SOME NEW FLUORINE EXCHANGE REACTIONS OF PERFLUOROALKYL-IODINE(V)FLUORIDES

Dieter Naumann and Wolfgang Habel Anorganische Chemie, Universität, D 4600 Dortmund 50

The perfluoroalkyliodine(V)fluorides CF_3IF_4 and CF_3IOF_2 react with many alcohols, acids and anhydrids in solution to give fluorine exchange. In all these reactions we observed equilibria, e.g.:

CF3IF4	+	nROH	<u></u>	CF3IF4-n (OR) _n	+ nHF
CF3IOF2	+	ROH	~~	CF3IOF(OR)	+	HF
CF ₃ IOF (OR)	+	ROH	\rightarrow	$CF_{3}IO(OR)_{2}$	+	HF

These reactions depend strongly on the kind of the reacting compounds and on the conditions, and they can be foblowed by n.m.r. spectroscopy. When trying to isolate the new derivatives always decomposition takes place. These reactions, the n.m.r. spectra, the properties of the new compounds and the decomposition reactions will be reported.