

Selective Hydrolysis of Pentafluorobenzotrichloride

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Received November 15, 2002

Abstract - Selective hydrolysis of pentafluorobenzotrichloride has been studied in the presence of a catalytic amount of iron(III) chloride. The main products are pentafluorobenzoyl chloride, pentafluorobenzoyl fluoride, and 4-chlorotetrafluorobenzoyl chloride. The two latter products are formed by hydrolysis of dichlorofluoromethylpentafluorobenzene and 4-chlorotetrafluorobenzotrichloride which result from halogen exchange between the methyl group and aromatic ring in the initial pentafluorobenzotrichloride. A probable mechanism for halogen exchange is proposed.