

*Atranol*.—(2,6-Dihydroxy-4-methylbenzaldehyde)  $\text{uv } \lambda \text{ max nm } (\epsilon)$  280 (12600), 349 (2600);  $^1\text{H nmr}$  10.29 (1H, s, CHO), 8.84 (2H, broad OH), 6.22 (2H, s, H3 and H5), 2.27 (3H, s, CH<sub>3</sub>); eims (probe) 70 eV  $m/z$  (rel. int.) 152 ( $\text{M}^+$ , 91), 151 (100), 136 (3), 123 (2), 106 (6), 95 (4); all data previously unreported in the literature.

Antimicrobial activity of atranol, obtained using the agar plate disc diffusion method, ( $\mu\text{g}$  applied), mm zone of inhibition: against *B. subtilis* (ATCC 6633) (40), 17; streptomycin sulfate as control (0.6), 17; against *E. coli* (strain B, ATCC 11303) (40), 17; streptomycin sulfate as control (6), 25; against *S. cerevisiae* (baker yeast) (40) 18; filipin as control (24), 24. Details of the procedure have been previously reported (6).

The antimicrobial activity of methyl  $\beta$ -orcinolcarboxylate isolated from another lichen has been reported (7).

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

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#### FLAVONOIDS FROM SALVIA NICOLSONIANA

ROGELIO PEREDA-MIRANDA

*Departamento de Química Orgánica, Escuela Nacional de Ciencias Biológicas del Instituto Politécnico Nacional, 11340, México, D.F.*

and GUILLERMO DELGADO\*

*Instituto de Química, Universidad Nacional Autónoma de México, Circuito Exterior, Ciudad Universitaria, Coyoacán 04510, México, D.F.*

As part of a systematic chemical investigation of Mexican Labiatae (1-4), we previously reported several triterpenoids from *Salvia nicolsoniana* Ramamoorthy (2). Continuing our studies of this genus, a new collection of this species was analyzed and resulted in the isolation and characterization of six known flavonoids. The chemistry of *S. nicolsoniana* does not differ from the chemical profile outlined for this genus, since it contains pentacyclic triterpenes and flavonoids which are widely distributed metabolites among the members of Labiatae (4).

#### EXPERIMENTAL

**PLANT MATERIAL.**—*S. nicolsoniana* was collected in Sierra Madre del Sur, Guerrero, México, in February 1985. Reference specimens are deposited in the National Herbarium, Instituto de Biología de la Universidad Nacional Autónoma de México, voucher No. 6191-M.

**EXTRACTION AND ISOLATION PROCEDURES.**—Exhaustive chromatography of the  $\text{Me}_2\text{CO}$  extract of the dried aerial parts (7 kg) yielded four terpenoids, namely betulinic, oleanolic, ursolic, and  $3\alpha, 24$ -dihydroylean-12-en-28-oic acids, as well as  $\beta$ -sitosterol, which were identical in all respects (mp, tlc, ir, ms,  $^1\text{H nmr}$ ) with authentic samples (2, 5, 6). In addition, six flavonoids were also isolated from this species in the following order from Si gel column chromatography: apigenin 4,7'-dimethyl ether (12 mg), isosakuranetin (37.8 mg), acacetin (859.3 mg), genkwanin (17 mg), cirsimaritin (15.2 mg), and luteolin 3',4'-dimethyl ether (7 mg).

All the flavonoids were identified by standard spectral data (uv, ir, ms,  $^1\text{H}$  nmr) as well as by authentic sample comparison (mp, tlc) (7-12). Full details of the isolation and identification of the compounds are available on request to the senior author.

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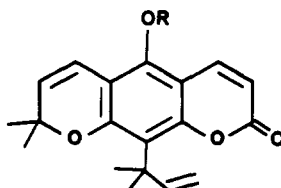
#### BIOLOGICALLY ACTIVE COUMARINS FROM *ENKLEIA SIAMENSIS*

ZEYUAN LUO, LADDAWAN BOONYARATANAKORNKIT,<sup>1</sup> CHUN-TAO CHE,  
CLEMENS A.J. ERDELMEIER, HARRY H.S. FONG, and N.R. FARNSWORTH

Program for Collaborative Research in the Pharmaceutical Sciences, College of Pharmacy,  
University of Illinois at Chicago, Chicago, Illinois 60612

*Enkleia siamensis* Kurz (Thymeliaceae) is a climbing shrub commonly distributed throughout the northeastern region of Thailand. An ethanolic extract of the dried roots was found to be active in the P-388 in vitro cytotoxicity assay (ED<sub>50</sub> 0.1  $\mu\text{g}/\text{ml}$ ). Bioassay-directed fractionation of the total alcoholic extract resulted in the isolation of three coumarins, clausarin, nordentatin, and daphnoretin.

Clausarin and nordentatin were obtained from the petroleum ether fraction of the ethanolic extract. Clausarin was identified by comparing its spectra ( $^1\text{H}$  nmr, uv, ir, ms) with published data (1,2). Nordentatin exhibited spectral properties ( $^1\text{H}$  nmr, ir, uv, ms) indicating a demethylponcitrin structure. When methylated with  $\text{CH}_2\text{N}_2$ , it gave poncitrin (co-tlc). Since dentatin has been proved to be identical with poncitrin (**1**), which is a linear structure (3-8), nordentatin must also have a linear structure (**2**) rather than



- 1** R=CH<sub>3</sub>  
**2** R=H

<sup>1</sup>Present Address: Department of Pharmaceutical Botany, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok, Thailand.