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Synthesis and Properties of Some Derivatives of Chloromethylphosphonic and Bis(Chloromethyl) Phosphinic Acids

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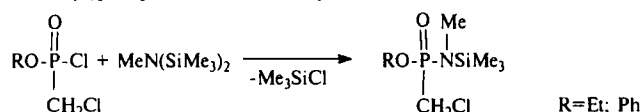
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Synthesis and Properties of Some Derivatives of Chloromethylphosphonic and Bis(Chloromethyl)Phosphinic Acids

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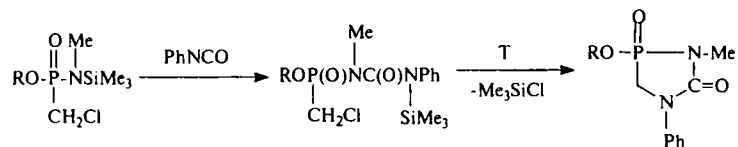
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Reactions of chloromethylchlorophosphonates with heptamethyldisilazane(1:1 ratio) proceed with the formation of silylamidophosphonates, while with bis(chloromethyl)phosphinate P-N-P compounds were formed.



Interaction of chloromethylchlorophosphonates(phosphinates) with bis(trimethylsilyl)acetamide or diethylsilylamidophosphate results in the formation of appropriate siloxyphosphonates(phosphinates).

A novel method of synthesizing phosphorylated isocyanates by the reaction of P(IV)-chlorides with trimethylsilylisocyanate was elaborated. Silylamidochloromethylphosphonates were added to arylisocyanates with the formation of 1,4,2-diazaphospholidin-5-ones.



The interaction of silylamidochloromethylphosphonates with trichlorophosphorus oxide(thiooxide) results in the formation of diphosphorylated methylamine. These compounds when heated are easily decomposed into chlorophosphonates.

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