quercetin-3,7,3′,4′-tetramethyl ether (300 mg, Rf: 0.66), quercetin-3,7,3′-trimethyl ether (270 mg, Rf: 0.45), and quercetin-3,7,4′-trimethyl ether (350 mg, Rf: 0.40).

The MeOH extract was separated into phenolic and nonphenolic parts with neutral lead acetate. The phenolic part was chromatographed over silica gel eluting with C_6H_6, C_6H_6-Me_2CO mixtures, and Me_2CO. The eluates from different fractions, on repeated column and preparative tlc yielded with $CHCl_3$-MeOH (99:1) kaempferol-3,7-dimethyl ether (15 mg, Rf: 0.12), kaempferol-3,4′-dimethyl ether (15 mg, Rf: 0.10), and myricetin-3,7,3′,5′-tetramethyl ether (12 mg, Rf: 0.26); with $CHCl_3$-MeOH (98:2) quercetin-3,3′,4′-trimethyl ether (16 mg, Rf: 0.56), and quercetin-3,3′-dimethyl ether (100 mg, Rf: 0.28), with $CHCl_3$-MeOH (9:1) kaempferol (700 mg, Rf: 0.40), myricetin-3,7,3′-trimethyl ether (120 mg, Rf: 0.35), and quercetin (850 mg, Rf: 0.24); and with $CHCl_3$-MeOH (7:3) kaempferol-3-*O*-glucoside (500 mg, Rf: 0.75) and kaempferol-3-*O*-rutinoside (600 mg, Rf: 0.34).

Full details of the isolation and physical and spectral identification of the compounds are available on request from the senior author.

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Received 30 April 1984

FLAVONOID GLYCOSIDES FROM *ANISOMELES OVATA*

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In our earlier communications we have reported the isolation and characterization of terpenoids and steroids (1), acylated flavone glycosides (2,3), and flavones (4,5) from *Anisomeles ovata* R.Br. We now report the isolation of the flavone glucosides and flavanone glucosides listed below. All the compounds were identified by standard spectral and chemical degradative methods.

This is the first report of a flavanone from the Labiatae family. The general trend of chalcones accompanying flavanones was not observed in *A. ovata* where the flavanones prunin (naringenin 7-*O*-β-D-glucoside), prunin-6″-*p*-coumarate, prunin-3″,6″-di-*p*-coumarate, were accompanied by the corresponding flavones cosmosiin (apigenin 7-*O*-β-D-glucoside), terniflorin (apigenin 7-*O*-β-D-(6″-*p*-coumaroyl) glucoside, and anisofolin-A [apigenin 7-*O*-β-D-(3″,6″-di-*p*-coumaroyl) glucoside] (2). This is the second report for prunin-6″-*p*-coumarate (6) and prunin-3″,6″-di-*p*-coumarate (7) and the third report for terniflorin (8-10) from nature. This is also the first report for cosmosiin with a higher melting point of 242° which is due to an anhydrous form. All the other reported melting points were below 242°.

EXPERIMENTAL

GENERAL EXPERIMENTAL PROCEDURES.—Spectra were recorded with the following instruments: uv, Beckmann DBG; ir, Perkin-Elmer 237; ^1H and ^{13}C nmr Perkin-Elmer 90 M Hz, JOELFX 100 and Brucker 270 M Hz.

PLANT MATERIALS.—Aerial parts of *A. ovata* were collected at a hillside near Mangalagiri, Guntur district Andhra Pradesh, India, in the autumn of 1980. Specimen vouchers are deposited in Nagarjuna University Herbarium (No. NUH. NSP002).

EXTRACTION AND ISOLATION.—Dried aerials parts were worked up by standard procedures (1-5). The compounds obtained from *A. ovata* were cosmosiin hydrate (300 mg), cosmosiin (50 mg), terniflorin (800 mg), prunin (150 mg), prunin-6″-*p*-coumarate (250 mg) and prunin-3″,6″-di-*p*-coumarate (150 mg). The ^{13}C-nmr spectrum of prunin-3″,6″-di-*p*-coumarate at 67.89 MHz in DMSO-d_6 showed signals at δ 78.5 (C-2), 42.0 (C-3), 197.0 (C-4), 163-0 (C-5), 96.4 (C-6), 164.8 (C-7), 95.6 (C-8), 162.8 (C-9),

103.4 (C-10), 128.6 (C-1′), 128.5 (C-2′,6′), 115.7 (C-3′,5′), 157.7 (C-4′), 99.0 (C-1″), 71.10 (C-2″), 76.90 (C-3″), 67.95 (C-4″), 73.80 (C-5″), 62.90 (C-6″), 125.0, 125.2 (C-1‴, 1⁗), 130.0 (C-2‴, 2⁗, 6‴, 6⁗), 115.2, 115.7 (C-3‴, 3⁗, 5‴, 5⁗), 159.7, 159.8 (C-4‴, 4⁗), 113.9, 114.7 (C-α, α_1), 144.4, 144.8 (C-β, β_1) and 165.9, 166.2 (C-7‴, 7⁗) ppm and were assigned on the basis of naringenin 7-O-β-D-glucoside (6) and anisofolin-A (2).

Full details of the isolation and physical and spectra identification of the compounds are available on request to the senior author.

ACKNOWLEDGMENTS

Two of the authors (LJMR and GNKK) are grateful to CSIR, New Delhi, for fellowships.

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Received 30 April 1984

ALKALOIDS FROM *ANNONA CHERIMOLIA* LEAVES

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In a previous work, the isolation of alkaloids from *Annona cherimolia* Mill. (Annonaceae) seeds (1) and twigs (2) was reported. In the present paper, we have isolated and identified eight alkaloids from the leaves. (+)-Isoboldine, (−)-stepholidine, (+)-corytuberine and (+)-nornantenine have been reported for the first time from this source. (+)-Reticuline, (−)-anonaine, liriodenine, and lanuginosine were identified from seeds and twigs. Michelalbine, detected previously in *A. cherimolia* twigs (2), has not been detected in the leaves.

EXPERIMENTAL

PLANT MATERIAL.—Leaves of *A. cherimolia* used in this investigation were collected in January 1980, in Granada, Spain. An herbarium specimen (n° VF-10463) was deposited at the Department of Botany Herbarium, Faculty of Pharmacy, University of Valencia, Spain.

EXTRACTION AND ISOLATION OF THE ALKALOIDS.—Air-dried, finely ground leaves (15 kg) were exhaustively extracted with $CHCl_3$. The $CHCl_3$ extract was concentrated in vacuo to a syrup and mixed with 5% HCl. The acidic extract was basified to pH 8 with Na_2CO_3 and extracted with $CHCl_3$. The dried