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MIKANOKRYPTIN IN *MELAMPODIUM DIVARICATUM*

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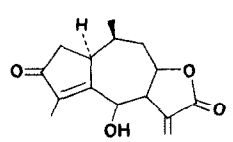
Key Word Index—*Melampodium divaricatum*; Compositae; sesquiterpene lactone; mikanokryptin.

Plant and source. Melampodium divaricatum (Rich. in Pers.) DC., collected by Dr. E. L. Tyson on 24 May, 1970 in Gamboa, Canal Zone (Tyson No. 6259, on deposit in Florida State University Center for Tropical Studies, Albrook AF Base, Canal Zone).

Isolation and identification. Above-ground dried plant material (5·8 kg) was extracted with $CHCl_3$ and worked up in the usual fashion [1]. The final $CHCl_3$ extract was concentrated to 100 ml, diluted with MeOH and chilled for 2 days. The ppt. was filtered and washed repeatedly with cold MeOH. Three recrystallizations from MeOH afforded 1·0 g of colorless prisms, mp 248–250°, identified as mikanokryptin (**1**) by comparison (mmp, NMR, IR, rotation) with authentic material [2]. Mother liquors were concentrated *in vacuo* and the gummy residue, wt 35 g, was chromatographed over silicic acid in the usual fashion [2]. The C_6H_6 and C_5H_6–$CHCl_3$ eluates contained little material. The $CHCl_3$ fractions yielded an additional 0·8 g of **1**. The $CHCl_3$–MeOH (49:1) fractions yielded approx 15 g of gum which appeared to be reasonably homogeneous (TLC); however attempts to purify this material by rechromatography or preparative TLC resulted in extensive decomposition.



(**1**)

Discussion. Mikanokryptin has previously been isolated from a single population of *Mikania micrantha* (tribe Eupatorieae-Compositae) collected in Panama [2,3]. Its discovery in a representative of *Melampodium* (tribe Helianthieae) [4], the white-rayed species [5] of which elaborate unusual germacradienolides [6], seems noteworthy.

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2. Herz, W., Srinivasan, A. and Kalyanaraman, P. S. (1975) *Phytochemistry* **14**, 233.
3. In our earlier publication [2] the identity of this collection (Tyson No. 6292) was described as being in question. Subsequently, we were informed by Dr. S. McDaniel, Mississippi State University, of his conslusion that Tyson No. 6292, while quite aberrant in many respects, is matched by a few specimens from other locations and does not represent a new species, since he has been unable to find any characters which do not integrate freely with typical *M. micrantha* (W. C. Holmes, Ph.D. dissertation in preparation).
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