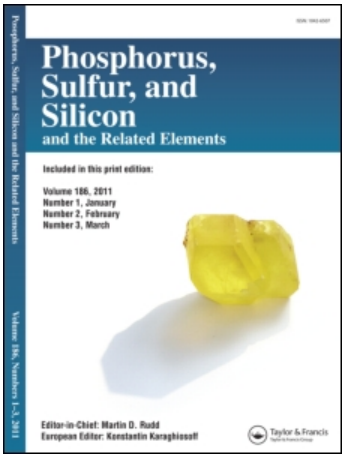


## Phosphorus, Sulfur, and Silicon and the Related Elements

Publication details, including instructions for authors and subscription information:
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# Synthesis of Functionalized Heterocycles on the Basis of 2H-1,2,3-Diazaphospholes

N. G. Khusainova[a]; G. R. Reshetkova[a]; T. A. Zyablikova[a]; R. A. Cherkasov[a]; A. N. Pudovik[a]
[a] Department of Chemistry, University of Kazan, Kazan, RUSSIA

**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

*Phosphorus, Sulfur and Silicon*, 1999, Vol. 147, pp. 173-173
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# Synthesis of Functionalized Heterocycles on the Basis of 2H-1,2,3-Diazaphospholes

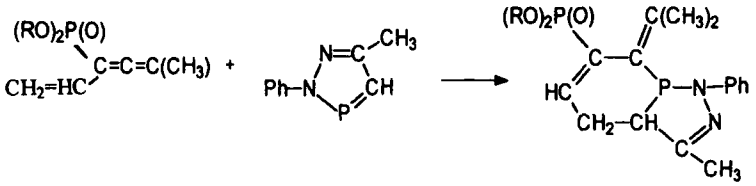
N.G. KHUSAINOVA, G.R. RESHETKOVA, T.A. ZYABLIKOVA, R.A. CHERKASOV and A.N. PUDOVIK

*Department of Chemistry, University of Kazan, Lenin str. 18, Kazan 420008 RUSSIA.*



The reactions of the cyclic derivatives of the two-coordinated phosphorus atom - 2-phenyl- and 2-acetyl-2-H-1,2,3-diazaphospholes, dialkylphosphone sulphenylclorides, 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 ($^{1}H$, $^{31}P$, $^{13}C$ NMR, IR) and mass-spectroscopy.