

Phytochemistry Vol. 66, No. 14, 2005

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Reports on Structure Elucidation

FULL PAPERS

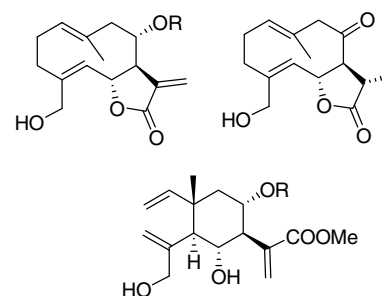
TERPENOIDS

Sesquiterpenes from *Centaurea aspera*

pp 1644–1650

J. Alberto Marco\*, Juan F. Sanz-Cervera, Alberto Yuste, Félix Sancenón, Miguel Carda

Germacrane and eudesmane derivatives bearing various acyl groups R have been isolated from *Centaurea aspera*.

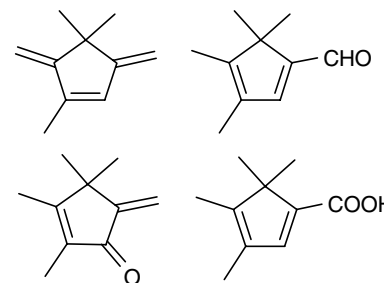


Necrodane monoterpenoids from *Lavandula luisieri*

pp 1651–1655

Nicolas Baldovini\*, Sophie Lavoine-Hanneguelle, Georges Ferrando, Ghislaine Dusart, Louisette Lizzani-Cuvelier

Four irregular monoterpenoids were identified in the essential oil of *Lavandula luisieri* (Rozeira) Riv. Mart., which showed a significant antibacterial activity against several strains of *Staphylococcus aureus* and *Candida albicans*.

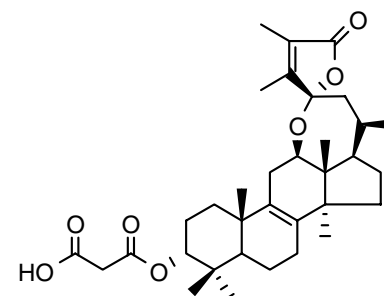


Lanostane triterpenoids from the inedible mushroom *Fomitopsis spraguei*

pp 1656–1661

Dang Ngoc Quang, Yuuki Arakawa, Toshihiro Hashimoto, Yoshinori Asakawa\*

Five lanostane triterpenoids were isolated from mushroom *Fomitopsis spraguei*, three of which are named fomitopsins A–C, together with two other compounds. The structure of quercinic acid C has been revised.

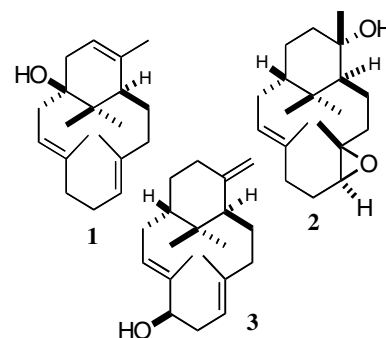


**ent-Verticillane-type diterpenoids from the Japanese liverwort *Jackiella javanica***

pp 1662–1670

Fumihiro Nagashima\*, Katsuhiro Kishi, Yuko Hamada, Shigeru Takaoka, Yoshinori Asakawa

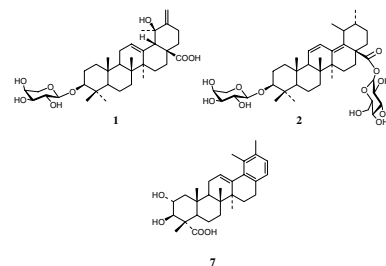
Three *ent*-verticillane diterpenoids (**1–3**) have been isolated from the Japanese liverwort *Jackiella javanica*, together with five known *ent*-verticillane, three known *ent*-kaurane diterpenoids, and five sesquiterpenoids. Their structures are established by application of extensive NMR spectroscopic analysis, chemical conversions and X-ray crystallographic studies.

**Triterpenoids from *Sanguisorba officinalis***

pp 1671–1679

Xin Liu, Yanxing Cui, Qiang Yu, Biao Yu\*

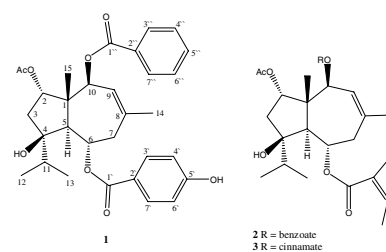
Seven triterpenoids (**1–7**) and three known ones (**8–10**) were isolated from the roots of *Sanguisorba officinalis*, and their structures were determined by spectroscopic and chemical methods.

**Rare trisubstituted sesquiterpenes daucanes from the wild *Daucus carota***

pp 1680–1684

Ahmed A. Ahmed\*, Mohktar M. Bishr, Mohamed A. El-Shanawany, Eman Z. Attia, Samir A. Ross, Paul W. Paré

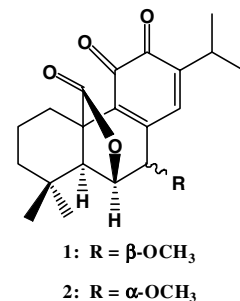
Phytochemical and biological investigation of the roots of *Daucus carota* ssp. *Carota* afforded seven compounds, including four sesquiterpenes daucane esters. The structures of the compounds were determined by extensive NMR studies, including DEPT, COSY, NOESY, HMQC and HMBC analyses.

**Diterpenoid quinones from Rosemary (*Rosmarinus officinalis* L.)**

pp 1685–1690

Ahmed A. Mahmoud\*, Shar S. AL-Shihry, Byeng W. Son

Two abietane-type diterpenoid *o*-quinones, 7 $\beta$ -methoxyabieta-8,13-diene-11,12-dione- (20,6 $\beta$ )-olide (rosmaquinone A) (**1**) and 7 $\alpha$ -methoxyabieta-8,13-diene-11,12-dione- (20,6 $\beta$ )-olide (rosmaquinone B) (**2**), together with six known compounds were isolated from the aerial parts of *Rosmarinus officinalis*. The structures were determined on the basis of spectral studies.



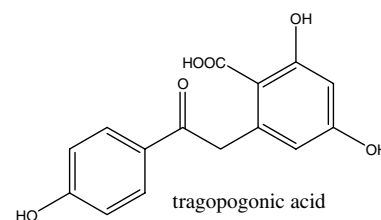
## PHENOLICS

**Bibenzyls and dihydroisocoumarins from white salsify (*Tragopogon porrifolius* subsp. *porrifolius*)**

pp 1691–1697

Christian Zidorn\*, Ulrike Lohwasser, Susanne Pschorr, Daniela Salvenmoser, Karl-Hans Ongania, Ernst P. Ellmerer, Andreas Börner, Hermann Stuppner

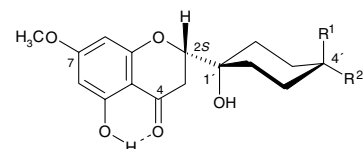
*Tragopogon porrifolius* L. subsp. *porrifolius* (Asteraceae, Lactuceae) yielded three bibenzyl derivatives, 5,4'-dihydroxy-3- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -D-xylopyranosyloxybibenzyl, 2-carboxyl-3,4'-dihydroxy-5- $\beta$ -D-xylopyranosyloxybibenzyl, tragopogonic acid (2'-carboxyl-3',5',4-trihydroxyphenylethanone) and the dihydroisocoumarin 6-*O*-methylscorzocreticoside I.

**Cyclohexanoid protoflavanones from the stem-bark and roots of *Ongokea gore***

pp 1698–1706

Gerold Jerz\*, Reiner Waibel, Hans Achenbach

Four protoflavanones with hydrogenated B-ring were isolated from *Ongokea gore* (Olacaceae) and named as (2*S*)-ongokein-4'-one (**1**), (2*S*)-4',4'-dimethoxy-ongokein (**2**), (2*S*)-*cis*-4'-hydroxy-ongokein (**3**), and (2*S*)-*trans*-4'-hydroxy-ongokein (**4**).



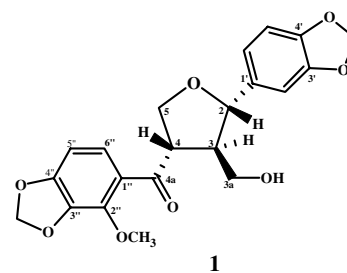
- |                                                       |                                            |
|-------------------------------------------------------|--------------------------------------------|
| 1: R <sup>1</sup> , R <sup>2</sup> = O                | 3: R <sup>1</sup> = H, R <sup>2</sup> = OH |
| 2: R <sup>1</sup> = R <sup>2</sup> = OCH <sub>3</sub> | 4: R <sup>1</sup> = OH, R <sup>2</sup> = H |

**Flavonoids, triterpenoids and a lignan from *Vitex altissima***

pp 1707–1712

Chenchugari Sridhar, Karumanchi V. Rao, Gottumukkala V. Subbaraju\*

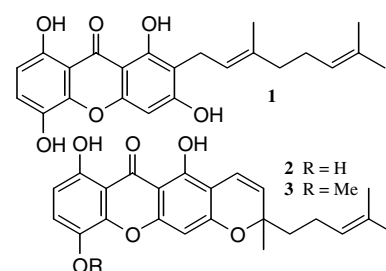
A lignan, altissinone (**1**), and a flavonoid, 2-*O*-*p*-hydroxybenzoylorientin (**2**), along with 11 known compounds have been isolated from ethyl acetate extractives of the leaves of *Vitex altissima*. The structures of these compounds were determined by 2D NMR data. The isolates were evaluated for their antioxidant and 5-lipoxygenase inhibitory activities.

**Xanthenes from *Garcinia smeathmannii* (Oliver) and their antimicrobial activity**

pp 1713–1717

Justin Komguem, A.L. Meli, R.N. Manfouo, David Lontsi\*, F.N. Ngounou, V. Kuete, Hippolyte W. Kamdem, Pierre Tane, Bonaventure T. Ngadjui, Beiban L. Sondengam, Joseph D. Connolly

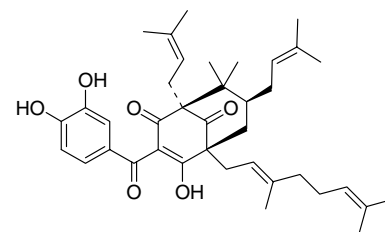
Smeathxanthenes A (**1**) and B (**2**) have been isolated from the stem bark of *Garcinia smeathmannii* (Oliver).



**Xanthenes and benzophenones from *Garcinia griffithii* and *Garcinia mangostana*****pp 1718–1723**

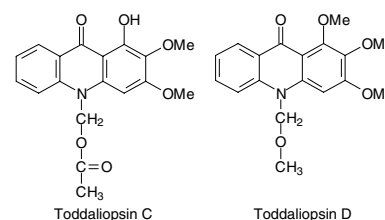
Nilar, Lien-Hoa D. Nguyen, Ganpathi Venkatraman, Keng-Yeow Sim, Leslie J. Harrison\*

Two benzophenones and a xanthone have been isolated from *Garcinia griffithii* and *G. mangostana* (Guttiferae).

**ALKALOIDS****N-Substituted acridone alkaloids from *Toddaliopsis bremekampii* (Rutaceae: Toddaliodeae) of south-central Africa****pp 1724–1728**

Dashnie Naidoo, Philip H. Coombes\*, Dulcie A. Mulholland, Neil R. Crouch, Albert J.J. van den Bergh

Toddaliopsins A–D, four acridone alkaloids, have been isolated from the leaves of *Toddaliopsis bremekampii*. Toddaliopsins B–D are the first reported acridone alkaloids with substituted N-methyl groups, in the light of which the chemotaxonomic relationship of *Toddaliopsis* and *Vepris* is discussed. Toddaliopsin C possesses moderate anti-inflammatory activity, which may be related to the hydroxy group present at C-1.

**GENERAL CHEMISTRY****Fatty acids from seeds of *Pinus pinea* L.: Composition and population profiling****pp 1729–1735**

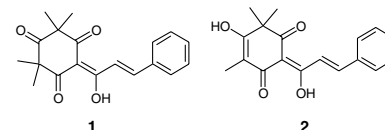
Nizar Nasri\*, Abdelhamid Khaldi, Bruno Fady, Saida Triki

The fatty acid composition of seeds of the Mediterranean pine tree *Pinus pinea* L. is described and quantified. The possibility to use of these fatty acids for range-wide population profiling is investigated.

**Champanones, yellow pigments from the seeds of champa (*Campomanesia lineatifolia*)****pp 1736–1740**

Adriana Bonilla, Carmenza Duque\*, Cristina Garzón, Yoshihisa Takaishi, Kazutaka Yamaguchi, Noriyuki Hara, Yoshinori Fujimoto

Two yellow pigments, named champanones A (1) and B (2), were isolated from the methanol extract of the seeds of *Campomanesia lineatifolia* (Myrtaceae). Their structures were established on the basis of NMR and MS studies.

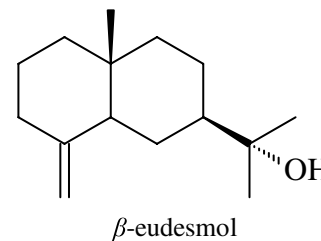


**Composition and antimicrobial activity of essential oils from *Centaurea sessilis* and *Centaurea armena***

pp 1741–1745

Nurettin Yaylı\*, Ahmet Yaşar, Canan Güleç, Asu Usta, Sevgi Kolaylı, Kamil Coşkunçelebi, Şengül Karaoğlu

The essential oils of air-dried *Centaurea sessilis* and *Centaurea armena* were analyzed by GC-MS. Sixty-one and thirty-four components were identified in the essential oils and the main components of these taxa were found to be  $\beta$ -eudesmol in the ratios of 11.08% and 11.18% from *C. sessilis* and *C. armena*, respectively. The antimicrobial activity of the isolated essential oil of the plants was also investigated. They showed moderate antibacterial activity against Gram-positive and Gram-negative bacteria, but no antifungal activity was observed against two yeastlike fungi.

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