

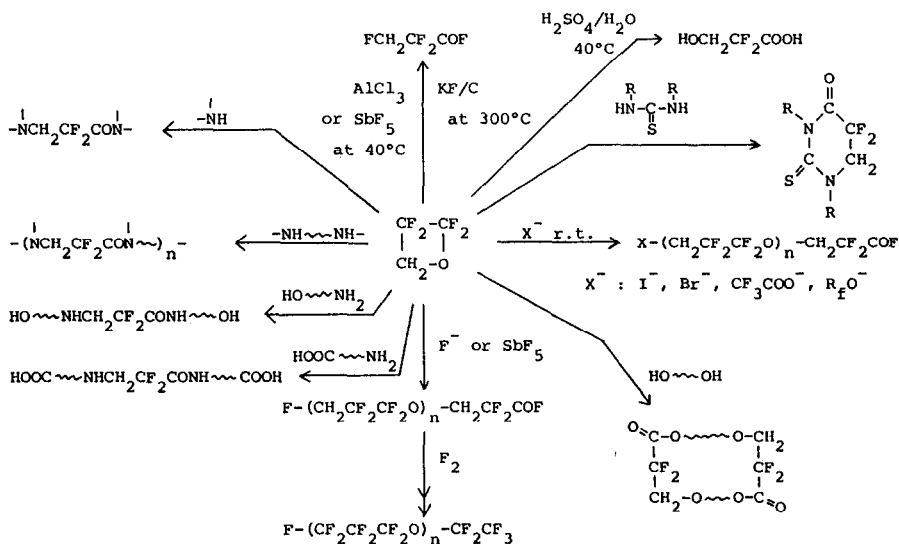
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## REACTIONS OF FLUORO-OXETANES

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2,2,3,3-Tetrafluoro-oxetane (TFOX) is a known compound initially synthesized about 20 years ago [ V.Weinmayr, J.Org.Chem., 28,492 (1963) ], but almost no chemistry of it has been investigated.

According to our investigation, TFOX was found to react with both nucleophiles and electrophiles very easily in a similar way to hexafluoropropyleneoxide (HFPO), but when treated with Lewis acid such as SbF<sub>5</sub> below 20°C, it affords the ring-opening oligomer of it. Since HFPO cannot be oligomerized by cationic catalysts, TFOX is considered to have a intermediate property between HFPO and the normal oxetane.



As shown above, TFOX can be said to be a very useful source material for synthesis of many kinds of fluorine-containing compounds with multifunctions.