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This Sheet Has Been Replaced



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ABSTRACT

A diphenylamine with both the phenyl groups being substituted is prepared by reacting a phenol with ammonia in the presence of a hydrogen transfer catalyst and a cyclohexanone; or by converting a portion of the phenol to the cyclohexanone in the presence of a hydrogen transfer catalyst and under hydrogen pressure and then reacting the remaining portion of the phenol with ammonia in the presence of the cyclohexanone so converted and the hydrogen transfer catalyst. The diphenylamine can be obtained very efficiently.