

Goel
Institute Of
Pharmacy & Sciences

10/5/5

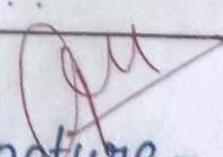
☆ Submitted To - Mr. O.P. Verma

☆ Submitted By - Pushpa Gupta

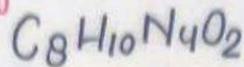
☆ Subject - Pharmacognosy

☆ Roll no. - 2003990500079

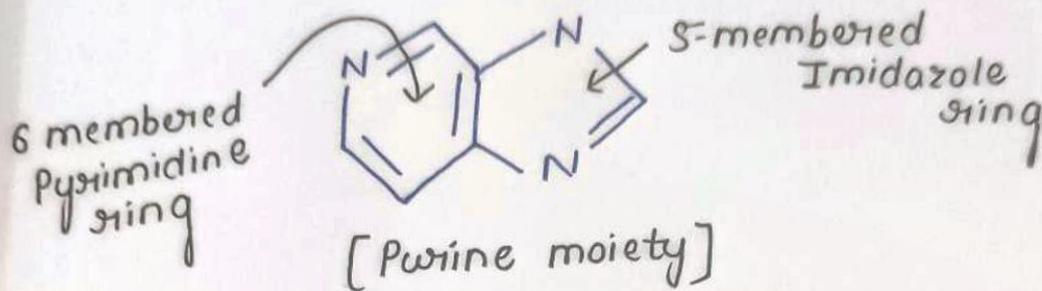
☆ Year - B-pharm - 3rd year.


Signature -

Caffeine



[Purine alkaloid]



Source →

Tea → *Thea sinensis* family → Theaceae

Coffee → *Coffea arabica* " → Rubiaceae

Properties—

• Caffeine are class of purine alkaloid.

Caffeine—

1,3,7 trimethyl Xanthine ⇒ CNS stimulant

Theophylline—

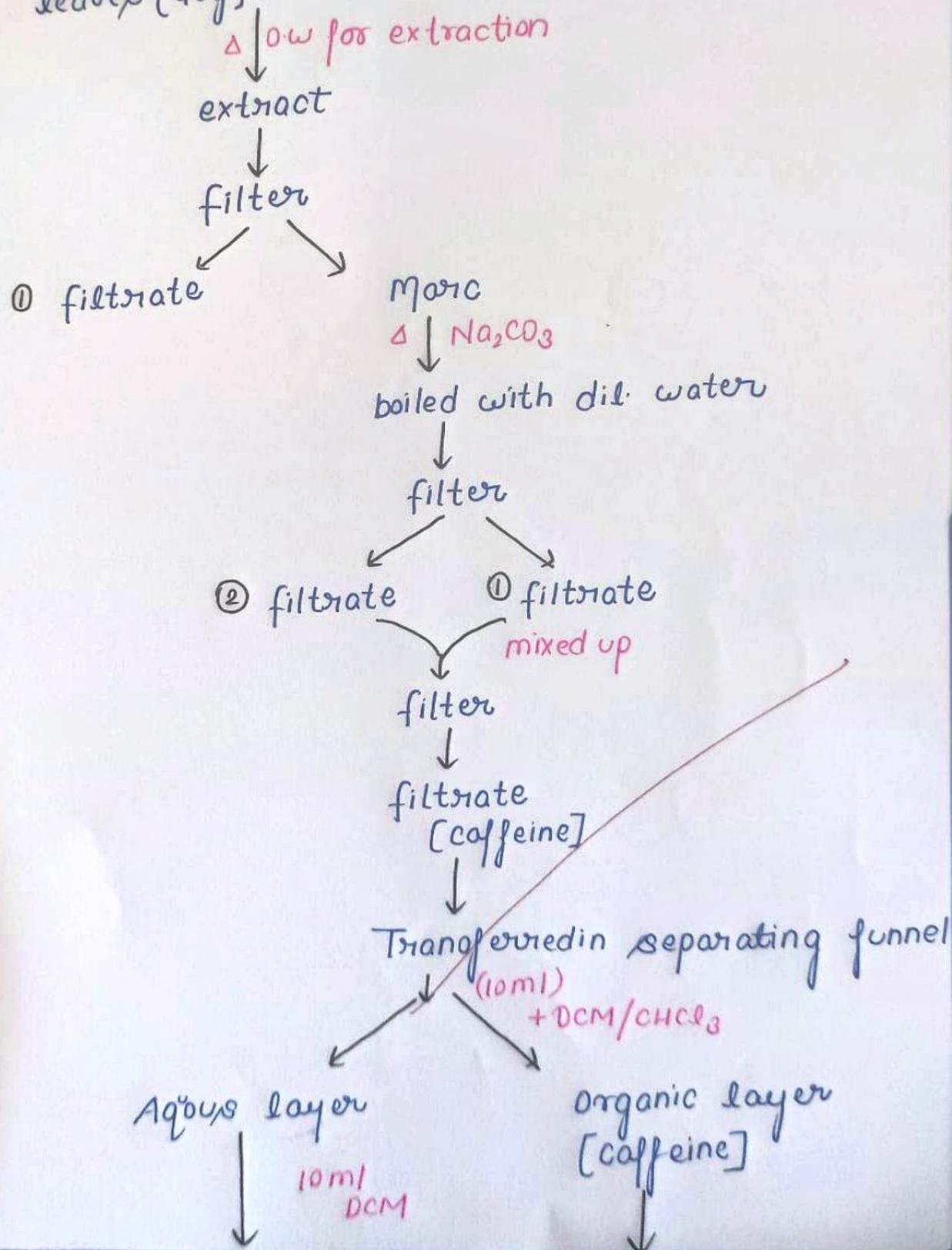
1,3 dimethyl Xanthine ⇒ CNS stimulant, diuretic action & smooth muscle relaxant.

• Purine alkaloid are not derived from any a.a but having N_2 atom in heterocyclic ring.

- Purine alkaloid are placed under pseudo alkaloid.

Extraction & Isolation of Caffeine —

Powdered tea + Na_2CO_3 (6gm)
leaves (40g)



Transferred in petridish
& covered with
perforated aluminium
file kept overnight at
room tempⁿ.

↓
Solvent evaporated
pure needle shaped
crystal observed
caffeine

Transferred in petridish
& covered with perfor-
-ated aluminium file.

↓
Kept overnight at
room temperature.

↓
Solvent evaporated
pure needle shaped
crystal observed caffeine

* Chemical test →

• Murexide test

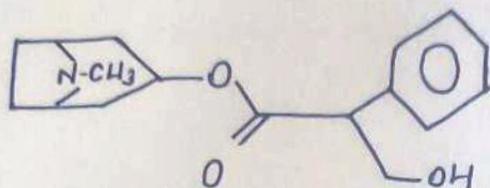
* Uses →

CNS stimulant

Alkaloids

* Atropine →

- Tropane alkaloid



* Properties →

- It is orthorhombic.

* Source →

- Belladone
 - ↳ Indian belladone
 - ↳ European belladone
- *Datura hyoscyamus*

* Extraction & Isolation of Atropine →

Belladone leaves
[Powdered]

↓ extracted with 95% ethanol

ethanolic extract

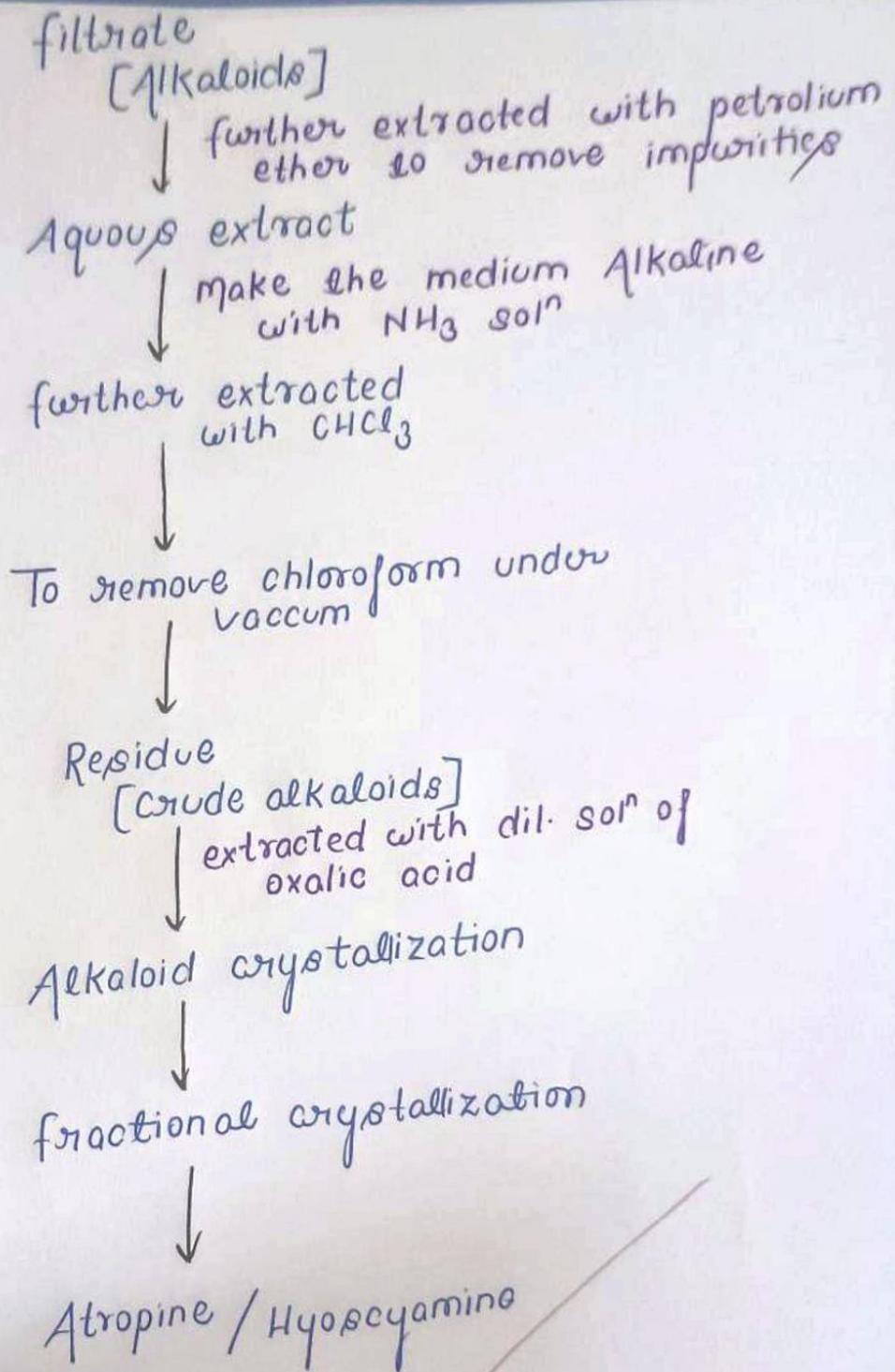
↓ conc. under vacuum

syrupey mass

↓ dil. with HCl

filter

↓



Identification test →

- ① Vitali Morin test
- ② p-dimethylbenzaldehyde
- ③ Gerrod test

① Vilali Morin test →

1Mg solid + fuming HNO_3
Alkaloid

↓ evaporated to
dry on a water
bath

Residue

↓ + Acetone

Dissolved residue

↓ Alc. KOH

Violet / bright
purple colour

* Uses →

- It is the parasympatholytic drug with anticholinergic properties.