ARYLATION OF DIETHYL MALONATE WITH PENTAFLUOROBENZENES.

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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.

compounds.

$$CF_{3} - F - CH(COOEt)_{2} - \frac{1. \text{ H}^{+}}{2. -CO_{2}} - CF_{3} - F - CH_{3} - CH_{3} - CH_{2}CH_{$$

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