

Phytochemistry Vol. 68, No. 9, 2007

Reports on Structure Elucidation

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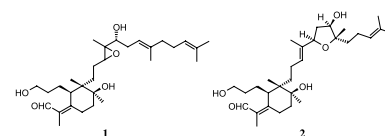
TERPENOIDS

Isolation and structure determination of triterpenes from *Iris tectorum*

pp 1242–1247

Rui Fang, Peter J. Houghton, Chong Luo, Peter J. Hylands*

Two triterpenes iritectorol A (**1**) and iritectorol B (**2**), together with known compounds, have been isolated from rhizomes of *Iris tectorum* Maxim.

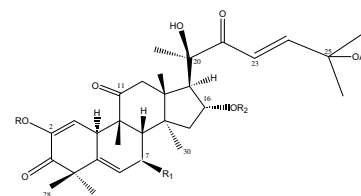


Cucurbitacins from *Bacopa monnieri*

pp 1248–1254

Pamita Bhandari, Neeraj Kumar, Bikram Singh*, Vijay K. Kaul

Four cucurbitacins, bacobitacin A–D (**1–4**) as well as a known cytotoxic, cucurbitacin E (**5**) together with three phenylethanoid glycosides, monnieraside I, III and plantioside B were isolated from the aerial parts of *Bacopa monnieri*. This is the first report on the characterization of cucurbitacins in *Bacopa monnieri*.



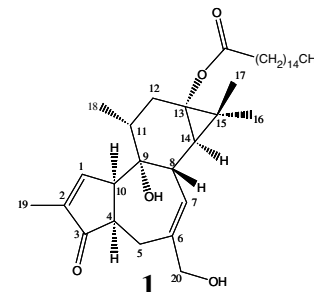
- 1 R = R₂ = H, R₁ = OH
 2 R = R₁ = H, R₂ = OAc
 3 R = Ara(p) [(2→1) Rham] [(4→1) Ara(f) (2→1) Rham], R₁ = R₂ = H
 4 R = Ara(p) [(2→1) Rham] [(4→1) Ara(f) (2→1) Rham], R₁ = OH, R₂ = H

Diterpenoids and triterpenoids from *Euphorbia guyoniana*

pp 1255–1260

Hamada Haba, Catherine Lavaud, Hassina Harkat, Abdulmagid Alabdul Magid, Laurence Marcourt, Mohammed Benkhaled*

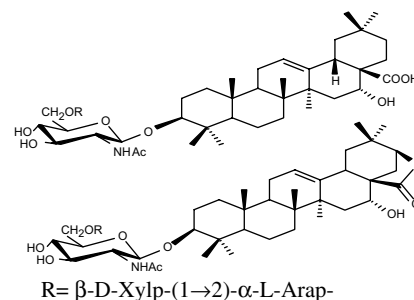
A diterpenoid with a tigliane skeleton, 4,12-dideoxy(4 α)phorbol-13-hexadecanoate (**1**) and a cycloartane triterpenoid, 24-methylenecycloartane-3,28-diol (**2**), together with 17 known compounds were isolated from the roots of *Euphorbia guyoniana*. Their structures were determined by spectroscopic analysis.



Triterpenoid saponins with *N*-acetyl sugar from the bark of *Albizia procera***pp 1261–1266**

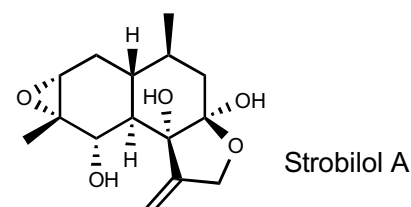
F.R. Melek*, Toshio Miyase, N.S. Ghaly, Marian Nabil

Four triterpenoid saponins were isolated from the bark of *Albizia procera*. Their structures were elucidated by 1D and 2D NMR experiments, FABMS as well as chemical means. The cytotoxic activities of the isolates were evaluated.

**Strobilols A–D: Four cadinane-type sesquiterpenes from the edible mushroom *Strobilurus ohshimae*****pp 1267–1271**

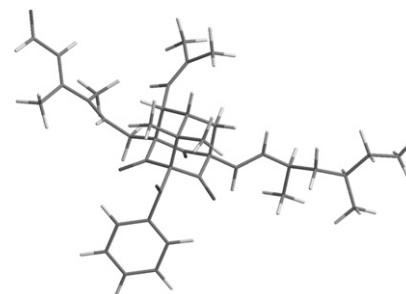
Fuminori Hiramatsu, Tetsuya Murayama, Takuya Koseki, Yoshihito Shiono*

Four cadinane-type sesquiterpenoids, strobilols A, B, C and D, have been isolated from the edible mushroom *Strobilurus ohshimae*. Their structures were established on the basis of spectroscopic analysis.

**Sinaicinone, a complex adamantanyl derivative from *Hypericum sinaicum*****pp 1272–1276**

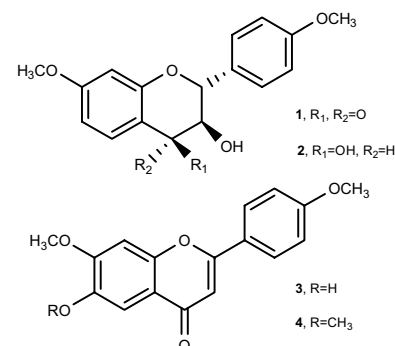
Tomáš Řezanka*, Karel Sigler

The structure of sinaicinone, isolated from the aerial parts of the Egyptian medicinal plant *Hypericum sinaicum*, has been elucidated by means of spectroscopic data such as UV, IR, MS, 1D and 2D NMR spectra and chemical degradation. It is a complex adamantanyl derivative with a unique skeleton and oxygenated side chains.

**PHENOLICS****Flavonoids and isoflavonoids from *Gynerium sagittatum*****pp 1277–1284**

Angelyne Benavides, Carla Bassarello, Paola Montoro, Wagner Vilegas, Sonia Piacente, Cosimo Pizza*

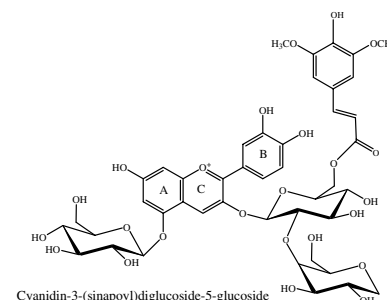
Four flavonoids along with the isoflavonoids ferreirin, dihydrocajanin, dalbergioidin, dihydrobiochanin A and biochanin A have been isolated from the roots of *Gynerium sagittatum*. A quantitative analysis of the isoflavonoids was performed by LC–ESI-MS.



Anthocyanins from red cabbage – stability to simulated gastrointestinal digestion**pp 1285–1294**

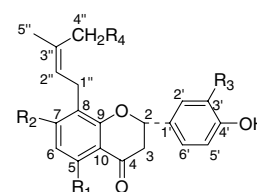
Gordon J. McDougall*, Stewart Fyffe, Pat Dobson, Derek Stewart

The stability of red cabbage anthocyanins was assessed by an *in vitro* procedure that simulates human gastrointestinal digestion. Anthocyanins acylated with hydroxycinnamic acids were more stable than the unacylated forms with a marked difference in stability between different acylated hydroxycinnamic acids.

**Prenylflavonoids from *Flourensia fiebrigii*****pp 1295–1299**

María L. Uriburu*, Roberto R. Gil, Virginia E. Sosa, Juana R. de la Fuente

Three flavonoids were isolated from *Flourensia fiebrigii*, amongst them the 5-deoxyprenylflavonoids (**1**, **2**) and 4''-hydroxyprenylflavonoids (**2**, **3**), together with known compounds previously determined in the genus. Their structures were established with the aid of spectroscopic analyses.

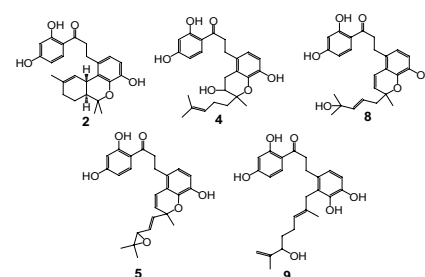


	R ₁	R ₂	R ₃	R ₄
1	H	OH	OH	H
2	H	OH	OH	OH
3	OH	OMe	OH	OH

Geranyl flavonoids from the leaves of *Artocarpus altilis***pp 1300–1306**

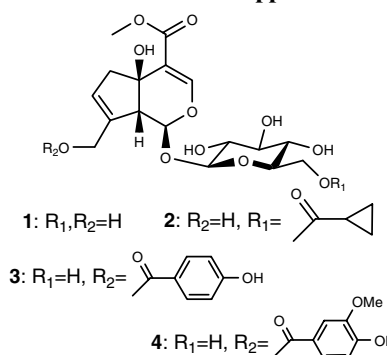
Yu Wang, Kedi Xu, Lin Lin, Yuanjiang Pan, Xiaoxiang Zheng*

Five geranyl dihydrochalcones (**2**, **4**, **5**, **8**, **9**), along with four known geranyl flavonoids (**1**, **3**, **6**, **7**), were isolated from the leaves of *Artocarpus altilis*. Their structures were established by spectroscopic means and by comparison with the literature values. Compounds **2**, **4**, and **9** exhibited moderate cytotoxicity against SPC-A-1, SW-480, and SMMC-7721 human cancer cells.

**GENERAL CHEMISTRY****Iridoid glycosides from the stems of *Pithecoctenium crucigerum* (Bignoniaceae)****pp 1307–1311**

Frédéric Martin, Anne-Emmanuelle Hay, Laura Corno, Mahabir P. Gupta, Kurt Hostettmann*

The chemical investigation of the methanol extract from the stems of *Pithecoctenium crucigerum* afforded theviridoside **1**, three derivatives (6'-*O*-cyclopropanoyltheviridoside **2**, 10-*O*-hydroxybenzoyltheviridoside **3**, 10-*O*-vanilloyltheviridoside **4**) along with five known phenylethanoid glycosides.

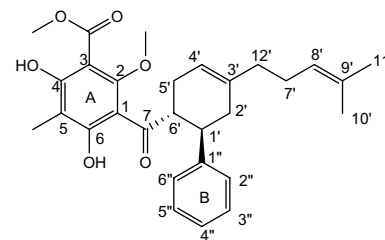


Activity-guided isolation of antiplasmodial dihydrochalcones and flavanones from *Piper hostmannianum* var. *berbicense*

pp 1312–1320

Bénédicte Portet, Nicolas Fabre*, Vincent Roumy, Heinz Gornitzka, Geneviève Bourdy, Séverine Chevalley, Michel Sauvain, Alexis Valentin, Claude Moulis

Four dihydrochalcones were isolated from the leaves of *Piper hostmannianum* var. *berbicense* with the known dihydrochalcones 2',6'-dihydroxy-4'-methoxydihydrochalcone, adunctin E and (–)-methyllinderatin together with linderatone and strobopinin. All isolated compounds were evaluated for their antiplasmodial and cytotoxic activities against *Plasmodium falciparum* and MCF-7 cells.

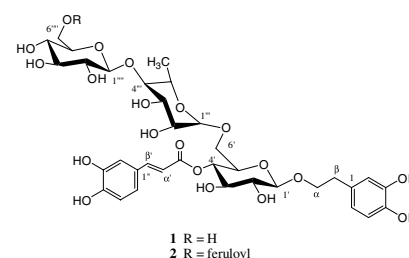


Phenylethanoids, iridoids and a spirostanol saponin from *Veronica turrilliana*

pp 1321–1326

Emanuela P. Kostadinova, Kalina I. Alipieva*, Tetsuo Kokubun, Rilka M. Taskova, Nedjalka V. Handjieva

Two phenylethanoid glycosides, turrilliosides A and B, and a steroidal saponin, turrillianoside, together with eight known glucosides were isolated from *Veronica turrilliana*, Plantaginaceae. Radical scavenging potential, antifungal and antibacterial activities of selected compounds were tested.



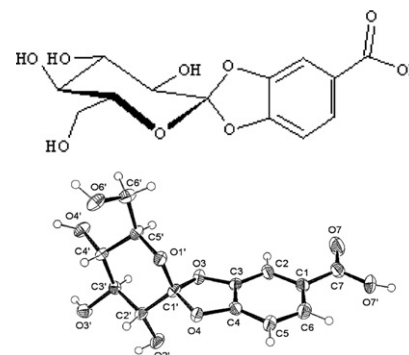
1 R = H
2 R = feruloyl

Cyathenosin A, a spiropyranosyl derivative of protocatechuic acid from *Cyathea phalerata*

pp 1327–1330

Moacir Geraldo Pizzolatti*, Ines Maria Costa Brighente, Adailton João Bortoluzzi, Jan Schripsema, Luiz Gonzaga Verdi

Cyathenosin A is the first example of a naturally occurring compound containing a spirocyclic orthoester pyranosidic structure.

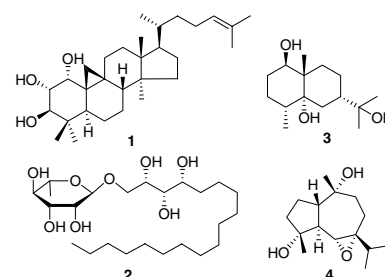


Secondary metabolites from *Commiphora opobalsamum* and their antiproliferative effect on human prostate cancer cells

pp 1331–1337

Tao Shen, Wenzhu Wan, Huiqing Yuan, Feng Kong, Huaifang Guo, Peihong Fan, Hongxiang Lou*

A cycloartane-type triterpenoid (**1**), an aliphatic alcohol glycoside (**2**), and two sesquiterpenoids (**3** and **4**), along with six known sesquiterpenoids were isolated from the resinous exudates of *Commiphora opobalsamum*. Compounds **1** and **2** had moderate antiproliferative activity against human prostate cancer cell lines with IC₅₀ values ranging from 5.7 to 23.6 μM, and were able to inhibit the expression of androgen receptor (AR) in LNCaP cells.

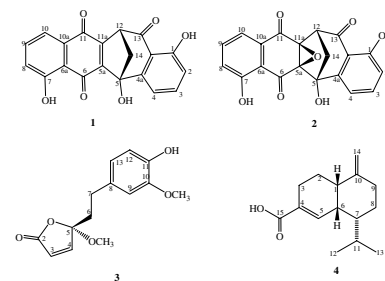


Secondary metabolites from the roots of *Engelhardia roxburghiana* and their antitubercular activities

pp 1338–1343

Che-Chen Wu, Chien-Fang Peng, Ian-Lih Tsai, Mohamed H. Abd El-Razek, He-Shun Huang, Ih-Sheng Chen*

Engelharquinone (1), engelharquinone epoxide (2), engelharolide (3), and engelhardic acid (4), were isolated and identified for the first time from a plant source together with 20 previously known compounds, four of which were not reported as plant constituents previously. A biological evaluation showed that three of the previously isolated antitubercular constituents [(–)-4-hydroxy-1-tetralone, 3-methoxyjuglone and engelhardione] and engelharquinone (1) exhibited moderate antitubercular activity against *Mycobacterium tuberculosis* 90-221387.



OTHER CONTENTS

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* Corresponding author

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