines and 7 bis(phosphinothioyl)amines. Chem. shifts and coupling consts. were detd. The sign. of 2JPNP was found to be pos. by heteronuclear spin tickling in several cases.