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Chemical Investigation of Some Indian Plants: Part VI*

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Several known compounds belonging to the class of acids, alcohols, alkaloids, anthraquinones, carbohydrates, coumarins, isocoumarins, steroids, triterpenoids and xanthones have been isolated from a number of Indian plants.

IN previous communications[1-5], we have listed the isolation of known compounds from plant sources. We place on record some more constituents from plants belonging to the families Ancistrocladaceae, Apocynaceae, Bignoniaceae, Boraginaceae, Celastraceae, Compositae, Dipterocarpaceae, Gentianaceae, Guttiferae, Lauraceae, Leguminosae, Lythraceae, Oleaceae, Rhamnaceae, Rubiaceae, Samydaceae, Santalaceae, Simarubaceae, Sterculiaceae, Umbelliferae and Verbenaceae.

All the reported plants were botanically identified and the dried material extracted with solvents given in Table 1. The compounds were isolated by the usual techniques and the identity of the pure materials was established by elemental analysis, and comparison of the m.m.p., TLC, UV, IR spectra with authentic samples.

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TABLE 1 — ISOLATION OF KNOWN CONSTITUENTS FROM DIFFERENT PLANT FAMILIES

Plant	Family	Part	Solvent for extraction	Compound isolated	Reference
		ACID			
Kigelia pinnata DC.	Bignoniaceae	Bark	Acetone	Ferulic acid	6
		ALCOHOLS			
Gmelina arborea Linn.	Verbenaceae	Heartwood	Hexane	Octacosanol	6
Osyris arborea Wall.	Santalaceae	Stem	Hexane	Octacosanol	6
Woodfordia fruticosa Kurz	Lythraceae	Stem	Hexane	Octacosanol	6
		ALKALOID			
Litsea chinensis Lam.	Lauraceae	Bark	Methanol	Actinodaphnine	7
		ANTHRAQUINONE			
Rhamnus virgata Roxb.	Rhamnaceae	Bark and roots	Hexane and acetone	Physcione	6
		CARBOHYDRATES			
Euonymus tingens Wall.	Celastraceae	Leaves	Water	Dulcitol	6
Jasminum malabaricum Wight	Oleaceae	Roots	Methanol	D-Mannitol	6
		COUMARIN, ISOCOUMARIN			
Peucedanum grande Clarke	Umbelliferae	Roots	Hexane	Imperatorin	6, 8
Peucedanum grande Clarke	do	Roots	Acetone	Byakangelicin	6, 8
Vateria indica Linn.	Dipterocarpaceae	Bark	Methanol	Bergenin	6, 8
		STEROIDS			
Ailanthus malabarica DC.	Simarubaceae	Roots	Hexane	β-Sitosterol	6
Casearia esculenta Roxb.	Samydaceae	Roots	Hexane	β-Sitosterol	6
Cryptocarya bourdilloni Gamble	Lauraceae	Roots	Acetone	β-Sitosterol	6
Litsea chinensis Lam.	do	Bark	Hexane	β-Sitosterol	6
Woodfordia fruticosa Kurz	Lythraceae	Stem	Hexane	β-Sitosterol	6
		TRITERPENES			
Ancistrocladus heyneanus Wall.	Ancistrocladaceae	Roots	Ethanol	Lupeol	6
Cassia siamea Lam.	Leguminosae	Bark	Benzene	Betulinic acid	6
Ehretia laevis Roxb.	Boraginaceae	Roots, leaves	Hexane	Bauerenol	1
Elephantopus scaber Linn.	Compositae	Whole plant	Acetone	Lupeol acetate	6
Euonymus tingens Wall.	Celastraceae	Leaves	Hexane	Epifriedelinol, Taraxerol	6
Gymnosporia ovata Laws.	do	Roots	Hexane	β-Amyrin	6
Hesperthusa crenulata Roem.	Rutaceae	Whole plant	Methanol	Limonin	8
Paederia foetida Linn.	Rubiaceae	Whole plant	Hexane	Epifriedelinol acetate	6
Poeciloneuron indicum Bedd.	Guttiferae	Bark and roots	Hexane	Friedelin	6
Randia brandisii Gamble	Rubiaceae	Fruits	Acetone	Oleanolic acid	6
Sterculia villosa	Sterculiaceae	Stem bark	Methanol	Lupeol	6
Tabernaemontana heyneana Wall.	Apocynaceae	Fruits	Hexane	Lupeol acetate	6
Tabernaemontana heyneana Wall.	do	Fruits	Hexane	α-Amyrin acetate	6
		XANTHONE			
Canscora decussata Schult.	Gentianaceae	Whole plant	Methanol	Mangiferin	9

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