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MELIACEAE

CONSTITUENTS OF *MELIA INDICA* LEAVES

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Plant. *Melia indica*, syn. *Azadirachta indica*, *Melia azadirachta*.

Uses. Medicinal,¹ seed fat in commerce.¹

Previous work. Seeds,²⁻⁵ seed fat,⁶⁻⁷ bark,⁸⁻⁹ blossoms,¹⁰ heartwood.¹¹

Leaves. Ethanol extr. fractionated successively with *n*-hexane, ether and ethyl acetate.

Hexane extr. Chromatography (silicic acid): β -sitosterol, m.p., mixed m.p. and IR, acetate, mixed m.p. and IR, *n*-hexacosanol, m.p., mixed m.p. and IR, acetate, mixed m.p., Nonacosane, m.p. and IR, β -carotene, UV.

A partially characterized xanthophyll, $C_{40}H_{56}O_2$, m.p. 178° , deep blue colour with $SbCl_3$ and also with conc. H_2SO_4 ; λ_{max}^{alc} 424 (inf), 446 and 474; λ_{max}^{hex} 421 (inf), 444, 472 and $\lambda_{max}^{CHCl_3}$ 425 (inf) 452, 482 nm; IR 950 cm^{-1} , $C-O$ of epoxides and 3050 cm^{-1} $C-H$ stretching band for epoxides. The UV data in different solvents and the m.p. of the xanthophyll conform to those of β -carotene diepoxide.¹² However, co-TLC with authentic sample of β -carotene diepoxide showed marked difference in R_f s of two xanthophylls.¹³

Ether extr. β -D-glucoside of β -sitosterol, m.p., mixed m.p., IR, acetate and the hydrolysis to glucose and β -sitosterol. Glucosides of quercetin and kaempferol, paper co-chromatography and UV; hydrolysis with 5% H_2SO_4 to quercetin and kaempferol, m.p., UV and paper co-chromatography, and glucose, paper chromatography.

Ethyl acetate extr. Potassium chloride.

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