

# Reviews of Synthesis and Characterization of Some Pyrazine Ring Containing Heterocycle's

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**Abstract:** *Heterocyclic chemistry has numbers of applications in the field of pharmaceutical chemistry. These compounds are synthesized worldwide by different synthetic methods. Two or more hetero elements containing heterocycles are synthesized and all these compounds were found stable. Chalcones a precursor has great importance in natural as well as synthetic heterocyclic compounds. Nitrogen atom containing heterocycles has very important role in medicinal field due to their biological activities. After reviewing literature, it was found that, nitrogen containing five membered heterocycle like pyrazoles, six membered Pyrimidines, seven membered benzodiazepines were synthesized by different synthetic methods. This literature survey promoted us to prepare highly stable five, six and seven membered ring structure using pyrazine ring containing derivatives and check their pharmacological activities. These compounds were characterized using IR, <sup>1</sup>H-NMR and Mass spectra and Elemental analysis. The compounds were found to be the most active against bacterial & fungal human pathogens.*

**Keywords:** Benzodiazepines, Chemistry, Heterocycles, Pyrazole, Pyrimidine, etc.

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