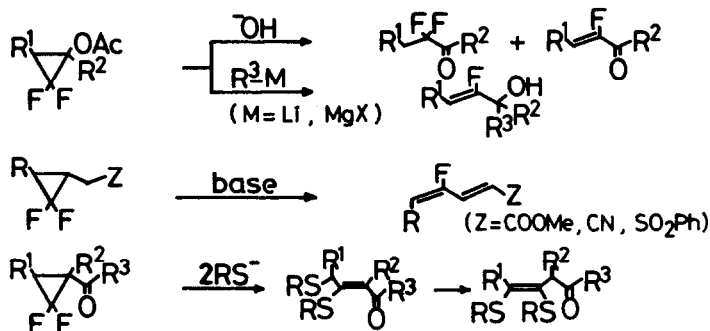


RING-OPENING REACTIONS OF DIFLUOROCYCLOPROPANE DERIVATIVES

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To explore new synthetic methods by utilizing difluorocyclopropane derivatives, we investigated the ring-opening reactions of three types of them.



SYNTHESIS AND REACTIONS OF NITROSO F-CYCLOBUTANE AND NITROSO F-CYCLOPENTANE

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The intense blue nitroso F-cyclobutane and nitroso F-cyclopentane result when F-cyclobutene and F-cyclopentene are reacted with nitrosyl fluoride in the presence of KF in tetramethylene sulfone. With primary amines, white crystalline solids which sublime at $25^\circ C$ in vacuo are formed with each of the cyclic nitrosos. Spectral data and elemental analysis support the expansion of the butane and the pentane rings to six and seven members, respectively. Heating at $40^\circ C$ with tetrafluoroethylene gives N-(F-cyclobutyl)-F-oxazetidine and N-(F-cyclopentyl)-F-oxazetidine.