Phytochemistry, 1975, Vol. 14, p. 1673. Pergamon Press. Printed in England.

SIDERIN FROM *CEDRELA TOONA*[*]

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(*Received* 27 *January* 1975)

Key Word Index—*Cedrela toona*; Meliaceae; 4,7-dimethoxy-5-methylcoumarin; *Aspergillus glaucus*; kotanin.

In view of a recent publication by Venturella *et al.* [1] on the structure of siderin, a new coumarin from *Sideritis romana* L. (Labiatae), we wish to place on record our findings on the structure of a new coumarin from the wood of *Cedrela toona* Roxb. Based on spectral evidence, degradation studies and synthesis, we assigned to this compound 4,7-dimethoxy-5-methyl coumarin, which is the same as siderin [1]. The identity of the two compounds is fully borne out by comparing the published data (mp, UV, IR, NMR) of siderin with that of our compound. We wish to record here *only* additional evidence for the structure which was not covered by Venturella *et al.* [1].

The new coumarin (mp 191–192°; $C_{12}H_{12}O_4$, M^+ at *m/e* 220) was isolated from the light petroleum cut of the original Me_2CO extract of the wood of *Cedrela toona* by column chromatography (Al_2O_3). On refluxing with alcoholic KOH (5%, 4 hr) and acidification with CO_2 gas, it yielded a phenol, $C_{10}H_{12}O_3$ (M^+, *m/e* 180), mp 79–80°. From its NMR ($COC\underline{H}_3$: 3H, *s*, 2·55 ppm; Ar-$C\underline{H}_3$: 2H, *s*, 2·53 ppm; $OC\underline{H}_3$: 3H, *s*, 3·0 ppm; Ar-$\underline{H}$: 2H, *s*, 6·15 ppm) and genesis, this compound was considered to be 2-hydroxy-4-methoxy-5 or 6-methylacetophenone and proved to the latter (IR, NMR) by synthesis of the methylation product [2].

An authentic sample of siderin was prepared via the hydroxy compound [3] and then methylated to yield a product, identical in all respects (mp, m. mp, IR, NMR) with the naturally occurring coumarin from *Cedrela toona*.

It may be pointed out that kotanin, a metabolite of *Aspergillus glaucus* [4] is biogenetically, an 8 → 8′-coupling product of siderin.

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[*] Abstracted from the Ph.D. thesis (Poona University, 1972) of M. C. Sriraman.

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Phytochemistry, 1975, Vol. 14, pp. 1673–1674. Pergamon Press. Printed in England.

OXOAPORPHINE ALKALOIDS FROM THE CALLUS TISSUE OF *STEPHANIA CEPHARANTHA*

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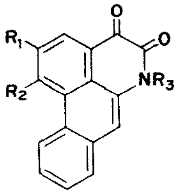
(*Received* 7 *February* 1975)

Key Word Index—*Stephania cepharantha*; Menispermaceae; callus tissue; aporphine alkaloids; norcepharadione; liriodenine; lysicamine.

Cepharanone A and B, and cepharadione A(**1**) and B(**2**) have been isolated from the callus tissue of *Stephania cepharantha* Y. Hayata [1,2]. This paper reports the isolation of a new compound norcepharadione(**3**), liriodenine(**4**) and lysicamine(**5**) from the tissue.



(**1**) $R_1 + R_2 = OCH_2O$, $R_3 = Me$
(**2**) $R_1 = R_2 = OMe$, $R_3 = Me$
(**3**) $R_1 = R_2 = OMe$, $R_3 = H$

Norcepharadione(**3**) is a fluorescent compound, $C_{18}H_{13}NO_4$, mp 304–7° (decomp.), which appeared to have a similar structure to **1** and **2** from its UV and IR spectra. IR ν_{max} (KBr) cm^{-1}; 1668, 1650 (C=O), UV λ_{max} (EtOH) nm (log ϵ); 213 (4·55), 241 (4·60), 303 (4·24), 315 (4·27), 440 (4·22).

The NMR spectrum ($CDCl_3$, δ, ppm) of **3** showed signals for two OMe groups at 4·11 and 4·16, and aromatic protons (6H) at 7·60–9·52, which were observed in **2**. However, instead of the signal for NMe recorded in **2**, a proton (NH) 12·19 was observed. Furthermore, the MS showed the same fragment peak (M^+-28) characteristic of **1** and **2**, and a similar fragments pattern to **2**, except for the difference of 14. From the above results, the structure of norcepharadione was obviously **3**. The 7-oxoaporphine type compounds, liriodenine (**4**) and lysicamine (**5**) were also isolated from the callus and identified in the usual way (IR, UV, NMR, MS) [3,4].

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Phytochemistry, 1975, Vol. 14, pp. 1674–1675. Pergamon Press. Printed in England.

CONSTITUENTS OF BRAZILIAN MORACEAE*

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(*Received* 18 *December* 1974)

Key Word Index—*Clarisia racemosa*; *Chlorophora tinctoria*; Moraceae; 3,5-dihydroxy-4'-methoxystilbene; 1,3,6,7-tetrahydroxyxanthone; 6-prenylpinocembrin.

Plant. Clarisia racemosa R. et P. (Moraceae), trivial name "oiticica", was collected at the Linhares Reserve, Rio Doce, Espirito Santo, and identified by the botanist C. Mainieri. *Trunk wood.* The C_6H_6 extract (21 g ex 5·4 kg) was chromatographed on silica. Elution with solvent of gradually increasing polarity gave sitosterol (recryst. MeOH—$CHCl_3$, 140 mg) and 3,5-dihydroxy-4'-methoxystilbene (recryst. AcOEt–$CHCl_3$, 200 mg), all data as described for a sample from *Rheum rhaponticum* L. (Polygonaceae) [2].

Plant. Chlorophora tinctoria Gaud. (Moraceae), trivial name "tatajuba", was collected at Pacatuba ridge, near Fortaleza, Ceará, and identified by the botanist F. J. de A. Matos.

Previous work. An Et_2O ext. of the wood contained in the H_2O-insol. portion morin, and in the H_2O sol. portion dihydromorin, dihydrokaempferol and maclurin [3]. A commercial sample of this benzophenone contained 1,3,6,7-

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* Part 5 in the series "The Chemistry of Brazilian Moraceae". For Part 4 see Ref. [1]. Sponsored by Ministério do Planejamento (Financiadora de Estudos e Projetos S.A.) through Academia Brasileira de Ciências.