ALKYLATION OF FLUORINATED ANIONS BY 7-PROPANESULTONE

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The alkylation of perfluoroalkoxy anions by χ -propanesultone (1) in diglyme at 20-60°C is a convenient method of preparing of /-perfluoroalkoxypropanesulphonic acids salts. The following types of compounds can be used as a source of perfluoroalkoxy anions:

perfluoroketones

$$(CF_3)_2C=0 + (1) \xrightarrow{F} (CF_3)_2CFO(CH_2)_3SO_3$$
 [98%] perfluoroacylfluorides

perfluorinated &-oxides

The C-alkylation of perfluoroalkyl anions was achieved for perfluoroisobutene reaction with (1) in the presence of the fluoride ion:

$$(CF_3)_2C=CF_2 + (1) \xrightarrow{F} (CF_3)_3C(CH_2)_3S\bar{O}_3$$
 [68%]

The salts of /-perfluoroalkoxypropanesulphonic acids are a new type of anion-active fluorotensides; they can also be usefull intermediates for the synthesis of other classes of fluorinated surfactans.