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HAAGENOLIDE, THE MAJOR SESQUITERPENE LACTONE OF *BALTIMORA RECTA*

JOSÉ F. CICCIÓ and JOSÉ CALZADA

Escuela de Química, Centro de Investigaciones en Productos Naturales, Universidad de Costa Rica, San José, Costa Rica

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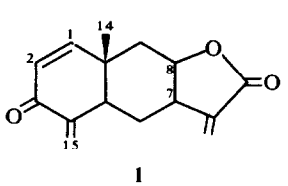
Key Word Index—*Baltimora recta*; Compositae; sesquiterpene lactones; encelin; haagenolide.

The genus *Baltimora* (Compositae, Heliantheae, subtribe Ecliptinae [1]) consists of two species of which *Baltimora recta* L. is the only one that grows in central America. Recently Herz [2] has reported the isolation of encelin (**1**) as the major constituent of this plant, along with other alantolides present in minute amounts.

We should like to report that in our hands the principal constituent of *B. erecta* is haagenolide (**2**) (0.25%)*, while encelin (**1**) was isolated in 0.028% yield. **2** is a germacranolide isolated previously from *Zinnia haageana* [4] and plants of the genus *Inula* [5]. Transformation of the suspected haagenolide into herbolide A (**4**), a natural compound from *Artemisia herba-alba* [6], confirmed the structure. This was achieved according to reference [4]. The mmp with an authentic sample of herbolide A was undepressed. Also the corresponding acetate of the isolated compound was shown to be identical to haagenolide acetate (**3**).†

We believe that the main reason why Herz and Kumar [2] were unable to detect haagenolide in *B. recta* is its inherent instability; the substance readily polymerizes. From the Experimental section of [2], one finds that the plant was studied eight years after collection.



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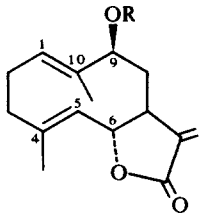
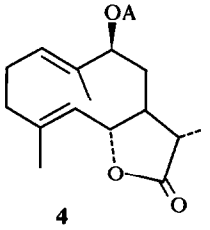


2 R = H
3 R = Ac



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* The plant was collected in Costa Rica and the extract purified according to Herz [3].

† A mp of 196–197° is reported for haagenolide acetate [4]. We have found that this compound melts above 200° (slow decomp.). After recrystallization, an authentic sample, kindly provided by Professor Kisiel, also decomposed above 200°.