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SYNTHESIS OF POLYFLUORINATED DIHYDROBENZO/b/THIPHENES FROM AROMATIC DERIVATIVES OF BIVALENT SULPHUR. PROPERTIES OF POLYFLUORODIHYDROBENZO/b/THIPHENES

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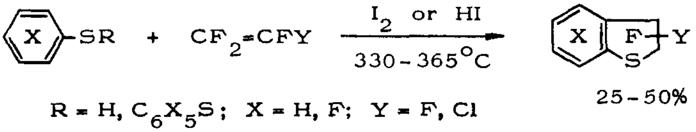
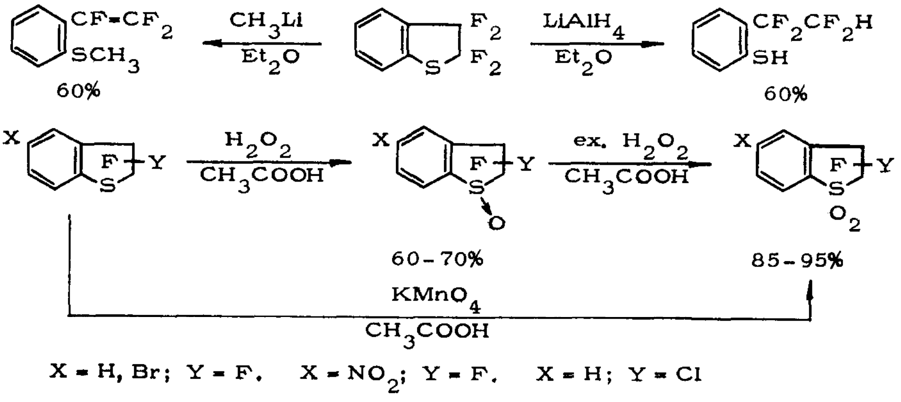
We found a general route to previously inaccessible polyfluorodihydrobenzo/b/thiophenes, which involves the reaction of aromatic derivatives of bivalent sulphur with polyfluoroolefins in the presence of I_2 or HI in a flow system. The mechanism of these reactions involving intermediate radicals is discussed.



We report here the results of our studies of the chemical transformations of polyfluorodihydrobenzo/b/thiophenes - in particular, the reactions with electrophilic and nucleophilic reagents and oxidants. Electrophile is shown to enter position 5. Interaction with $LiAlH_4$ and CH_3Li involves cleavage of 5-membered ring. The mechanism of the cleavage is discussed. Oxidation gave the sulphoxides and the sulphones.



Kinetics of the nucleophilic reactions of some derivatives of 2,2,3,3-tetrafluorodihydrobenzo/b/thiophene has been studied.