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Special issue

Reports on Structure Elucidation

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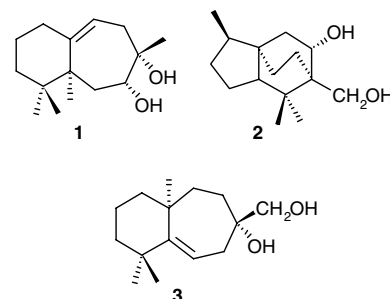
TERPENOIDS

Sesquiterpenes from the wood of *Juniperus lucayana*

pp 2409–2414

Yarelis Ortíz Nuñez, Iraida Spengler Salabarría, Isidro G. Collado, Rosario Hernández-Galán*

Three sesquiterpenes, 3-hydroxypseudowiddran-6(7)-en-4-ol (**1**), 15-hydroxyallo-cedrol (**2**) and 12-hydroxywiddrol (**3**) have been isolated from the wood of *Juniperus lucayana* along with six known sesquiterpenes and two known flavonoids. The antifungal activity of the majority compounds was tested against *Botrytis cinerea*.

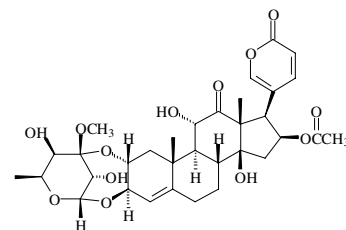


Bufadienolides from *Drimia macrocentra* and *Urginea riparia* (Hyacinthaceae: Urgineoideae)

pp 2415–2419

Nivan Moodley, Neil R. Crouch, Dulcie A. Mulholland*

Rubellin and riparianin have been isolated from the bulbs of *Drimia macrocentra* and *Urginea riparia* (Hyacinthaceae) respectively. Rubellin and riparianin contain a carbohydrate moiety doubly linked to the bufadienolide aglycone at the C-2 and C-3 positions. Riparianin showed moderate activity when tested against MCF7 (breast), TK10 (renal) and UACC62 (melanoma) cancer cell lines.

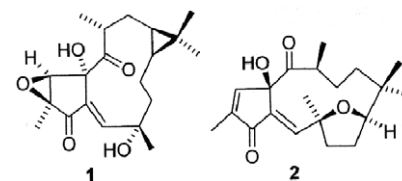


Antibacterial diterpenoids from *Jatropha podagrica* Hook

pp 2420–2425

Olapeju O. Aiyelaagbe*, Kayode Adesogan, Olusegun Ekundayo, James B. Gloer

Two macrocyclic diterpenoids (**1** and **2**) possessing lathyrane and jatrophane skeletons, respectively were isolated from the root extracts of *Jatropha podagrica* by a combination of chromatographic techniques including reversed-phase HPLC. The compounds exhibited antibacterial activity against some gram-positive bacteria.

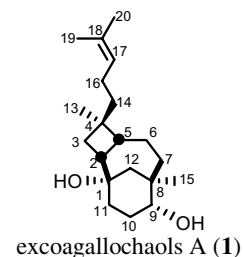


Elucidation of excogallochaols A–D, four unusual diterpenoids from the Chinese mangrove *Excoecaria agallocha*

pp 2426–2431

Ji-Dong Wang, Wen Zhang, Zhen-Yu Li, Wen-Sheng Xiang, Yue-Wei Guo*, Karsten Krohn

Diterpenoids, excoagallochaols A–D (**1–4**), with an unprecedented skeleton, were isolated from the ethyl acetate extract of the stems and leaves of the mangrove *Excoecaria agallocha* L.



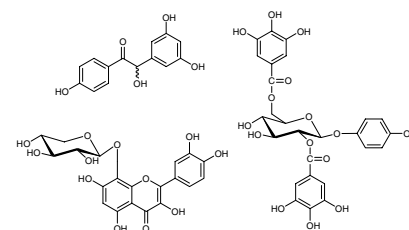
PHENOLICS

Anti-oxidant constituents from *Sedum takesimense*

pp 2432–2438

Phuong Thien Thuong, Ho Jeong Kang, MinKyun Na, WenYi Jin, Ui Jung Youn, Yeon Hee Seong, Kyung-Sik Song, Byung-Sun Min, KiHwan Bae*

1-(4-Hydroxyphenyl)-2-(3-5-dihydroxyphenyl)-2-hydroxyethanone, gossypetin-8-*O*- β -D-xylopyranoside, and 2,6-di-*O*-galloylarbutin were isolated from *Sedum takesimense*, as well as 11 previously known phenolics, with anti-oxidant properties examined.

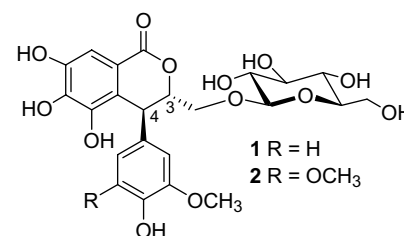


Dihydroisocoumarin glucosides from stem bark of *Caryocar glabrum*

pp 2439–2443

Abdulmagid Alabdul Magid*, Laurence Voutquenne-Nazabadioko, Gautier Moroy, Christian Moretti, Catherine Lavaud

Two dihydroisocoumarin glucosides (**1** and **2**) were isolated from the stem bark of *Caryocar glabrum*. The aglycone part is a dihydroisocoumarin skeleton arising from the condensation of gallic acid with a phenylpropanoid derivative.

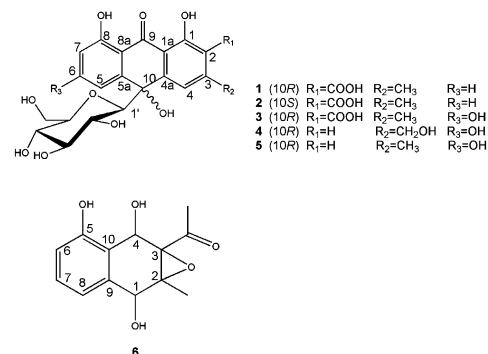


Oxanthrone C-glycosides and epoxynaphthoquinol from the roots of *Rumex japonicus*

pp 2444–2449

Lili Jiang, Shuwei Zhang, Lijiang Xuan*

Five oxanthrone C-glycosides, namely rumejaposide A–E, and an epoxynaphthoquinol were isolated from roots of *Rumex japonicus*, along with eight known compounds. Their structures were established by spectroscopic methods.

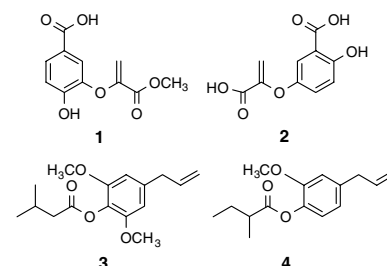


Phenolic derivatives from *Aster indicus*

pp 2450–2454

Chwan-Fwu Lin, Chien-Chang Shen, Chien-Chih Chen, Shuenn-Jyi Sheu*, Yu-Ling Huang*

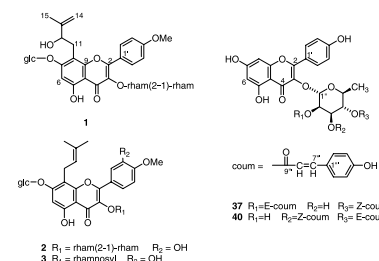
4-Hydroxy-3-[1-(methoxycarbonyl)vinyl]oxy]benzoic acid (**1**), 5-(1-carboxylvinyl)-2-hydroxybenzoic acid (**2**), 4-allyl-2, 6-dimethoxyphenyl 3-methylbutanoate (**3**), and 4-allyl-2-methoxyphenyl 2-methylbutanoate (**4**) were isolated from the whole herbs of *Aster indicus*. Their structures were established using spectroscopic analyses.


 Prenylflavonol, acylated flavonol glycosides and related compounds from *Epimedium sagittatum*

pp 2455–2464

Guei-Jane Wang, Tung-Hu Tsai, Lie-Chwen Lin*

Three prenylated flavonol glycosides and two acylated flavonol glycosides, together with 35 known compounds were isolated from *Epimedium sagittatum*.

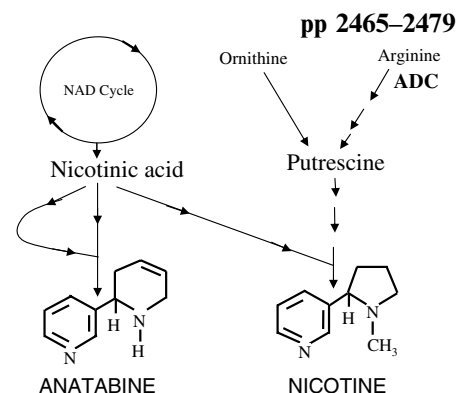


ALKALOIDS

 Antisense-mediated reduction in ADC activity causes minor alterations in the alkaloid profile of cultured hairy roots and regenerated transgenic plants of *Nicotiana tabacum*

Yupyn Chintapakorn, John D. Hamill*

It is shown that although expression of an antisense ADC cDNA sequence in hairy roots of tobacco results in markedly diminished ADC activity, only small reductions in nicotine content are observed and anatabine:nicotine ratios are only slightly elevated in antisense-ADC hairy root lines and regenerated transgenic plants compared to controls. These observations suggest that the level of ADC activity in tobacco roots is not normally the major determinant that ensures adequate levels of putrescine are available for nicotine synthesis.



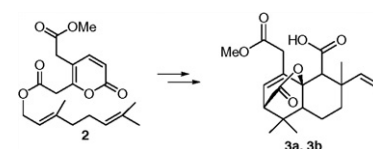
GENERAL CHEMISTRY

 A pyran-2-one and four meroterpenoids from *Thapsia transtagana* and their implication in the biosynthesis of transtaganolides

pp 2480–2486

Juan J. Rubal, F.J. Moreno-Dorado, Francisco M. Guerra, Zacarías D. Jorge, Abderrahmane Saouf, Mohamed Akssira, Fouad Mellouki, Raúl Romero-Garrido, Guillermo M. Massanet*

Four meroterpenoids and a prenylated pyran-2-one (**2**) along with the known compounds 7-*O*-geranylscopoletin (**1**), and thapsitranstagin have been isolated from the roots of *Thapsia transtagana*. The presence of **1** and **2** supports the biogenetic hypothesis that transtaganolides, a group of bioactive metabolites, are meroterpenoids which come from an *O*-prenylated coumarin *via* successive pericyclic reactions.

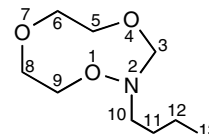


Trigoxazonane, a monosubstituted trioxazonane from *Trigonella foenum-graecum* root exudate, inhibits *Orobancha crenata* seed germination

pp 2487–2492

Antonio Evidente*, Mónica Fernández-Aparicio, Anna Andolfi, Diego Rubiales, Andrea Motta

We report the chemical structure and biological characterization of trigoxazonane, a new monosubstituted trioxazonane, isolated from root exudates of *Trigonella foenum-graecum*, showing inhibitory activity of the *Orobancha crenata* seed germination.

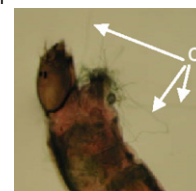
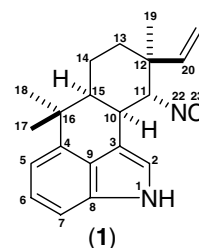


Insecticidal activity of 12-*epi*-hapalindole J isonitrile

pp 2493–2497

Paul G. Becher*, Simone Keller, Günther Jung, Roderich D. Süssmuth, Friedrich Jüttner

Bioassay-guided fractionation of the extract of *Fischerella* ATCC 43239 (Stigonematales) was applied to determine the major insecticidal compounds in this biofilm-forming freshwater cyanobacterium. At 26 μ M, 12-*epi*-hapalindole J isonitrile (**1**) killed 100% of the larvae of the dipteran *Chironomus riparius* within 48 h. Insecticidal activities were also found at similar concentration for three previously described hapalindoles.



Chironomid larva feeding on cyanobacterial filaments (cf).

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