

Psychoactive Drugs (Agent which affecting the mind and behavior)

Or

Antipsychotic agents

Or

Tranquilizers

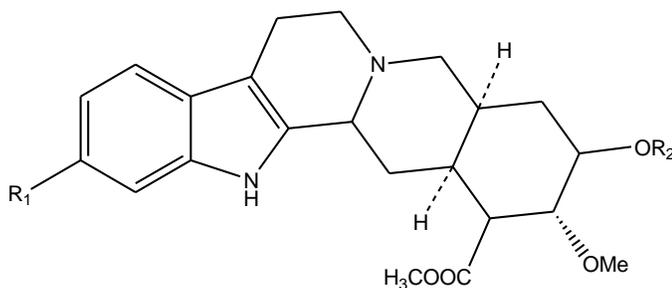
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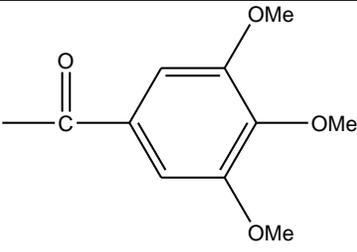
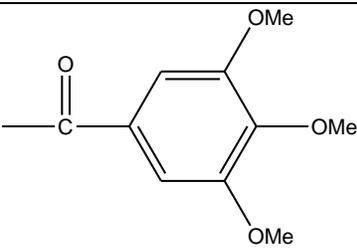
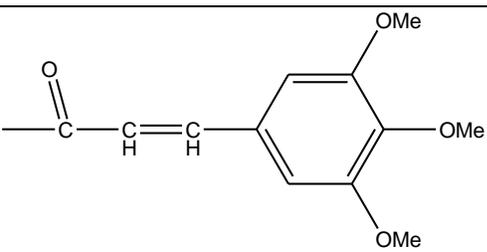
Neuroleptic drugs (Drugs acting on nervous system particularly antipsychotic drugs)

- Antipsychotic or neuroleptic drugs are used to treat psychoses (**Emotional mental disorder**).
- Psychoses can be organic and related to a specific toxic chemical (ex.- Delirium produced by central anticholinergic agents) and NMDA (**N-Methyl –D-Aspartate**) antagonists or they can be Idiopathic (**Self originated or occurring without known cause**) .
- It is a CNS depressant agent.
- Schizophrenia (**A mental disorder or group of disorders characterized by disturbances in form and content of thought in mood**) is a group of chronic idiopathic Psychotic disorders.
- Most important types of Psychosis are:-
 - 1- Schizophrenic
 - 2- Affective disorders- Mental state (depression, mania)
 - 3- Organic Psychosis (Mental disturbances caused by head injury, alcoholism).
- Neuroleptic drugs are effective in the treatment of schizophrenia.

Classification

- Neuroleptic drugs can be derived into the following classes:-
 - A. **Rauwolfia alkaloids:-**

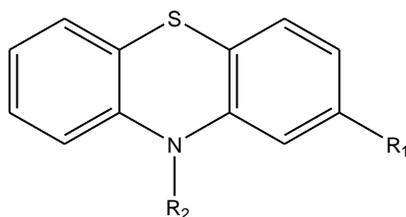


Alkaloid	R ₁	R ₂
Reserpine	-OMe	
Deserpidine	-H	
Rescinnamine	-OCH ₃	

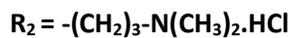
B. Typical neuroleptics:-

Ex.-

1- Phenothiazine-

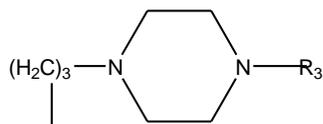


- For Propyl dialkylamino sidechain



Generic name	R₁
Chlorpromazine	-Cl
Promazine	H
Triflupromazine	CF ₃

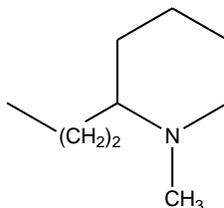
- **For propyl piperazine side chain**



Generic name	R ₁	R ₃
Prochlorperazine	-Cl	-CH ₃
Perphenazine	-Cl	-CH ₂ CH ₂ OH
Trifluoperazine	-CF ₃	-CH ₃

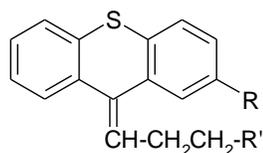
- **For alkyl piperidyl side chain**

R₂=



Generic name	R₁
Thioridazine	-SCH ₃

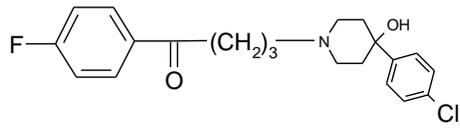
2)- Thioxanthene derivatives:-



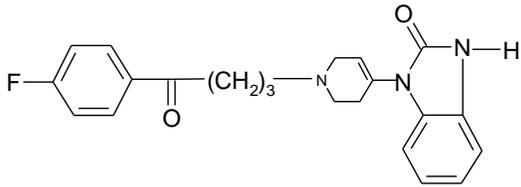
Generic name	R	R'
Chlorprothixene	-Cl	-N(CH ₃) ₂

3)- Fluorobutyrophenones derivatives:-

Ex.-



Haloperidol

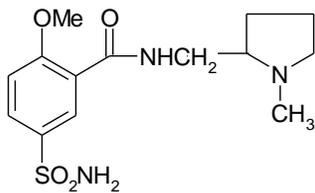


Droperidol

C)- Atypical neuroleptics:-

1)-Benzamides

Ex.=



Sulpiride

2)- Diphenyl butylpiperazines

Ex- pimozide

3)- Dibenzyl diazepines

Ex- Clozapine

