





ALKALOIDS



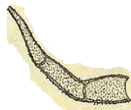

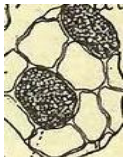



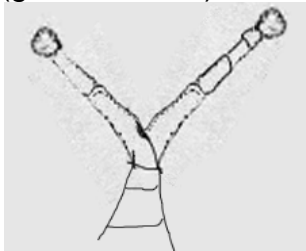
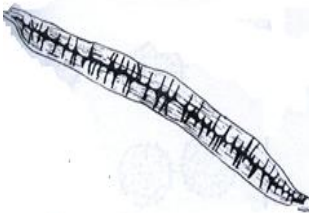
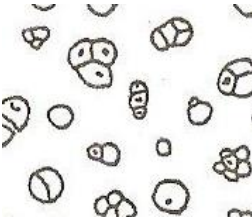
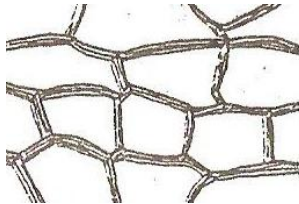
Lab No.7

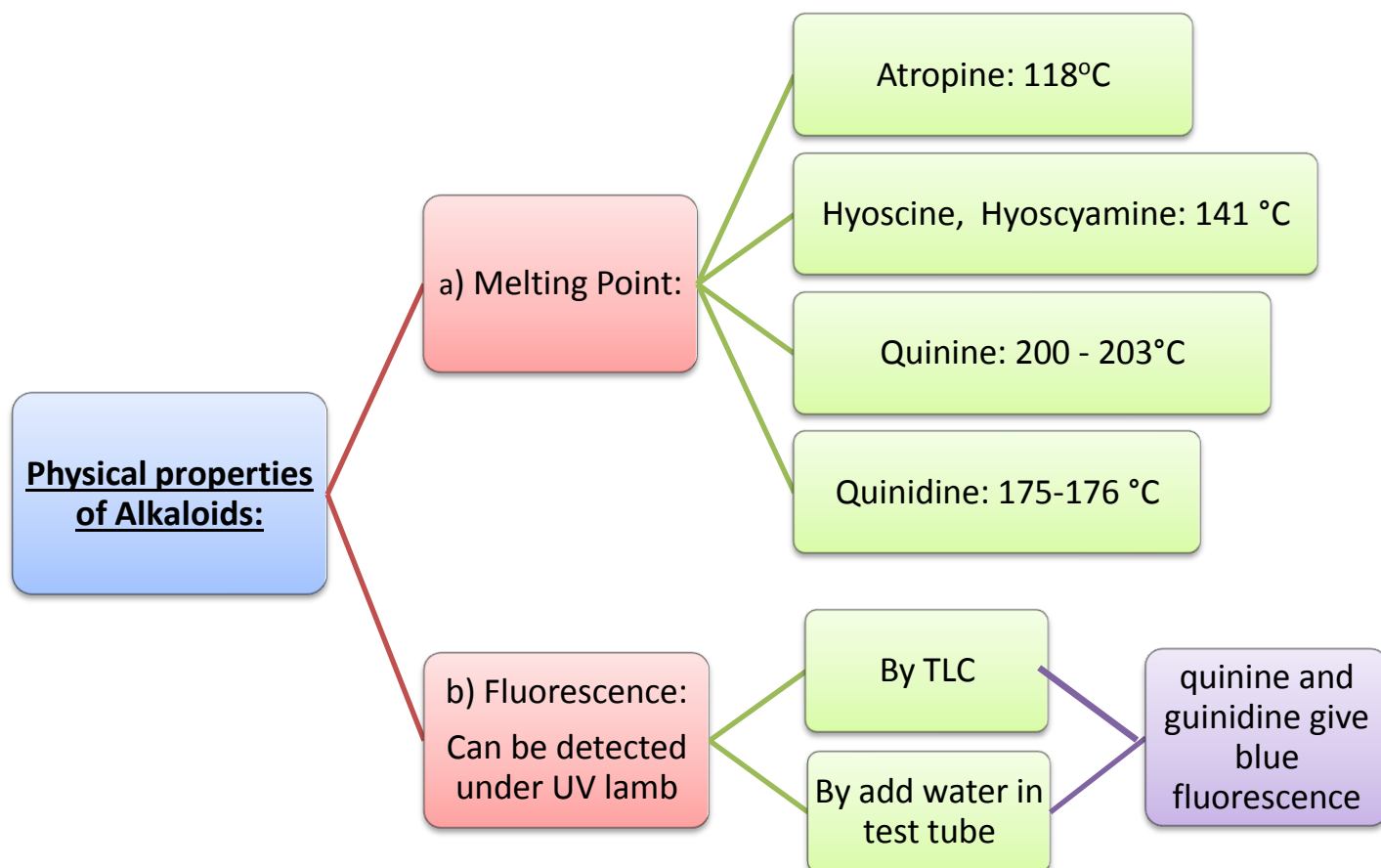
Evaluation methods of market samples containing (alkaloids):

Examples:

	Datura	Belladonna	Hyoscyamus	Cinchona
figure				
Origin	Dried leaves of Datura stramonium	Dried leaves of Atropa belladonna	Dried leaves of Hyoscymus niger	Dried bark of Cinchona Succirbura
Family	Solanaceae	Solanaceae	Solanaceae	Rubiaceae
Color	green	Green	Grayish yellow	Reddish brown
Odor	Slight	Slight	Slight	Slight
Taste	bitter	Bitter	Bitter	Astringent
Alkaloids	Atropine, Hyoscine, Hyoscyamine	Atropine, Hyoscine, Hyoscyamin	Atropine, Hyoscine, Hyoscyamine	Quinine, Quinidine

Microscopical examination:

Datura stramonium	1-Anisocytic stomata. 	2-Cluster layer of Ca.ox in cell. 	3-Non-glandular hair (conical shaped, multicellular, uniceriate). 
Atropa belladonna	1-Anisocytic stomata. 	2-Sandy crystals of Ca.ox 	3-Glandular hair (multicellular stalk, unicellular head). 
Hyoscyamus	1-Anisocytic stomata. 	2-Ca.ox (Twin prism). 	3-Branched hair (glandular hair). 
Cinchona	a- Phloem fibers e`funnel shaped lumen. 	b- Starch granules. 	c- Cork cell. 



Chemical tests of Alkaloids:



- a. Mayer's reagent → Cream coloured precipitate.
- b. Dragendorff's reagent → orange coloured precipitate.
- c. Wagner's reagent → red-brown precipitate.