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Introduction of a Hydroxy Group at the Para Position and *N*-Iodophenylation of *N*-Arylamides Using Phenyliodine(III) Bis(trifluoroacetate)

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The reaction of anilides with phenyliodine(III) bis(trifluoroacetate) (PIFA) in trifluoroacetic acid (TFA), TFA-$CHCl_3$ or hexafluoroisopropyl alcohol (HFIP) is described. When the acyl group of the anilide is highly electronegative such as trifluoroacetyl or the phenyl group is substituted with an electron-withdrawing group, the 4-iodophenyl group is transferred from PIFA to the amide nitrogen to afford acetyldiarylamines. On the other hand, when the acyl group contains an electron-donating function such as 4-methoxyphenyl or the phenyl group is substituted with an electron-donating group, a trifluoroacetoxy group is transferred to the para position of the anilide aromatic ring. This group is hydrolyzed during work-up to produce the corresponding phenol.