

Dipole moments of organophosphorus compounds. 15. Polarities and polarizabilities of some acetylenic compounds

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Abstract

1. Effective P-Csp bond dipole moments have been calculated for the oxides of diethyl and diphenylpropynylphosphines, and for the dichloroanhydride of propynylphosphonic acid. 2. The form with gauche orientation of the phosphoryl and ethoxy groups is preferred in the 0,0-diethyl ethynyl -and 0,0-diethyl propynylphosphonates. 3. The C-CH₃ bonds of the ethyl and phosphoryl groups are in gauche orientation in diethylpropynylphosphine oxide. The structure of diphenylpropynylphosphine oxide is such that the phenyl radical planes are close to ethynyl group shielding. © 1978 Plenum Publishing Corporation.

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