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Synthesis And Antimicrobial Evaluation Of Some Triazole Incorporated Pyrimidine Derivatives

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ABSTRACT

A new series of triazole incorporated pyrimidine derivatives were synthesized by treating Substituted aldehyde with ethylacetoacetate and urea / thiourea to yield pyrimidine derivatives which on reaction with thiosemicarbazide followed by cyclization to give title compound that is triazole incorporated pyrimidine derivatives. Synthesis was carried out by convectional as well as microwave method. All the intermediates and synthesized compounds were characterized by running TLC, determining M.P. and IR, ¹H NMR spectral analysis. All the synthesized compounds were subjected to preliminary in-vitro evaluation for antibacterial activity against various Gram-positive bacterial strains Bacillus Subtillis, Klebsiella Pneumoniae and Gram-nagative bacterial strains E.coli, Pseudomonas aeruginasa and moreover the compounds were also evaluated for their antifungal activity in fungal strains like Candida albicans, Aspergillus fumigates.

Keywords: Synthesis, Antibacterial, Antifungal, Microwave, Triazole, Pyrimidine.