Polyphenol oxidase expression in potato (*Solanum tuberosum*) tubers inhibited to sprouting by treatment with iodine atmosphere

Phytochemistry, 2004, **65**, 2181

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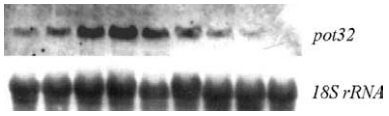

In bud tissues of potatoes exposed to iodine atmosphere the transcription of polyphenol oxidases features an increase followed by a decrease occurring simultaneously with the suppression of sprouting.

Expression of a *Stokesia laevis* epoxygenase gene

Phytochemistry, 2004, **65**, 2189

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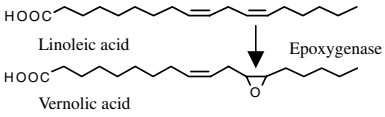
[b]*Department of Plant Pathology, Cornell University, Ithaca, NY 14853, USA*
[c]*403 Plant Science Building, 1405 Veterans Drive, University of Kentucky, Lexington, KY 40546-03120, USA*



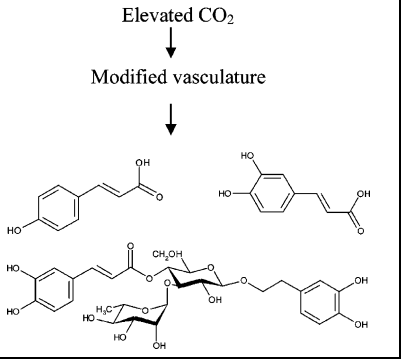
A cDNA cloned from *Stokesia laevis* encodes an epoxygenase active in yeast and *Arabidopsis*.

Effects of elevated CO_2 on the vasculature and phenolic secondary metabolism of *Plantago maritima*

Phytochemistry, 2004, **65**, 2197

Matthew P. Davey [a,b], David N. Bryant [a], Ian Cummins [a], Trevor W. Ashenden [b], Phillip Gates [a], Robert Baxter [a], Robert Edwards[a]

[a]*School of Biological and Biomedical Sciences, University of Durham, Durham DH1 3LE, UK*
[b]*Centre for Ecology and Hydrology (CEH), Bangor, Gwynedd LL57 2UP, UK*



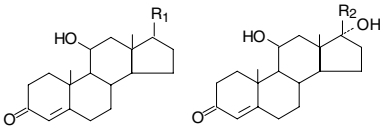
A one-year exposure to elevated atmospheric CO_2 resulted in modifications of the vasculature and lignification in *Plantago maritima*. An accumulation of caffeic acid also occurred in the shoots, while in the roots *p*-coumaric acid and verbascoside content was enhanced by elevated CO_2.

Biotransformation of hydrocortisone by a natural isolate of *Nostoc muscorum*

Phytochemistry, 2004, **65**, 2205

Mojtaba Tabatabaei Yazdi [a], Homeira Arabi [a], Mohammad Ali Faramarzi [a], Younes Ghasemi [a], Mohsen Amini [b], Shadman Shokravi [c], Farzaneh Aziz Mohseni [d]

[a]*Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Tehran University of Medical Sciences, P.O. Box 14155-6451, Tehran 14174, Iran*
[b]*Department of Medicinal Chemistry, Faculty of Pharmacy, Tehran University of Medical Sciences, P.O. Box 14155-6451, Tehran 14174, Iran*
[c]*Department of Biology, Iranian Center of Culture and Education, Institute of Applied Sciences, Shahid Beheshti University, P.O. Box 19835-371, Tehran, Iran*
[d]*Iranian Research Organization for Science and Technology (IROST), Tehran, Iran*



I: R_1= OH
II: R_1= O
III: R_2= $COCH_2OH$
IV: R_2= $CHOHCH_2OH$

Hydrocortisone (**III**) was converted in the culture of an isolated strain of the cyanobacterium *Nostoc muscorum* PTCC 1636 into some androstane and pregnane derivatives. The bioproducts obtained were purified using chromatographic methods and identified as 11β-hydroxytestosterone (**I**), 11β-hydroxyandrost-4-en-3,17-dione (**II**) and 11β,17α,20β,21-tetrahydroxypregn-4-en-3-one (**IV**) on the basis of their spectroscopic features.

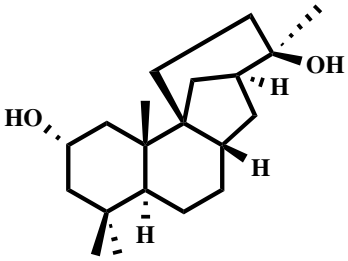
Investigation of the importance of the C-2 and C-13 oxygen functions in the transformation of stemodin analogues by *Rhizopus oryzae* ATCC 11145

Phytochemistry, 2004, **65**, 2211

Glenroy D.A. Martin [a], William F. Reynolds [b], Paul B. Reese [a]

[a] *Department of Chemistry, University of the West Indies, Mona, Kingston 7, Jamaica*
[b] *Department of Chemistry, University of Toronto, Toronto, Ont., Canada M5S 3H6*

As part of our ongoing programme, eight analogues of the mild antiviral and cytotoxic diterpene stemodin were incubation with *Rhizopus oryzae* ATCC 11145. The results provide useful information about the relationship of the functional groups of the substrates and their products of bioconversion.



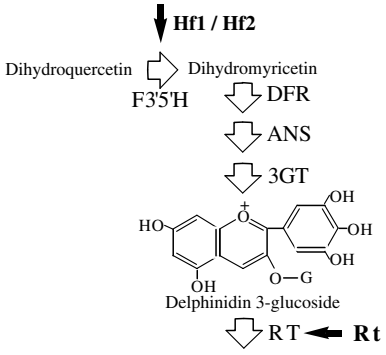
Delphinidin accumulation is associated with abnormal flower development in petunias

Phytochemistry, 2004, **65**, 2219

Toshio Ando [a], Motoko Takahashi [a], Taku Nakajima [b], Yukiko Toya [b], Hitoshi Watanabe [c], Hisashi Kokubun [b], Fumi Tatsuzawa [d]

[a] *Faculty of Horticulture, Chiba University, 648 Matsudo, Matsudo City, Chiba 271-8510, Japan*
[b] *Graduate School of Science and Technology, Chiba University, 1-33 Yayoi-cho, Inage-ku, Chiba 263-8522, Japan*
[c] *Center of Environment, Health, and Field Science, Chiba University, 6-2-1 Kashiwanoha, Kashiwa, Chiba 277-0882, Japan*
[d] *Hokkaido Junior College, Takushoku University, Fukagawa, Hokkaido 074-8585, Japan*

No commercial petunia lines highly accumulate delphinidin 3-glucoside in the in flower. Active flavonoid 3′,5′-hydroxylase (F3′5′H) and inactive anthocyanidin 3-glucoside-rhamnosyltransferase (RT) are considered to be associated with a dull-coloured crumpled corolla-limb.



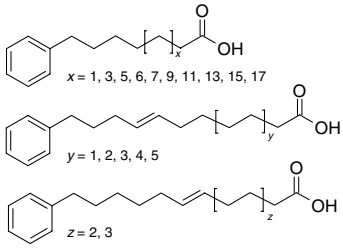
Phenyl-terminated fatty acids in seeds of various aroids

Phytochemistry, 2004, **65**, 2229

Juris Meija [a], Victor G. Soukup [b]

[a] *Department of Chemistry, University of Cincinnati; Cincinnati, OH 45221-0172, USA*
[b] *Herbarium, University of Cincinnati; Cincinnati, OH 45221-0006, USA*

Series of homologous saturated and unsaturated ω-phenyl fatty acids were found and characterized in various genera of the subfamily Aroideae of the Araceae.



3-Hydroxypropionic acid as a nematicidal principle in endophytic fungi

Phytochemistry, 2004, **65**, 2239

Michael Schwarz [a], Bärbel Köpcke [b], Roland W.S. Weber [a], Olov Sterner [c], Heidrun Anke [b]

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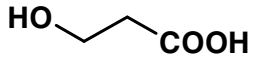
[b] *Institute of Biotechnology and Drug Research (IBWF e.V.), Erwin-Schroedinger-Strasse 56, D-67663 Kaiserslautern, Germany*
[c] *Department of Bioorganic Chemistry, Lund University, P.O. Box 124, S-221 00 Lund, Sweden*

3-Hydroxypropionic acid, not previously reported from fungi, is a common nematicidal metabolite among fungal endophytes.



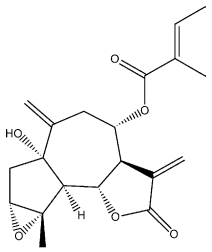
Inhibitors of the LPS-induced NF-κB activation from *Artemisia sylvatica*

Phytochemistry, 2004, **65**, 2247

Hui Zi Jin [a,b], Jeong Hyung Lee [a], Dong ho Lee [a], Young Soo Hong [a], Young Ho Kim [b], Jung Joon Lee [a]

[a] *Anticancer Research Laboratory, Korea Research Institute of Bioscience and Biotechnology, P.O. Box 115, Yuseong, Daejeon 305-600, Korea*
[b] *College of Pharmacy, Chungnam National University, Yuseong, Daejeon 305-764, Korea*

Three guaianolide type sesquiterpene lactones, 3α,4α-epoxyrupicolins C–E (**1**–**3**), together with six known sesquiterpenes (**4**–**9**) were isolated and identified from the methanol extract of the aerial parts of *Artemisia sylvatica*, and their biological activities were reported.



1

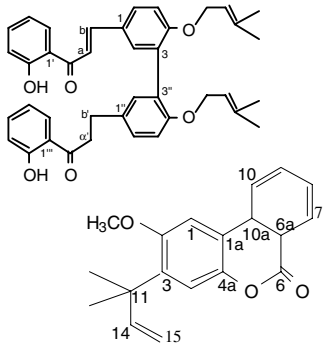
Monoamine oxidase inhibitors from *Gentiana lutea*

Phytochemistry, 2004, **65**, 2255

Hiroyuki Haraguchi [a], Yasumasa Tanaka [a], Amal Kabbash [b], Toshihiro Fujioka [c], Takshi Ishizu [b], Akira Yagi [d]

[a] *Faculty of Life Science and Biotechnology, Fukuyama University, Gakuen-cho, Fukuyama 729-0292, Japan*
[b] *Faculty of Pharmacy and Pharmaceutical Sciences, Fukuyama University, Gakuen-cho, Fukuyama 729-0292, Japan*
[c] *Faculty of Pharmaceutical Sciences, Fukuoka University, Fukuoka 814-0180, Japan*

A dimeric chalcone derivative and a hydrophobic dihydrocoumarin were newly isolated from *Gentiana lutea* together with 5-hydroxyflavanone as brain mitochondrial monoamine oxidase inhibitors.



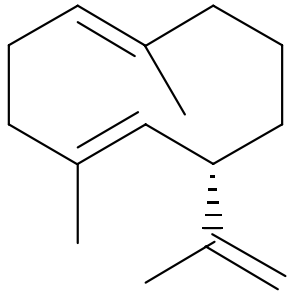
Isogermacrene A, a proposed intermediate in sesquiterpene biosynthesis

Phytochemistry, 2004, **65**, 2261

Thomas Hackl [a], Wilfried A. König [a], Hermann Muhle [b]

[a] *Institut für Organische Chemie, Universität Hamburg, Martin-Luther-King-Platz 6, D-20146 Hamburg, Germany*
[b] *Abteilung Systematische Botanik und Ökologie, Universität Ulm, D-89081 Ulm, Germany*

A sesquiterpene hydrocarbon, isogermacrene A (**5**), which is structurally related to the gorgonanes and zieranes, was isolated from the essential oil of *Saccogyna viticulosa* (Hepaticae). This monocyclic compound is proposed as the biogenetic intermediate of some rare sequiterpene skeletons.



5

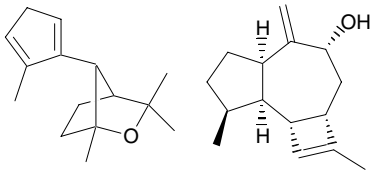
Sesquiterpene constituents from the essential oils of the liverworts *Mylia taylorii* and *Mylia nuda*

Phytochemistry, 2004, **65**, 2277

Stephan H. von Reuß [a], Chia-Li Wu [b], Hermann Muhle [c], Wilfried A. König [a]

[a] *Institut für Organische Chemie, Universitat Hamburg, Martin-Luther-King-Platz 6, D-20146 Hamburg, Germany*
[b] *Department of Chemistry, Tamkang University, Tamsui, Taiwan*
[c] *Abteilung Systematische Botanik und Ökologie, Universität Ulm, D-89081 Ulm, Germany*

Chemical investigation of the essential oils from *Mylia taylorii* and *Mylia nuda* resulted in the isolation and structure elucidation of 13 new sesquiterpene constituents including three new carbon skeletons.



Hydrogen isotopic fractionations during desaturation and elongation associated with polyunsaturated fatty acid biosynthesis in marine macroalgae

Phytochemistry, 2004, **65**, 2293

Yoshito Chikaraishi, Yaeko Suzuki, Hiroshi Naraoka

Department of Chemistry, Tokyo Metropolitan University, 1-1, Minami-Ohsawa, Hachioji, Tokyo 192-0397, Japan

Compound-specific hydrogen isotopic compositions of saturated, monounsaturated and polyunsaturated fatty acids in natural marine macroalgae have been determined in order to clarify hydrogen isotopic fractionations during their desaturation and elongation associated with polyunsaturated fatty acid biosynthesis.