ABSTRACT

Various heterocyclic compounds possess wide range of biological and pharmacological activities. Among a wide variety of heterocycles that have been explored for developing pharmaceutically important molecules such as Chalcones and Pyrimidines have played an important role in the area of medicinal chemistry.

A new series of chalcones were prepared by reacting acetylated 4-amino 1, 2, 4-triazoles and 2-amino 1, 3-thiazole by condensing with various substituted aromatic aldehydes in presence of 70% NaOH as a base.

The resultant chalcones undergo cyclization with thiourea in presence of alcoholic KOH to yield pyrimidine derivatives.

The structures of the final synthesized compounds were confirmed by IR, MASS & ^{1}H NMR spectra. The newly synthesized compounds were screened for their antimicrobial and antifungal activities. Some of the synthesized compounds showed very good antimicrobial and moderate antifungal activities.

Keywords: Substituted chalcones, Pyrimidine derivatives, Antibacterial activity, Antifungal activity.