E 24 TWO COUMARINS FROM PLEIOSPERMIUM ALATUM (RUTACEAE)

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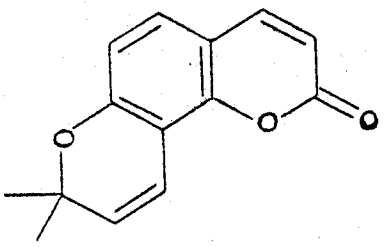
In continuing studies[1] on biologically active constituents of the species of Rutaceae seselin (1) and suberenol (2) from the hexane extract of the root bark of P.alatum collected at Sigiriya were isolated.

The powdered root bark was extracted with hexane, dichloromethane and ethyl acetate, successively. The hexane extract showed antifungal activity against Cladosporium sp. in the t.l.c. bioassay[2]. Chromatographic fractionation

(silica gel, hexane and ethyl acetate) of the hexane extract afforded a white crystalline substance, m.p. 118-119°C, which displayed antifungal activity. The compound was identified as seselin (1) from its spectral data: IR ν_{max} 1720, 1630, 1590 cm^{-1}; six doublets (J=10 Hz) at δ 7.62, 7.23, 6.88, 6.72, 6.27, 5.72 corresponding to one proton each, and a singlet at δ 1.47 for six protons.

A more polar fraction of the column yielded a second crystalline compound, m.p. 176-177°C, which was identified as suberenol (2)[4]; ν_{max} 3450, 1680, 1610, 1550, 1490 cm^{-1}; δ 7.65(1H,d, J=10Hz), 7.52(1H,s), 6.92(1H,d, J=17Hz), 6.82 (1H,s), 6.37(1H,d, J=17Hz), 6.27(1H,d, J=10Hz), 3.93(3H,s), 1.68(s, D_2O exchangeable), 1.45(6H,s).



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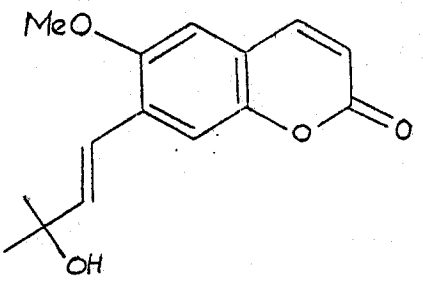

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