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### LOLIOLIDE FROM ARNICA MONTANA\*

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Key Word Index—Arnica montana; Compositae; terpenoid; loliolide.

Plant. Arnica montana L. Source. Leaves collected in the Šumava Mountains (Specimen No 236/69 deposited in the Herbarium of our Institute in Průhonice). Previous work. Isolation of loliolide from Fumaria officinalis L. [1]; from the leaves of Digitalis lanata Ehrh. [2]; from the pasture [3]; from Lolium perenne L. [4]; from the leaves of Digitalis purpurea L. [5]; its structure [4-6]; stereostructure [4,7]; synthesis of racemic loliolide [8].

Present work. Dry, ground leaves were extracted with petrol [9] and then with CHCl<sub>3</sub>. The residue of the CHCl<sub>3</sub> extract was worked up as described earlier [10]. Repeated chromatography on Si gel yielded loliolide, mp 151–152°,  $[\alpha]_D^{20} - 9.0^{\circ}$  (MeOH),  $C_{11}H_{16}O_3$  (M<sup>+</sup> at m/e 196).

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# p-COUMARIC ESTERS AND FATTY ALCOHOLS FROM ARTEMISIA CAMPESTRIS

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Key Word Index—Artemisia campestris; Compositae; p-coumaric esters; fatty alcohols.

Plant. Artemisia campestris L., identified and collected by Ž. Joksimović (Botanic Garden,

<sup>(</sup>Found: C, 67·54; H, 8·07; H act., 0·56. Calc: C, 67·33; H, 8·22%; H act. 0·51), IR (CHCl<sub>3</sub>): 3460, 3615, 1738, 1626 cm<sup>-1</sup>), identical (mp, mmp, IR,  $[\alpha]_D$ , MS and PMR) with the authentic loliolide.

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