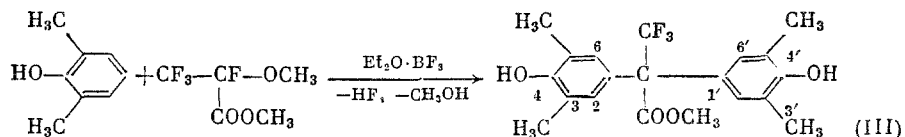


REACTION OF THE METHYL ESTER OF α -METHOXYPERFLUOROPROPIONIC
ACID WITH 2,6-DIMETHYLPHENOL

V. I. Dyachenko, A. F. Kolomiets, and A. V. Fokin

UDC 542.91:547.472'161'261:
547.563

α -Chlorodialkyl ethers are efficient chloroalkylating agents [1]. The behavior of α -fluoropolyfluorodialkyl ethers in this reaction has not been studied. In the reaction of the methyl ester of α -methoxyperfluoropropionic acid (I) with 2,6-dimethylphenol (II), we showed that α -fluoropolyfluorodialkyl ethers in the presence of a catalyst C-alkylate aromatic compounds. Thus, heating (I) and (II) in the presence of $\text{Et}_2\text{O} \cdot \text{BF}_3$ (the mole ratio of these reagents was 2:1:0.3) at reflux for 4-5 h gave bisphenol (III) in 65% yield.



Methyl ester of α, α -bis(3,5-dimethyl-4-hydroxyphenyl)trifluoropropionic acid (III), mp 167-169°C (CCl_4), R_f 0.45 (1:3 acetone- CCl_4). ^{13}C NMR spectrum (δ , ppm, acetone, TMS): 170.14 (C=O), 154.04 (C^4 , $\text{C}^{4'}$), 130.34 (C^2 , $\text{C}^{2'}$, C^6 , $\text{C}^{6'}$), 127.70 (C^1 , $\text{C}^{1'}$), 124.26 (C^3 , $\text{C}^{3'}$, C^5 , $\text{C}^{5'}$), 67.26 ($\text{C}^*- \text{CF}_3$, $^2J_{\text{C}-\text{F}} = 31.50$ Hz), 53.11 (OCH_3), 16.71 (CH_3). PMR spectrum in acetone- d_6 (δ , ppm, TMS): 7.50 s (2H, 2OH), 6.85 s (4H, H^2 , $\text{H}^{2'}$, H^6 , $\text{H}^{6'}$), 3.78 s (3H, OCH_3), 2.30 s (12H, 4 CH_3). ^{19}F NMR spectrum in acetone- d_6 (δ , ppm, $\text{CF}_3\text{CO}_2\text{H}$): -16.20 s. Found, %: C 62.56; H 5.53; F 14.75. $\text{C}_{20}\text{H}_{21}\text{F}_3\text{O}_4$. Calculated, %: C 62.83; H 5.50; F 14.92.

LITERATURE CITED

1. R. C. Fuson, E. C. Horning, M. L. Ward, et al., J. Am. Chem. Soc., 64, 30 (1942).