COUMARINS FROM *PEREZIA CARTHAMOIDES*

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As part of a general phytochemical investigation of the Argentinan region of Cuyo, we studied *Perezia carthamoides* (D. Don) Hook. et Arn. (Compositae), this being the third species of the South American section *Perezia* (1) of the genus *Perezia* that has been investigated.

Chromatographic separation of the partitioned methanolic extracts of the dried roots yielded 3,4,8-trimethoxy-5-methylcoumarin and 8-hydroxy-4-methoxy-5-methylcoumarin. Both compounds were identified by ir, ^{1}H nmr, ^{13}C nmr, ms, and direct comparison. The trimethoxymethylcoumarin was previously isolated from *Perezia multiflora* (2,3) collected in Ecuador, while the other was isolated from *Perezia coerulescens* (4) collected in Perú. Highly oxidized coumarins may be chemotaxonomically significant metabolites of South-American *Pereziae*.

EXPERIMENTAL

PLANT MATERIAL.—The plant was collected in the vicinity of the Laguna Horcones, Mendoza, Argentina in March 1986. A voucher specimen (Ambrosetti 1665) is deposited in the Ruiz Leal herbarium (MERL), Mendoza, Argentina.

EXTRACTION AND ISOLATION.—The air-dried roots (1.2 kg) were ground and extracted at room temperature with MeOH (3 times × 24 h), and the solvent was removed under reduced pressure. The crude extract was partitioned between MeOH-H_2O (9:1) and *n*-hexane and, after removal of the hexane soluble part, between MeOH-H_2O (7:3) and $CHCl_3$. The $CHCl_3$ layer was adsorbed on Si gel packed in C_6H_6 and eluted with C_6H_6/EtOAc mixtures of increasing polarity. The early fractions contained 3,4,8-trimethoxy-5-methylcoumarin, and the later fractions gave 8-hydroxy-4-methylcoumarin. Complete purification of the compounds was achieved by rechromatography followed by crystallization to afford 17 and 22 mg, respectively.

ACKNOWLEDGMENTS

We are thankful to Prof. J. Kavka and Lic. F.H. Guidugli, LEA (UNSL) for ms and to Ing. J.A. Ambrosetti, IADIZA (Mendoza) for plant collection and botanical assistance. The work was supported by a grant from CONICET (Argentina).

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Received 5 August 1986