Russian Journal of General Chemistry 2000 vol.70 N6, pages 851-853

Reaction of diethyl phosphorisocyanatidite with 3,4-dichloro-5-hydroxy-2(5H)-furanone

Polezhaeva N., Volodina Y., Sakhibullina V., Loginova I., Galkin V., Cherkasov R.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Reaction of diethyl phosphorisocyanatidite with 3,4-dichloro-5-hydroxy-2(H)-furanone (mucochloric acid) is accomplished by mixing the reagents and leads to a bicyclic phosphonamidate. The highly reactive isocyanato substitution at the σ3-phosphorus atom permits one to effect cyclization after the first stage of the Arbuzov reaction and thus much extend the synthetic potential of phosphorylation of mucochloric acid derivatives.