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1,4,2-Oxathia- and -Azathiaphosphorines

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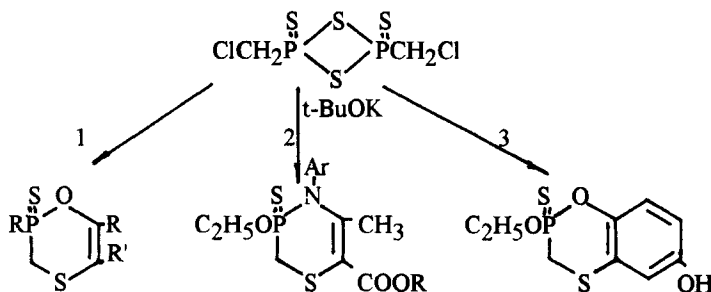
1,4,2-OXATHIA- AND -AZATHIAPHOSPHORINES

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Abstract New heterocyclic 1,4,2-oxathia- and -azathiaphosphorines were obtained and their structure was investigated.

Key Words Heterocyclic phosphororganic compounds, oxathia- and azathiaphosphorines.

The method of synthesis of new phosphoruscontaining heterocyclic compounds - 1,4,2-oxathiaphosphorines and -azathiaphosphorines is suggested. Alcoholysis or aminolysis of dithiadiphosphetidines and following reaction with α -halogencarbonylic compounds (1), β -halogenenamines (2) or benzoquinone (3) resulted in phosphorines.



1. $\text{C}_2\text{H}_5\text{OH} + \text{Et}_3\text{N}$, (Et_2NH) , $\text{RC}(\text{O})\text{CHR}'\text{Hal}$
2. $\text{C}_2\text{H}_5\text{OH} + \text{Et}_3\text{N}$, $\text{CH}_3\text{-C}(\text{ArNH})=\text{C}(\text{Cl})\text{COOR}$
3. $\text{C}_2\text{H}_5\text{OH}$, $\text{O}=\text{C}_6\text{H}_4=\text{O}$

The structure of the obtained compounds is confirmed by the data of NMR spectroscopy and X-rays analysis. Oxathiaphosphorines are detected to exist in crystalline form in the conformation of "semychair" with the removed from the plane methylene fragment. The dihedral angle between the planes is 131.7° .