Bulletin of the Academy of Sciences of the USSR Division of Chemical Science 1985 vol.34 N3, pages 520-524

Three-dimensional structures of phosphorus-containing heterocycles. Communication 34. 2-Phenoxy-2-oxo-1-3,2-oxathiaphosphorinanes

Arbuzov B., Arshinova R., Ovodova O., Danilova O., Nuretdinova O., Samitov Y.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

According to the data from the1H NMR spectra, the dipole moments, and the Kerr effect, the preferred conformation of 2-aroxy-2-oxy-1,3,2-oxathiaphosphorinanes is a chair conformation with an axial orientation of the aroxy grouping and a gauche orientation of the aryl group relative to the P=O bond on the side of the cyclic oxygen atom. In the investigated compounds the p-π conjugation is disrupted, as evidenced by the orthogonal orientation of the unshared pair of p electrons of the exocyclic oxygen atom and the π orbitals of the benzene ring. © 1985 Plenum Publishing Corporation.

http://dx.doi.org/10.1007/BF00947714