



Synthesis and Antimicrobial Activities of Schiff Base from Nitrogen Containing Heterocycles

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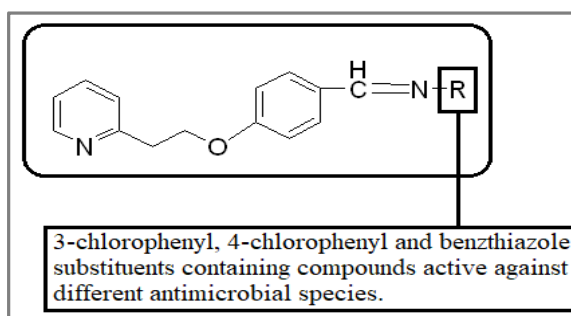
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ABSTRACT

This article dealing with microwave assisted synthesis of Schiff base from pyridine clubbed heterocycles with their micro molar potency. MW stimulated synthetic route provides diverse advantages such as reaction rate acceleration, less by-product, higher yield and reproducibility of final product. Schiff base containing compounds have been an interesting field of study since long task, it constitutes a significant class of components for new drug development. Recently various Schiff base derivatives have been synthesized *N*-(4-substitutedphenyl)-1-(4-(2-(pyridin-2-yl)ethoxy)phenyl)methanimine(5a-j) from 4-(2-(pyridin-2-yl)ethoxy)benzaldehyde using catalytically amount of conc. H₂SO₄ at room temperature. The structure of final compounds has been established by elemental analysis such as IR, ¹H NMR, ¹³C NMR & Mass spectroscopy and also evaluated for their antibacterial, antifungal potency. The result revealed that pyridine clubbed Schiff base shows promising antifungal activity against *C. albicans*. The biologically potent Schiff base 5i was found most active against *S. aureus* (MIC=25 μg mL⁻¹) with subjected to reference drug chloramphenicol and ciprofloxacin. The final compounds 5b, 5d, 5i displayed good antibacterial activity (MIC=50 μg mL⁻¹) with reference drug.

Graphical Abstract



Keywords: Microwave irradiation, Schiff base, Antibacterial, Antifungal activity.