ABSTRACT

In our research we selected the topic of heterocyclic chemistry because more than 80% medicine and life protective substance made up from this part. In heterocyclic chemistry we selected only Pyrazole, Thiazole and Pyridine nucleus for synthesis of novel derivatives by conventional method because Pyrazole, Thiazole and Pyridine molecules have a broad spectrum of pharmacological evaluation such as antimicrobial activity, anti-inflammatory, herbicides, fungicides, analgesics, antiviral, antihypertensive, anticancer, osteogenic activities and treatment of CNS disorders. Conventional method widely used and applicable for production level at plant so our work carried out by only this process.

Present research work carried out by well known named reaction like Vilsmeier Haack reaction, Hantzsch thiazole synthesis, multi component reaction etc. Total 38 novel compounds achived in good yield. The selected nucleuses were screened for their biological evaluation named antibacterial and antifungal activity via cup and well method. Some of the compounds exhibit moderate and good to strong activity against both microbial strains compared with standard drugs Ciprofloxacine and Flucanazole. The overall result is that synthesized compounds have great industrial importance and will become good antibacterial and antifungal agents in future.