SYNTHESIS OF FLUOROAROMATIC COMPOUNDS FROM THE CYCLOPENTADIENE DERIVATIVES BY REACTIONS WITH CHLOROFLOUROCARBENE UNDER PHASE-TRANSFER CATALYSIS

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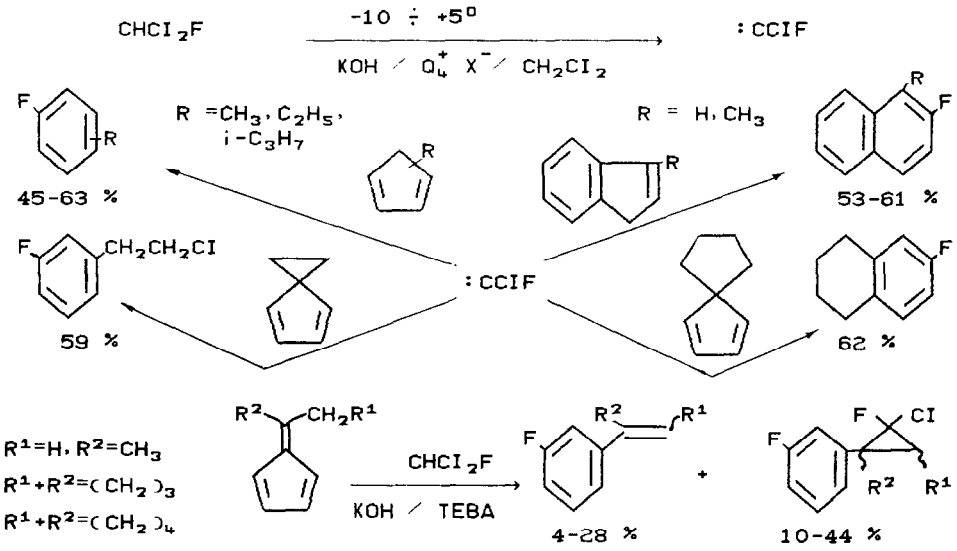
The reactions of **$CHCl_2F$** with cyclopentadiene derivatives in the presence of aqueous **KOH** and triethylbenzylammonium chloride (TEBA) at **-10 - +5°** leads to the formation of fluoroaromatic compounds with a good yield:



The synthesis involves addition of chlorofluorocarbene to dienes, resulting in corresponding cyclopropane adducts (derivatives of 6-chloro-6-fluorobicyclo[3.1.0]hex-2-ene and subsequent aromatization of the latter, proceeding via expansion of the cyclopentene ring and elimination of hydrogen chloride.