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Novel Synthesis of Phosphorazolides and Phosphor-Anilidates by Reaction of Trimethylsilylphosphites with 1,1'-Oxalyldiazolides or 1,1'-Oxalyldianilidates

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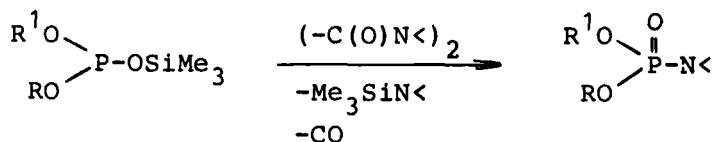
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NOVEL SYNTHESIS OF PHOSPHORAZOLIDES AND PHOSPHOR-ANILIDATES BY REACTION OF TRIMETHYLSILYLPHOSPHITES WITH 1,1'-OXALYLDIAZOLIDES OR 1,1'-OXALYLDIANILIDATES

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Continuing our studies on new reaction of trimethylsilylphosphites 1 (1), we now report the conversion of compounds 1 to the corresponding phosphorazolides or phosphoranilidates by the reaction of readily available trimethylsilylphosphites 1 and 1,1'-oxalyldiazolides or anilidates.



RO, R¹O: alkoxy, aryloxy, nucleoside residue

N< : imidazole, triazole, HNC₆H₅

The method can be regarded as a novel mild procedure for the formation of P-N bond. The importance of this method lies in its applicability in the nucleotide chemistry. Since dinucleoside trimethylsilylphosphites became readily available by phosphitylation with the aid of the bis(N,N-diisopropylamino)trimethylsilylphosphite (1c) and other procedures (2), a variety of dinucleotide imidazolides are available.

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