an uncertain number of vinyl C-methyls There was complex adsorption in the region δ 1·8–2 8 which was obviously due to many overlapping signals

At this juncture it became apparent that the yellow pigment was probably identical with xanthochymol (**2**) isolated from *Garcinia xanthochymus* (Guttiferae) [5] Proof of identity was obtained by direct comparison with an authentic sample of **2**

EXPERIMENTAL

Isolation Fruit of *C rosea* was collected from street trees along Aupuni St in Hilo, Hawaii, August 1971 The dried fruit was ground and extracted with benzene Solvent was removed from the extracts and the residue chromatographed on silicic acid Lipids and other non-polar materials were eluted with hexane Benzene eluted the yellow pigment along with further oils Solvent was removed from those benzene fractions which showed a black $FeCl_3$ test and the residue allowed to stand with hexane whereupon yellow hair-like crystals slowly formed, m p 130–132 λ_{max}^{EtOH} 252, ~275, 362 nm $\lambda_{max}^{EtOH\ NaOH}$ 287 402 nm ν 3300 (hydroxy) 1745 1655 (carbonyl) cm^{-1} (Nujol), NMR δ 6 92 (d, 2H *aromatic*) 6 54 (d, 1H, *aromatic*), 4 96 *bm* 3H *vinyl*) 4 61 4 41 (2H C-CH_2) ($CDCl_3$) MS *m e* (relative intensity) 602 (30) 574 (7) 533 (3) 467 (8) 466 (37) 465 (100) 464 (6) 449 (6) 410 (6) 341 (22), 231 (20) 187 (6), 177 (7) 137 (37) 110 (7) 109 (7), 95 (10), 91 (6) 81 (10) 69 (60) 55 (8) 41 (37) (Found C 74 1, H, 8 48 $C_{34}H_{50}O_6$ requires C 75 01 H, 8 30%)

Crude plant extracts which were not worked up promptly and had stood at RT for some months could not be made to yield crystalline material after eventual work-up

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O-METHYLFLAVINANTINE FROM *RHIGIOCARYA RACEMIFERA**

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Key Word Index—*Rhigiocarya racemifera*, Menispermaceae morphinandienone alkaloid *O*-methylflavinantine

Plant Rhigiocarya racemifera Miers (Menispermaceae) *Source* Ghana, West Africa (a voucher specimen is on deposit at the Faculty of Pharmacy, University of Science and Technology, Kumasi, Ghana, West Africa) *Uses.* Medicinally,[1] the powdered leaves and juice for nasal drops and the leafy twigs, roots and seeds as an aphrodisiac

* Part IV in the Series Constituents of West African Medicinal Plants For Part III see TACKIE A N DWUMA-BADU D LARTEY P A SCHIFF JR P L KNAPP J E and SLATKIN D J (1974) *Lloydia* 37, 6

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Isolation and identification The powdered root (300 g) was moistened with NH_4OH and extracted with EtOH. TLC (alumina–$CHCl_3$) showed the presence of one major alkaloid in the extract which was concentrated, and chromatographed over alumina in $CHCl_3$. Elution afforded (±)-*O*-methylflavinantine (1·0 g) m.p. 110 (Et_2O) (lit oil,[2] 158–160[3]), $[\alpha]_D^{22}$ 0 (c 1·0, $CHCl_3$); λ_{max}^{MeOH} 208 nm (log ϵ 4·56), 240 (4·26) and 283 (3·87); $\nu_{max}^{CHCl_3}$ 1665, 1642, 1620 cm^{-1} (α-methoxyl cross-conjugated cyclohexadienone system) and 1509 cm^{-1} (Ar C=C); NMR signals ($CDCl_3$) at δ 2·45 (NCH_3, 3H, *s*), 3·78 (OMe, 3H, *s*), 3·84 (OMe, 3H, *s*), 3·87 (OMe, 3H, *s*), 6·30 (C-5, 1H, *s*), 6·37 (ArH, 1H, *s*), 6·63 (ArH, 1H, *s*), and 6·82 (C-8, 1H, *s*); MS M^+ *m/e* 341 (100%) for $C_{20}H_{23}NO_4$, 340 (21) (M-H), 326 (37) (M-Me), 313 (26) (M-CO), 298 (47) (M-CO-Me), 282 (26) (M-CO-OMe), 270 (12) (M-CO-Me-CO) and 256 (15) (M-C_3H_7N-CO).

The methiodide had, m.p. 247–249°*d* (MeOH–Me_2CO) (lit 223–225°*d*[MeOH],[2] 250–252°*d* [Me_2CO],[4] λ_{max}^{MeOH} 209 nm (log ϵ 4·73), 236 (4·08) (sh) and 286 (3·87); ν_{max}^{KBr} 1670, 1645 and 1618 cm^{-1} (α-methoxyl cross-conjugated cyclohexadienone system). The alkaloid was identified by a direct comparison (UV, IR, NMR) with authentic *O*-methylflavinantine and with *O*-methylflavinantine methiodide (m.p., IR).

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