

DIAZOTIZATION AND FLUORO-DEDIAZONIATION OF AMINOARENES HAVING POLAR SUBSTITUENTS. PREPARATION OF FLUOROPHENOLS

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Fluoro-dediazoniatio after diazotization of aminoarenes is one of the most common means of introducing a fluorine into aromatic rings. But difficulties are encountered, particularly for the substrates that have polar substituents such as hydroxy group to afford fluorophenols in high yields.

In this presentation, a convenient preparation of fluorophenols is described for the diazotization of aminophenols with NaNO_2 in HF-base solutions under the carefully controlled conditions, followed by the decomposition of the solution in situ thermally or photochemically. The thermal or photochemical decomposition of the arene diazonium compounds in HF-base solutions, which are produced as the crystalline compounds by the diazoniatio of aminophenols with alkyl nitrite in acidic alcohols, will be also demonstrated to afford the corresponding fluorophenols in high yields.

