



Synthesis, Characterization and Antimicrobial Evaluation of Some Pyrimidine Containing Mannich and Schiff bases

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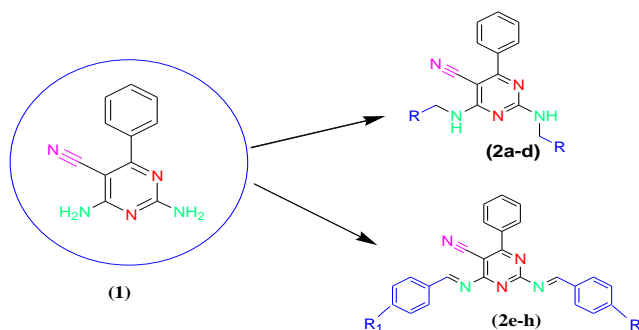
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ABSTRACT

The objective of this work is directed to synthesis of novel Mannich base and Schiff base compounds containing a pyrimidine unit. Compound **1** was prepared by one pot method using aromatic aldehyde, malanonitrile and guanidine nitrate in presence of piperidine to give 2,4-diamino-6-phenylpyrimidine-5-carbonitrile **1**. Compound **1** on reaction with secondary amines (Piperidine, morpholine, piperazine, diphenyl amine) and formaldehyde produced Mannich base **2a-d** and with different benzaldehyde using drops of glacial acetic acid as a catalyst gave Schiff bases **2e-h**. All the synthesized compounds were screened for antimicrobial activity. The structures of newly synthesized compounds were characterized by spectral and elemental analysis.

Graphical abstract



Keywords: Pyrimidine, Schiff base, Mannich base, Antimicrobial activity.