



A high-atom economic and one-pot facile synthesis of active antimicrobial 2,4-disubstituted aryl-2H-pyrido / pyrimido[1,2-a]pyrimidines scaffold: a Michael addition approach

Akeel Ahamd, O.P. Pandey, Sarvesh K. Pandey and Nizamuddin*

*Department of Chemistry, D. D. U. Gorakhpur University, Gorakhpur-273009, **INDIA**

Email: prnukhan@yahoo.co.in

Received on 22nd June and finalized on 3rd July 2013.

ABSTRACT

An one-pot, efficient and high-atom economic protocol involving Michael addition between chalcone(1a-g) and 2-aminopyridine/2-aminopyrimidine in presence of sodium acetate and DMF for the synthesis of 2,4-disubstituted aryl-2H- pyrido/pyrimido [1,2-a] pyrimidines (2) and (3) was developed. The structures of the newly synthesized compounds were confirmed by IR, ¹H NMR, ¹³ C NMR spectral data and elemental analysis. All these compounds were screened for their antibacterial and antifungal activities. The results were compared with standard drugs tested under similar conditions. Some of these compounds showed promising antimicrobial activities

Keywords: Michael addition, Antibacterial activity, antifungal activity, Pyrido-/pyrimido-pyrimidines.
