C. anagyroides *H. B. and K.*

Stem bark. Apiin (from EtOAc fraction, m.p., R_f and hydrolysis by 10% H_2SO_4 to apigenin, glucose and apiose).

C. juncea *L.*

Seeds. Apigenin-7-glucuronide and apigenin-7,4'-*O*-di-glucoside (from EtOAc fraction, R_f).

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SHORT COMMUNICATION

CHLOROGENIN AND KAEMPFEROL GLYCOSIDES FROM THE FLOWERS OF *AGAVE AMERICANA*

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Abstract—Chlorogenin was isolated in a yield of 0·5% from the fresh flowers of *Agave americana.* The flavonol glycosides were identified as kaempferol-3-glucoside and kaempferol-3-rutinoside.

Plant. Agave americana L.—Amaryllidaceae.
Source. Pondicherry.
Uses. Medicinal.[1,2]
Previous work. Hecogenin from leaves;[2,3] work on sister species.[4]
Present work. Examination of flowers.

Fresh flowers extracted with hot ethanol (95%) under reflux, aq. concentrate shaken and layered with an equal volume of benzene and kept in an ice-chest for 2 weeks. The colourless solid separated at the interphase on crystallization thrice from MeOH yielded chlorogenin,[5] $C_{27}H_{44}O_4$, m.p. 272–274°, $[\alpha]_D^{28} - 51{\cdot}2°$ (py); diacetyl, m.p. 154–155°, $[\alpha]_D^{28} - 36{\cdot}5°$; dibenzoyl, m.p. 200–203°, $[\alpha]_D^{28} - 9{\cdot}8°$. Benzene concentrate yielded a small quantity of the same solid (total yield, 0·5%). No hecogenin could be identified. Ether extract of the aq. alc. concentrate yielded small quantity of kaempferol (R_f and co-chromatography). EtOAc extract yielded two glycosides of kaempferol (separated by preparative PC) identified as kaempferol-3-glucoside and kaempferol-3-rutinoside (m.p., R_f, acid hydrolysis and co-chromatography with authentic samples) (total yield of flavonols, 0.03%).

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