

TRITERPENES IN LEAVES OF *OLEA EUROPAEA*

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(Received 28 October 1974)

Key Word Index—*Olea europaea*; Oleaceae; maslinic acid; β -amyrin.

Plant and source. Leaves of *O. europaea* cultivated in the Botanical Garden of Simes S.p.A., Tuscolano, Italy.

Previous work. Maslinic acid from olive oil [1] and from olive husks [2, 3].

Present work. Fresh leaves of *O. europaea*, collected in February, after degreasing with light petrol, were extracted with CHCl_3 , followed by EtOAc. CHCl_3 conc. after purification by adsorption chromatography over Si gel yielded β -amyrin (ca 0.001%) (eluent: CHCl_3 ; TLC eluent CHCl_3 -EtOAc = 7:3) besides sitosterol [4], eritrodiol and oleanolic acid [5]. EtOAc extract was chromatographed on a Si gel column with CHCl_3 -EtOAc as eluent with increasing EtOAc concentration giving in order oleanolic and maslinic acid (CHCl_3 -EtOAc = 8:2 as eluent). Etheral CH_2N_2 treatment of the latter afforded methyl maslinate (ca 0.05%): mp 230° (from MeOH), $[\alpha]_D + 59^\circ \pm 1 c = 1$ in CHCl_3 .

Comment. The occurrence of maslinic acid in fresh leaves of *Olea europaea* strongly supports it is a true metabolite of the plant. Recently it has been reported that maslinic acid is produced, during the ageing of olive husks, possibly through microbial α -hydroxylation of oleanolic acid [3]. Furthermore, to our knowledge, this appears to be the first record of isolation of β -amyrin in *O. europaea*.

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QUERCETAGETIN AND OTHER FLAVONES FROM *GMELENA ARBOREA* AND *G. ASIATICA*

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(Received 6 November 1974)

Key Word Index—*Gmelina arborea*; *G. asiatica*; Verbenaceae; quercetagenin; glycosides of kaempferol, apigenin and luteolin.

Plant. *G. arborea* L. (voucher specimen No. 1/74 deposited at JIPMER). **Uses.** Medicinal [1,2]. **Previous work.** On leaves [3,4] and heartwood [5].

Present work. Dry leaves extracted with hot EtOH and the residue fractionated using solvents of increasing polarity. The benzene extract yielded