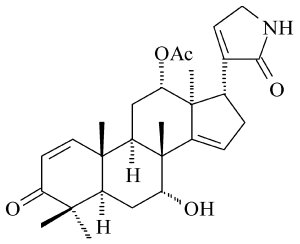
Phytochemistry, 2003, **62**, 1173

Tetranortriterpenoid derivatives from *Turraea parvifolia* (Meliaceae)

Peter K. Cheplogoi, Dulcie A. Mulholland

Natural Products Research Group, University of Natal, Durban, 4041, South Africa

The methanol extract of the seed of *Turraea parvifolia* has yielded 12α-acetoxyazadironolide, 11-*epi*-21-hydroxytoonacilide, 11-*epi*-23-hydroxytoonacilide and turraparvins A, B, C and D (**1**).



(**1**)

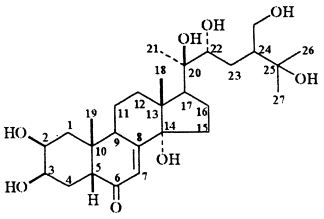
Phytochemistry, 2003, **62**, 1179

Ecdysteroids and other constituents from *Sida spinosa* L.

Faten M.M. Darwish[a], Manfred G. Reinecke[b]

[a]*Department of Pharmacognosy, Faculty of Pharmacy, Assiut University, Assiut 91526, Egypt*
[b]*Department of Chemistry, Texas Christian University, Fort Worth, Texas 76129, USA*

Two compounds were isolated from the aerial parts of *Sida spinosa* L. Their structures have been established as glyceryl-1-eicosanoate and 20-hydroxy, 24-hydroxymethylecdysone by 1D and 2D-NMR techniques. In addition 12 known compounds have been isolated and identified.



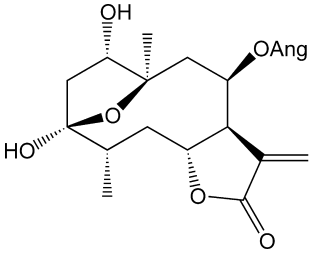
Phytochemistry, 2003, **62**, 1185

Sesquiterpene lactones from glandular trichomes of *Viguiera radula* (Heliantheae; Asteraceae)

Otmar Spring[a], Reinhard Zipper[a], Jürgen Conrad[b], Bernhard Vogler[b], Iris Klaiber[b], Fernando B. Da Costa[c]

[a]*Institut für Botanik, Universität Hohenheim, Garbenstr. 30, D-70593 Stuttgart, Germany*
[b]*Institut für Chemie, Universität Hohenheim, Garbenstr. 30, D-70599 Stuttgart, Germany*
[c]*Faculdade de Ciências Farmacêuticas de Ribeirão Preto, Universidade de São Paulo, Av. do Café s/n°, 14040-903, Ribeirão Preto, SP, Brazil*

HPLC analysis and NMR experiments revealed the occurrence of 13 germacranolides in glandular trichome extracts of *Viguiera radula*. Their structures were determined by spectral analysis.



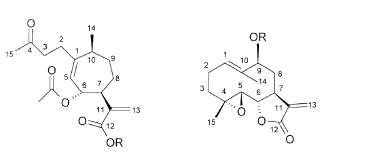
Phytochemistry, 2003, **62**, 1191

Terpenes from *Inula verbascifolia*

Ahmed A. Ahmed[a], Abou El-Hamd H. Mohamed[b,d], Olga Tzakou[c], Alexandra Petropoulou[c], Mohamed E. Hassan[b], Mohamed A. El-Maghraby[b], Klaus-Peter Zeller[d]

[a]*Department of Chemistry, Faculty of Science, El-Minia University, El-Minia 61519, Egypt*
[b]*Department of Chemistry, Aswan-Faculty of Science, South Valley University, Aswan, Egypt*
[c]*Department of Pharmacognosy, School of Pharmacy, University of Athens, Panepistimiopolis, Zografou 157 71, Greece*
[d]*Institut für Organische Chemie, Universität Tübingen, D-72076, Germany*

The aerial parts of *Inula verbascifolia* afforded two xanthanes and a germacranolide. Their structures were elucidated by spectral methods ^{1}H NMR, ^{13}C NMR, ^{1}H– ^{1}H–COSY, HMQC and HMBC.



1 R = H
2 R = CH_3

5 R = $COCH_2$-$C(CH_3)$=$CH(CH_3)$
6 R = H

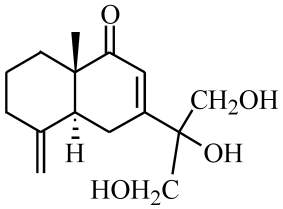
Phytochemistry, 2003, **62**, 1195

Eudesmane derivatives and other constituents from *Saussurea parviflora*

Zhong-Duo Yang, Kun Gao, Zhong-Jian Jia

National Laboratory of Applied Organic Chemistry, College of Chemistry and Chemical Engineering, Lanzhou University, Lanzhou, 730000, People's Republic of China

Sixteen compounds were isolated from *Saussurea parviflora*, and their structures were elucidated on the basis of spectral evidence. The antitumor activity of some compounds is described.



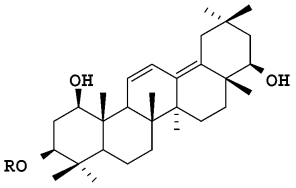
Phytochemistry, 2003, **62**, 1201

Further saponins from *Taverniera aegyptiaca*

Zedan Z. Ibraheim, Hashem A. Hassanean, Daoud W. Bishay

Pharmacognosy Department, Faculty of Pharmacy, Assiut University, Assiut, Egypt

From the saponin fraction of the dried root and stem barks of *Taverniera aegyptiaca* Boiss, six new triterpenoidal saponins of oleanane type were isolated and identified. The aglycone part of the isolated compounds was based on 28-methyl serratagenate for compounds **2** and **3,** and 1β, 3β, 22β trihydroxyolean-11,13(18)-diene for compounds **4**, **5**, **6** and **7**.



(4) R=
Rhamnose(1→2)glucose

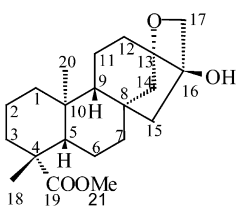
Phytochemistry, 2003, **62**, 1207

Ceriopsins F and G, diterpenoids from *Ceriops decandra*

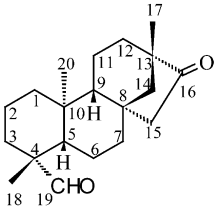
Ammanamanchi S.R. Anjaneyulu, Vadali Lakshmana Rao

Department of Organic Chemistry, School of Chemistry, Andhra University, Visakhapatnam-530 003, India

Two diterpenoids ceriopsin F (**1**) and ceriopsin G (**2**) were isolated from the mangrove plant *Ceriops decandra*.



1



2

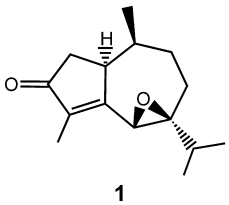
Phytochemistry, 2003, **62**, 1213

Guaiane sesquiterpenes from *Amoora rohituka*

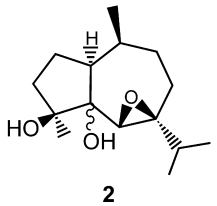
Rasheduzzaman Chowdhury, Choudhury M. Hasan, Mohammad A. Rashid

Phytochemical Research Laboratory, Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Dhaka, Dhaka-1000, Bangladesh

The petroleum ether extract of the stem bark of *Amoora rohituka* afforded two novel guaiane-derived sesquiterpenoids, 6β,7β-epoxyguai-4-en-3-one (**1**) and 6β,7β-epoxy-4β,5-dihydroxyguaiane (**2**). The structures of **1** and **2** were determined by extensive NMR and MS analyses and by comparison of their spectral data with related compounds.



1



2

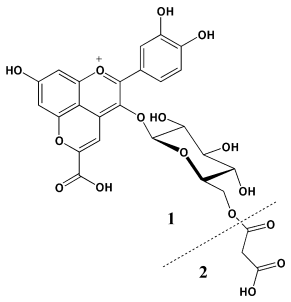
Phytochemistry, 2003, **62**, 1217

Anthocyanins from red onion, *Allium cepa,* with novel aglycone

Torgils Fossen, Øyvind M. Andersen

Department of Chemistry, University of Bergen, Allégt. 41, N-5007 Bergen, Norway

The 3-*O*-β-glucopyranoside and 3-*O*-(6″-*O*-malonyl-β-glucopyranoside) of 5-carboxypyranocyanidin, **1** and **2**, respectively, have been isolated from acidified, methanolic extracts of red onion, *Allium cepa* L.



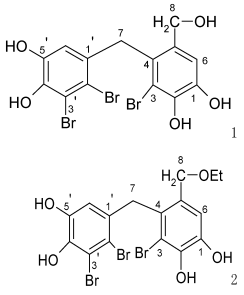
Phytochemistry, 2003, **62**, 1221

Antibacterial bromophenols from the marine red alga *Rhodomela confervoides*

Nianjun Xu[a,b], Xiao Fan[a], Xiaojun Yan[b], Xiancui Li[a], Rongli Niu[a], C.K. Tseng[a]

[a]*Institute of Oceanology, Chinese Academy of Sciences, Qingdao 266071, PR China*
[b]*Key Laboratory of Marine Biotechnology, Ningbo University, Ningbo 315211, PR China*

Two bromophenols, together with three known compounds, were isolated from the marine alga, *Rhodomela confervoides*. All compounds could inhibit the growth of some bacteria, while compound **5** showed the most potent antibacterial activities.



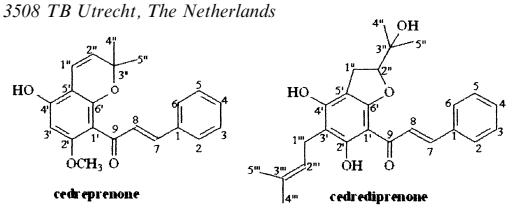
Phytochemistry, 2003, **62**, 1225

Chalcones from the seed of *Cedrelopsis grevei* (Ptaeroxylaceae)

Neil A. Koorbanally[a], Milijaona Randrianarivelojosia[a,b], Dulcie A. Mulholland[a], Linda Quarles van Ufford[c], Albert J.J. van den Berg[c]

[a]*Natural Products Research Group, School of Pure and Applied Chemistry, University of Natal, Durban, 4041, South Africa*
[b]*Malaria Research Group, BP 1274—Antananarivo (101)—Institut Pasteur de Madagascar, Madagascar*
[c]*Department of Medicinal Chemistry, Faculty of Pharmacy, University of Utrecht, PO Box 80082, 3508 TB Utrecht, The Netherlands*

The seed of *Cedrelopsis grevei* (Ptaeroxylaceae) has yielded the known compounds uvangoletin, 5,7-dimethylpinocembrin, cardamonin, flavokawin B, 2′-methoxyhelikrausichalcone, and the novel prenylated chalcones, cedreprenone and cedrediprenone. Cedrediprenone has been shown to exhibit superoxide scavenging properties.



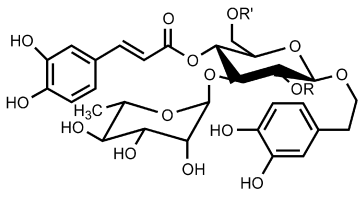
Phytochemistry, 2003, **62**, 1231

Acetylated phenolic glycosides from *Harpagophytum procumbens*

Namboole Moses Munkombwe

Chemistry Department, University of Botswana, Private Bag UB 00704, Gaborone, Botswana

6-*O*-Acetylacteoside and 2,6-di-*O*-acetylacteoside were isolated from secondary roots of *Harpagophytum procubens* and characterized using spectroscopic techniques.



1 R′ = Acetyl, R = H
2 R′ = R = Acetyl

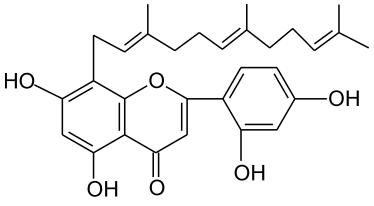
Phytochemistry, 2003, **62**, 1235

Antiviral flavonoids from the root bark of *Morus alba* L.

Jiang Du[a], Zhen-Dan He[a], Ren-Wang Jiang[a], Wen-Cai Ye[b], Hong-Xi Xu[a], Paul Pui-Hay But[a]

[a]*Departments of Biology and Chemistry and Institute of Chinese Medicine, The Chinese University of Hong Kong, Shatin, Hong Kong, PR China*
[b]*Department of Phytochemistry, China Pharmaceutical University, Nanjing 210009, PR China*

A prenylated flavonoid, moralbanone, along with seven known compounds were isolated from the root bark of *Morus alba* L. Leachianone G showed potent antiviral activity (IC_{50} = 1.6 μg/ml), whereas mulberroside C showed weak activity (IC_{50} = 75.4 μg/ml) against herpes simplex type 1 virus (HSV-1).



moralbanone

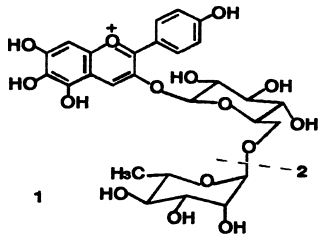
Phytochemistry, 2003, **62**, 1239

6-Hydroxypelargonidin glycosides in the orange–red flowers of *Alstroemeria*

Fumi Tatsuzawa[a], Norio Saito[b], Naho Murata[c], Koichi Shinoda[c], Atsushi Shigihara[d], Toshio Honda[d]

[a]*Hokkaido Junior College, Takushoku University, Fukagawa, Hokkaido 074-8585, Japan*
[b]*Chemical Laboratory, Meiji-Gakuin University, Totsuka, Yokohama, Japan*
[c]*National Agricultural Research Center for Hokkaido Region, Sapporo, Hokkaido, Japan*
[d]*Faculty of Pharmaceutical Sciences, Hoshi University, Shinagawa, Tokyo, Japan*

Two 6-hydroxypelargonidin glycosides were isolated from the orange–red flowers of *Alstroemeria* cultivars.



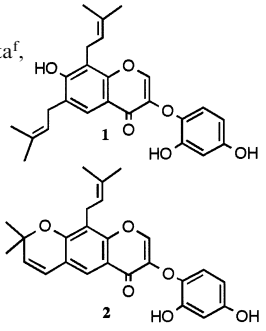
Phytochemistry, 2003, **62**, 1243

Eryvarins F and G, two 3-phenoxychromones from the roots of *Erythrina variegata*

Hitoshi Tanaka[a], Miyuki Hirata[a], Hideo Etoh[b], Hiroshi Shimizu[c], Magoichi Sako[d], Jin Murata[e], Hiroko Murata[f], Dedy Darnaedi[g], Toshio Fukai[h]

[a]*Faculty of Pharmacy, Meijo University, Yagoto, Tempaku-ku, Nagoya 468-8503, Japan*
[b]*Faculty of Agriculture, Shizuoka University, Shizuoka 422-8529, Japan*
[c]*Faculty of Engineering, Gifu University, Yanagido, Gifu 501-1193, Japan*
[d]*Gifu Pharmaceutical University, Mitahora-higashi, Gifu 502-8585, Japan*
[e]*Botanical Gardens, Graduate School of Science, The University of Tokyo, Hakusan, Bunkyo-ku, Tokyo 112-0001, Japan*
[f]*Faculty of Pharmaceutical Sciences, Setsunan University, Nagaotoge-cho, Hirakata, Osaka 573-0101, Japan*
[g]*Botanic Gardens of Indonesia, Indonesian Institute of Sciences, Jalan Ir. H. Juanda 13, Bogor 16122, Indonesia*
[h]*School of Pharmaceutical Sciences, Toho University, Miyama, Funabashi, Chiba 274-8510, Japan*

Two 3-phenoxychromones, eryvarins F (**1**) and G (**2**), were isolated from the roots of *Erythrina variegata*.



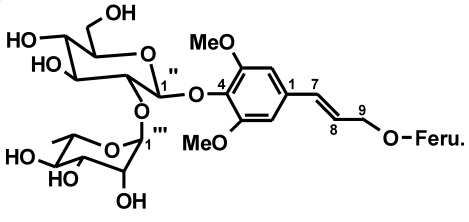
Phytochemistry, 2003, **62**, 1247

Acylated phenolic glycosides from *Solenostemma argel*

M.S. Kamel

Department of Pharmacognosy, Faculty of Pharmacy, Assiut University, Assiut 71526, Egypt

From the aerial parts of *Solenostemma argel*, four acylated phenolic glycosides, solargins I–IV were isolated and identified by MS and advanced NMR spectral techniques.



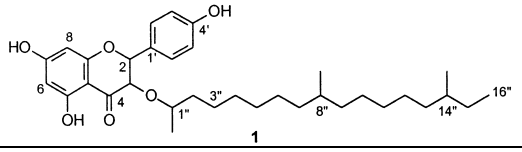
Phytochemistry, 2003, **62**, 1251

Muscanone: a 3-*O*-(1″, 8″, 14″-trimethylhexadecanyl)naringenin from *Commiphora wightii*

Majekodunmi O. Fatope[a], Suad Khamis S. Al-Burtomani[a], John O. Ochei[b], Abdulrahman O. Abdulnour[a], Salma M.Z. Al-Kindy[a], Yoshio Takeda[c]

[a]*Department of Chemistry, College of Science, Sultan Qaboos University, PO Box 36, Al-Khod-123, Muscat, Sultanate of Oman*
[b]*Department of Microbiology, College of Medicine, Sultan Qaboos University, PO Box 35, Al-Khod-123, Muscat, Sultanate of Oman*
[c]*Faculty of Integrated Arts and Sciences, University of Tokushima, Minamijosanjimacho 1-Chome, Tokushima 770-8502, Japan*

Muscanone (**1**) together with naringenin (**2**) have been isolated from the trunk of *C. wightii*. Muscanone inhibited the growth of *Candida albicans* at 250 μg/ml.



1

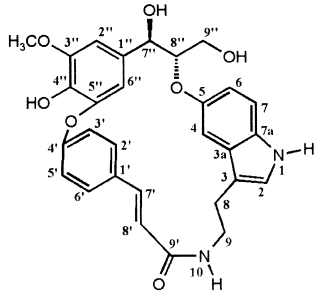
Phytochemistry, 2003, **62**, 1257

Ipobscurines C and D: macrolactam-type indole alkaloids from the seeds of *Ipomoea obscura*

Kristina Jenett-Siems, Robert Weigl, Macki Kaloga, Jutta Schulz, Eckart Eich

Institut für Pharmazie (Pharmazeutische Biologie), Freie Universität Berlin, Königin-Luise-Str. 2-4, D-14195 Berlin, Germany

Ipobscurines C and D are macrocyclic serotonin-neolignanoid-type lactams; structure elucidation was achieved by spectral data. The acyclic lactam B is a putative precursor; total synthesis of its 4,4′-dimethyl ether and corresponding derivatisation of natural B supported the structure and proved an *erythro*-configuration.



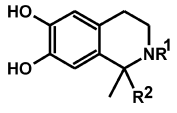
Phytochemistry, 2003, **62**, 1265

Tetrahydroisoquinoline alkaloids and 2-deoxyribonolactones from *Aristolochia arcuata*

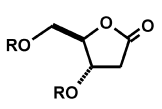
Maurício C. Francisco, Ana Lucia M. Nasser, Lucia M.X. Lopes

Instituto de Química, Universidade Estadual Paulista—Unesp, CP 355, 14800-900 Araraquara, SP, Brazil

Four tetrahydroisoquinoline alkaloids and one 2-deoxyribonolactone were isolated from the leaves of *Aristolochia arcuata*, together with known compounds. Their structures were determined on the basis of spectroscopic methods, mainly using ^{1}H, ^{13}C, ^{15}N, and ^{31}P NMR.



	R^1	R^2
1	H	H
2	6'-Frc	H
3	H	CH_3
4	$CH(CH_2OH)_2$	CH_3
5	CH_2CH_3	CH_3
6	6'-Frc	CH_3



	R
7	H
8	$H(HPO_3)_3$

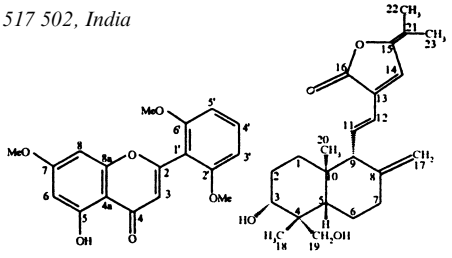
Phytochemistry, 2003, **62**, 1271

A flavone and an unusual 23-carbon terpenoid from *Andrographis paniculata*

Muntha K. Reddy[a], Mopuru V.B. Reddy[a], Duvvuru Gunasekar[a], Madugula M. Murthy[b], Cristelle Caux[c], Bernard Bodo[c]

[a]*Natural Products Division, Department of Chemistry, Sri Venkateswara University, Tirupati 517 502, India*
[b]*Indian Institute of Chemical Technology, Hyderabad 500 007, India*
[c]*Laboratoire de Chimie des Substances Naturelles, ESA 8041 CNRS, Museum National d'Histoire Naturelle, 63 rue Buffon, 75005 Paris, France*

Phytochemical investigation of the roots and aerial parts of *Andrographis paniculata* Nees yielded a new flavone, 5-hydroxy-7,2′,6′-trimethoxyflavone and an unusual 23-carbon terpenoid, 14-deoxy-15-isopropylidene-11,12-didehydroandrographolide together with five known flavonoids and four known diterpenoids.



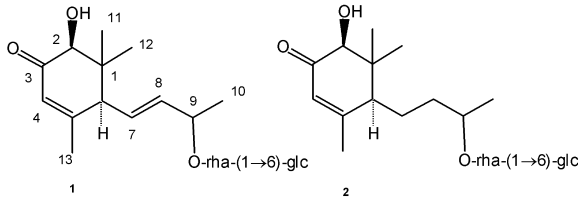
Phytochemistry, 2003, **62**, 1277

Further constituents from *Caralluma negevensis*

Ammar Bader[a], Alessandra Braca[b], Nunziatina De Tommasi[c], Ivano Morelli[b]

[a]*Faculty of Pharmacy, Al-Zaytoonah University of Jordan, P.O. Box 130, 11733 Amman, Jordan*
[b]*Dipartimento di Chimica Bioorganica e Biofarmacia, Università degli Studi di Pisa, Via Bonanno 33, I-56126 Pisa, Italy*
[c]*Dipartimento di Scienze Farmaceutiche, Università degli Studi di Salerno, Via Ponte Don Melillo, I-84084 Fisciano (SA), Italy*

Two new megastigmane glycosides (**1** and **2**) and two new flavone glycosides were isolated from the methanol extract of the whole plant of *Caralluma negevensis* Zohary (Asclepiadaceae). The structures of the isolated compounds were established by different spectroscopic methods.



Phytochemistry, 2003, **62**, 1283

Biochemical characterization of blood orange, sweet orange, lemon, bergamot and bitter orange

Saïdani Moufida, Brahim Marzouk

INRST, Laboratoire d'Adaptation et d'Amélioration des Plantes, B.P.95 2050 Hammam-Lif, Tunisia

Composition of aroma compounds and fatty acids and some physico-chemical parameters (juice percentage, acidity and total sugars) in five varieties of citrus, blood orange, sweet orange, lemon, bergamot and bitter orange have been studied.

Limonene
Cymene
Pinene
Terpineol

C16.0; C18.1; C18.2; C18.3