A213 Antifungal and antileishmanial compounds from *Thamnosa africana*

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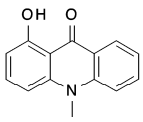
In the course of our search for new antifungal and larvicidal lead compounds, the dichloromethane extract of the roots of *Thamnosma africana* (Rutaceae) was found to show a marked activity against the phytopathogenic mold *Cladosporium cucumerinum*. An activity-guided fractionation of the extract led to the isolation of the bioactive product that was identified as a known acridine alkaloid named 1-hydroxy-10-methylacridone (**1**) (1). The phytochemical investigation of the same extract was also carried out. A LC/UV/MS dereplication enabled the identification of several coumarins and furanocoumarins (xanthotoxine, psoralen, bergapten, umbelliferone, imperatorin). Further furanocoumarins (byakangelicin, marmesin, isopimpinellin) and an acridine alkaloid, rutacridone (**2**), were then isolated from the extract. The structure of these compounds were characterised by spectrometric methods including 1D- and 2D-NMR, EI-MS and DCI-MS. The pure compounds were also tested against *Leishmania major*: Rutacridone was found to be slightly active at a 10 µM dilution against *L. major* promastigotes without being toxic on macrophages at the same concentration. Rutacridone didn't show any activity against the intracellular parasites. Isolation of other acridine alkaloids is underway.



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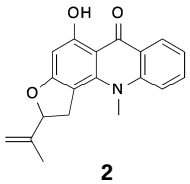

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Reference: 1. Gibbons, S. et al. (1997) Phytochemistry 44: 1109.

A214 New antifungal cadinanes from the roots of *Taiwania cryptomerioides*

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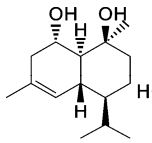
Taiwania cryptomerioides (Taxodiaceae) is an endemic plant and also an important building material. It grows at elevation from 1800 to 2600 m in the central mountains in Taiwan. The heartwood of *T. cryptomerioides* is yellowish-red, with distinct purplish-pink streaks, and extremely decay resistant. In a previous investigation, it was found to be full of cadinane-type sesquiterpenes.

In this study, we have isolated six new cadinane derivatives (**1-6**) together with other cadinane-type compounds from the roots of *T. cryptomerioides*. Six new compound structures were elucidated principally from spectral evidence. Those cadinane-type derivatives exhibited a significant activity against *Coriolus versicolor* (white-rot fungus) and *Laetiporous suphureus* (brown-rot fungus).



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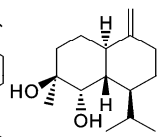

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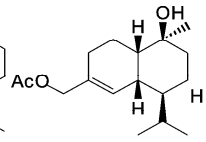

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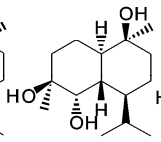

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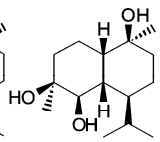

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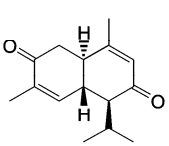

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