

Enthalpies of specific interaction of heteroatom derivatives of three-coordinate phosphorus with chloroform

Sagadeev E., Safina Y., Cherkasov R.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The nature of hydrogen bonds formed by chloroform with three-coordinate phosphorus derivatives containing sulfur, silicon, and chlorine atoms and their carbon analogs was revealed by analysis of the experimental enthalpies of specific interactions. The main donor centers in the examined compounds were found to be oxygen atoms and π -electron systems of aromatic rings. Sulfur atoms give rise to weaker complexes as compared to oxygen. Phosphorus, chlorine, and silicon atoms are not involved directly in specific interactions with the solvent. © 2008 MAIK Nauka.

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