UNUSUAL MINOR PRODUCTS IN THE PREPARATION OF METHACRYLATES OF FLUOROALKANOLS

- O. Paleta^a, V. Církva^a and V. Maroušek^b
- a Department of Organic Chemistry.
- Department of Polymer Chemistry, Prague Institute of Chemical Technology, 16628 Prague 6, CZECH REPUBLIC

The preparation of fluoroalkyl methacrylates from fluoroalkanols and methacryloyl chloride is a general procedure for this kind of monomers. By detailed analysis of fractions obtained from the reaction of fluoroalkanol $\underline{1}$ with methacryloyl chloride we found minor products $\underline{3-5}$ to be present in some fractions. Two of them are very unusual:

CH₃
CH₃
CH₃
CH₃
CH₂
CH₃

HCF₂CF₂-CH-0-CH-CF₂CF₂H 5 CH₃ CH₃

The first compound 3, methacrylanhydride, we usually met in trace amount in reaction mixtures. However, compounds 4 and 5 we have only found in the reaction of alkanol 1 (n = 1). Compound 4 obviously is composed from one molecule of methacrylate 2 and from one molecule of methacryloyl chloride. The third minor product (5) is derived from the starting fluoroalkanol 1.

Suggested pathways of the formation of compounds 3-5 will be discussed.