Graphical abstracts

Organic synthesis in an unconventional solvent, 5.0 M lithium perchlorate/diethyl ether

Tetrahedron 58 (2002) 6777

Akbar Heydari

Department of Chemistry, Tarbiat Modarres University, P.O. Box 14155-4838, Tehran, Iran

This article provides the first general review of organic reactions in LPDE solution. The review has shown the diversity and potential usefulness of carrying out organic reactions in LPDE media.

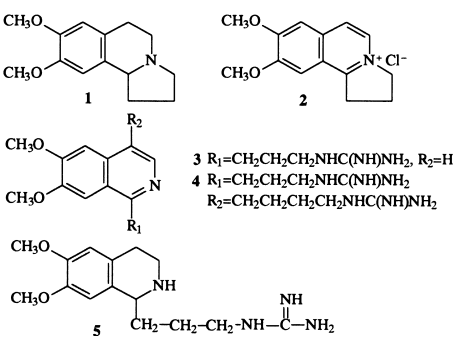
Novel bioactive isoquinoline alkaloids from *Carduus crispus*

Tetrahedron 58 (2002) 6795

Qingying Zhang,[a] Guangzhong Tu,[b] Yuying Zhao[a,*] and Tieming Cheng[a]

[a]*Department of Natural Medicines, School of Pharmaceutical Sciences, Peking University, Beijing 100083, People's Republic of China*
[b]*Beijing Institute of Microchemistry, Beijing 100091, People's Republic of China*

Four novel isoquinoline alkaloids crispine B–E (**2–5**), along with a new natural isoquinoline alkaloid, crispine A (**1**), were isolated from *Carduus crispus*, and the structures were elucidated on the basis of spectroscopic data. Compound **2** showed certain cytotoxic activity against some human-cancer lines in vitro.



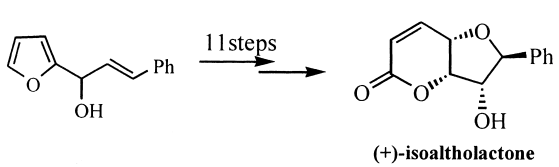
Enantioselective total synthesis of (+)-isoaltholactone

Tetrahedron 58 (2002) 6799

Xiaoshui Peng,[a] Anpai Li,[a] Jiangping Lu,[a] Qiaoling Wang,[a] Xinfu Pan[a,*] and Albert S. C. Chan[b]

[a]*National Laboratory of Applied Organic Chemistry, Department of Chemistry, Lanzhou University, Lanzhou 730000, People's Republic of China*
[b]*Department of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University, Hong Kong, People's Republic of China*

A facile enantioselective route to highly functionalized α,β-unsaturated-δ-lactones has allowed for the synthesis of (+)-isoaltholactone.



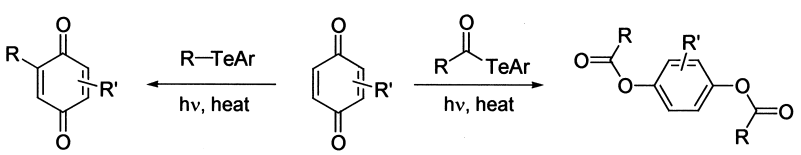
(+)-isoaltholactone

A new synthetic route to substituted quinones by radical-mediated coupling of organotellurium compounds with quinones

Tetrahedron 58 (2002) 6805

Shigeru Yamago,* Masahiro Hashidume and Jun-ichi Yoshida*

Department of Synthetic Chemistry and Biological Chemistry, Graduate School of Engineering, Kyoto University, Kyoto 606-8501, Japan

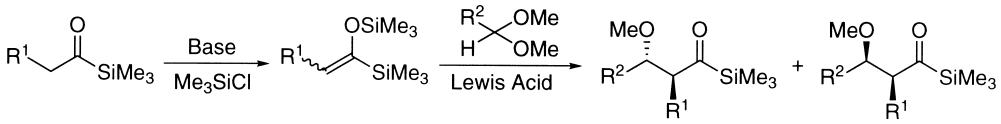


Diastereoselective aldol condensation of acylsilane silyl enol ethers with acetals

Tetrahedron 58 (2002) 6815

Mitsunori Honda,* Wataru Oguchi Masahito Segi and Tadashi Nakajima

Department of Chemistry and Chemical Engineering, Faculty of Engineering, Kanazawa University, 2-40-20 Kodatsuno, Kanazawa 920-8667, Japan



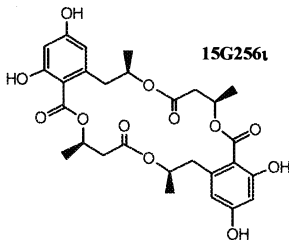
Isolation and identification of antifungal polyesters from the marine fungus *Hypoxylon oceanicum* LL-15G256

Tetrahedron 58 (2002) 6825

Gerhard Schlingmann* Lisa Milne and G. T. Carter

Natural Products Chemistry, Chemical Sciences, Wyeth Research, 401 North Middletown Road, Pearl River, NY 10965, USA

Cultures of the marine fungus *Hypoxylon oceanicum* (LL-15G256) were found to have potent antifungal activity in assays designed to detect inhibitors of fungal cell wall biosynthesis. Bio-activity guided isolation provided macrocyclic polyesters such as 15G256ι. Their isolation, structures and biogenesis is presented.

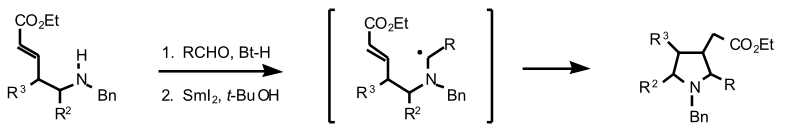


Synthesis of 2,4-, 3,4- and 2,3,4-substituted pyrrolidines by cyclization of neutral C-centered α-aminoalkyl radicals

Tetrahedron 58 (2002) 6837

Fernando Bustos, José M. Gorgojo, Rubén Suero and José M. Aurrecoechea*

Departamento de Química Orgánica II, Facultad de Ciencias, Universidad del País Vasco, Apartado 644, 48080 Bilbao, Spain



Bt-H = benzotriazole

R = R³ = H; R² = alkyl, aryl
R = H, alkyl; R² = H; R³ = Me

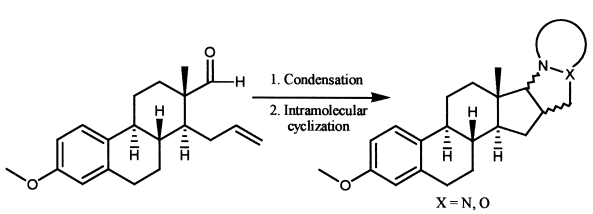
66-75% (1.2-1.8 : 1 dr)
66-67% (6.7-9.0 : 1 dr)

Stereoselective synthesis of some novel heterocyclic estrone derivatives by intramolecular 1,3-dipolar cycloaddition

Tetrahedron 58 (2002) 6843

Éva Frank,[a] János Wölfling,[a] Beatrix Aukszi,[a] Verena König,[b] Thomas R. Schneider[b] and Gyula Schneider[a,*]

[a]*Department of Organic Chemistry, University of Szeged, Dóm tér 8, H-6720 Szeged, Hungary*
[b]*Institute of Inorganic Chemistry, University of Göttingen, Tammannstr. 4, D-37077 Göttingen, Germany*

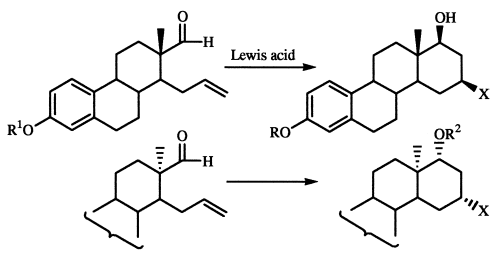


Synthesis of novel halogen-containing D-homoestrone and 13α-D-homoestrone derivatives by Lewis acid-induced intramolecular Prins reaction

Tetrahedron 58 (2002) 6851

János Wölfling,[a] Éva Frank,[a] Erzsébet Mernyák,[a] Gábor Bunkóczi,[b] Jose A. Cvesta Seijo[b] and Gyula Schneider[a,*]

[a]*Department of Organic Chemistry, University of Szeged, Dóm tér 8, H-6720 Szeged, Hungary*
[b]*Institute of Inorganic Chemistry, University of Göttingen, Tammannstr. 4, D-37077 Göttingen, Germany*



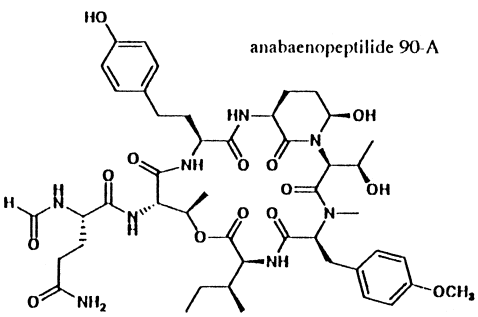
Structural elucidation of cyanobacterial peptides encoded by peptide synthetase gene in *Anabaena* species

Tetrahedron 58 (2002) 6863

Kiyonaga Fujii,[a] Kaarina Sivonen,[b] Tomoyo Nakano[a] and Ken-ichi Harada[a,*]

[a]*Faculty of Pharmacy, Meijo University, Tempaku, Nagoya 468-8503, Japan*
[b]*Department of Applied Chemistry and Microbiology, University of Helsinki, Viikki Biocenter, P.O. Box 56, FIN-00014 Helsinki, Finland*

During our biosynthesis study of cyanobacterial peptides including microcystins, we investigated the metabolic peptides in the hepatotoxic cyanobacteria, *Anabaena* sp. strains 90 and 202A2.



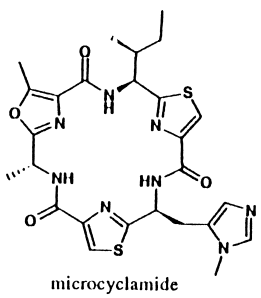
Simultaneous detection and determination of the absolute configuration of thiazole-containing amino acids in a peptide

Tetrahedron 58 (2002) 6873

Kiyonaga Fujii,[a] Yukie Yahashi,[a] Tomoyo Nakano,[a] Susumu Imanishi,[a] Susana F. Baldia[b] and Ken-ichi Harada[a,*]

[a]*Faculty of Pharmacy, Meijo University, Tempaku, Nagoya 468-8503, Japan*
[b]*Department of Aquaculture, Southeast Asian Fisheries Development Center, Binangonan Freshwater Station, 1940 Binangonan Rizal, Philippines*

For the detection and determination of the absolute configuration of thiazole-containing amino acids in a peptide, we developed a reliable method using the advanced Marfey's method.

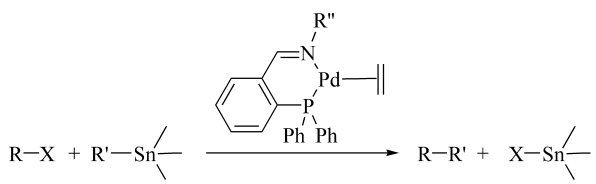


Iminophosphine–palladium(0) complexes as catalysts for the Stille reaction

Tetrahedron 58 (2002) 6881

A. Scrivanti,[a,*] U. Matteoli,[a] V. Beghetto,[a] S. Antonaroli[b] and B. Crociani[b]

[a]*Dipartimento di Chimica, Università 'Cà Foscari' di Venezia, Calle Larga S. Marta 2137, Dorsoduro, 30123 Venezia, Italy*
[b]*Dipartimento di Scienze e Tecnologie Chimiche, Università di Roma 'Tor Vergata', Via della Ricerca Scientifica, 00133 Rome, Italy*



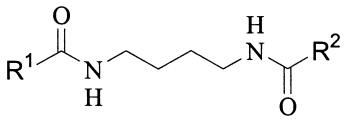
Synthesis and structure elucidation of open-chained putrescine-bisamides from *Aglaia* species

Tetrahedron 58 (2002) 6887

Richard Detterbeck and Manfred Hesse*

Organisch-chemisches Institut der Universität Zürich, Winterthurerstrasse 190, CH-8057 Zürich, Switzerland

The structures of the eight recently described open-chained putrescine bisamide alkaloids, which were isolated from differnt *Aglaia* species, have been verified by synthesis. In addition to that, the published structure for hemileptagline had to be revised, and for secoodorine the absolute configuration could be established.

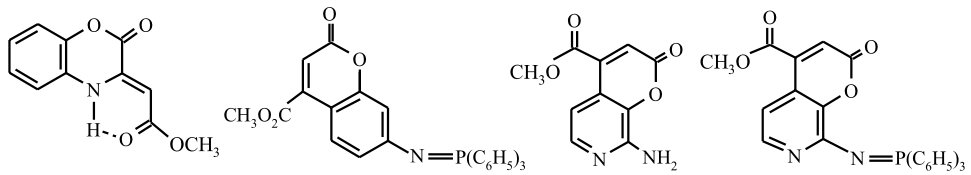


Vinyltriphenylphosphonium salt mediated synthesis of 1,4-benzoxazine and coumarin derivatives

Tetrahedron 58 (2002) 6895

Issa Yavari* Mehdi Adib and Leila Hojabri

Department of Chemistry, University of Tarbiat Modarres, P.O. Box 14115-175, Tehran, Iran

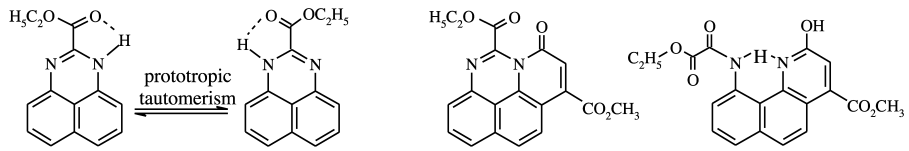


Vinylphosphonium salt mediated simple synthesis of 7-oxo-7*H*-pyrido[1,2,3-*cd*]perimidine derivatives. Dynamic NMR spectroscopic study of prototropic tautomerism in ethyl 1*H*-perimidine-2-carboxylate

Tetrahedron 58 (2002) 6901

Issa Yavari,* Mehdi Adib Fatemeh Jahani-Moghaddam and Hamid R. Bijanzadeh

Department of Chemistry, University of Tarbiat Modarres, P.O. Box 14115-175, Tehran, Iran

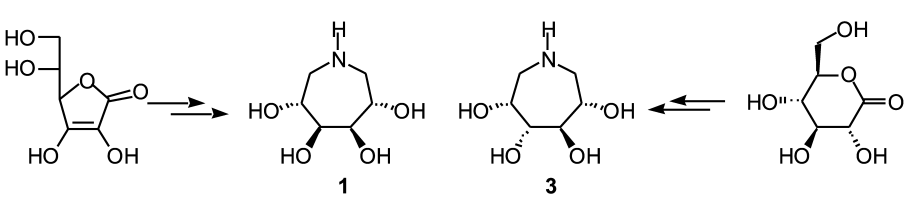


Syntheses of (3*R*,4*R*,5*R*,6*R*)-tetrahydroxyazepane (1,6-dideoxy-1,6-imino-D-mannitol) and (3*S*,4*R*,5*R*,6*R*)-tetrahydroxyazepane (1,6-dideoxy-1,6-imino-D-glucitol)

Tetrahedron 58 (2002) 6907

Cosam C. Joseph, Henk Regeling, Binne Zwanenburg and Gordon J. F. Chittenden*

Department of Organic Chemistry, NSR Center, University of Nijmegen, Toernooiveld, 6525 ED Nijmegen, The Netherlands

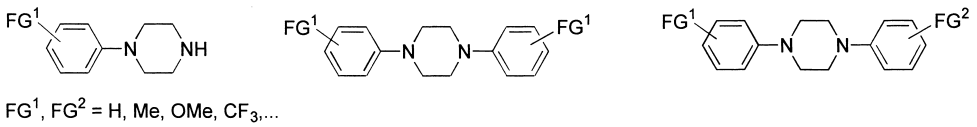


Nickel-catalysed selective *N*-arylation or *N*,*N*′-diarylation of secondary diamines

Tetrahedron 58 (2002) 6913

Eric Brenner, Raphaël Schneider and Yves Fort*

Faculté des Sciences, Synthèse Organique et Réactivité, UMR CNRS-UHP 7565, Université Henri Poincaré, Nancy I, BP 239, 54506 Vandoeuvre les Nancy Cedex, France



FG^1, FG^2 = H, Me, OMe, CF_3,...

Synthèse de nouveaux intermédiaires d'analogues rétinoïdes à partir du δ-pyronène

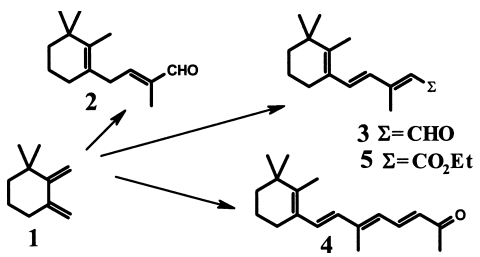
Tetrahedron 58 (2002) 6925

F. Lambertin,[a] M. Taran[b] et B. Delmond[a,*]

[a]*Laboratoire de Chimie des Substances Végétales (UPRES EA 494), Institut du Pin, Université Bordeaux 1, 351, cours de la Libération, 33405 Talence Cedex, France*

[b]*Unité d'Enseignement et de Recherche des Sciences Pharmaceutiques, Université Victor Ségalen-Bordeaux 2, France*

δ-Pyronene **1** is a terpenic synthon to the synthesis of *iso*-retinoid intermediates such as *iso*-β-C_{14}-aldehyde **2**, *iso*-β-C_{15}-aldehyde **3**, *iso*-β-C_{18}-ketone **4** and ethyl *iso*-β-ionylideneacetate **5**.

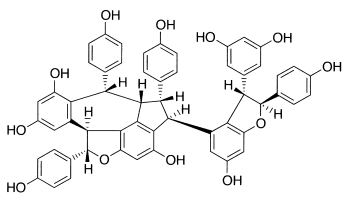


Two new stilbenetetramers from the stem of *Vitis vinifera* 'Kyohou'

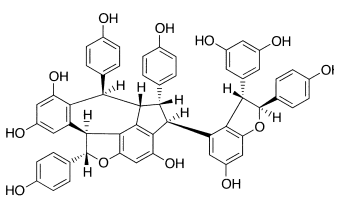
Tetrahedron 58 (2002) 6931

Ke-Xu Yan, Kenji Terashima, Yoshiaki Takaya and Masatake Niwa*

Faculty of Pharmacy, Meijo University, Tempaku, Nagoya 468-8503, Japan



(+)-Viniferol B (**2**)



(+)-Viniferol C (**3**)

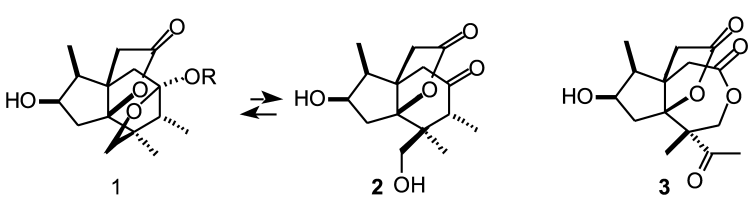
Merrillianin, a unique *seco*-prezizaane-type sesquiterpene, and (6*R*)-pseudomajucin from *Illicium merrillianum*

Tetrahedron 58 (2002) 6937

Jian-Mei Huang,[a] Chun-Shu Yang,[a] Mamiko Kondo,[b] Kosuke Nakade,[b] Hironobu Takahashi,[b] Shigeru Takaoka[b] and Yoshiyasu Fukuyama[b,*]

[a]*Faculty of Pharmaceutical Sciences, Beijing University of Chinese Medicine, Beijing 100029, People's Republic of China*

[b]*Faculty of Pharmaceutical Sciences, Institute of Pharmacognosy, Tokushima Bunri University, Yamashiro-cho, Tokushima 770-8514, Japan*

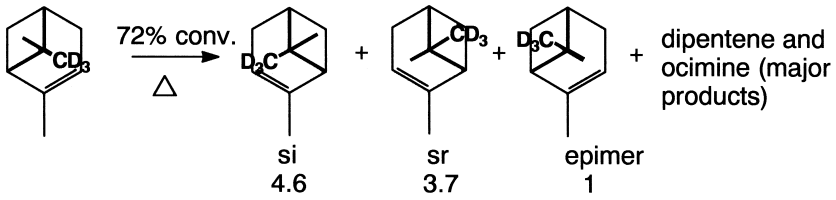


The kinetics, stereochemistry, and deuterium isotope effects in the α-pinene pyrolysis. Evidence for incursion of multiple conformations of a diradical

Tetrahedron 58 (2002) 6943

Joseph J. Gajewski,* Ilya Kuchuk Christopher Hawkins and Robert Stine

Department of Chemistry, Indiana University, Bloomington, IN 47405, USA



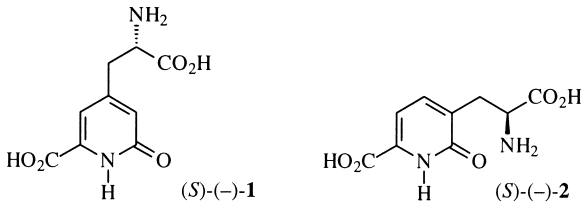
Nonproteinogenic amino acids: an efficient asymmetric synthesis of (*S*)-(−)-acromelobic acid and (*S*)-(−)-acromelobinic acid

Tetrahedron 58 (2002) 6951

Maciej Adamczyk* Srinivasa Rao Akireddy and Rajarathnam E. Reddy

Department of Chemistry (09MD, Bldg AP20), Diagnostics Division, Abbott Laboratories, 100 Abbott Park Road, Abbott Park, IL 60064-6016, USA

The total synthesis of (*S*)-(−)-acromelobic acid (**1**) and (*S*)-(−)-acromelobinic acid (**2**) via catalytic asymmetric hydrogenation in >96% ee's and good overall yield is described.

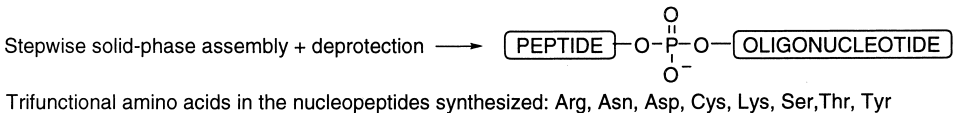


Towards nucleopeptides containing any trifunctional amino acid (II)

Tetrahedron 58 (2002) 6965

Laurent Debéthune, Vicente Marchán, Gemma Fàbregas, Enrique Pedroso and Anna Grandas*

Departament de Química Orgànica, Facultat de Química, Universitat de Barcelona, Martí i Franquès 1-11, E-08028 Barcelona, Spain



Trifunctional amino acids in the nucleopeptides synthesized: Arg, Asn, Asp, Cys, Lys, Ser,Thr, Tyr