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THE CHEMISTRY OF PERFLUOROALKANE DISULFONIC ACIDS

R. Herkelmann and P. Sartori

Fachgebiet Anorganische Chemie, University of Duisburg, Lotharstrasse 65, D-4100 Duisburg 1 (F.R.G.)

Perfluoroalkane-**d**, ω -disulfonic acids ${\rm HO_3S-(CF_2)_nSO_3H}$ can be prepared from the corresponding alkane disulfonyl-difluorides by electrochemical fluorination in good to moderate yields.

Their chemistry has been exploited. They are quite resistant against hydrolysis. Preparation of acids in aqueous systems gives very stable hydrates. The acids form stable, monomer cyclic anhydrides. Their esterification, ammonification etc. is described.

Furthermore, the perfluoro alkane disulfonyl difluorides are useful reactants.