

Electron-Transfer Induced Cyclization Processes For The Synthesis Of Fluorine-Containing Molecules

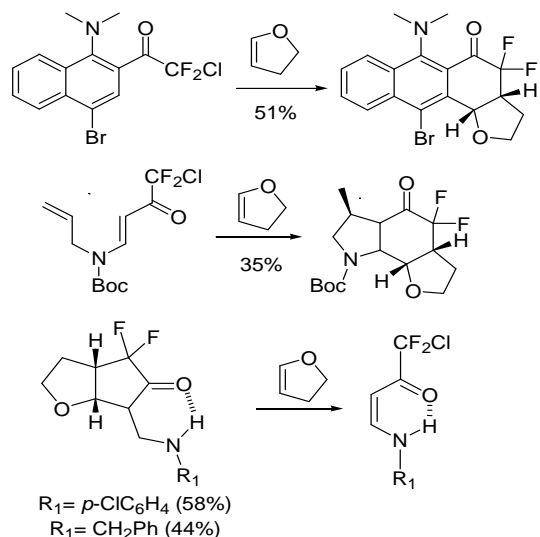
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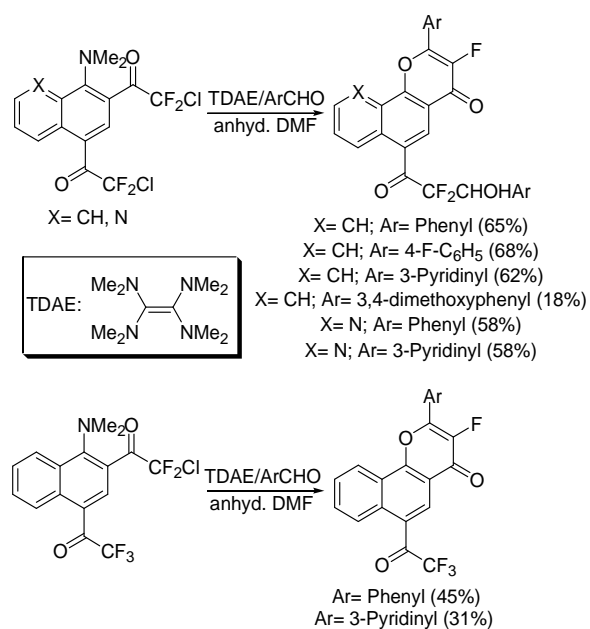
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Indirect electrochemical (redox catalysis) reduction of a series of chloro-difluoroacetylated substrates, in the presence of olefinic acceptors (radical tandem process), was developed for the synthesis of new heterocyclic and cyclic fluorinated structures (scheme 1).

The tetrakis(dimethylamino)ethylene (TDAE) mediated reductive cleavage of these substrates is also a convenient and mild approach for the generation of remarkably stabilized corresponding enolates; such species were efficiently trapped with heteroaryl aldehydes to yield through a tandem SET/S_NAr process, new fluorinated benzo-pyrone derivatives (scheme 2).



Scheme 1



Scheme 2