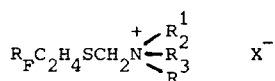


SYNTHESIS OF NEW FLUORINATED SURFACTANTS

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This work is devoted to the synthesis of F-alkylated surfactants corresponding to the general structure :



A characteristic of such compounds is to show only one CH₂ group between S and N atoms.

The best way of synthesis was realized "via" the intermediate formation of (2,F-alkyl ethylthio) methyl bromides.

This way led to a lot of surfactants showing different characteristics:

- Fluophilic (F-alkyl chain)
- Lipophilic (hydrocarbonated chain)
- Hydrophilic (ionic or hydroxylic head)

Mechanisms of formation of the intermediate R_FC₂H₄SCH₂Br, starting from F-alkyl ethane thiol, and potential applications will be discussed.

Such compounds may be able :

- to obtain stable emulsions with hydrocarbons and fluorocarbons.
- to lead to microemulsions of perfluorinated compounds without co-surfactant.
- to modulate high hydrophobic properties of the F-alkylated tail (water retention by hydroxylic group).