

Palladium(II) and bidentate phosphine-catalyzed selective synthesis of N-aryl-2-pyrrolidinones via cyclocarbonylative coupling of 2-aminophenol and 2-aminothiophenol.

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Abstract

The inter- and intra-mol. regioselective cyclocarbonylative coupling of 2-aminophenol and 2-aminothiophenol with various allyl halides was achieved in the presence of a catalytic amt. of palladium acetate and 1,4-bis(diphenylphosphino)butane to afford N-aryl-2-pyrrolidinones in 47-65% yields. Other aminophenol derivs. have also been used and gave good yields of N-aryl-2-pyrrolidinones.