

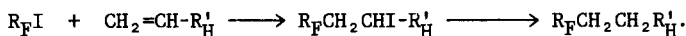
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SYNTHESIS OF SOME FLUORO-HYDROCARBONS AND THEIR  
PERFORMANCE AS SURFACE AGENTS IN A NON-AQUEOUS MEDIUM

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Some fluoro-hydrocarbons having the typical structure  $R_F-R_H$  can be prepared by addition of perfluoroalkyl iodides ( $R_F I$ ) to olefins ( $CH_2=CH-R'_H$ ) by the method suggested by N.O. Brace [1]:



Starting from the linear perfluoroalkyl iodides  $C_6F_{13}I$  and  $C_8F_{17}I$ , and the linear olefins  $C_8H_{16}$ ,  $C_{12}H_{24}$  and  $C_{16}H_{32}$ , the following compounds were prepared:  $C_6F_{13}C_8H_{17}$ ,  $C_6F_{13}C_{12}H_{25}$ ,  $C_6F_{13}C_{16}H_{33}$ ,  $C_8F_{17}C_8H_{17}$ ,  $C_8F_{17}C_{12}H_{25}$  and  $C_8F_{17}C_{16}H_{33}$ .

These compounds were tested in a liquid paraffin as surface agents; measurements of the surface tension were carried out at various concentrations and temperatures (20 °C, 30 °C and 50 °C). Some of the compounds tested (*i.e.*,  $C_6F_{13}C_{16}H_{33}$ ) also at the highest temperature shown a poor solubility in the paraffin used. A remarkable drop of the surface tension values was shown by  $C_8F_{17}C_{16}H_{33}$  at 20 °C.

Experimental data and surface tension vs concentration diagrams are reported.