

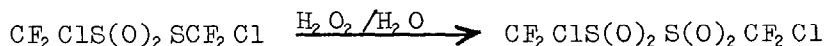
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SELECTIVE HYDROLYSIS OF PERFLUOROCHLOROMETHYLSULFENYL CHLORIDES

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Hydrolysis of the sulfenyl chlorides $F_n Cl_{3-n} CSCl$ ($n = 1, 2$) yields the corresponding thiosulfinates, $F_n Cl_{3-n} CS(O)SCF_n Cl_{3-n}$, and thiosulfonates, $F_n Cl_{3-n} CS(O)_2 SCF_n Cl_{3-n}$, as stable intermediates. Selective preparation of these intermediate products is possible by variation of the reaction conditions. A new mechanism for the hydrolysis, based upon additional experiments with the newly prepared products, will be presented. Further reactions of the thiosulfinates and -sulfonates are reported. Oxidation of $CF_2 ClS(O)_2 SCF_2 Cl$, for example, gives the corresponding disulfone:



^{19}F - and ^{13}C -NMR-data confirm the proposed hydrolyses mechanism.

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