Fuente: www.fitoterapia.net

BO89 Novel isoprenylated chalcones and flavanones from two Madagascan Cedrelopsis species.

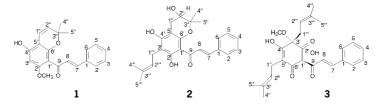
N.A. Koorbanally ^a, M. Randrianarivelojosia ^b and D.A. Mulholland ^a

^a Natural Products Research Group, School of Pure and Applied Chemistry, University of Natal, Durban, 4041, South Africa. ^b Laboratory of Pharmacology, EES Sciences, University of Antananarivo, BP 906, Antananarivo, 101, Madagascar.

Cedrelopsis grevei, commonly called Katrafay, is amongst the many medicinal plants of Madagascar, being used to relieve muscle fatigue when the bark is soaked in hot water (1). Previous investigations have found this plant to contain chromones and coumarins (2,3,4,5). Two limonoids of unusual structure, cedmilinol and cedmiline have also been isolated from *C. grevei* (1). The dichloromethane extract of *C. grevei* yielded a dihydrochalcone, uvangoletin, a flavanone, 5,7-dimethylpinocembrin, two hydroxylated chalcones, cardamonin and flavokawin B and three isoprenylated chalcones, 2'-methoxyhelikrausichalcone, and the novel compounds, cedreprenone (1) and cedrediprenone (2).

The leaves of *Cedrelopsis microfoliata* have ethnopharmacological importance as they are used to prepare a decoction for woman to drink after childbirth. This is the first phytochemical investigation of *Cedrelopsis micro-foliata*.

The hexane extract yielded three compounds, a novel chalcone, microfolian (**3**) and two flavanones (microfolione, a novel flavanone and agrandol). The dichloromethane extract yielded four compounds, three coumarins (cedrecoumarin A, obliquin, and a novel coumarin, microfolicoumarin, and a sesquiterpenoid (sesquichamaenol).



References: 1. Mulholland, D. et al. (1999) Tetrahedron, 55, 11547. 2. Eshiett, I.T. et al. (1968) J. Chem. Soc (C), 481. 3. Dean, F.M et al. (1971) Phytochem, 10, 3221. 4. McCabe, P.M. et al. (1967) J. Chem. Soc (C), 145. 5. Kotsos, M. et al. in press.

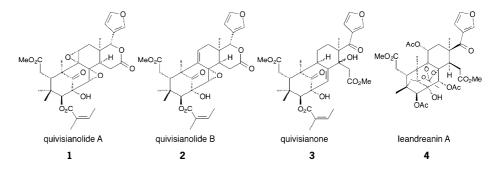
BO90 Novel mexicanolide and phragmalin limonoids from two Madagascan Meliaceae species

P.H. Coombes ^a, D.A. Mulholland ^a and M. Randrianarivelojosia ^b

^a Natural Products Research Group, School of Pure and Applied Chemistry, University of Natal, Durban, 4041, South Africa. ^b Laboratory of Pharmacology, EES Sciences, University of Antananarivo, BP 906, Antananarivo, 101, Madagascar.

Five novel mexicanolide limonoids have been isolated from the Madagascan species Quivisia papinae Baillon ex Grandidier (Meliaceae). These include quivisianolide A (1), possessing a hitherto unreported 9α , 11α -epoxide ring, the corresponding $\Delta^{9(11)}$ double bond analogue quivisianolide B (2), and the 17-keto ring D seco quivisianone (3). The Madagascan Meliaceae Neobeguea leandreana Leroy has yielded three novel phragmalin limonoids, including the rare 17-keto ring D seco leandreanin A (4).

The structural elucidation of these compounds, principally by 1-D and 2-D NMR spectroscopy, will be presented, and the chemotaxonomic implications of these findings will be discussed.



50th Annual Congress of the Society for Medicinal Plant Research