

PARTIE EXPÉRIMENTALE

Matériel. S. *Boehmeria* Exell. Voucher Duvigneaud H 193 Bruxelles. UV: λ_{max} (m): 220 (4.54), 270 (3.86), 280 (3.82), 289 (3.68). IR: ν_{max} (cm⁻¹): 3400, 3200, 2900, 1730, 1620, 1460, 1440, 1170, 1025, 740 cm⁻¹. MS: (70 eV, 200°, introduction directe): *m/e* (abond. relat.): 58 (59), 143 (22), 144 (28), 153 (52), 156 (53), 169 (50), 185 (72), 223 (18), 237 (18), 248 (40), 251 (100), 265 (12), 323 (17), 336 (9), 354 (34), 368 (9), 369 (3). PMR du dérivé monoacétylé: (100 MHz, CD₃OD) δ (TMS) ppm: 1.80 (3H, dd, $J_1 = 7$ Hz, $J_2 = 2$ Hz), 3.58 (3 H, s, N-Me), 3.72 (3H, s, O-Me), 4.58 (1H, m, C-3), 6.05 (1H, g, $J_1 = 14$ Hz, $J_2 = 7$ Hz). CD: $[\theta]$ (MeOH): +3,0.10³ (289 nm), +5,6.10³ (280 nm) +6,6.10³ (270 nm).

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CRYPTOPLEURINE, CYTOTOXIC AGENT FROM *BOEHMERIA CAUDATA* (URTICACEAE) AND *CRYPTOCARYA LAEVIGATA* (LAURACEAE)

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Key Word Index.—*Boehmeria caudata*; Urticaceae; *Cryptocarya laevigata*; Lauraceae; alkaloid; cryptopleurine; cytotoxic agent.

As a result of the continuing search for plants having tumor-inhibitory agents, it was found that the EtOH extracts of the wood of stem with bark of *Boehmeria caudata* Sw. (Urticaceae) and of the stem bark of *Cryptocarya laevigata* Bl. (Lauraceae)† exhibited cytotoxic activity toward the human epidermoid carcinoma of the nasopharynx (KB) test system of the Division of Cancer Treatment, National Cancer Institute, N.I.H., Bethesda, MD. Neither plant had been previously investigated but other species of *Boehmeria* and *Cryptocarya* are known to contain the alkaloid cryptopleurine [1–3].

The KB active material was isolated from *Boehmeria caudata* by partitioning the EtOH extract between CHCl₃ and H₂O (1:1), chromatographing the CHCl₃ phase on a Si gel-60 (E. Merck) column, and purifying the KB active fraction on preparative TLC plates. A similar isolation procedure was utilized for *Cryptocarya laevigata*. The active constituent was identified as cryptopleurine by comparison with the reported PMR spectrum [4] and comparison with an authentic sample [mass (base peak, *m/e* 294), IR, TLC and mp].

Cryptopleurine exhibited an activity of 10⁻⁵ µg/ml in the KB test system. For pure compounds activity in the KB test system is defined as ED₅₀ ≤ 4 µg/ml [5]. In addition to its high KB activity, cryptopleurine has been reported to exhibit antiviral activity [6].

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† *Boehmeria caudata* was collected in Mexico in August, 1975. *Cryptocarya laevigata* was collected in New Guinea in November, 1975. Identifications were confirmed by Dr. Robert E. Perdue, Chief, Medicinal Plant Resources Laboratory, U.S.D.A., Beltsville, M.D. Reference specimens are maintained by the U.S.D.A.