Synthesis of Polyfluoralkylated 1,3,2-Dioxaphospholane and 1,3,2-Dioxaphosphorinane Oxides

N. K. Gusarova[a],* S. I. Verkhoturova[a], S. N. Arbuzova[a], T. I. Kazantseva[a], A. I. Albanov[a], A. M. Nalibaeva[b], and G. K. Bishimbaeva[b]

[a] *Favorskii Irkutsk Institute of Chemistry, Siberian Branch, Russian Academy of Sciences, ul. Favorskogo 1, Irkutsk, 664033 Russia*
**e-mail: gusarova@irioch.irk.ru*

[b] *Institute of Fuel, Catalysis, and Electrochemistry, Almaty, Kazakhstan*

Received April 26, 2017

Abstract—Polyfluoroalkyl dichlorophosphates easily react with 1,2- or 1,3-alkanediols in a system pyridine–diethyl ether and afford 2-polyfluoroalkoxy-1,3,2-dioxaphospholane oxides or 2-polyfluoroalkoxy-1,3,2-dioxaphosphorinane oxides. In similar conditions the reaction of methyl dichlorophosphate with 1,2- and 1,3-alkanediols proceeds less effectively.

DOI: 10.1134/S107042801711001X