A SHORT SYNTHESIS OF α-FLUORO ACRYLIC DERIVATIVES

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Primary polyfluoroallylic alcohols CFX=CF-CH $_2$ OH $\underline{2}$ (X=F,Cl) were obtained by action of an alkyl lithium at 0° on 3-Hydropolyfluoro propanols HCFX-CF $_2$ -CH $_2$ OH $\underline{1}$. In acidic medium allylic alcohols $\underline{2}$ rearranged into 2-Fluoro acryloyl fluoride CH $_2$ =CF-COF $\underline{3}$. The whole procedure constitutes a two steps process of obtaining $\underline{3}$. By extension of the method to alcohols R-CF=CF-CH $_2$ OH $\underline{4}$, which were obtained by action of alkyl lithium at 20°C on alcohols $\underline{1}$, 1-Fluorovinyl ketones CH $_2$ =CF-CO-R $\underline{5}$ were prepared: