

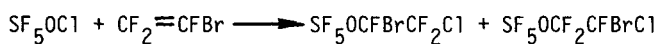
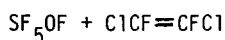
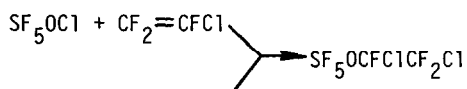
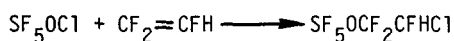
I<sub>30</sub>

SYNTHESIS OF SF<sub>5</sub>O-SUBSTITUTED FLUOROCARBONS AND COMPARISON TO SOME SeF<sub>5</sub>O- AND TeF<sub>5</sub>- ANALOGS

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Addition reactions of SF<sub>5</sub>OCl with unsymmetrical fluoroethylenes and SF<sub>5</sub>OF with 1,2-dichloro-1,2-difluoroethylene result in the formation of SF<sub>5</sub>O-substituted fluorocarbons.



77%

23%

These reactions can be difficult to control and yields were in the range of 44-60% for the hypochlorite systems. Surprisingly the hypofluorite example produced a 77% yield of the adduct. All of these new compounds are colorless mobile fluids which have been characterized by vapor pressure and vapor density measurements as well as spectroscopically. Comparison will be made with fluorocarbons containing the related Group VI ligands, SeF<sub>5</sub>O- and TeF<sub>5</sub>O-, which have been prepared by both similar and alternate synthetic routes.