



Green synthesis and Biological Evaluation of Pyrimidine Derivatives

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Accepted on 15th September 2015

ABSTRACT

*A study was carried out on the amination of substituted-4-chloro-pyrimidine under conventional and microwave conditions in presence of bis (dibenzylideneacetone) palladium (0) (Pd(dba)₂) as a metal ligand catalyst and xantphos which acts as a bidentate ligand. The reaction of 2-amino-4-chloro-6-methylpyrimidine with aromatic and aliphatic amines in presence of a catalyst gives 2-Amino-6-substituted-pyrimidine derivatives. The reactions were studied under microwave irradiation showed moderately better results when compared to conventional method. The compounds were screened for their antimicrobial activity against pathogenic strains such as S.aureus, E.coli, K. aerogenes, A. flavus and C. albicans and anthelmintic activity conducted using P. posthuma (Indian Earthworm). Among the synthesized compounds **6a**, **6c** & **6f** have shown significant antibacterial activity.*

Keywords: Aminopyrimidine, bis (dibenzylideneacetone) palladium (0), xantphos, antimicrobial activity, microwave irradiation
