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## Phosphorus, Sulfur, and Silicon and the Related Elements

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### Oxidation and Substitution Reactions of 3-Phenyl- $\Delta^5$ -1,2,3<sup>3</sup>-diazaphospholenes

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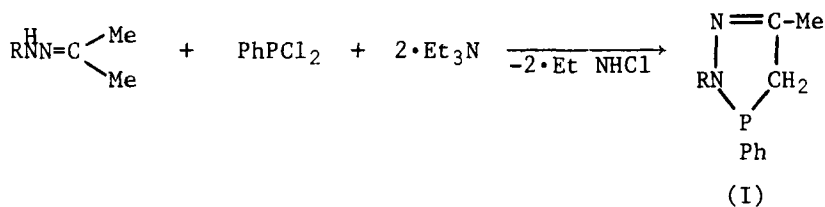
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OXIDATION AND SUBSTITUTION REACTIONS OF 3-PHENYL- $\Delta^5$ -  
1,2,3 $\sigma^3$ -DIAZAPHOSPHOLENES

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**Abstract** The reaction of hydrazones with dichlorophenylphosphine in the presence of triethylamine leads to the elimination of 2 equivalents of hydrogen chloride forming the title compound(I). The oxidation of compound (I) has



been examined with many oxidising agents under various experimental conditions. Mild oxidising agents like hydrogen peroxide and sulfur give the phospholene oxide and sulfide respectively. Reactions of compound (I) with oxidising agents like nitrogen oxides, sulfur dioxide and dimethyl sulfoxide result in complex reaction mixtures, even under mild reaction conditions. The hydrogens at the 4 position in compound (I) can be metallated by using *n*-BuLi. Studies of the substitution reactions of the lithio derivatives of compound (I) with various electrophilic reagents are in progress.