Structure and intramolecular mobility of N-(thio)phosphoryl(thio)amides: IX1. Structure of N-(diisopropoxyphosphoryl)methylthioamide in solutions by 1H, 13C, and 31P NMR spectroscopy

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Abstract

The structure of N-(diisopropoxyphosphoryl)methylthioamide in CCI4, CD3CN, CD2CI2, C6D5CD3, and (CD3)2SO solutions was studied by 1H, 13C, and 31P NMR spectroscopy. A tautomeric equilibrium that includes the amide (with trans and cis arrangement of the substituents), thioimide, acylotropic, and phosphorylotropic forms is found.