

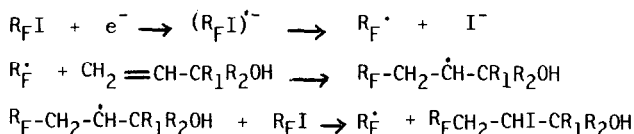
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ELECTROCHEMICALLY INITIATED ADDITION OF F-ALKYL IODIDES TO ALKENOLS AND ALKYNOLS. SOME ELEMENTS OF THE CHEMISTRY OF THE COMPOUNDS OBTAINED

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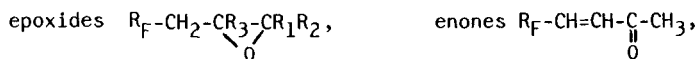
The addition of F-alkyl iodides $\text{CF}_3(\text{CF}_2)_n\text{I}$ ($n=1,3,5,7$), R_FI , to alkenols and alkynols has been performed through electrochemical initiation. The general scheme is as follows (for alkenols):



The process has been studied in dimethylformamide (DMF) as a solvent, at mercury and at carbon cathodes, and extended to the reduction of a phase of F-alkyl iodide - alkenol or alkynol dispersed in an aqueous phase ($\text{H}_2\text{O}/\text{KCl}$) (Fr. Pat. 8015121 ; Fr. Pat. 81.24364).

The efficiency of the process is discussed and compared to other possible routes for such a reaction.

In addition are presented some elements of the chemistry of the compounds obtained during the described electroinitiated addition, and particularly the efficient synthesis of :



alkynes $\text{R}_F-\text{C}\equiv\text{C}-\text{CR}_1\text{R}_2\text{OH}$, $\text{R}_F-\text{C}\equiv\text{C}-\text{H}$, keto alcohols, allene phosphonates, 5F-alkyl-3(2H) furanones, etc.

J.C.S. Chem. Commun. (1982) 433; ibid. (1984) 1152; ibid. (1985) 1493.

The authors gratefully acknowledge support for this work by the ATOCHEM C°.