

# Synthesis of Methyl-Substituted 1,7-Phenanthroline Derivatives by Condensation of 2-Methylquinolin-5-amine with Aromatic Aldehydes and Cyclic 1,3-Diketones

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**Abstract**—Previously unknown 7-aryl(hetaryl)-3-methyl-7,10,11,12-tetrahydro-9*H*-benzo[*b*][1,7]phenanthroline-8-ones and their 10,10-dimethyl-substituted analogs were synthesized by three-component condensation of 2-methylquinolin-5-amine with aromatic aldehydes and cyclic  $\beta$ -diketones (cyclohexane-1,3-dione and dimedone) in butyl alcohol.

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