Synthesis and Chemical Modification of N-Substituted 3-Benzimidazolylsuccinimides

Natalia M. Rakitina^a, Yurii A. Gesenzwey^a, Evgenii V. Polunin^b

^a Institute of Physical Chemistry, Russian Academy of Sciences Leninskii prosp. 31, 119991 Moscow, Russia e-mail: yuriku@rambler.ru ^b N.D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences Leninskii prosp. 47, Moscow, Russia e-mail: polunin-507@yandex.ru

Reaction of several maleimides with benzimidazoles gives a range of new derivatives of N-substituted 3-benzimidazolylsuccinimides. Twelve derivatives of imidazole and four benzimidazoles without other nucleophilic functional groups were used. Symmetric 2-, 5- or 6- substituted benzimidazoles have been used in order to exclude isomeric products. In general all reactions were conducted in acetonitrile for 24 hours. The yields were 55-72%. When ethanol was used as a solvent yield decreased to 50%.



 $R_1 = C_6H_5$; 4-MeOC₆H₄; 4-EtOC₆H₄; 4-PrOC₆H₄; 4-MeOOCC₆H₄; 4-EtOOCC₆H₄; 4-ClC₆H₄; 4-FC₆H₄; 4-BrC₆H₄; 3-FC₆H₄; 3-Cl,4-F(C₆H₃); 4-Cl,3-CF₃(C₆H₃) a. R_2 =CH₂OH, R_3 =R₄=H

b. $R_2 = R_3 = R_3 = H$ **c**. $R_2 = CH_3$, $R_3 = R_4 = H$ **d**. $R_2 = H$, $R_3 = R_4 = CH_3$