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Phosphorus, Sulfur, and Silicon and the Related Elements

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713618290>

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To cite this Article Khusainova, N. G. , Reshetkova, G. R. , Zyablikova, T. A. , Cherkasov, R. A. and Pudovik, A. N.(1999) 'Synthesis of Functionalized Heterocycles on the Basis of 2H-1,2,3-Diazaphospholes', *Phosphorus, Sulfur, and Silicon and the Related Elements*, 147: 1, 173

To link to this Article: DOI: 10.1080/10426509908053567

URL: <http://dx.doi.org/10.1080/10426509908053567>

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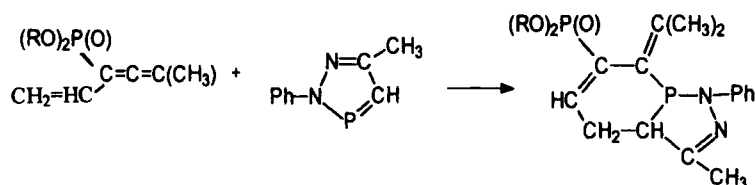
Synthesis of Functionalized Heterocycles on the Basis of 2H-1,2,3-Diazaphospholes

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The reactions of the cyclic derivatives of the two-coordinated phosphorus atom - 2-phenyl- and 2-acetyl-2H-1,2,3-diazaphospholes, dialkylphosphone sulphenylchlorides, dialkyldithio- and dialkylmonothiophosphates leads to the formation of the new P(III)-functionalized diazaphospholenes.

The chlorofunctionalized cyclic phosphorus and nitrogen containing compounds are obtained by the reaction of 2-phenyl-5methyl-2H-1,2,3-diazaphosphole with phenylenedioxatrichlorophosphorane. The reaction of 1,2,3-diazaphospholes with vinylallenylphosphonates was studied:



It was show that the reactions proceed regioselective according to the [4+2]-cycloaddition scheme of Diels-Alder reactions with the participation of the P=C bond and of the 1,3-diene system of carbon-carbon multiply bonds of the vinylallenylphosphonates. The structure of the functionalized heterocycles was determined by spectral investigations (1H , ^{31}P , ^{13}C NMR, IR) and mass-spectroscopy.