

GLBRACHROMENE-II, A MINOR CONSTITUENT OF SEEDS
OF *PONGAMIA GLABRA*

T. R. SAINI, V. P. PATHAK, and R. N. KHANNA*

Department of Chemistry, University of Delhi, Delhi 110 007, India

In continuation of our earlier investigations (1-3) of *Pongamia glabra* seeds, we report here the isolation of glabrachromene-II, *i.e.*, 2'-hydroxyl-3,4-methylenedioxy-2'',2''-dimethylpyrano [3',4',5'',6'']chalcone. Its uv, ir, and pmr spectra agreed with the reported data (4,5). Full details of the isolation and identification are available on request to the senior author.

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TRITERPENES AND STEROLS FROM *OCIMUM SPICATUM*

CABDIRISAQ CUSMAAN XAASAN, ABUUKAR DHALOW CABDULRAXMAAN,

Faculty of Chemistry, National Somali University, P.O. Box 1081, Muqdishu, Somalia

SALVATORE PASSANNANTI, MARIAPIA PATERNOSTRO, and FRANCO PIOZZI*

Istituto di Chimica Organica, Università di Palermo, 20 via Archirafi, 90123 Palermo, Italy

Continuing our screening of the Somali flora, we investigated *Ocimum spicatum* Desf. (1) (synonymous: *Ocimum superbum* Busc. and Muschl., *Ocimum cylindrostachys* Schwfth ex Loes. and Schl., *Ocimum bararensense* Auct non Guerke: Chioevenda), family Labiatae, Somali name *reexaan weyn*. The species is rather widespread in Somalia, especially on alluvial soils and along the Wabi Shebeli River. It is a perennial herbaceous shrub, up to 80 cm high, with oblong leaves, characterized by a typical, strobiliform spike. In traditional medicine, the leaves and flowers are boiled in a meat broth and used as an antiabortive.

Usual chromatographic fractioning of the extract (see Experimental Section) yielded the sterols stigmasterol and sitosterol, with minor amounts of campesterol, and the triterpenes acids oleanolic acid (3 β -hydroxy-olean-12-en-oic acid) with small amounts of maslinic acid (2 α ,3 β -dihydroxy-olean-12-en-28-oic acid) and 3-epi-maslinic acid (2 α ,3 α -dihydroxy-olean-12-en-28-oic acid). The latter products arise from biogenetic oxidation of oleanolic acid. No oxidized derivative of ursolic acid occurs in the species. Neither diterpenes nor flavones occurs in *O. spicatum*, whereas the other Somali species *O. canum* Sims contains the flavones salvigenin and nevadensin as well as ursolic acid in addition to oleanolic acid (2).

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

EXPERIMENTAL

The plant material was collected along the road Muqdishu-Afgooye at the end of May 1981. It was identified by Prof. F. Raimondo, Institute of Botany, University of Palermo; voucher specimens are deposited there in the herbarium.

Air-dried stems and flowers (500 g) were ground and extracted with cold acetone for 5 d. The solvent was removed under reduced pressure, then the residue was chromatographed over silica gel deactivated with 15% water. Elution with petroleum ether and increasing percentages of ethyl acetate yielded a large amount of a mixture of sterols and triterpenes, which was methylated with ethereal CH_2N_2 . Careful re-chromatography allowed the separation of pure methyl oleanolate (3 g), identified by conventional methods (mp, ms, nmr, glc, hplc, compared with an authentic sample).

Further chromatography of other fractions separated a mixture of sterols from residual methyl oleanolate. This mixture was examined by glc on a Varian 1440 instrument, FID, $\frac{1}{8}'' \times 6'$ column packed with 3% OV-1, temperature 260° , carrier gas N_2 20 ml/min. The fraction contains campesterol (>5%, Rt $4'55''$), stigmasterol (~60%, Rt $5'15''$), sitosterol (~35%, Rt $5'50''$) and a fourth unidentified product (traces, Rt $6'35''$). The ms of the fraction was identical with the spectrum of an artificial mixture of the three identified sterols.

From the more polar fractions, methyl maslinate and methyl 3-epi-maslinate, isolated by repeated chromatography over silica gel and then by hplc on a Waters instrument with RI, Micro-Porasil 7.8 mm \times 30 cm, eluent cyclohexane-ethyl acetate (1:1), 1 ml/min flow rate: methyl maslinate Rt $23'$, methyl 3-epi-maslinate Rt $28'20''$. Both products were identified by mp, nmr, ms, and hplc, comparable to authentic specimens. Traces of two other unidentified triterpenes were observed in these fractions.

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CHEMICAL INVESTIGATION OF FRUITS OF
POINSETTIA PULCHERRIMA

D.R. GUPTA,* R. BHUSHAN, B. AHMED, and R.P. DHIMAN

Department of Chemistry, University of Roorkee, Roorkee-247667, India

On chemical analysis, the fresh fruits of *Poinsettia pulcherrima* Willd (1) were found to contain the compounds listed below. The fruits were collected from the plants growing wild in the fields adjoining Roorkee. Although some work is reported on it (2-5), no work so far has been done on its fruits. Full details of the isolation and identification of the compounds are available on request to the senior author.

Compound	Identified by	Reference
Epigermanicyl acetate	mp, ir, ^1H -nmr, $[\alpha]_D$	(4)
Germanicyl acetate	mp, $[\alpha]_D$	(3-5)
Germanicol	mp, $[\alpha]_D$, by preparing acetyl derivative	(3-5)
Octacosanol	mp, ir, ^1H -nmr, mmp, co-tlc	(4)
β -sitosterol	mp, mmp, co-tlc, $[\alpha]_D$, ir, by preparing acetyl derivative	(3-5)

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