ABSTRACT

The thesis entitled “Stereo selective synthesis of (+) – Goniothalesdiol from D-Glucose and synthesis of novel potential and bio active hetero cycles and their characterization” has been divided in to five chapters.

Chapter-I: This chapter describes the introduction to the Stereo selective synthesis of (+) – Goniothalesdiol from D-Glucose and synthesis of novel potential and bio active hetero cycles (1,2,4-Triazoles, substituted thioxopyrimidines, pyrazolidines & isoxozolidines, 1,2,3-Triazoles, 1,3-Benzoxazines and Spiro 1,2,4- oxadiazoles the 1,2,4-oxathiazoles) and their characterization.

Chapter-II: This chapter describes the stereo selective synthesis of (+) – Goniothalesdiol from commercially available D-Glucose.

Chapter-III: This chapter describes a general and new route synthesis of pyridine & pyrimidine based 1,2,4 – triazoles and substituted thioxopyrimidines, pyrazolidines and isoxozolidines in good yields.

Chapter-IV: This chapter discussed the synthesis of 1,2,3-Triazoles & 1,3-benzoxazines and it’s derivatives in good yields.

Chapter-V: This chapter describes the synthesis of novel Spiro 1,2,4- oxadiazoles the 1,2,4-oxathiazoles, it’s derivatives and their characterization.