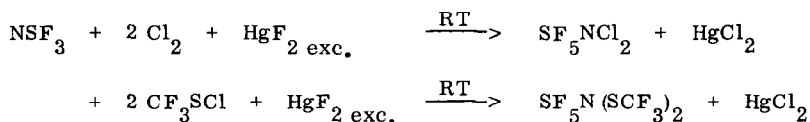


SULFUR-TETRAFLUORIDE-IMIDES AND PENTAFLUOROSULFANYL-DERIVATIVES

A. WATERFELD AND R. MEWS

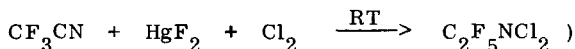
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Pentafluorosulfanyl-derivatives are obtained by the addition of Cl_2 or chlorides to the NS-triple bond of NSF_3 in the presence of HgF_2 :



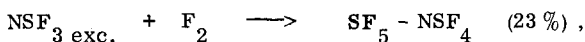
(In the same way perfluoroalkyl-dichloro-amines were prepared from nitriles;

e.g.

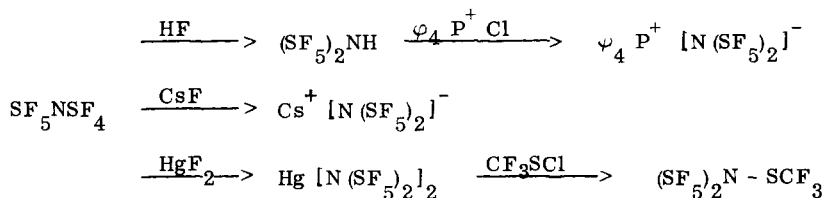


From the reaction of NSF_3 with ClF , besides SF_5NCl_2 [1], the cyclic sulfurtetrafluorideimide $(\text{ClNSF}_4)_2$ is isolated [2].

From NSF_3 and F_2 pentafluorosulfanyl-sulfurtetrafluorideimide is formed



the key substance to bis(pentafluorosulfanyl)amines.



The properties of these compounds will be discussed in detail.

1 A. F. Clifford, G.R. Zeilenga, Inorg. Chem. 1969

2 A. Waterfeld, R. Mews, Angew. Chem. in press