

E2-07 Stereochemistry of lignans from *Myristica dactyloides*

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Myristica dactyloides (Myristicaceae) is a large tree found in the montane forests of Sri Lanka. Decoctions made out of leaves and bark are used in the traditional medicine. Chemical investigation of *M. dactyloides* has led to the isolation of 7 aryl alkanones from hot hexane and dichloromethane extracts and myoinositol from the hot methanol extract. In previous studies on the hot hexane extract of *M. dactyloides*, the isolation and characterization of 3 new lignans were reported. The stereochemistry of the reported lignans and isolation and structure elucidation of 2 new lignans from the dichloromethane extract of the same species are reported in this communication.

Column chromatography of the hexane extract followed by further purification using medium pressure and prep. TLC gave compounds **1,2,3**. The comparison of the NMR signals corresponding to C-7,7', C-8,8', C-9,9' and their respective protons with the previously reported compounds suggest the structures, rel-(8S, C-9.9' and their respective protons with the previously reported compounds suggest the structures, rel-(8S,8'S)-bis(3,4-methylenedioxyphenyl)-8,8'-neolignan (**1**), rel.-(8S,8'R)-dimethyl-(7S,7'R)-bis(3,4-methylenedioxyphenyl) tetrahydrofuran(**2**) and rel.-(8S,8'R)-dimethyl-(7S,7'R)-bis(4hydroxy-3-methoxyphenyl)tetrahydrofuran(**3**). The dichloromethane extract was chromatographed over silica gel and the fractions were further purified by medium pressure and prep. TLC to give compounds **4** and **5**. Structures of the compounds were established as rel.-(8R,8'R)-dimethyl-(7S,7'R)-bis(3,4-methylenedioxyphenyl)tetrahydrofuran(**4**), and rel.-(8S,8'S)-dimethyl-(7S,7'S)-bis(4-hydroxy-3-methoxyphenyl)tetrahydrofuran(**5**) by using modern spectroscopic techniques.

