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Intramolecular Electronic Interactions in Phosphorus Compounds in the Light of Recent Structural Studies

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Abstract

The nature and mechanism of intramolecular electronic interactions in compounds of three- and four-coordinate phosphorus have been critically examined on the basis of a review of the results of the study of their three-dimensional structure and physical properties. The high π-acceptor power of phosphorus-containing groups, capable of stabilising conformations with the trans-orientation of the interacting orbitals of the donors (the n-orbitals of the unshared electron pairs of the heteroatoms or the π-orbitals of unsaturated systems) and the acceptors (bonds of the phosphorus atom) has been proved. The bibliography contains 193 references. © 1984 The British Library.

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