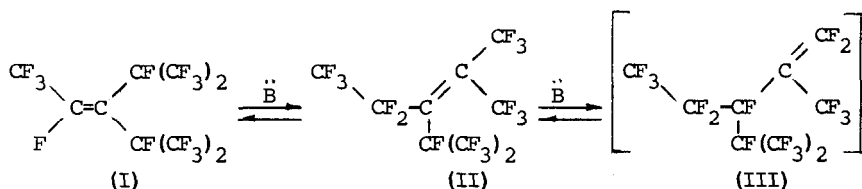


REACTIONS OF HEXAFLUOROPROPEN TRIMERS (HEPT) WITH
SECONDARY AMINES

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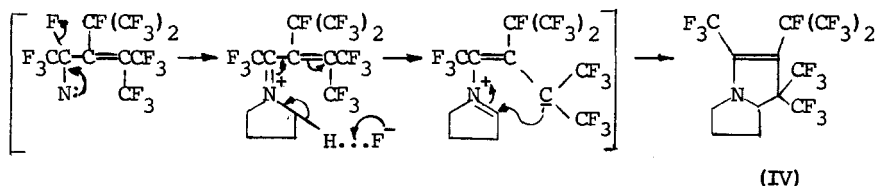
HFPT are able to undergo a reversible isomerisation reaction in presence of secondary amines:



A reaction of HFPT with bulky diethylamine yields substituted product $\text{Et}_2\text{N}-\text{CF}=\text{C}(\text{CF}_3)-\text{CF}(\text{C}_2\text{F}_5)\text{CF}(\text{CF}_3)_2$ (85%). A reaction of HFPT with less bulky amine—ethylenimine yields a product of $\text{S}_{\text{N}}2'$ substitution of fluorine atom in (I) $\text{CF}_3\text{CF}(\text{N})\text{C}[\text{CF}(\text{CF}_3)_2]=\text{C}(\text{CF}_3)_2$ (70%).



It seems that pyrrolidine initially reacts with HFPT in the same way as ethylenimine does, but undergoes intramolecular cyclisation yielding polyfluoroalkyl - substituted pyrrolisidine (IV) (83%):



Some reactions of obtained compounds and possible reaction mechanisms will be discussed.