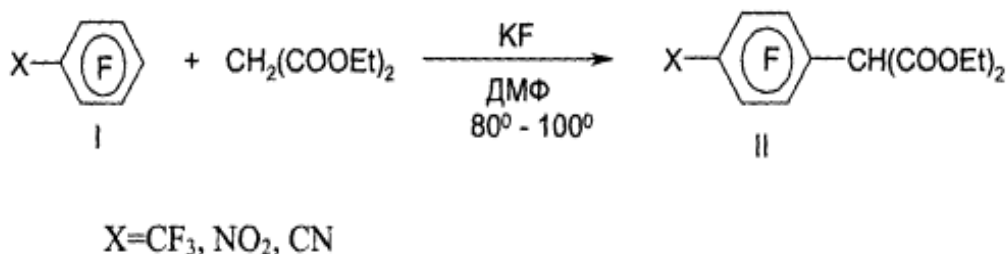


ARYLATION OF DIETHYL MALONATE WITH PENTAFLUOROBENZENES.

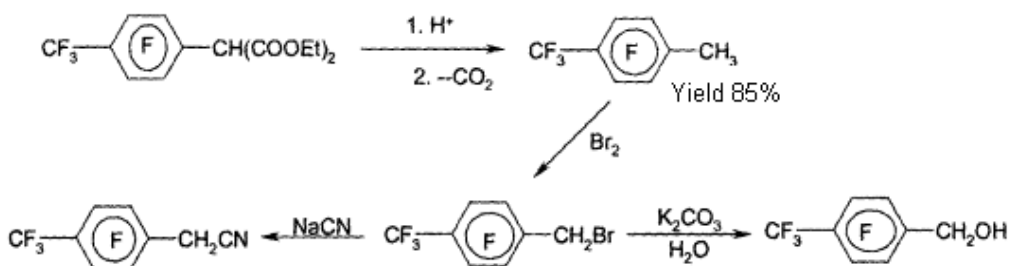
S. Igumnov, V. Don, A. Gontar

It is known that electron-withdrawing substituents in perfluorinated aromatic compounds activate the para-position of benzene ring to nucleophilic substitution [1].

Perfluorinated aromatic compounds (I) containing electron-withdrawing substituents such as CF₃, NO₂, CN arylate malonic ester in DMF in the presence of KF with the formation of the corresponding di-esters (II) with ~ 80% yield.



Heptafluoroxylene was synthesized with good yield from diester (II; X=CF₃) by hydrolysis with further decarboxylation. Hexafluoroxylene was used for synthesis of other fluorinated aromatic compounds.



1. W.A. Sheppard, C.M. Sharts . Organic Fluorine Chemistry [Russian Translation], Mir, Moscow. 1972