Nickel Catalyzed Amidation reaction in the Synthesis of Azaphenoxazine Carboxamides

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ABSTRACT

We synthesize 3-chloro-1-azaphenoxazine compound 1 by the condensation of 2-aminophenol and 2, 3, 5-trichloropyridine in aqueous basic medium. Compound 1 was then coupled with five different amides via nickel catalyzed amidation reaction to afford compound 2-6. The structures of the synthesized compounds were established based on their analytical and spectra data. The synthesized compounds were further evaluated for antimicrobial activity on different gram-positive and gram-negative bacteria’s.

Keywords: Synthesis, phenoxazine derivatives, antimicrobial activity, nickel catalyst.