

**The Chemistry of Brazilian Lauraceae**  
**LXXI. Styrylpyrones of *Aniba panurensis* and *A. permollis***

Mário Motidome  
Otto R. Gottlieb (\*)  
Universidade de São Paulo

Klaus Kubitzki (\*\*)  
Institut für Allgemeine  
Botanik und Botanischer Garten,  
Hamburg 36. Federal Rep. Germany

The present series (for part LXX see Santos, 1982) includes the chemical registry of samples attributed to particular *Aniba* species. The identification of all the specimens used in these studies has now been critically examined, and confirmed, corrected or placed in doubt (Gottlieb & Kubitzki, 1981a). Two of the corrections referred to *A. mas* Kosterm. (voucher Herbarium INPA 42207) (Diaz et al., 1977) and to *A. permollis* (Nees) Mez (Rezende et al., 1971). Both specimens were reported to contain 4-methoxy-6-(3',4'-methylenedioxophenyl)-2-pyrone, 4-methoxy-6-(E)-styryl-2-pyrone, 4-methoxy-6-(E)-(3',4'-methylenedioxystyryl)-2-pyrone and 4-methoxy-6-(E)-(3',4'-dimethoxystyryl)-2-pyrone. The analysed samples are now attributed to *A. panurensis* (Meissn.) Mez and it is this pan-Amazonian (Gottlieb & Kubitzki, 1981b) species which must be considered to possess the indicated chemical composition.

The re-assignment of identities opens the question concerning the chemical compositions of *A. mas* and of *A. permollis*. A specimen of the latter species (voucher Herbarium INPA 84469), collected at Tefé, Amazonas State, Brazil, was examined and found to contain, besides benzyl benzoate and methyleugenol, 6-(E)-(3',4'-methylenedioxystyryl)-2-pyrone and 6-(E)-3',4'-dimethoxystyryl)-2-pyrone. Strangely enough 6-(E)-styryl-2-pyrone was not detected. If present at all it is certainly a minor component. In opposition it is precisely this 3',4'-unsubstituted derivative which vastly predominates over the dioxygenated derivatives in *A. cylindriflora* Kosterm. (Diaz et al., 1977). It is deemed probable that a specimen of identical composition previously considered to represent *A. parviflora* (Meissn.) Mez (Re-

zende et al., 1971; Bittencourt et al., 1971) in fact represents *A. cylindriflora* (Gottlieb & Kubitzki, 1981a).

Thus 6-styryl-2-pyrone without a substituent at position 4, having been found so far only in *A. cylindriflora* and *A. permollis*, are seemingly less widespread in the genus than 4-methoxy-6-styryl-2-pyrone, located in *A. panurensis* and additionally in *A. canellilla* (H.B.K.) Mez (Rezende et al., 1971), *A. kappleri* Mez (Santos et al., 1982), *A. heringerii* Vattimo (Mors et al., 1962) and *A. firmula* (Nees et Mart.) Mez (Gottlieb & Mors, 1959), the latter species now considered (Gottlieb & Kubitzki, 1981a) to incorporate *A. gardneri* (Meissn.) Mez (Bülow & Gottlieb, 1968; Mascarenhas & Gottlieb, 1977).

#### RESUMO

Amostras das madeiras de *Aniba panurensis* (Meissn.) Mez e de *A. permollis* (Nees) Mez (família Lauraceae) contém 6-estiril-2-pironas, as quais são respectivamente, o composto não substituído e seu derivado metoxilado na posição 4.

#### REFERENCES

- BITTENCOURT, A.M.; GOTTLIEB, O.R.; MAGESWARAN, S.; MORS, W.B.; OLLIS, W.D.; SUTHERLAND, I.O.; MAGALHÃES, M.T.  
1971 — The natural occurrence of 6-styryl-2-pyrone and their synthesis. *Tetrahedron*, 27: 1043-1048.  
BÜLOW, M.V. VON & GOTTLIEB, O.R.  
1968 — Constituentes de *Aniba gardneri*. *Anais Acad. Brasil. Ciênc.*, 40: 299-302.  
DIAZ, A.M.P. de; GOTTLIEB, O.R.; MAGALHÃES, A.F.; MAGALHÃES, E.; MAIA, J.G.S.  
1977 — Notes on *Aniba* species. *Acta Amazonica*, 7: 41-43.  
GOTTLIEB, O.R. & KUBITZKI, K.  
1981a — Chemosystematics of *Aniba*. *Biochem. Syst. Ecol.*, 9: 5-12.

- 1981b — Chemogeography of **Aniba** (Lauraceae). **Plant Syst. Evol.**, 137: 281-289.
- GOTTLIEB, O.R. & MORS, W.B.  
1959 — Isolation of 5,6-dehydrokawain from **Aniba firmula** Mez. **J. Org. Chem.**, 24: 17-18.
- MASCARENHAS, Y.P. & GOTTLIEB, O.R.  
1977 — Structure of aniba-dimer A isolated from **Aniba gardneri**. **Phytochemistry**, 16: 301-302.
- MORS, W.B.; MAGALHÃES, M.T.; LIMA, O.A.; GOTTLIEB, O.R.  
1962 — Isolamento e síntese de 11-metoxi-iangonina e de 5,6-dehidrometisticina. **Anais assoc. bras. quím.**, 21: 7-12.
- REZENDE, C.M.A. da M.; BÜLOW, M.V. VON; GOTTLIEB, O.R.; PINHO, S.L.V.; ROCHA, A.I. da  
1971 — The 2-pyrone of **Aniba** species. **Phytochemistry**, 10: 3167-3172.
- SANTOS, M.M. dos; MESQUITA, A.A.L.; GOTTLIEB, O.R.  
1982 — Estirilpironas de **Aniba kappleri**. **Acta Amazonica**, 12: no prelo.

(Aceito para publicação em 23/06/82)