SHORT COMMUNICATION

FLAVONOIDS OF *NELUMBIUM SPECIOSUM*

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Plant. Nelumbium speciosum Willd. (Syn. *Nelumbo nucifera* Gaertn.)—Nymphaeaceae
Occurrence. Throughout India as an aquatic herb with stout creeping rhizome.
Uses. Medicinal.[1]

Previous Work

Leaves. Quercetin-3-glucosylglucuronide,[2] quercetin, isoquercitrin, leucocyanidin and leucodelphinidin.[3] *Flower (petals).* Luteolin, glucosylluteolin and isoquercitrin,[3] kaempferol and kaempferol-3-galactosylrhamnoside.[4] Kaempferol-3-diglucoside also recorded in this plant[5] (organ not stated).

Present Work

Torus. (Fresh mature material, 3–4 in. size, extracted EtOH and fractioned with petrol, ether, ether and ethyl acetate). *Meratin* (quercetin 3-diglucoside). (Isolated from ethyl acetate fraction) m.p. 182–183°, acetate m.p. 158–160°, R_f,[6] acid hydrolysis: quercetin and two moles of glucose. *Hyperoside* (quercetin 3-galactoside) (Mother liquor after removal of meratin subjected to preparative chromatography) identified by colour reactions, R_f and co-chromatography, acid hydrolysis: quercetin and galactose. *Quercetin and kaempferol 3-glucoronides.* (From aqueous layer after ethyl acetate extraction, separated by preparative paper chromatography using water as solvent) highly soluble in water identified by R_f;[5] acid hydrolysis: quercetin and kaempferol.

Seeds. ($CHCl_3$ extract of dried seeds chromatographed on neutral alumina). *β-sitosterol* (benzene: petrol, 1:1 eluate) m.p. and mxd. m.p. 137–138°, $[\alpha]_D^{28}$–37·5° ($CHCl_3$), acetate m.p. and mxd. m.p. 132–133°.

Embryo. (Fresh greenish yellow material, extracted MeOH). *Luteolin 7-glucoside.* (R_f and co-chromatography, acid hydrolysis: luteolin and glucose.) *Rutin.* (R_f and co-chromatography, acid hydrolysis: quercetin, glucose and rhamnose.) *Hyperoside.* (R_f and co-chromatography, acid hydrolysis: quercetin and galactose).

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