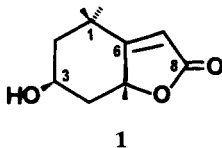


LOLIOLIDE FROM *SALVIA DIVINORUM*

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As part of our investigations (1,2) of the psychotropic Mexican labiate *Salvia divinorum* Epling & Jativa-M., we report the presence of loliolide (1), previously isolated from *Lolium perenne* (3), Gramineae, *Digitalis purpurea* (4), Scrophulariaceae, and several other species (5). The compound has recently been described to be a potent ant repellent (8).



## EXPERIMENTAL

PLANT MATERIAL.—*S. divinorum* was cultivated by the author at home and at the Matthaei Botanical Gardens. Voucher specimens have been deposited at the University of Michigan Herbarium.

EXTRACTION AND ISOLATION.—Air-dried foliage (3.4 kg) of *S. divinorum* was extracted with Et<sub>2</sub>O using a Soxhlet apparatus. Repeated flash column and hplc separations led to isolation of 15 mg of loliolide, mp 154-155° (lit. 149-153°). The compound was characterized by comparison of its mp, ir, <sup>1</sup>H nmr, ms [ $\alpha$ ] D and uv to published values (3-7). The structure of loliolide was further corroborated by its partially and completely decoupled <sup>13</sup>C-nmr spectra (CDCl<sub>3</sub>),  $\delta$  26.58 and 27.07 (both q, C-1 CH<sub>3</sub>), 30.66 (q, C-5 CH<sub>3</sub>), 35.89 (s, C-1), 45.75 and 47.43 (both t, C-2 and C-4), 66.84 (d, C-3), 86.60 (s, C-5), 112.97 (d, C-7), 171.75 (s, C-6), 182.33 (s, C-8). Full details of the isolation and identification of loliolide are available from the author.

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