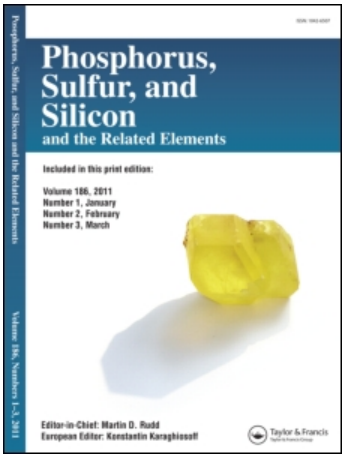

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Interaction of 3,4-Dichloro-5-hydroxy-2(5H)-furanone with Chlorides of Trivalent Phosphorus

R. A. Cherkasov[a]; I. V. Kalinina[a]; N. A. Polezhaeva[a]; V. I. Galkin[a]; V. G. Sakhibullina[a]; A. N. Pudovik[a]
[a] Kazan State University, Russia

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INTERACTION OF 3,4-DICHLORO-5-HYDROXY-2(5H)-FURANONE WITH CHLORIDES OF TRIVALENT PHOSPHORUS

R. A. Cherkasov, I. V. Kalinina, N. A. Polezhaeva, V. I. Galkin, V. G. Sakhibullina, and A. N. Pudovik
Kazan State University, Russia

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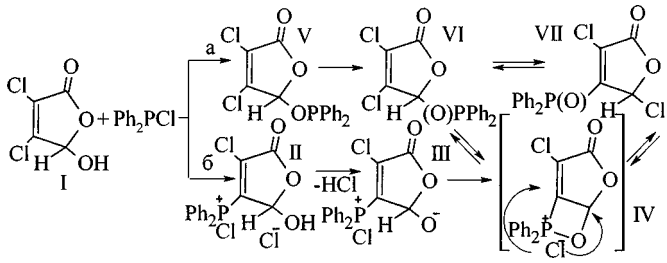
Reaction of diphenylchlorophosphine with furanone (I) carries out by two parallel ways: nucleofilic substitution of chlorine atom in β-position to carbonyl group of furanone cycle with the formation of phosphonium salt and phosphabetaine (parth b) and phosphorylation of alcohol fragment (parth a). The forming phosphabetaine (III) rearranges through intermediate bicyclic quasiphosphonium compound (IV) into furanones (VI) and (VII), which can transfer each into another due to unusual reversible phosphorylotropic rearrangment.



SCHEME 1

Reaction of (I) with pirocateholchlorophosphite has also been investigated.

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Address correspondence to R. A. Cherkasov, Department of Chemistry, Kazan State University, Kremlyovskaya Str. 18, Kazan, 420008, Russia.
E-mail: rafael.cherkasov@ksu.ru