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Structure and intramolecular mobility of N-(thio)phosphoryl(thio)amides: XVI. 1H, 13C and 31P NMR study of intramolecular dynamics of N,N′-bis(thio)phosphoryl(thio)urea containing an open-chain fragment in CD2Cl2 and CD3CN solutions

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Abstract

The structure and intramolecular transitions of N,N′-bis[N-disopropoxythiophosphorylaminothiocarbonyl]-1,7-diaminoheptane in CD 2Cl2 and CD3CN 3-10% solutions were studied by means of 1H, 13C, and 31P NMR spectroscopy. Combined analysis of the NMR data confirmed a high lability of the molecules with the realization of two conformational forms of the macromolecule, the amide-amide proton exchange, and existence of various tautomeric forms. © 2011 Pleiades Publishing, Ltd.

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