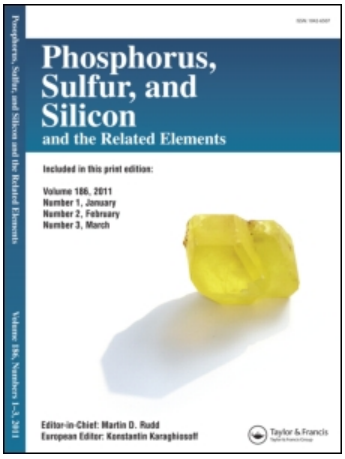

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THE INVESTIGATION OF NUCLEOPHYLIC SUBSTITUTION IN DIPHENYLSULFONE SERIES

Yu. A. Moskvitchev[a]; G. S. Mironov[a]; S. K. Kramerova[a]; E. M. Alov[a]; G. V. Kolobov[a]
[a] Polytechnical Institute, Yaroslavl, USSR

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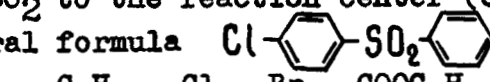
THE INVESTIGATION OF NUCLEOPHYLIC SUBSTITUTION IN DIPHENYLSULFONE SERIES

Yu.A. Moskvitchev, G.S. Mironov, S.K. Kramerova, E.M. Alov, G.V. Kolobov

Polytechnical Institute, Moscow Avenue, 88, Yaroslavl, USSR

The reactions of nucleophylic substitution of chlorine atoms in chlorine-substituted diphenylsulfones for oxy-, phenoxy-, sulfo-, tiol and other groups were taken as the basis for numerous syntheses of organic sulfur compounds possessing practical importance. The kinetic investigations of chlorine atom substitution for oxy- and phenoxy- groups in 4,4'- dichlorodiphenylsulfone and 3,4',3,4' - tetrachlorodiphenylsulfone were carried out in detail. The effect of solvents on reaction rate was investigated. The possibility of only one chlorine atom selective substitution for some other functional groups in the compounds mentioned was described and the conditions for the same were found out.

The investigations of electron density distribution in molecules and the efficiency of substituents influence transfer through bridge unit SO_2 to the reaction center (chlorine atom) in compounds of general formula  , where X = - NH_2, - OH, $-CH_3$, $-C_6H_5$, -Cl, -Br, $-COOC_2H_6$, -COOH, $-NO_2$, -H, were carried out for the first time.

The investigation of substituent "X" influence transfer through SO_2 bridge to chlorine-substituted aromatic nucleous was conducted by NMR - ^1H spectroscopy and by electrochemical reduction method.