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A P P E N D I X

Reagents :1. Dragendorff's spray reagent :-

Solution A: Bismuth subnitrate (850 mg), water (40 ml),
acetic acid (10 ml).

Solution B: Potassium iodide (8 g), water (20 ml).

Solution A and Solution B, each of 5 ml are mixed,
add 20 ml glacial acetic acid, and dilute to 100 ml with distilled
water.

2. Mayer's reagent :-

Dissolve 1.358 g of mercuric chloride in 60 ml of water. Dissolve
5 g of potassium iodide in 10 ml of water. Mix the two solutions,
and dilute to 100 ml.

Code number of materials used

- L = The ethanolic extract from the leaves of Cassia siamea Lamk.
- S.I = Isolated substance from the young leaves of C. siamea Lamk. and identified as barakol.
- T = Crude extract from the leaves of C. spectabilis DC.
- 1 = Isolated alkaloid from ~~the leaves~~ of C. spectabilis DC. designated as Sp I and identified as cassine.
- 2 = Isolated alkaloid from the leaves of C. spectabilis DC. designated as Sp II and identified as, probably iso-6-cassine.
- 3 = Dihydro derivative of Sp I.
- 4 = Dihydro derivative of Sp II.
- 5 = Cassine from C. excelsa Shrad.

TLC Adsorbents and Solvent Systems

- a = Silica gel G/Chloroform, methyl alcohol, 9+1.
- b = Silica gel G/Butyl alcohol, conc. hydrochloric acid, water, 4+1+5 (upper layer).
- c = Aluminium oxide G/Chloroform, ethyl alcohol, 95+5.
- d = Aluminium oxide G/Chloroform, acetone, 5+4.
- e = Silica gel G/Chloroform, ethyl alcohol, 25% ammonium hydroxide solution, 9+1+0.5 (lower layer).
- f = Silica gel G/Chloroform, ethyl alcohol, 25% ammonium hydroxide solution, 9+1+0.2.
- g = Aluminium oxide G/Acetone, chloroform, 8+2.

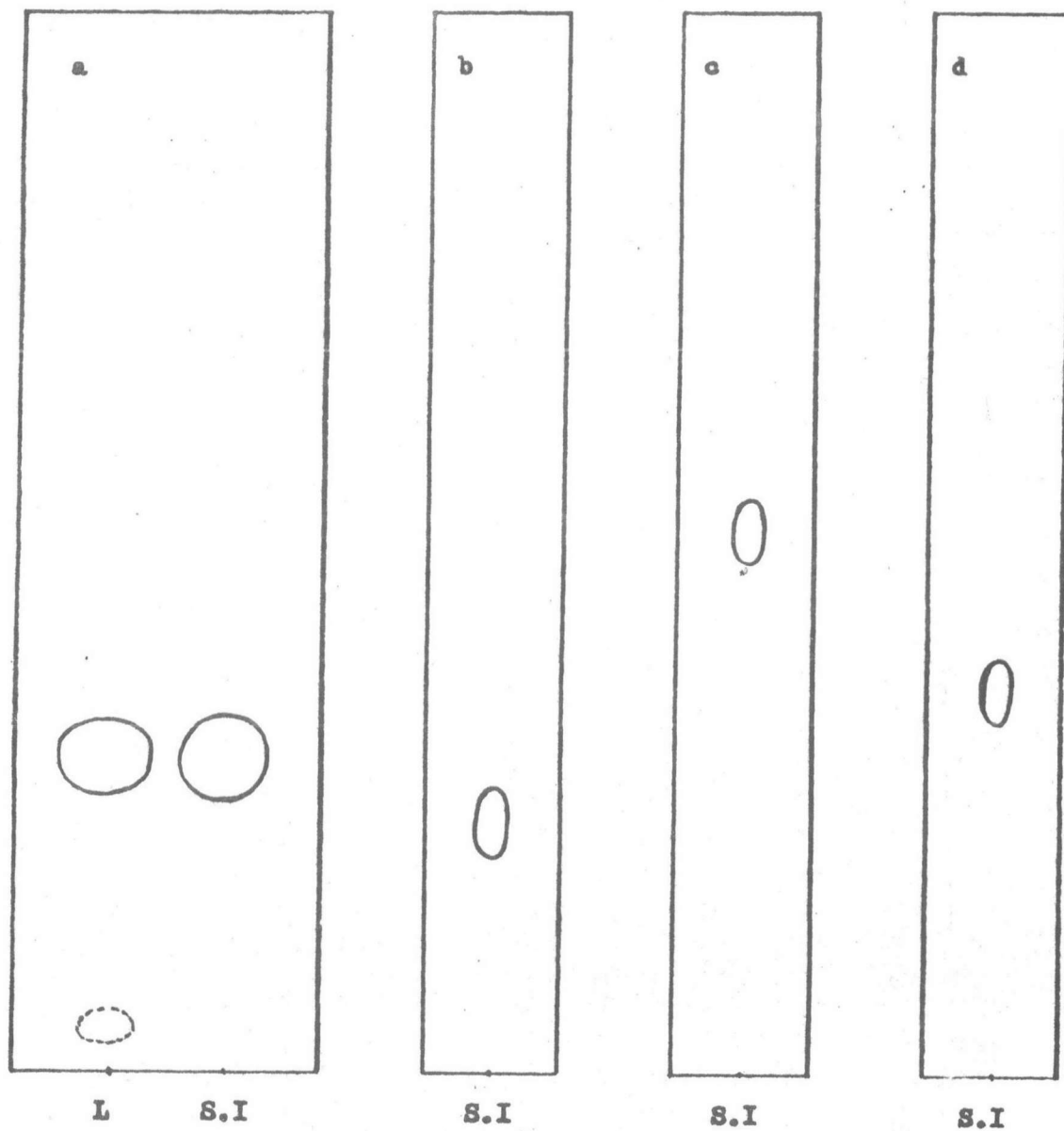


Figure V. T L C of the ethanolic extract (L) and isolated substance (S.I) from the fresh young leaves of Cassia siamea Lamk.

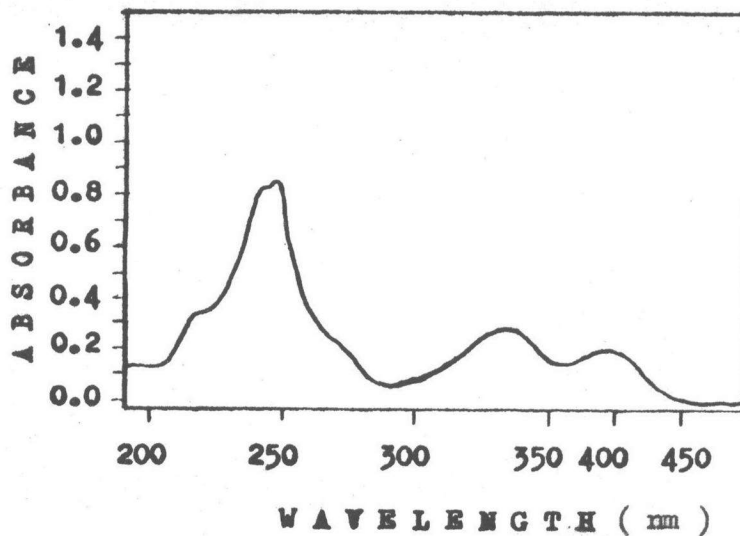


Figure VI. Ultraviolet absorption spectrum of S.I from the young leaves of Cassia siamea Lank. in methyl alcohol.

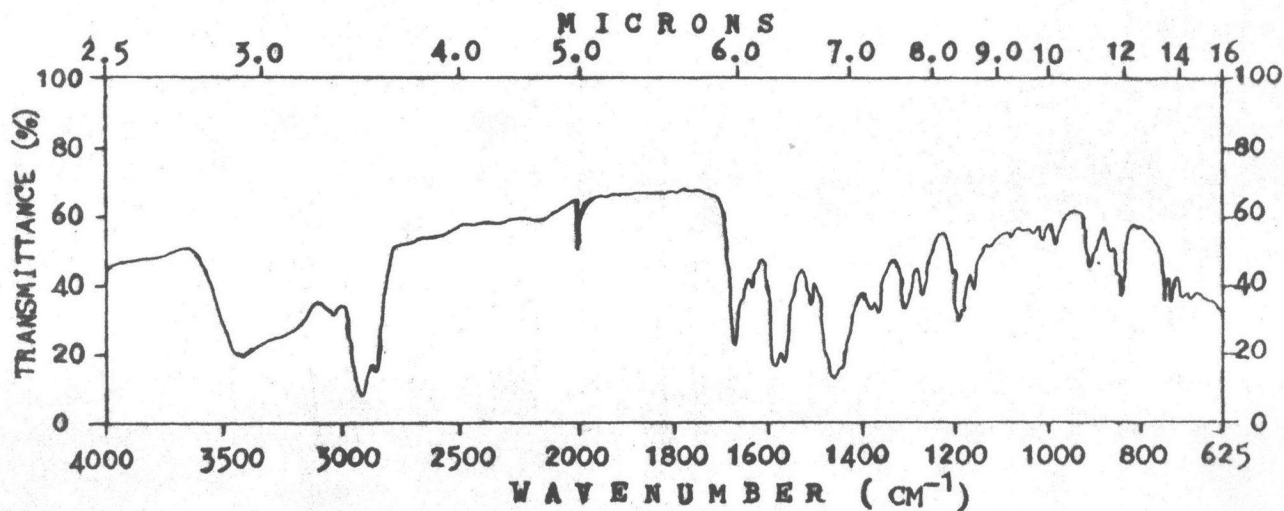


Figure VII. Infrared absorption spectrum of S.I from the young leaves of Cassia siamea Lank. in Nujol mull.

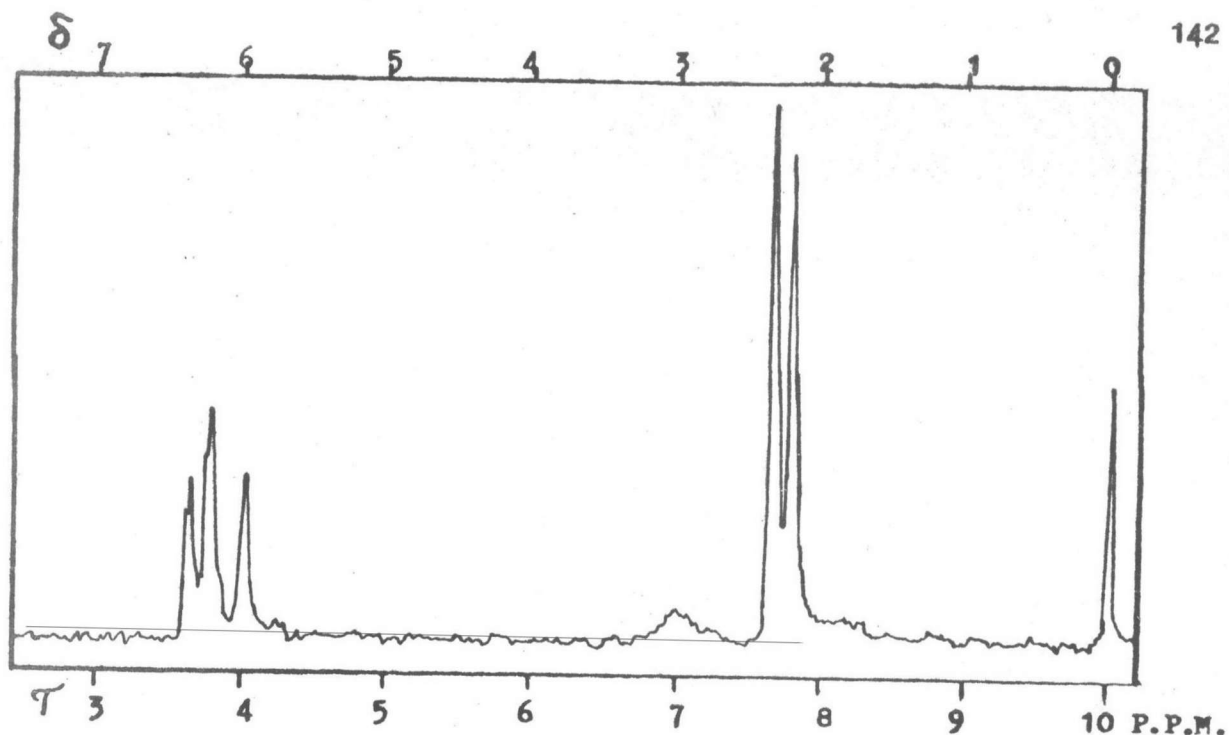


Figure VIII. NMR spectrum of S.I from the young leaves of
Cassia siamea Lank. in $CDCl_3$

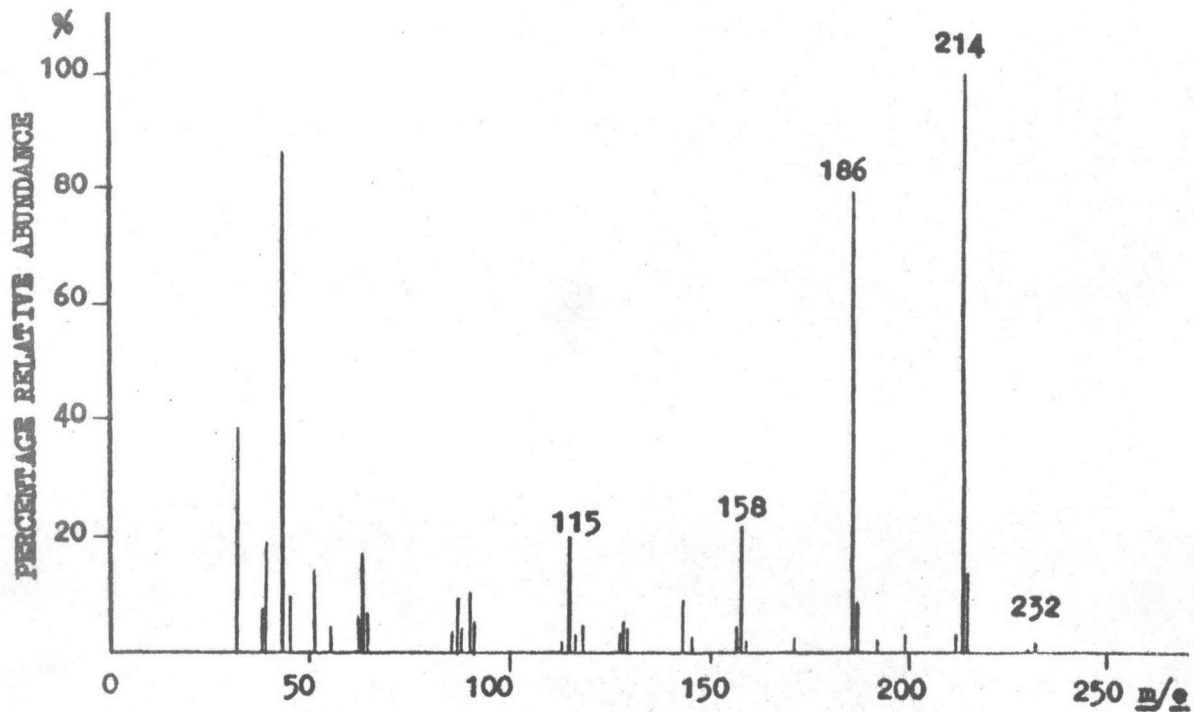


Figure IX. Mass spectrum of S.I from the young leaves of
Cassia siamea Lank.

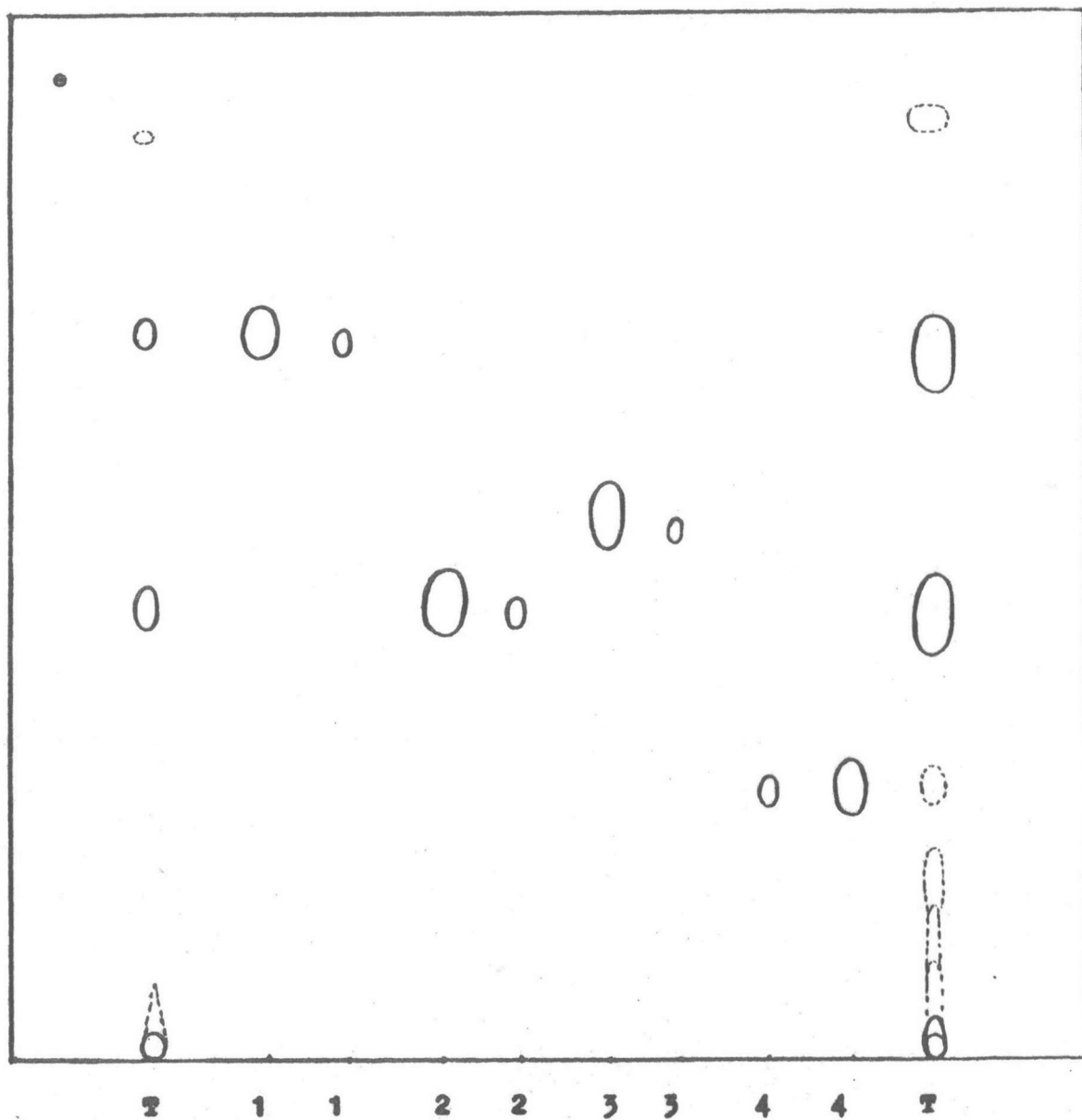


Figure XI. T L C of crude extract, Sp I, Sp II and its Dihydro derivatives from the leaves of Cassia spectabilis DC.

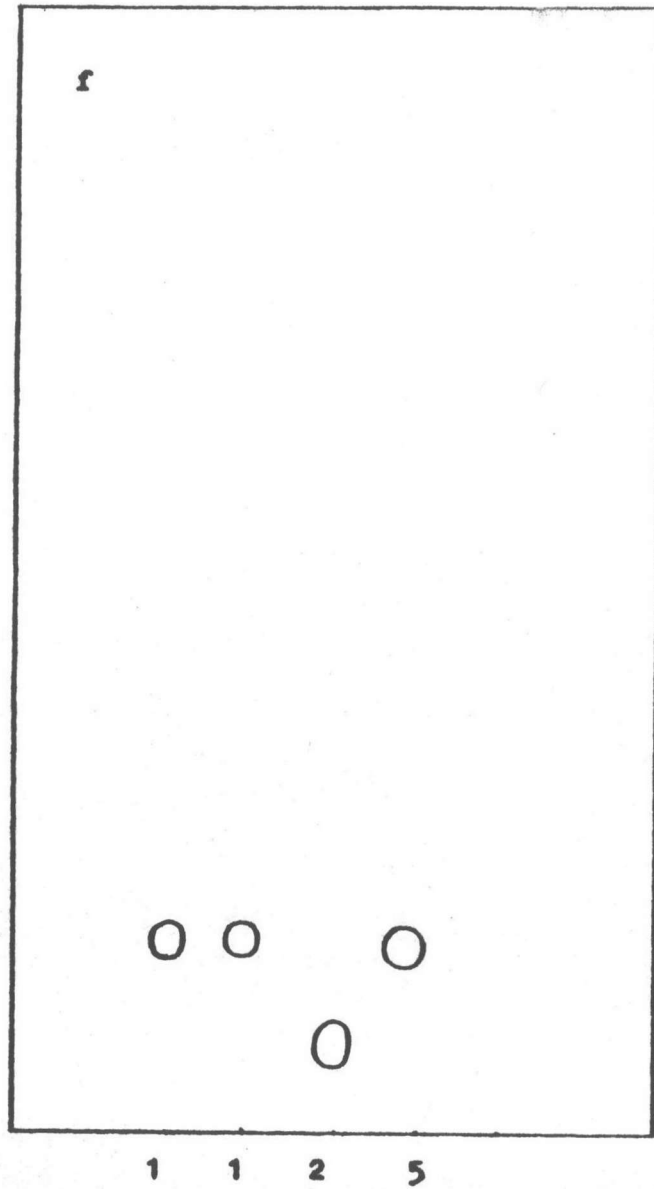


Figure XII. T L C of Sp I and Sp II from the leaves of Cassia spectabilis DC. and of Cassine.

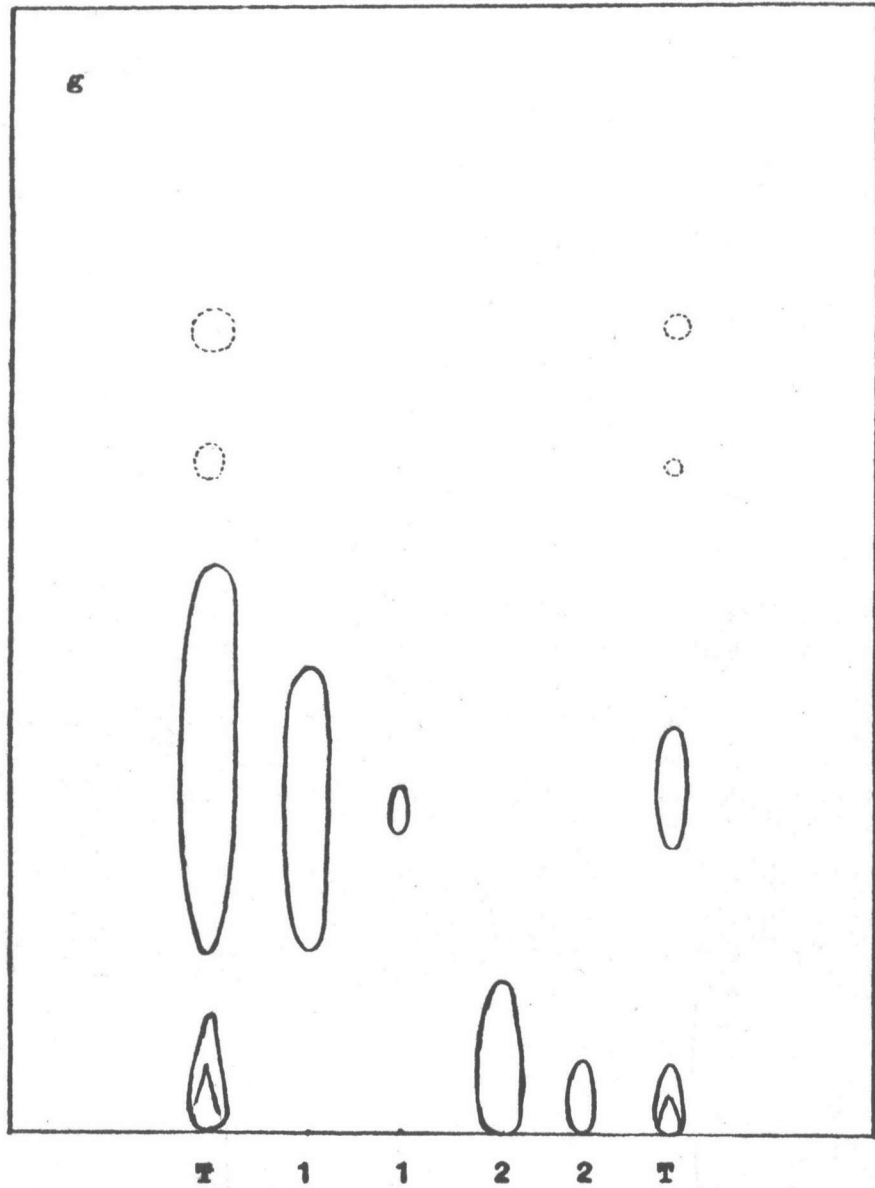


Figure XIII. T L C of crude extract, Sp I, and Sp II from the leaves
of Cassia spectabilis DC.

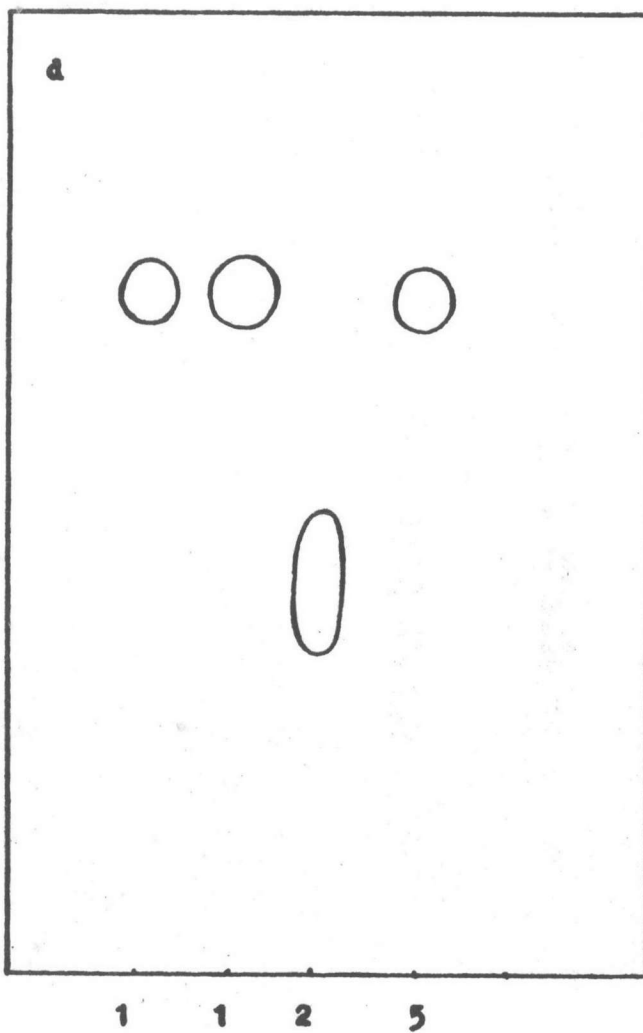


Figure XIV. T L C of Sp I, Sp II from the leaves of Cassia spectabilis DC. and of Cassine.

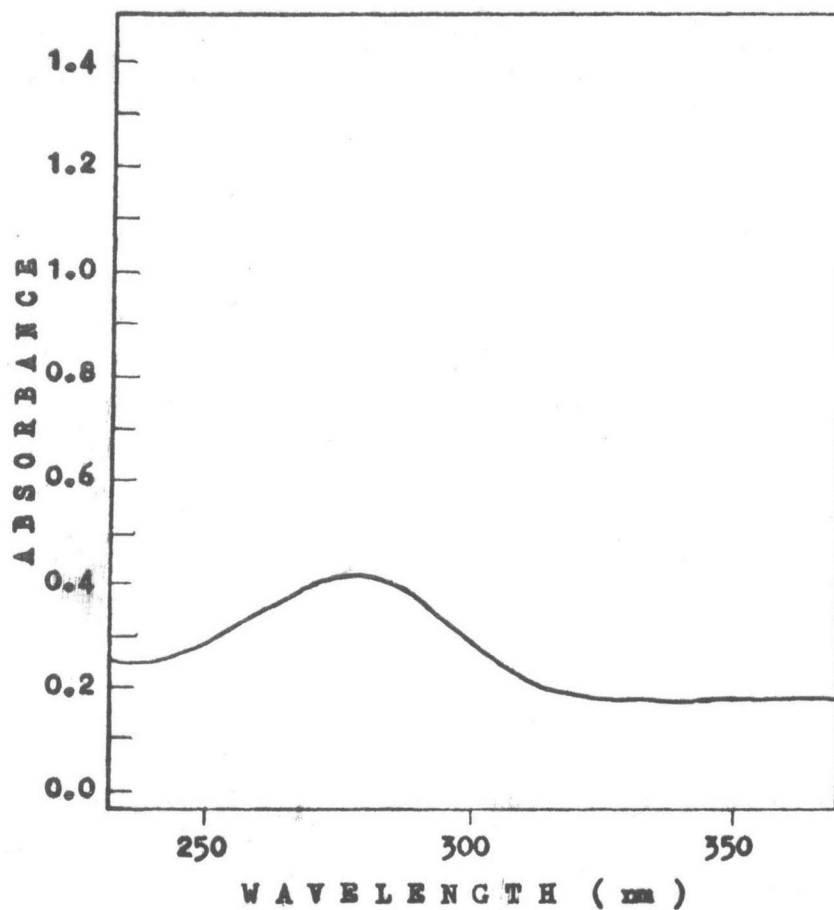


Figure XV. Ultraviolet absorption spectrum of Sp I HBr from the leaves of Cassia spectabilis DC. in methyl alcohol.

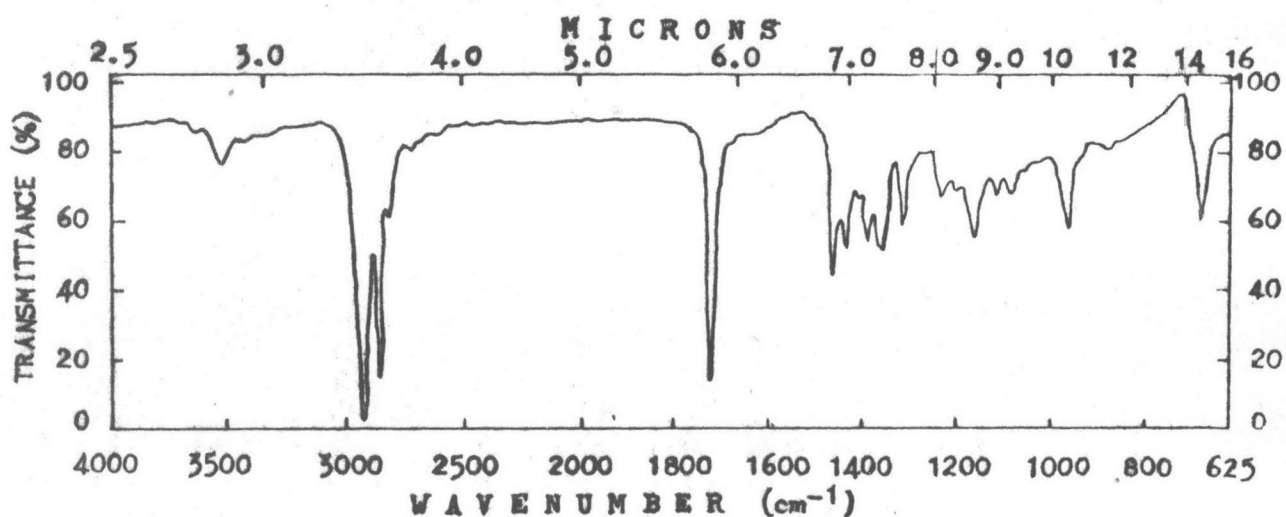


Figure XVI. Infrared absorption spectrum of Sp I from the leaves of Cassia spectabilis DC. in carbon tetrachloride.

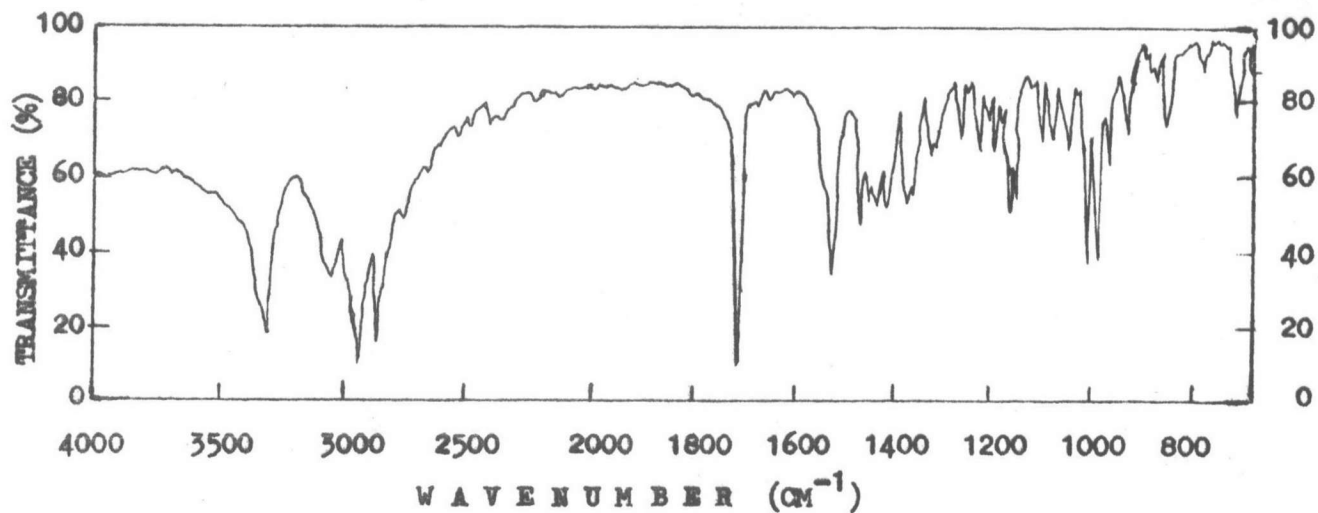


Figure XVII. Infrared absorption spectrum of Sp I HCl from the leaves of Cassia spectabilis DC. in KBr disc.

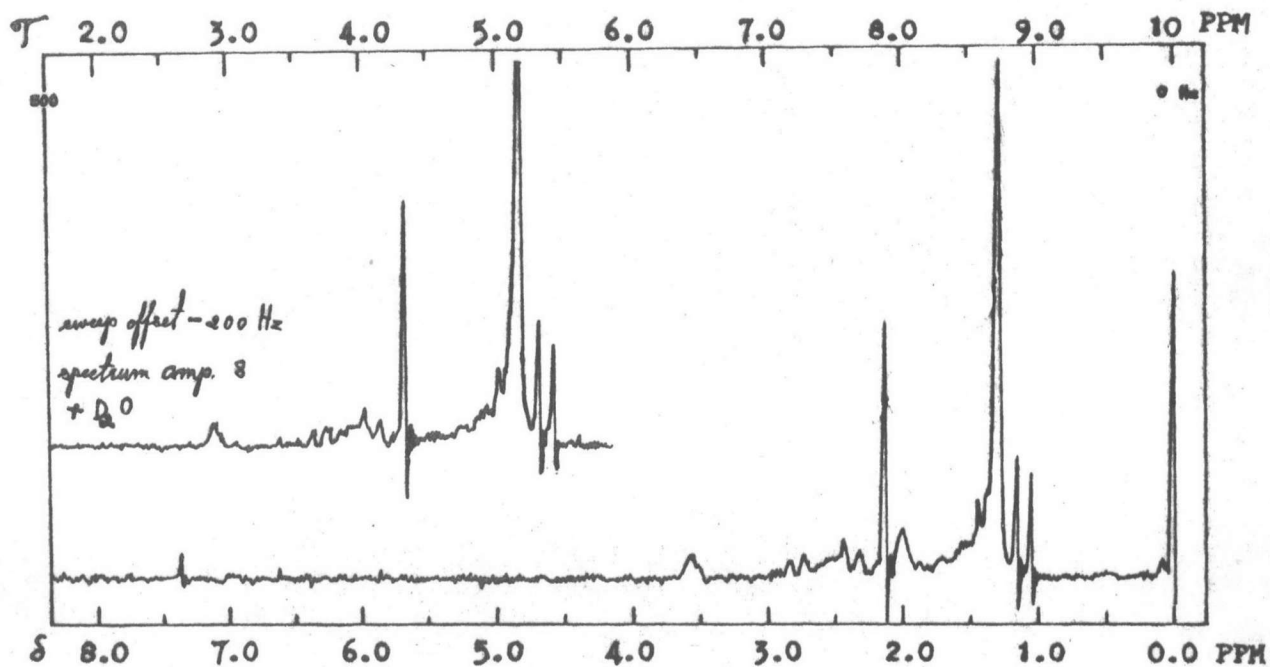


Figure XVIII. NMR spectrum of Sp I from the leaves of Cassia spectabilis DC. in CDCl_3 .

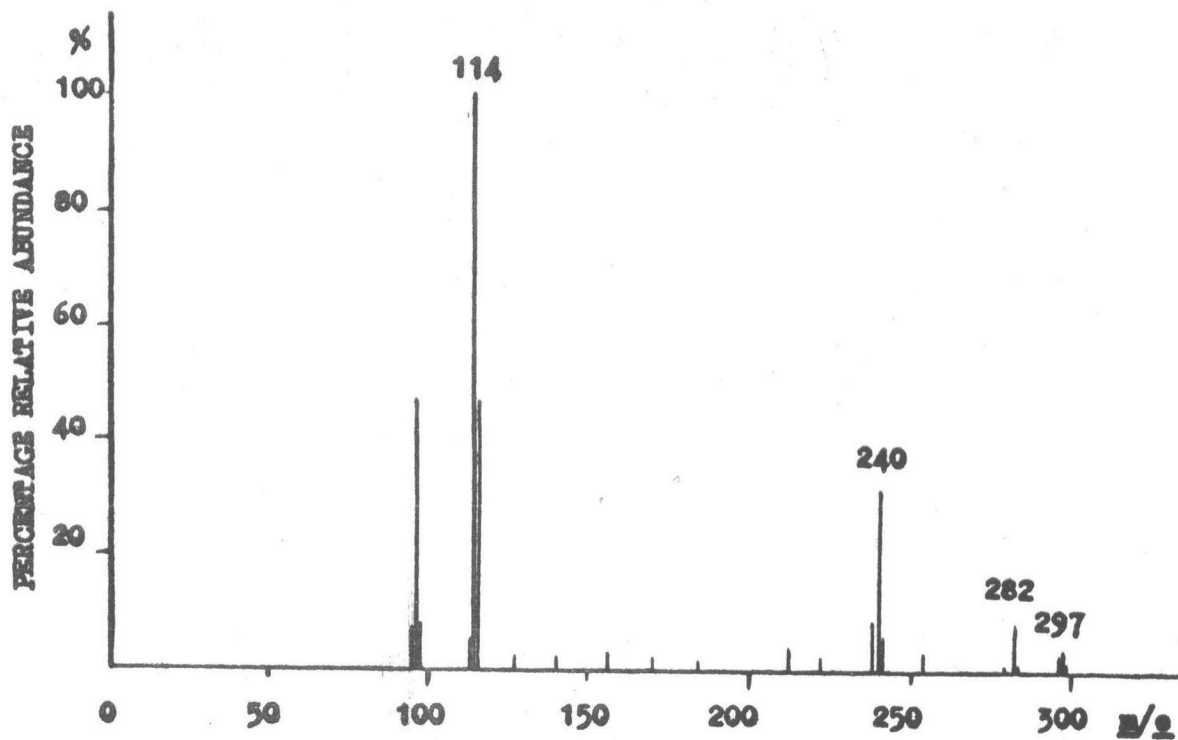


Figure XIX. Mass spectrum of Sp I HCl from the leaves of Cassia spectabilis DC.

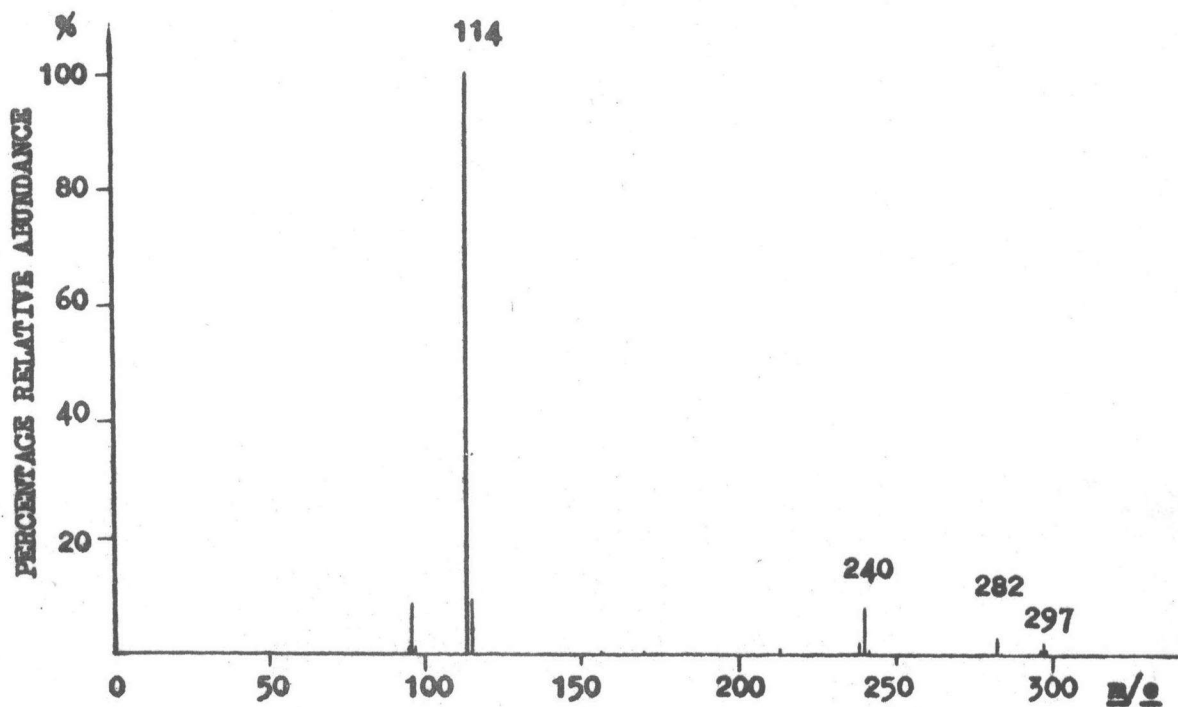


Figure XX. Mass spectrum of Cassine HCl from the leaves of Cassia excelsa Shrad.

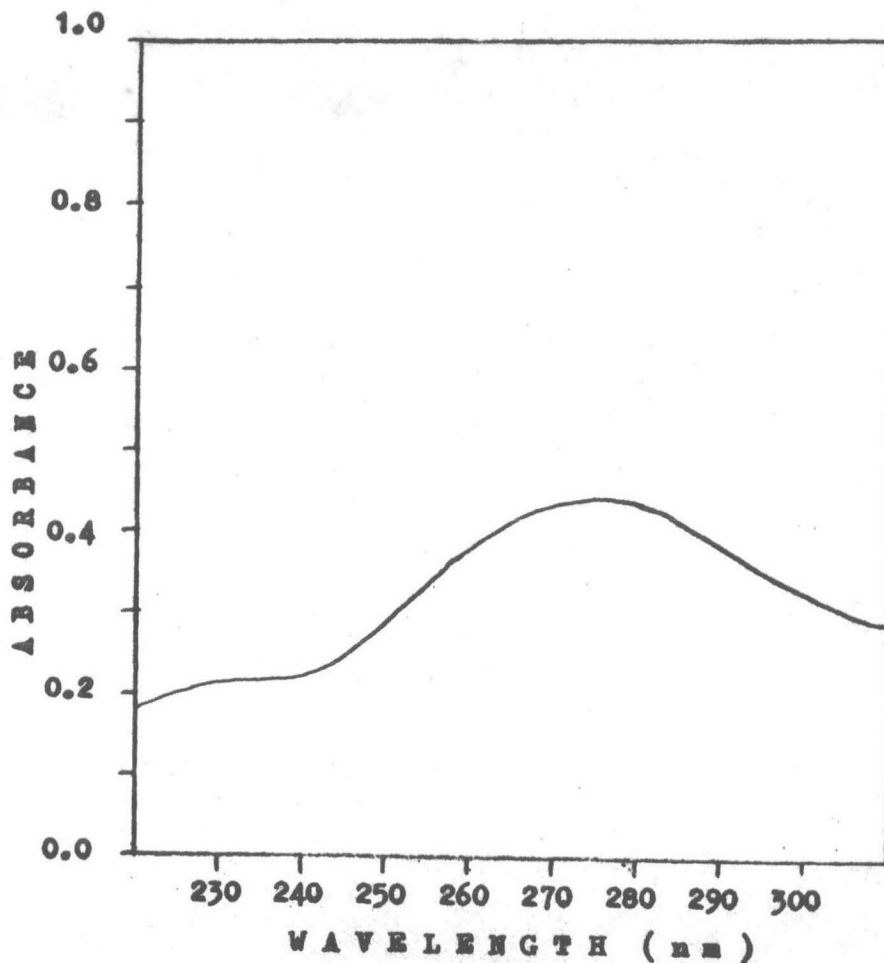


Figure XXI. Ultraviolet absorption spectrum of Sp II HCl from the leaves of Cassia spectabilis DC. in ethyl alcohol.

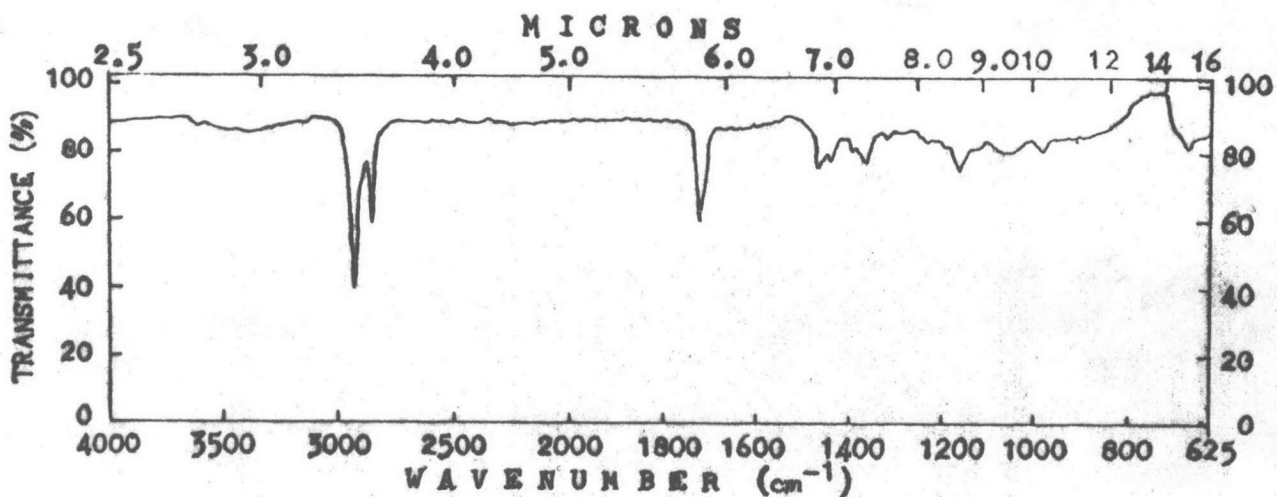


Figure XXII. Infrared absorption spectrum of Sp II from the leaves of Cassia spectabilis DC. in carbon tetrachloride.

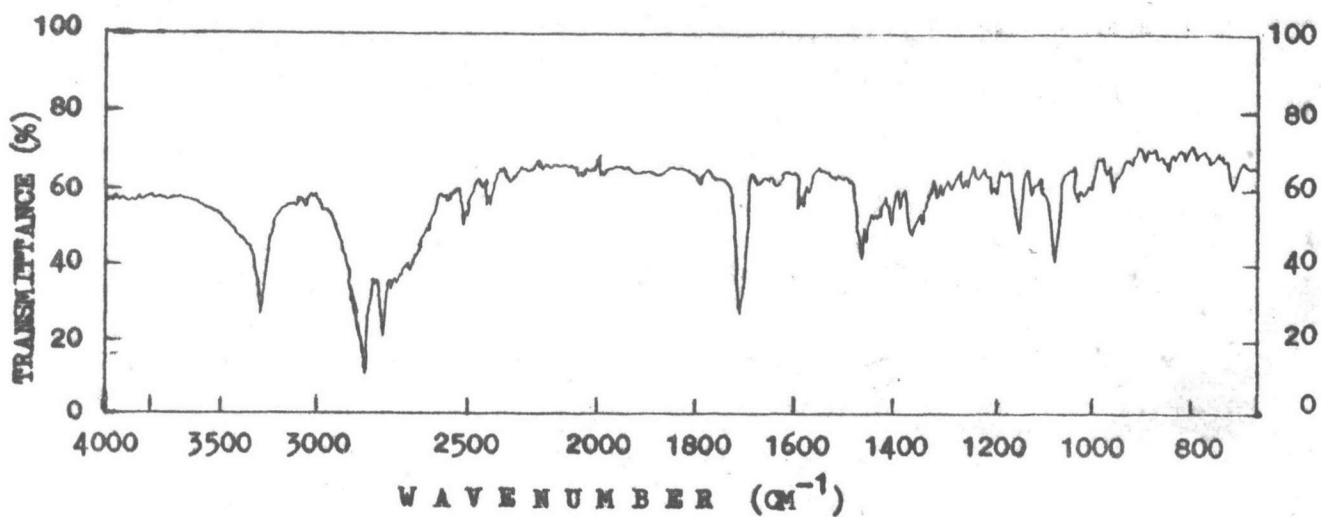


Figure XXIII. Infrared absorption spectrum of Sp I HCl from the leaves of Cassia spectabilis DC in KBr disc.

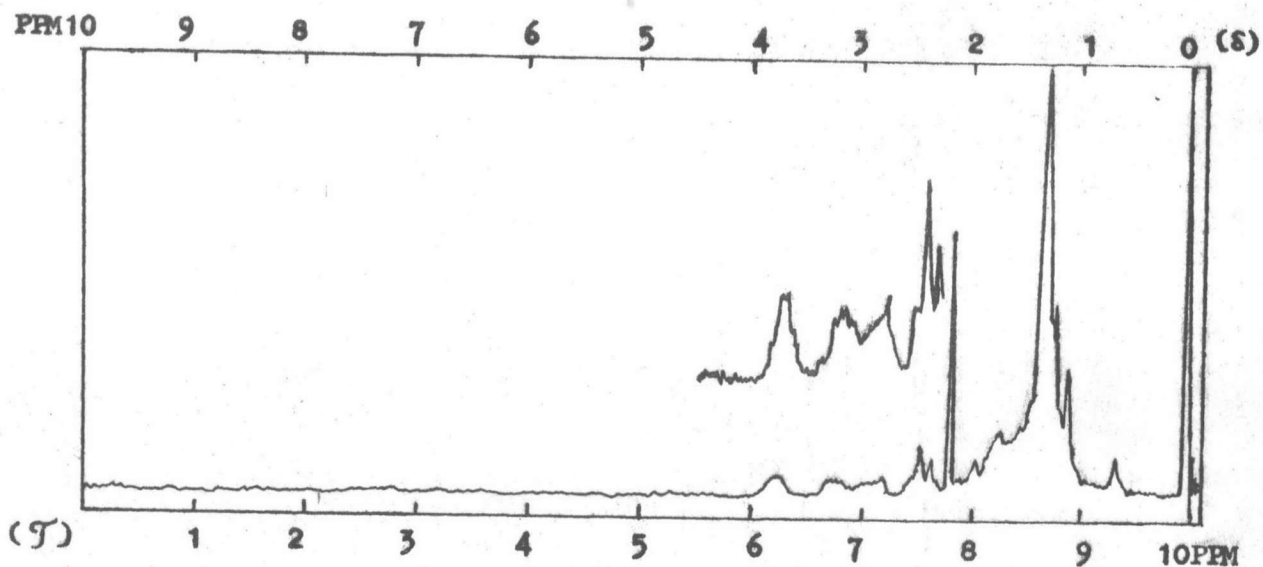


Figure XXIV. NMR spectrum of Sp II from the leaves of Cassia spectabilis DC. in CDCl₃.

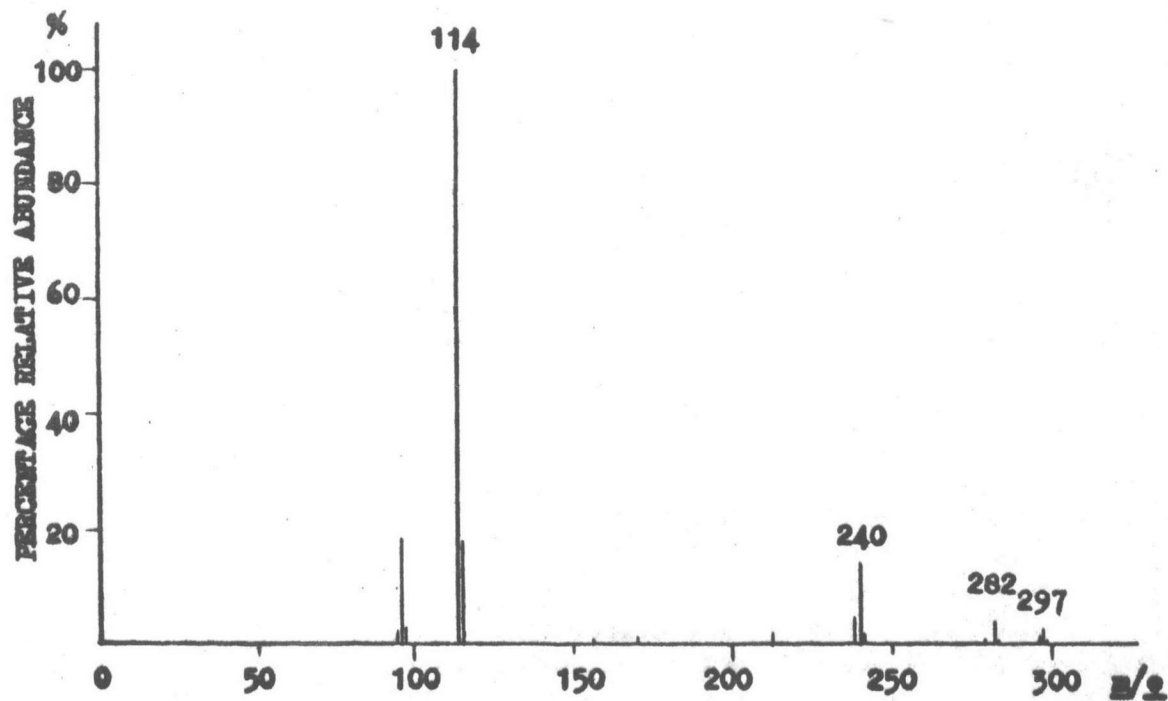


Figure XXV. Mass spectrum of Sp II HCl from the leaves of Cassia spectabilis DC.

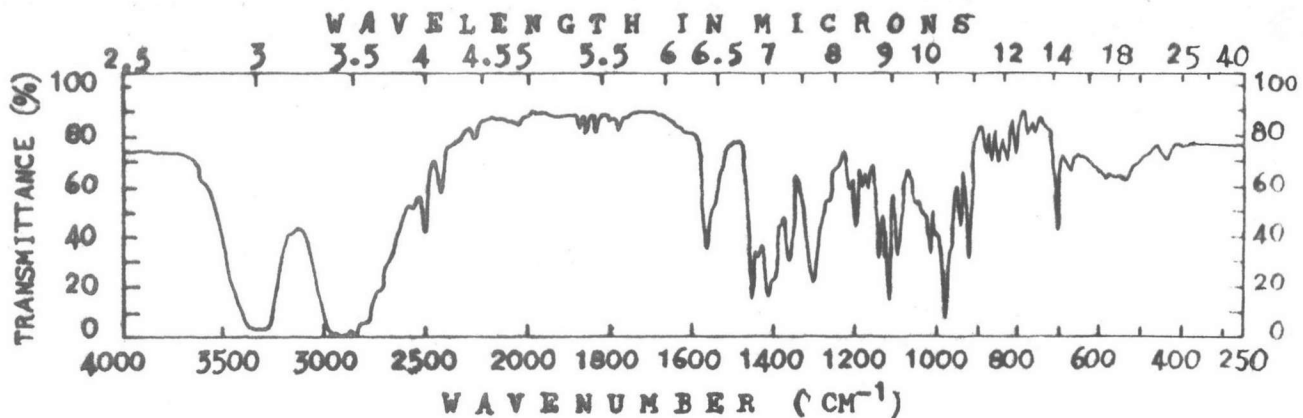


Figure XXVI. Infrared absorption spectrum of Dihydro Sp I HCl in KBr disc.

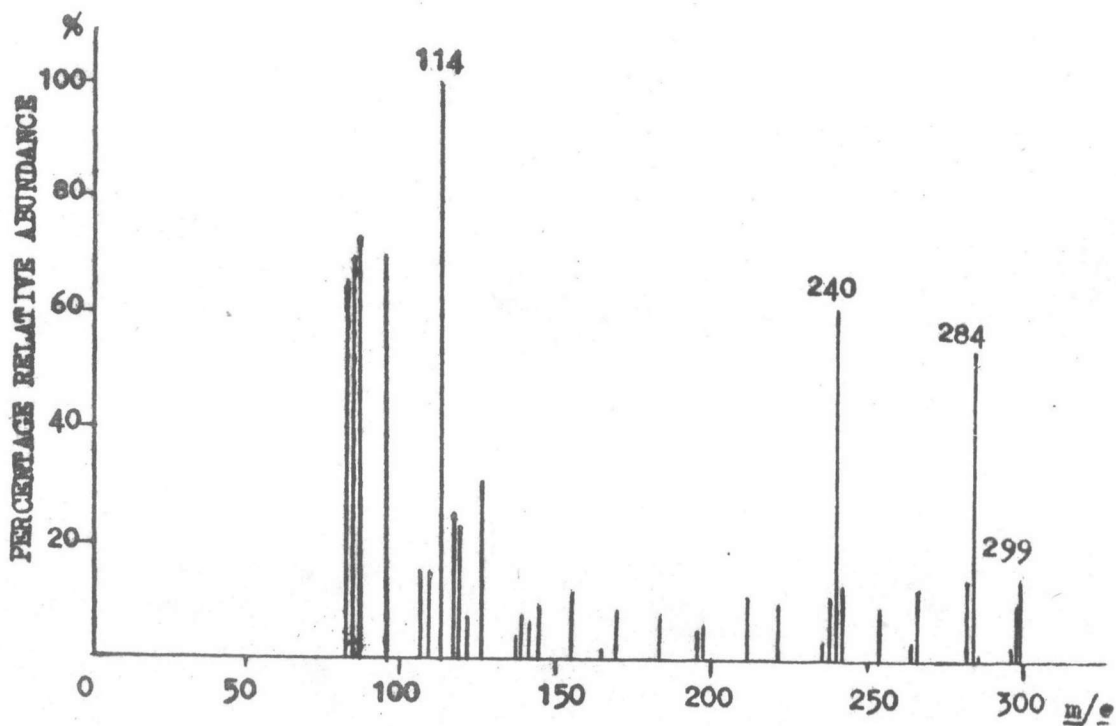


Figure XXVII. Mass spectrum of Dihydro Sp I.

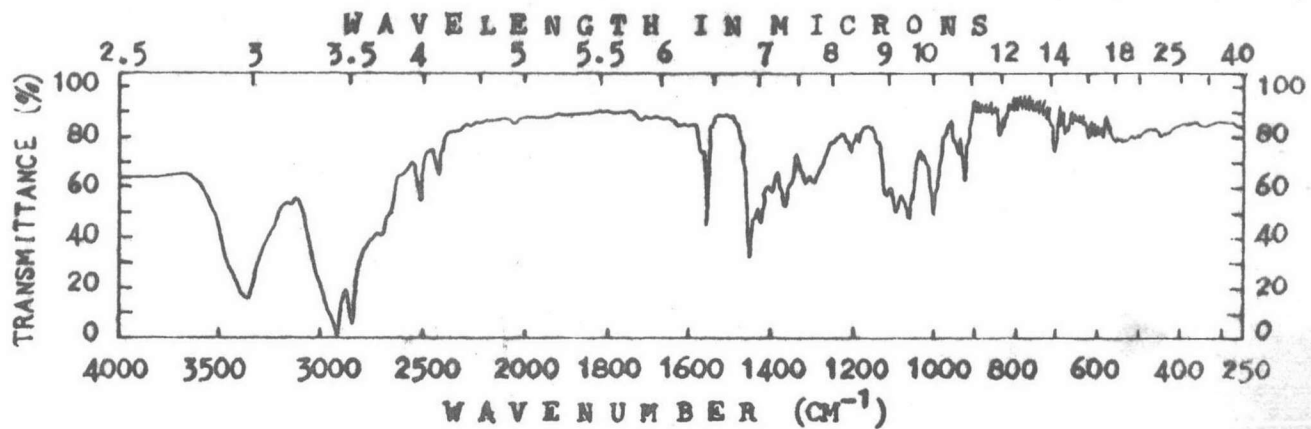


Figure XXVIII. Infrared absorption spectrum of Dihydro Sp II HCl
in KBr disc.

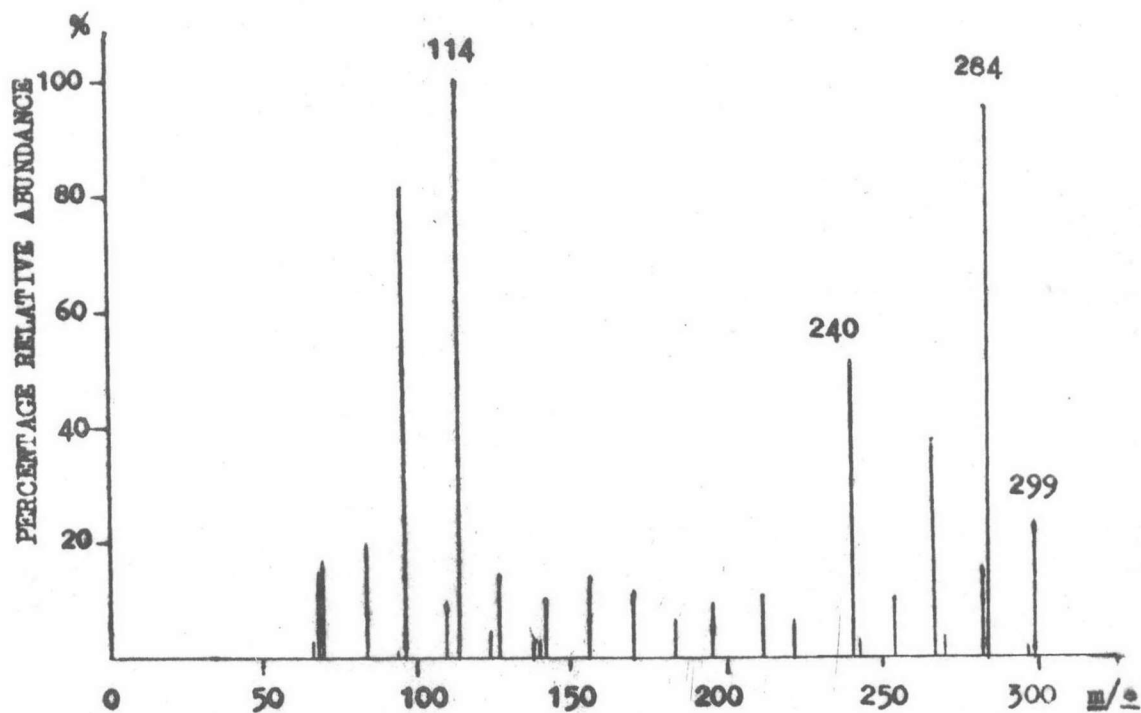


Figure XXIX. Mass spectrum of Dihydro Sp II.

V I T A

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