



Synthesis, Characterization and Antimicrobial Activity of Novel Coumarin-fused Tetracycline Pyrazolo[3,4-b]pyridines

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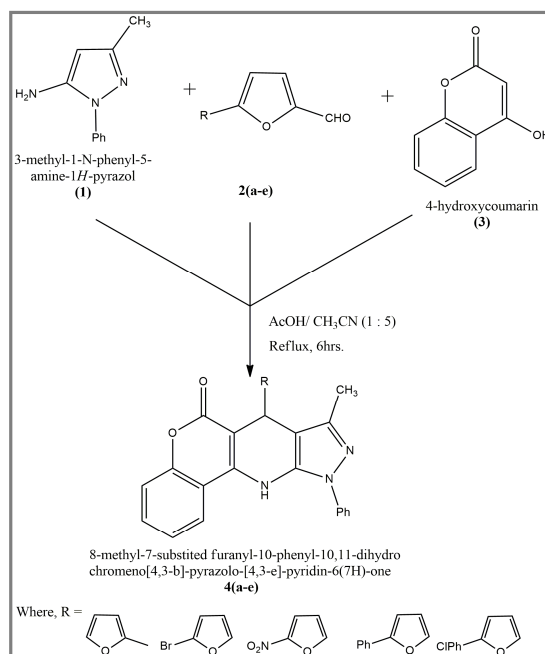
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ABSTRACT

The three component reaction for the synthesis of coumarin-fused tetracycline system from 3-methyl-1-N-phenyl-5-amine pyrazole (1), 2-furaldehyde derivatives (2a-e) and 4-hydroxy coumarin (3) is presented. In acetonitrile /acetic acid solvent system yield 8-methyl-7-substituted furanyl-10-phenyl-10,11-dihydrochromeno[4,3-b]-pyrazolo-[4,3-e]-pyridin-6(7H)-one 4(a-e) derivatives. All the 4a-e derivatives were characterized duly. The antifungal activities of all the derivatives were also monitored against plant pathogens.

Graphical Abstract



Tetracyclo coumarino pyrazolo-pyridine derivatives

Keywords: Coumarin-fused tetracycline system, 3-Methyl-1-phenyl-1H-pyrazol-5-amine, 4-hydroxy coumarin, Characterization, Antifungal activities.