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REACTIONS OF POLYFLUOROAROMATIC COMPOUNDS WITH VANADIUM PENTAFLUORIDE

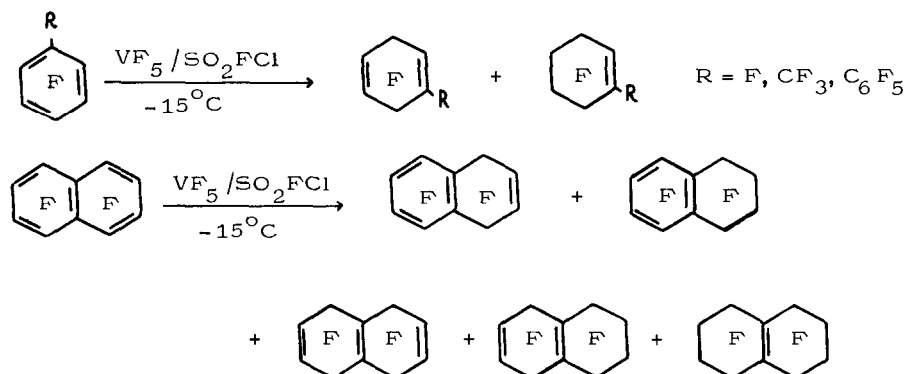
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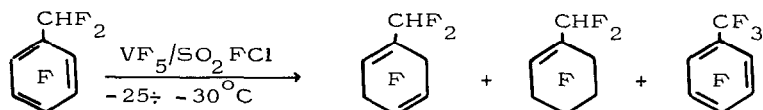
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The reactions of polyfluoroaromatic compounds with vanadium pentafluoride have been studied. At $-30 \div -20^\circ\text{C}$ in the presence of VF_5 perfluoroaromatic compounds were readily transformed to the derivatives of 1,4-cyclohexadiene and cyclohexene.



The derivatives of toluene $\text{C}_6\text{F}_5\text{CH}_n\text{F}_{3-n}$ ($n = 1-3$) gave, apart from polyfluorinated 1,4-cyclohexadienes and cyclohexenes, the products of side-chain substitution of hydrogen by fluorine. This did not occur in the series of the anisole derivatives; the reactions of these compounds gave the products of high fluorination of the aromatic ring.



The results of the reaction of VF_5 with deuteriopentafluorobenzene allowed to make a conclusion that no C-D bond cleavage takes place in the reaction conditions. Applications of VF_5 in syntheses of polyfluorinated organic compounds are discussed.