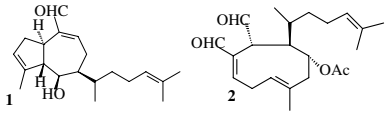
Diterpenes from the brown algae *Dictyota dichotoma* and *Dictyota linearis*

Phytochemistry, 2004, **65**, 2025

Panayiota Siamopoulou [a], Antonis Bimplakis [a], Dimitra Iliopoulou [a], Constantinous Vagias [a], Paul Cos [b], Dirk Vanden Berghe [b], Vassilios Roussis [a]

[a]*Division of Pharmacognosy and Chemistry of Natural Products, Department of Pharmacy, University of Athens, Panepistimioupolis Zografou, 157 71 Athens, Greece*
[b]*Laboratory for Pharmaceutical Microbiology, Department of Pharmaceutical Sciences, University of Antwerp, Universiteitsplein 1, B-2610 Antwerp, Belgium*



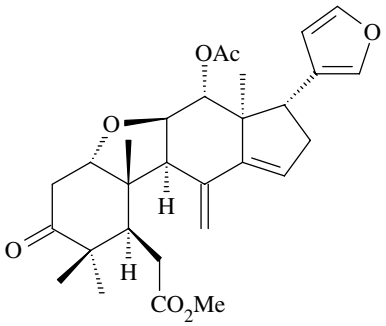
The new diterpenes, isopachydictyolal (**1**) from *D. dichotoma* and 4α-acetyl-dictyodial (**2**) from *D. linearis* were isolated, using chromatographic techniques, and their chemical structures were elucidated on the basis of their NMR and mass spectral data.

Limonoids from *Turraea floribunda* (Meliaceae)

Phytochemistry, 2004, **65**, 2031

Kathryn McFarland, Dulcie A. Mulholland, Leigh-Anne Fraser

Natural Products Research Group, School of Chemistry, University of KwaZulu-Natal, Durban 4041, South Africa



Turraflorin G

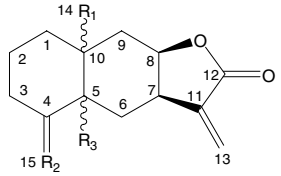
Six novel limonoids and limonoid derivatives, turraflorins D–I along with the known turraflorins A and B have been isolated from seed of the South African *Turraea floribunda*.

Constituents of two *Flourensia* species

Phytochemistry, 2004, **65**, 2039

María L. Uriburu [a], Juana R. de la Fuente [a], Jorge Palermo [b], Roberto R. Gil [c], Virginia E. Sosa [d]

[a]*Consejo de Investigación, Universidad Nacional de Salta, 4400 Salta, Argentina*
[b]*Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Argentina*
[c]*Department of Chemistry, Carnegie Mellon University, 4400 Fifth Ave., Pittsburgh, PA 15213, USA*
[d]*Departamento de Quimica Organica, Facultad de Ciencias Químicas, Universidad Nacional de Córdoba, Instituto Multidisciplinario de Biología Vegetal (IMBIV CONICET), Penbellon Argentine—Ala 1, 5000 Ciudad Universitoria, Córdoba, Argentina*



	R_1	R_2	R_3
1	α CH_3	α CH_3, βOH	β H
2	α CH_3	β CH_3, αOH	α H

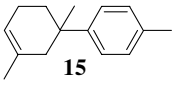
10α-Methyl eudesmanolide (**1**), together with isomer septuplinolide (**2**), were isolated from *Flourensia riparia*. In addition, known flavonoids, *p*-hydroxyacetophenone derivatives, carabrone and isoalantolactone were identified. *Flourensia campestris* was also studied, and resembled *F. riparia* in its chemical contents, but no lactones were isolated.

Sesquiterpenes from the east African sandalwood *Osyris tenuifolia*

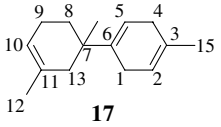
Phytochemistry, 2004, **65**, 2045

Andreas Th. Kreipl, Wilfried A. König

Institut für Organische Chemie, Universität Hamburg, Martin-Luther-King-Platz 6, D-20146 Hamburg, Germany



15



17

The essential oil of East African sandalwood *Osyris tenuifolia* was investigated by NMR, Mass spectrometry and chemical correlations. Four new sesquiterpenes including **15** and **17** with a new skeleton were identified.

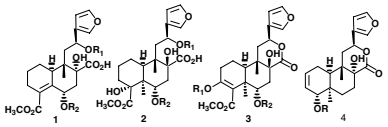
Amritosides A, B, C and D: clerodane furano diterpene glucosides from *Tinospora cordifolia*

Phytochemistry, 2004, **65**, 2051

Rakesh Maurya [a], Lila R. Manhas [b], Prasoon Gupta [a], Pushpesh K. Mishra [a], Geetu Singh [a], Prem P. Yadav [a]

[a] *Medicinal Chemistry Division, Central Drug Research Institute, Chattar Manzil Palace, MG Marg, Lucknow 226 001, India*
[b] *Regional Research Laboratory, Canal Road, Jammu 180 001, India*

Four new clerodane furano diterpene glucosides (amritosides A, B, C and D) were isolated as their acetates from *Tinospora cordifolia* stems. The structures of these compounds were established on the basis of spectroscopic studies.



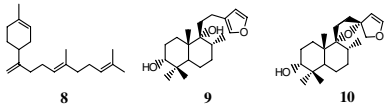
Terpenes from *Otostegia integrifolia*

Phytochemistry, 2004, **65**, 2057

Hailemichael Tesso, Wilfried A. König

Institut für Organische Chemie, Universität Hamburg, Martin-Luther-King-Platz-6, D-20146 Hamburg, Germany

Isolation and structural elucidation of a prenylbisabolane type diterpene, (+)-axinyssene (**8**) and two labdane diterpenes, otostegindiol (**9**), preotostegindiol (**10**) and pentatriacontane from the air-dried leaves of the medicinal plant *O. integrifolia* Benth. are reported.

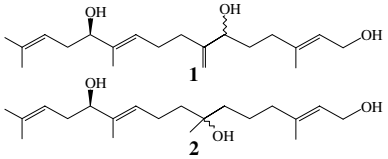


Trihydroxylated linear diterpenes from the brown alga *Bifurcaria bifurcata*

Phytochemistry, 2004, **65**, 2063

Gérald Culioli, Annick Ortalo-Magné, Mohammed Daoudi, Hélène Thomas-Guyon, Robert Valls, Louis Piovetti

Two trihydroxylated diterpenes (**1**, **2**) were isolated from *Bifurcaria bifurcata* collected off the Atlantic coast of Morocco, and their structures established by spectral methods. These compounds are acyclic diterpenes derived from 12-hydroxygeranylgeraniol. They showed moderate cytotoxic activity against NSCLC-N6 cells.



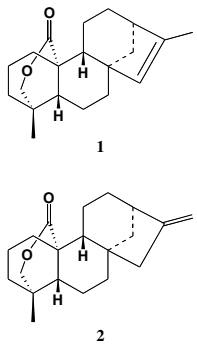
Kaurane and abietane diterpenoids from *Tripterygium doianum* (Celastraceae)

Phytochemistry, 2004, **65**, 2071

Naonobu Tanaka [a], Nobuyuki Ooba [a], Hongquan Duan [a], Yoshihisa Takaishi [a], Yuka Nakanishi [b], Kenneth Bastow [b], K.-H. Lee [b]

[a] *Faculty of Pharmaceutical Sciences, University of Tokushima, Shomachi 1-78, Tokushima 770-8505, Japan*
[b] *Natural Products Laboratory, School of Pharmacy, University of North Carolina, Chapel Hill, NC 27599, USA*

Four kaurane type diterpenoids and one abietane type diterpenoid, together with 11 known diterpenoids, were isolated from *Tripterygium doianum* (Celastraceae). Their structures were established based on spectropic studies. The isolated compounds showed moderate cytotoxity in human tumor cell assays.



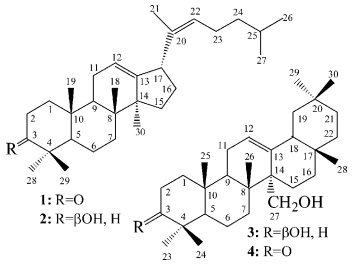
Chemical constituents of leaves and stem bark of *Plumeria obtusa*

Phytochemistry, 2004, **65**, 2077

Bina S. Siddiqui, Firdous Ilyas, Munawwer Rasheed, Sabira Begum

H.E.J. Research Institute of Chemistry, International Center for Chemical Sciences, University of Karachi, Karachi 75270, Pakistan

Isolation and characterization using spectroscopy and chemical transformation of four new triterpenoids, dammara-12,20(22)*Z*-dien-3-one (**1**), dammara-12,20(22)*Z*-dien-3β-ol (**2**) 3β,27-dihydroxy-olean-12-one (**3**) and 27-hydroxy-olean-12-en-3-one (**4**) and 12 known natural products, belonging to different classes, is reported. Of these two triterpenoids 3β,20(*S*),25-trihydroxydammarane (**5**) and 3β-hydroxy-27*Z*-feruloyloxy-urs-12-en-28-oic acid (**6**) are reported for the first time from this source. Dammarane class was hitherto unreported from the source.



Azorellane diterpenes from *Azorella cryptantha*

Phytochemistry, 2004, **65**, 2085

Cristina B. Colloca [a,b], Delia B. Pappano [b], Daniel A. Bustos [b], Virginia E. Sosa [a], Ricardo F. Baggio [c], Maria T. Garland [d], Roberto R. Gil [e]

[a]*Departamento de Química Orgánica and IMBIV (CONICET-UNC), Facultad de Ciencias Químicas, Universidad Nacional de Córdoba, Ciudad Universitaria, Penbellon Argentine—Ala 1, 5000 Córdoba, Argentina*

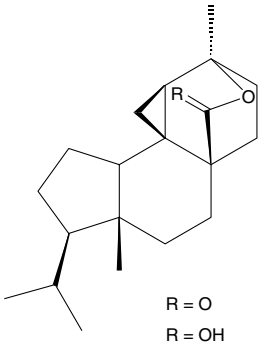
[b]*Instituto de Ciencias Básicas, Facultad de Filosofía, Humanidades y Artes, Universidad Nacional de San Juan, Av. Ignacio de las Rozas 230 (O), 5400 San Juan, Argentina*

[c]*Departamento de Física, CONEA, Buenos Aires, Argentina*

[d]*Departamento de Física, FCFM, Universidad de Chile, Chile*

[e]*Department of Chemistry, Carnegie Mellon University, 4400 Fifth Ave, Pittsburgh, PA 15213, USA*

Two azorellane-type diterpenes were isolated from *Azorella cryptantha* and their structures determined.



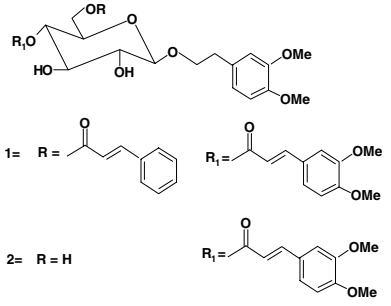
Cytotoxic phenylethanol glycosides from *Psidium guaijava* seeds

Phytochemistry, 2004, **65**, 2091

Josline Y. Salib, Helana N. Michael

Department of Chemistry of Tanning Materials and Proteins, National Research Centre, Cairo, Egypt

Phytochemical investigations of the acetone extract of *Psidium guaijava* seeds has led to the isolation of two new phenylethanoid glycosides (**1** and **2**) and their investigation for their pharmacological activity.



Three acylated flavone glycosides from *Sideritis ozturkii* Aytac & Aksoy

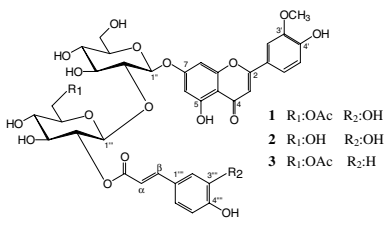
Phytochemistry, 2004, **65**, 2095

F. Pınar Şahin [a], Nurten Ezer [a], İhsan Çalış [b]

[a]*Faculty of Pharmacy, Department of Pharmaceutical Botany, Hacettepe University, 06100 Ankara, Turkey*

[b]*Faculty of Pharmacy, Department of Pharmacognosy, Hacettepe University, 06100 Ankara, Turkey*

From the aerial parts of *Sideritis ozturkii*, three new flavonoids, ozturkosides A, B, and C (**1**–**3**) were isolated, along with three known phenylethanoid glycosides, verbascoside, leucoseptoside A, martynoside and five known diterpenoids, 7-epicandicandiol, linearol, sidol, sideroxol, epoxyisolinearol.



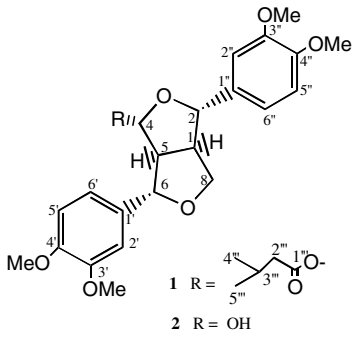
Lignans from the roots of *Echinops giganteus*

Phytochemistry, 2004, **65**, 2101

Mathieu Tene [a], Pierre Tane [a], Beiban L. Sondengam [b], Joseph D. Connolly [c]

[a] *Chemistry Department, University of Dschang, P.O. Box 67, Dschang, Cameroon*
[b] *Organic Chemistry Department, University of Yaounde 1, P.O. Box 812, Yaoundé, Cameroon*
[c] *Chemistry Department, University of Glasgow, Glasgow, G12 8QQ Scotland, UK*

Two new lignans, **1** and **2**, were isolated from the Cameroonian medicinal plant, *Echinops giganteus* (Compositae). Their structures were elucidated by extensive NMR spectroscopy and mass spectrometry.



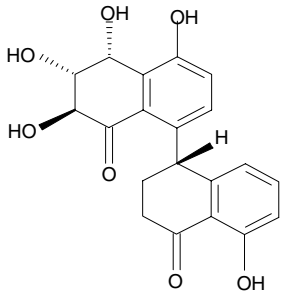
Secondary mould metabolites of *Cladosporium tenuissimum*, a hyperparasite of rust fungi

Phytochemistry, 2004, **65**, 2107

Gianluca Nasini [a], Alberto Arnone [a], Gemma Assante [b], Adriana Bava [a], Salvatore Moricca [c], Alessandro Ragazzi [d]

[a] *CNR-ICRM, Dipartimento di Chimica, Materiali ed Ingegneria Chimica del Politecnico, Via Mancinelli 7, I-20131 Milano, Italy*
[b] *Istituto di Patologia Vegetale, Università degli Studi, Via Celoria 2, I-20133 Milano, Italy*
[c] *CNR, Istituto per la Protezione delle Piante, Via Madonna del Piano, I- 50019 Sesto Fiorentino Firenze, Italy*
[d] *Dipartimento di Biotecnologie Agrarie – Sezione Patologia Vegetale, Università, Piazzale delle Cascine 28, I-50144 Firenze, Italy*

Investigation of a culture of *Cladosporium tenuissimum* gave rise to the isolation of the new cladosporols B–E (**2**–**5**). All cladosporols were active in inhibiting urediniospore germination of the bean rust agent *Uromyces appendiculatus*.



5

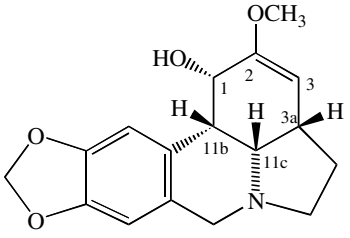
(−)-Amarbellisine, a lycorine-type alkaloid from *Amaryllis belladonna* L. growing in Egypt

Phytochemistry, 2004, **65**, 2113

Antonio Evidente [a], Anna Andolfi [a], Amina H. Abou-Donia [b], Soad M. Touema [b], Hala M. Hammoda [b], Eman Shawky [b], Andrea Motta [c]

[a] *Dipartimento di Scienze del Suolo della Pianta e dell'Ambiente, Università di Napoli Federico II, Via Università 100, I-80055 Portici, Italy*
[b] *Department of Pharmacognosy, University of Alexandria, Egypt, Alkhartoom Square, Alexandria 21521, Egypt*
[c] *Istituto di Chimica Biomolecolare del CNR, Comprensorio Olivetti, Edificio 70, Via Campi Flegrei 34, I-80078 Pozzuoli, Italy*

We report the chemical and biological characterisation of (−)-amarbellisine (**2**), a new lycorine-type alkaloid isolated from bulbs of *Amaryllis belladonna* L. together with the well known alkaloids: (−)-lycorine, (−)-pancracine, (+)-hippeastrine, (+)-11-hydroxyvittatine and (+)-vittatine.



2

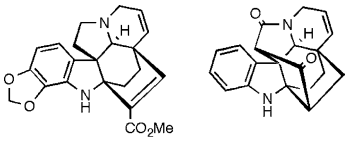
Venalstonine and dioxokopsan derivatives from *Kopsia fruticosa*

Phytochemistry, 2004, **65**, 2119

Toh-Seok Kam, Yeun-Mun Choo

Department of Chemistry, University of Malaya, Pantai Valley, 50603 Kuala Lumpur, Malaysia

Two new venalstone derivatives, viz., venacarpines A and B, and one new dioxokopsan derivative, kopsorinine, were isolated from a Malayan *Kopsia* species.



venacarpine A kopsorinine

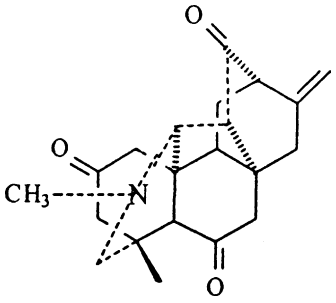
Alkaloids from *Delphinium pentagynum*

Phytochemistry, 2004, **65**, 2123

Jesús G. Díaz [a], Juan García Ruiz [a], Werner Herz [b]

[a] *Instituto de Bio-Orgánica "A. González", Universidad de La Laguna, Instituto Canario de Investigación del Cáncer, Ctra a la Esperanza 2, 38206, La Laguna, Tenerife, Spain*
[b] *Department of Chemistry and Biochemistry, The Florida State University, Tallahassee, FL 32306-4390, USA*

Aerial parts of *Delphinium pentagynum* furnished one diterpene alkaloid, two norditerpene alkaloids, 10 known diterpene alkaloids and an aporphine alkaloid.



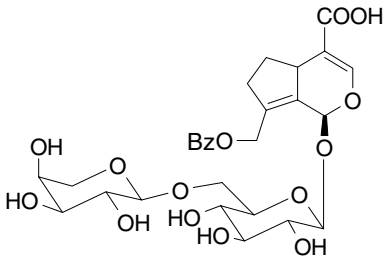
Iridoid glucosides of *Paederota lutea* and the relationships between *Paederota* and *Veronica*

Phytochemistry, 2004, **65**, 2129

Dirk C. Albach [a], Charlotte Held Gotfredsen [b], Søren Rosendal Jensen [c]

[a] *Institut für Botanik der Universität Wien, Rennweg 14, A-1030 Wien, Austria*
[b] *Carlsberg Laboratory, Department of Chemistry, Gl. Carlsberg Vej 10, DK-2500, Valby, Denmark*
[c] *Department of Chemistry, The Technical University of Denmark, DK-2800, Lyngby, Denmark*

In a chemical investigation of *Peaderota lutea* the new 8,9-unsaturated iridoid arabinoglucoside paederotoside has been isolated. The taxonomy of *Paederota* is discussed.



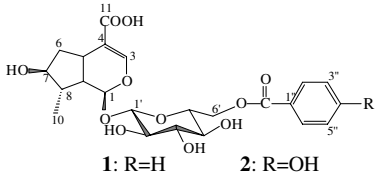
Acylated iridoid glucosides from *Veronica anagallis-aquatica*

Phytochemistry, 2004, **65**, 2135

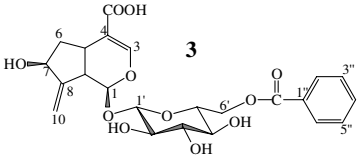
U. Sebnem Harput [a], Mehtap Varel [a], Akito Nagatsu [b], Ichal Saracoglu [a]

[a] *Department of Pharmacognosy, Faculty of Pharmacy, Hacettepe University, Sihhiye, Ankara TR-06100, Turkey*
[b] *Graduate School of Pharmaceutical Sciences, Nagoya City University, Tanabe-dori 3-1, Mizuho-ku, Nagoya 467- 8603, Japan*

Three new (**1**–**3**) and four known iridoid glucosides as well as a known phenylethanoid glycoside were isolated from the aerial parts of *Veronica anagallis-aquatica* and their structures were determined as 6′-*O*-benzoyl-8-epiloganic acid named aquaticoside A (**1**), 6′-*O*-*p*-hydroxybenzoyl-8-epiloganic acid named aquaticoside B (**2**), 6′-*O*-benzoyl-gardoside named aquaticoside C (**3**), veronicoside, catalposide, verproside, verminoside and martynoside on the basis of 1D and 2D NMR spectral analysis.



1: R=H **2**: R=OH



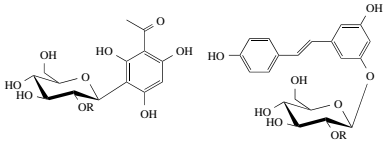
3

Acetophenone *C*-glucosides and stilbene *O*-glucosides in *Upuna borneensis*

Phytochemistry, 2004, **65**, 2141

Zulfiqar Ali, Tetsuro Ito, Toshiyuki Tanaka, Ken-ichi Nakaya, Jin Murata, Dedy Darnaedi, Munekazu Iinuma

Three acetophenone *C*-glycosides and two resveratrol *O*-glycosides were isolated from the acetone soluble part of stems of *Upuna borneensis* (Dipterocarpaceae), together with three known compounds; their structures were determined by spectral analyses including extensive 2D-NMR analyses.



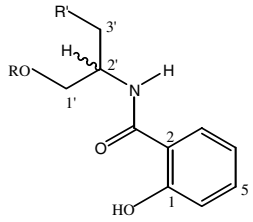
R = *p*-hydroxybenzoyl

Amides from the fungus *Streptomyces hygroscopicus* and their antimicrobial activity

Phytochemistry, 2004, **65**, 2147

M. Shamim Hossain, M. Aslam Hossain, M. Mukhlesur Rahman, M.A. Mojid Mondol, M.S.A. Bhuiyan, Alexander I. Gray, Maria E. Flores, Mohammad A. Rashid

Three amides, *N*-salicyloyl-2-aminopropan-1,3-diol (**1**), 1-acetyl-*N*-salicyloyl-2-aminopropan-3-ol (**2**) and *N*-salicyloyl-2-aminopropan-1-ol (**3**) were isolated from an ethyl acetate extract of the culture filtrate of a fungus, *Streptomyces hygroscopicus*.



1; R=H, R'= OH

2; R=CH_3CO, R'= OH

3; R= R'=H

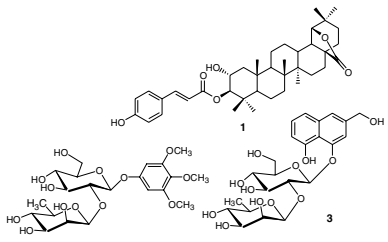
Coumaroyl triterpene lactone, phenolic and naphthalene glycoside from stem bark of *Diospyros angustifolia*

Phytochemistry, 2004, **65**, 2153

Arunendra Pathak, Dinesh K. Kulshreshtha, Rakesh Maurya

Medicinal Chemistry Division, Central Drug Research Institute, Chattar Manzil, Lucknow 226 001, India

Three new compounds, a coumaroyl triterpene lactone (**1**), a phenolic glycoside (**2**) and a naphthelene glycoside (**3**) along with five known compounds (**4**–**8**) were isolated from stem bark of *Diospyros angustifolia*.



A Dhb-microcystin from the filamentous cyanobacterium *Planktothrix rubescens*

Phytochemistry, 2004, **65**, 2159

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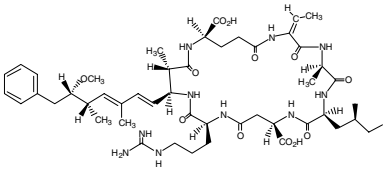
A Dhb-microcystin variant, (*E*)-Dhb-microcystin-HilR ([D-Asp), (*E*-Dhb^7] microcystin-HilR), was isolated from the filamentous cyanobacterium *Planktothrix rubescens*.



Volatile constituents of *Capillipedium parviflorum*

Phytochemistry, 2004, **65**, 2163

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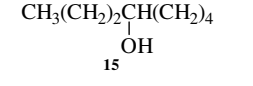
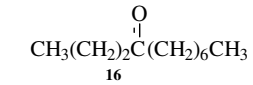
Volatile constituents of *Capillipedium parviflorum* are analysed by GC and GC–MS and 31 compounds have been identified. Two major compounds 4-nonanol (**15**) and 4-undecanone (**16**) were found to be new compounds from this plant and separated by CC and characterised by ^1H, ^{13}C, and MS.



15



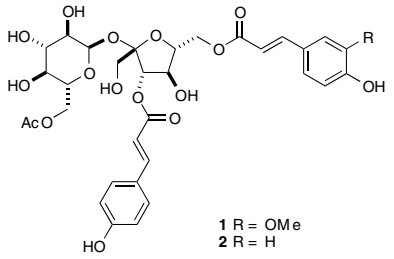
16

Phenylpropanoid derivatives from edible canna, *Canna edulis*

Phytochemistry, 2004, **65**, 2167

Young Sook Yun, Motoyoshi Satake, Shigeki Katsuki, Akira Kunugi

From dry rhizomes of *Canna edulis* Ker Gawl., two new phenylpropanoid sucrose esters **1** and **2** were isolated, and their structures were determined on the basis of spectroscopic data and chemical evidence.



Insect antifeedant compounds from *Nothofagus dombeyi* and *N. pumilio*

Phytochemistry, 2004, **65**, 2173

Odile Thoison, Thierry Sévenet, Hermann M. Niemeyer, Graeme B. Russell

Triterpenes and flavones, some reported as new natural products, were isolated from two species of Chilean *Nothofagus*, *N. dombeyi* and *N. pumilio*. These compounds which may play a role in the adaptive behaviour of *Nothofagus* to ecological insect pressure, were screened against larvae of the leafroller, *Ctenopsteustis obliquana*. 8-Hydroxyleanolic lactone, pectolinarigenin and dihydrooroxylin A showed significant antifeeding activity when incorporated into larval diet at 1% concentration.