

**Chemical Investigation of
Some Indian Plants: Part IV***

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Several known compounds belonging to the class of alkaloids, carbohydrates, coumarins, lignans, steroids and triterpenes have been isolated from a number of Indian plants.

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IN continuation of our previous work¹⁻³, we wish to report here the isolation and identification of a number of known compounds belonging to the class of alkaloids, carbohydrates, coumarins, steroids and triterpenoids from a number of Indian plants. All the plants were properly identified and extracted with solvents referred to in Table 1. The compounds were isolated by the usual techniques and the identity of the compounds was established by comparison of the mmp, TLC and IR spectra with authentic specimens.

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TABLE 1 — COMPOUNDS ISOLATED FROM VARIOUS PLANT SPECIES

| Plant | Family | Part of plant | Solvent of extraction | Compound isolated | Ref |
|---|-------------------|---------------|-----------------------|-----------------------------------|-------|
| ALKALOIDS | | | | | |
| <i>Crotalaria laburnifolia</i> Linn. | Leguminosae | Whole plant | Methanol | Anacrotine | 4, 5 |
| do | do | do | do | Madurensine | 4 |
| <i>Glycosmis pentaphylla</i> Correa | Rutaceae | Stem | Hexane | Arborinine | 6 |
| <i>Piper longum</i> Linn. | Piperaceae | Fruits | do | Piperine | 7 |
| | | | | Piplartine | 8 |
| <i>Stephania hernandifolia</i> Walp. | Menispermaceae | Leaves | Methanol | <i>d</i> -Fangchinoline | 7, 9 |
| | | | | <i>d</i> -Tetrandrine | 7, 9 |
| | | | | <i>iso</i> -Chondrodendrine | 7, 9 |
| | | | | <i>epi</i> -Stephanine (Aknadine) | 7, 10 |
| CARBOHYDRATES | | | | | |
| <i>Gardenia latifolia</i> Ait. | Rubiaceae | Bark | Acetone | D-Mannitol | 11 |
| <i>Ligustrum neilgherrense</i> Wight. | Oleaceae | do | Methanol | do | 11 |
| <i>Olea dioica</i> Roxb. | do | Root | do | do | 11 |
| <i>Pavetta tomentosa</i> Roxb. | Rubiaceae | Whole plant | do | do | 11 |
| <i>Webera corymbosa</i> Willd. | do | Leaves | do | do | 11 |
| COUMARIN, ISOCOUMARIN, CHROMENE | | | | | |
| <i>Securinega virosa</i> Pax & Hoffn | Euphorbiaceae | Leaves | Methanol | Bergenin | 12 |
| <i>Sterculia urens</i> Roxb. | Sterculiaceae | Root, bark | do | Scopoletin | 11 |
| <i>Calophyllum tomentosum</i> Wight. | Guttiferae | Bark | Hexane | Tomentolide A | 13 |
| | | | | Tomentolide B | 13 |
| | | | | Blancoic acid | 14 |
| LIGNANS | | | | | |
| <i>Piper longum</i> Linn. | Piperaceae | Fruits | Hexane | <i>d</i> -Sesamin | 11 |
| STEROIDS | | | | | |
| <i>Acronychia laurifolia</i> Bl. | Rutaceae | Wood | Hexane | β -Sitosterol | 11 |
| <i>Allophylus serratus</i> Radlk | Sapindaceae | Stem | do | do | 11 |
| <i>Ancistrocladus heyneanus</i> Wall. | Ancistrocladaceae | Root | do | do | 11 |
| <i>Calophyllum tomentosum</i> Wight. | Guttiferae | Bark | do | Stigmasterol | 11 |
| <i>Cinnamomum zeylanicum</i> Bl. | Lauraceae | do | do | β -Sitosterol | 11 |
| <i>Eugenia mooniana</i> Wight. | Myrtaceae | do | do | do | 11 |
| <i>Gardenia latifolia</i> Ait. | Rubiaceae | do | do | do | 11 |
| <i>Hopea wightiana</i> Wt. & Arn. | Dipterocarpaceae | do | do | do | 11 |
| <i>Justicia gendarussa</i> Linn. f. | Acanthaceae | Roots | do | do | 11 |
| <i>Kigelia pinnata</i> DC. | Bignoniaceae | Bark | do | do | 11 |
| <i>Lannea grandis</i> Engl. | Anacardiaceae | do | do | do | 11 |
| <i>Litsea tomentosa</i> Heyne | Lauraceae | do | do | do | 11 |
| <i>Solanum giganteum</i> Jacq. | Solanaceae | Roots | do | do | 11 |
| TRITERPENES | | | | | |
| <i>Anthocephalus cadamba</i> Miq. | Rubiaceae | Root, bark | Methanol | Quinovic acid | 11 |
| <i>Chukrasia tabularis</i> Juss. | Meliaceae | Root | Hexane | Cedrelone | 15 |
| <i>Elephantopus scaber</i> Linn. | Compositae | Whole plant | do | Lupeol | 11 |
| <i>Gymnostachyum latifolium</i> T. And. | Acanthaceae | Stem | do | Lupeol, betulin | 11 |
| <i>Maba nigrescens</i> Dalz. | Ebenaceae | Root, bark | do | Friedelin | 11 |
| <i>Scolopia crenata</i> Clos. | Bixaceae | Bark | do | do | 11 |

