Subject: Medicinal Chemistry

Subject Code: BP402TP

Name of Chapter: Antipsychotics

Name of Topic: Chlorpromazine: Synthesis and Mechanism of Action

Prepared By:

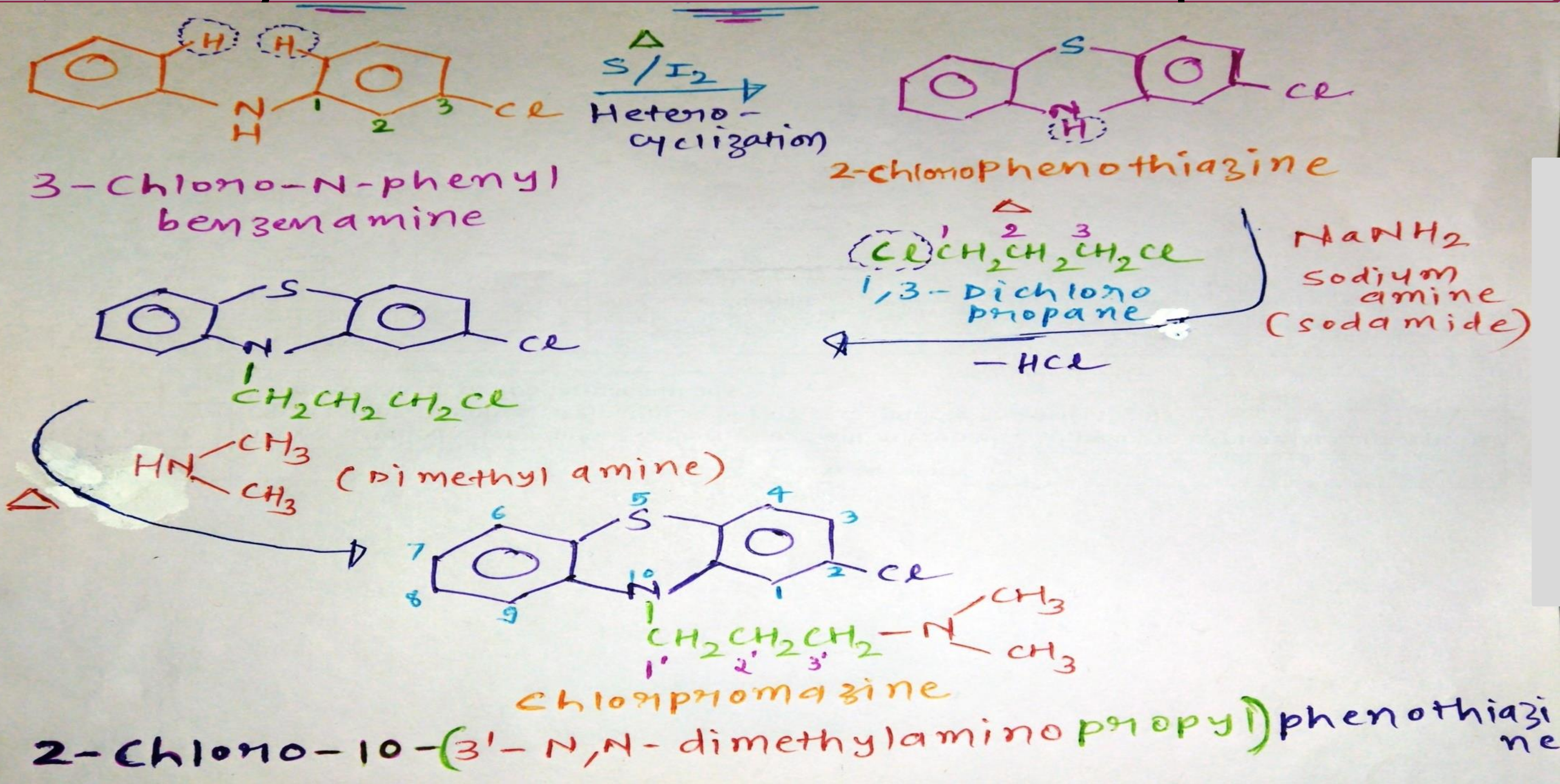
Dr. Sandip N. Badeliya

Associate Professor

M.Pharm, Ph.D

Chlorpromazine: Synthesis and Mechanism of action

Que: Give synthesis and mechanism of action of Chlorpromazine



Mechanism of Action:

- Psychosis occurs due to increase in concentration of Dopamine.
- Chlorpromazine is Typical antipsychotic drug. Chlorpromazine as well as all typical antipsychotic drugs bind to D2 receptor of Dopamine and block that receptor. So further Dopamine will not be released and Dopamine level will be maintained.
- Phenothiazines and Thioxanthenes also block D1, D3, and D4 receptor and maintain Dopamine level.
- Atypical antipsychotics have 5-HT_2 and α_1 receptor blocking action and some Atypical antipsychotics block D4 receptor and maintain Dopamine level and work as antipsychotic drug.

THANK YOU……….