

Phytochemistry Vol. 66, No. 23, 2005

Reports on Structure Elucidation

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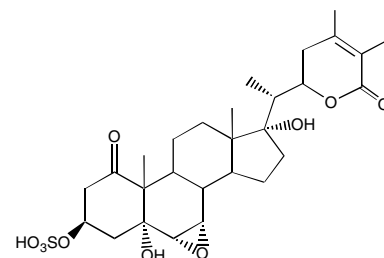
TERPENOIDS

Unusually sulfated and oxygenated steroids from *Withania somnifera*

pp 2702–2707

Laxminarain Misra\*, Payare Lal, Rajender S. Sangwan, Neelam S. Sangwan, Girish C. Uniyal, Rakesh Tuli

Ten withasteroids have been isolated from *Withania somnifera* leaves, out of which four are new including a 3-sulfated steroid. Their structures have been established by spectroscopic methods.

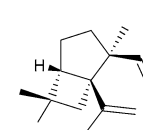


Three sesquiterpene hydrocarbons from the roots of *Panax ginseng* C.A. Meyer (Araliaceae)

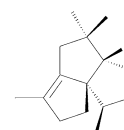
pp 2708–2713

Rita Richter\*, Simla Basar, Angelika Koch, Wilfried A. König

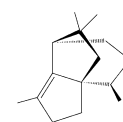
Three sesquiterpene hydrocarbons (panaxene, panaginsene, and ginsinsene) have been isolated from roots of *Panax ginseng*. Structure elucidation resulted from spectroscopic methods (GC–MS, NMR).



Panaxene



Panaginsene



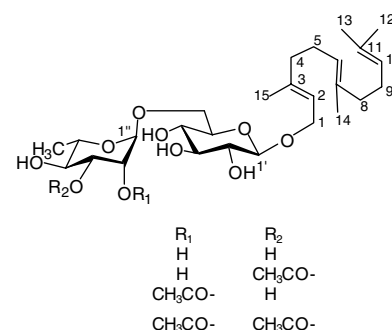
Ginsinsene

Acylated farnesyl diglycosides from *Guioa crenulata*

pp 2714–2718

Abdulmagid Alabdul Magid, Laurence Voutquenne-Nazabadioko\*, Marc Litaudon, Catherine Lavaud

Chemical investigation of the methanolic extract of the leaves of *Guioa crenulata* led to the isolation and characterisation of four farnesyl diglycosides, crenulatosides A, B, C and D, along with three known flavonol glycosides and one known trimeric proanthocyanidin possessing a doubly linked structure.

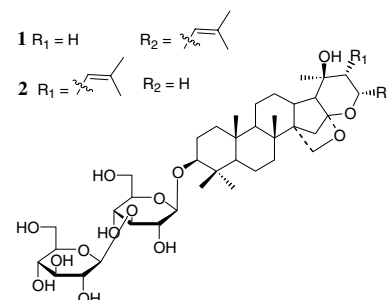


### Triterpenoid glycosides from *Bacopa monnieri*

pp 2719–2728

Chillara Sivaramakrishna, Chirravuri V. Rao, Golakoti Trimurtulu, Mulabagal Vanisree, Gottumukkala V. Subbaraju\*

Two triterpenoid saponins **1** and **2** were isolated from *Bacopa monnieri* along with 10 known compounds and their structures were elucidated on the basis of spectral data.

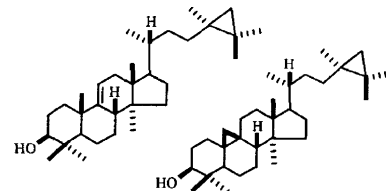


### Unusual cyclolanostanes from leaves of *Pandanus boninensis*

pp 2729–2733

Akira Inada\*, Yasuyuki Ikeda, Hiroko Murata, Yuka Inatomi, Tsutomu Nakanishi, Kinkini Bhattacharyya, Tanusree Kar, Gabriele Bocelli, Andrea Cantoni

Two unusual triterpenoids, (24*S*)-24-methyl-25,32-cyclo-5 $\alpha$ -lanosta-9(11)-en-3 $\beta$ -ol and (24*S*)-24-methyl-25,32-cyclo-cycloartane-3 $\beta$ -ol, were isolated from leaves of *Pandanus boninensis*. Their structures were established on the basis of spectroscopic methods and X-ray analysis.

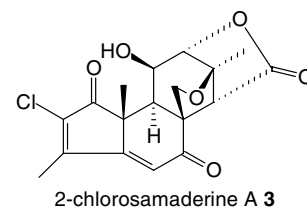


### Quassinoids from the leaves of the Madagascan Simaroubaceae *Samadera madagascariensis*

pp 2734–2739

Philip H. Coombes, Dashnie Naidoo, Dulcie A. Mulholland\*, Milijaona Randrianarivojosia

The leaves of *Samadera madagascariensis* have yielded three  $C_{18}$  quassinoids, 5 $\beta$ ,6-dihydrosamaderine A, 2-chlorosamaderine A, and a  $C_{19}$  quassinoid, 3,4 $\beta$ -dihydrosamaderine C, together with the known quassinoids samaderine A, samaderine B, and cedronin.



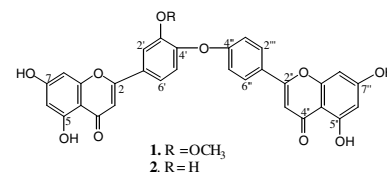
## PHENOLICS

### Biflavonoids from *Lonicera japonica*

pp 2740–2744

Neeraj Kumar, Bikram Singh\*, Pamita Bhandari, Ajai P. Gupta, Sanjay K. Uniyal, Vijay K. Kaul

Two biflavonoids, 3'-*O*-methyl loniflavone [5,5'',7,7''-tetrahydroxy 3'-methoxy 4',4'''-biflavonyl ether] and loniflavone [5,5'',7,7'',3'-pentahydroxy 4',4'''-biflavonyl ether] along with luteolin and chrysin were isolated and characterized from the leaves of *Lonicera japonica*.

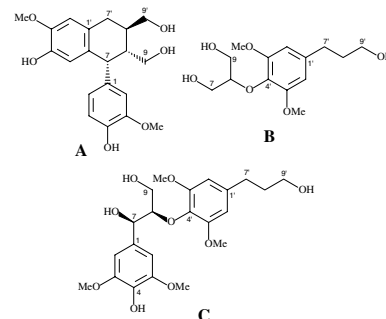


### Bioactive constituents from roots of *Bursera tonkinensis*

pp 2745–2751

Aranya Jutiviboonsuk, Hongjie Zhang, Ghee Teng Tan, Cuiying Ma, Nguyen Van Hung, Nguyen Manh Cuong, Nuntavan Bunyaphratharsa\*, D. Doel Soejarto, Harry H.S. Fong

Bioassay directed-fractionation led to the isolation of 12 compounds, including the lignan (**A**), the phenylpropane derivative (**B**), and the neolignan (**C**) from the roots of *Bursera tonkinensis* Guillaum (Burseraceae). The structures were determined by spectroscopic methods. Of these compounds, only 4'-demethyldesoxypodophyllotoxin exhibited significant cytotoxic activities against KB, Col2 and LNCaP cell lines.

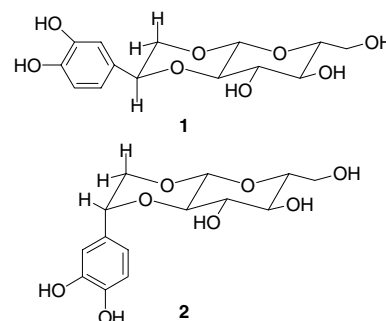


### Phenolic glycosides and ionone glycoside from the stem of *Sargentodoxa cuneata*

pp 2752–2758

Jun Chang\*, Ryan Case

Four phenolic glycosides, cuneatasides A–D, and one ionone glycoside cuneataside E were isolated from the water-soluble constituents of the stem of *Sargentodoxa cuneata*. Of these, in vitro tests for antimicrobial activity showed compounds **1** and **2** to possess significant activity against two Gram-positive organisms, *Staphylococcus aureus* and *Micrococcus epidermidis*.

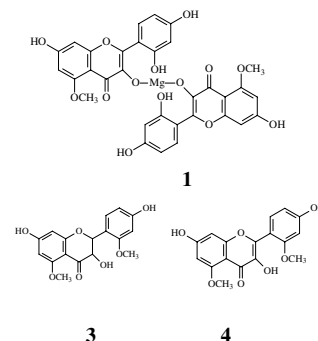


### Flavonoids, including an unusual flavonoid-Mg<sup>2+</sup> salt, from roots of *Cudrania cochinchinensis*

pp 2759–2765

Peicheng Zhang\*, Ziming Feng, Yinghong Wang

Four flavonoids with 2',4'-di-oxygenated B-rings were isolated from an ethanolic extract of the roots of *Cudrania cochinchinensis*, including an unusual flavonoid-Mg<sup>2+</sup> salt. Their structures were elucidated by chemical and spectroscopic methods. Cytotoxic activities were evaluated against several different cell lines.

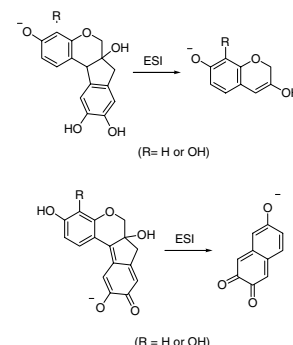


### Negative ion electrospray mass spectrometry of neoflavonoids

pp 2766–2770

Alison N. Hulme\*, Hamish McNab\*, David A. Peggie, Anita Quye

Negative ion electrospray ionisation (ESI) mass spectra of the neoflavonoids brazilin and hematoxylin under collision induced decomposition (CID) conditions show fragments characteristic of rings A and C. In their oxidised forms, the fragments are characteristic of rings B and D.



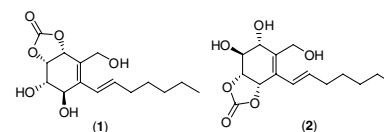
## GENERAL CHEMISTRY

**Phomoxins B and C: Polyketides from an endophytic fungus of the genus *Eupenicillium***

pp 2771–2775

Rohan A. Davis\*, Vesna Andjic, Michael Kotiw, Roger G. Shivas

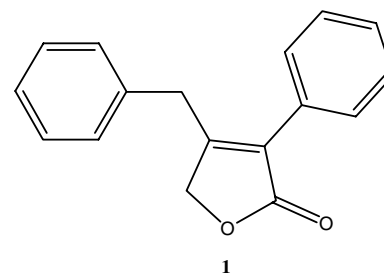
Chemical investigations of the culture broth from an endophytic fungus *Eupenicillium* sp. have afforded two natural products phomoxins B (**1**) and C (**2**) as well as the previously reported fungal metabolite eupenoxide.

**4-Benzyl-3-phenyl-5H-furan-2-one, a vasodilator isolated from *Malbranchea filamentosa* IFM 41300**

pp 2776–2779

Tomoo Hosoe\*, Toru Iizuka, Shin-ichirou Komai, Daigo Wakana, Takeshi Itabashi, Koohei Nozawa, Kazutaka Fukushima, Ken-ichi Kawai

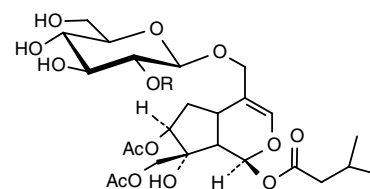
Screening of *Malbranchea filamentosa* IFM 41300 for bioactive compounds led to the discovery of the furanone derivative (**1**) as a vasodilator and the isolation of erythroglaucon (**2**). The structure of **1** was established on the basis of spectroscopic and chemical investigations.

**Phytochemical constituents and hepatoprotective activity of *Viburnum tinus***

pp 2780–2786

Mona A. Mohamed, Mohamed S.A. Marzouk, Fatma A. Moharram\*, Mortada M. El-Sayed, Ayman R. Baiuomy

From the leaves of *Viburnum tinus* L. four metabolites, viz. viburtinoside A and B (acylated iridoid glucosides), scopoletin 7-*O*- $\beta$ -D-sophoroside and natural occurred 2,6-di-*C*-methyl-nicotinic acid 3,5-diethyl ester, with 10 known metabolites were isolated. Toxicity and CCl<sub>4</sub>-induced hepatotoxicity of the investigated extract have been evaluated in terms of the determination of ALT, AST, lipid peroxide and nitric oxide levels in serum.



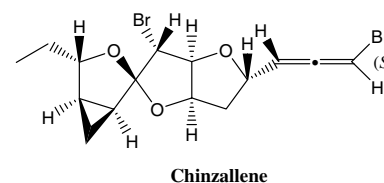
**1:** R = H, **2:** R = *E*-*p*-coumaroyl  
**3:** R = *Z*-*p*-coumaroyl

**Halogenated metabolites from Japanese *Laurencia* spp.**

pp 2787–2793

Minoru Suzuki\*, Tomotake Kawamoto, Charles Santhanaraju Vairappan, Takahiro Ishii, Tsuyoshi Abe, Michio Masuda

Two halogenated metabolites, a labdane-type diterpene and a C<sub>15</sub> acetogenin possessing a terminal bromoallene group, were isolated from Japanese *Laurencia* spp. and identified by spectroscopic analysis.



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\* Corresponding author

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