Graphical abstracts

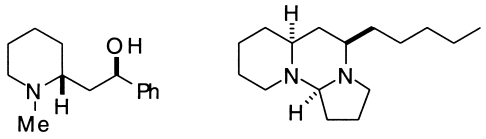
Syntheses of the sedum and related alkaloids

Tetrahedron 58 (2002) 5957

Roderick W. Bates[a,*] and Kanicha Sa-Ei[b]

[a]*Laboratory of Medicinal Chemistry, Chulabhorn Research Institute, Vibahavadi–Rangsit Highway, Laksi, Bangkok 10210, Thailand*
[b]*Department of Chemistry, Chulalongkorn University, Phaya Thai Road, Patumwan, Bangkok 10330, Thailand*

Syntheses of the sedum alkaloids, such as sedamine, and structurally related natural products, such as the tetraponerines, are discussed.

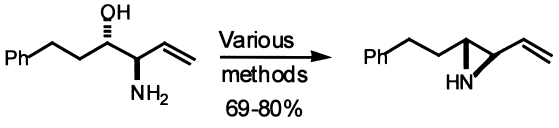


Synthesis of *N*–H vinylaziridines: a comparative study

Tetrahedron 58 (2002) 5979

Berit Olofsson, Roel Wijtmans and Peter Somfai*

Organic Chemistry, Department of Chemistry, Royal Institute of Technology, S-100 44 Stockholm, Sweden

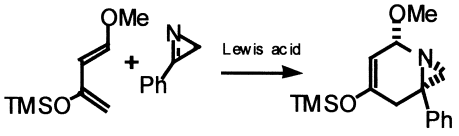


Diastereoselective Lewis acid-catalysed [4+2] cycloadditions of 3-alkyl-, 3-aryl- and 3-carboxyl-2*H*-azirines: a route to aziridine containing azabicyclo[4.1.0]heptanes and azatricyclo[2.2.1.0]nonanes

Tetrahedron 58 (2002) 5983

Colin A. Ray, Erik Risberg and Peter Somfai*

Organic Chemistry, Department of Chemistry, Royal Institute of Technology, S-100 44 Stockholm, Sweden

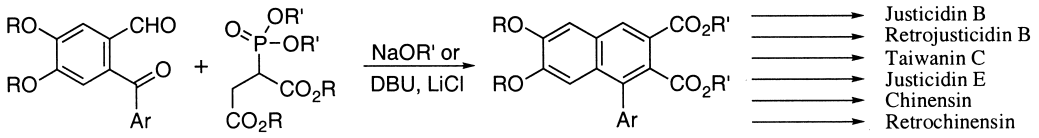


A new benzannulation reaction and its application in the multiple parallel synthesis of arylnaphthalene lignans

Tetrahedron 58 (2002) 5989

Stuart R. Flanagan, David C. Harrowven* and Mark Bradley

Department of Chemistry, The University of Southampton, Southampton S017 1BJ, UK

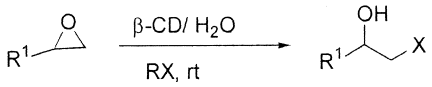


Highly facile biomimetic regioselective ring opening of epoxides to halohydrins in the presence of β-cyclodextrin

Tetrahedron 58 (2002) 6003

M. Arjun Reddy, K. Surendra, N. Bhanumathi and K. Rama Rao*

Organic Chemistry Division I, Indian Institute of Chemical Technology, Hyderabad 500 007, India



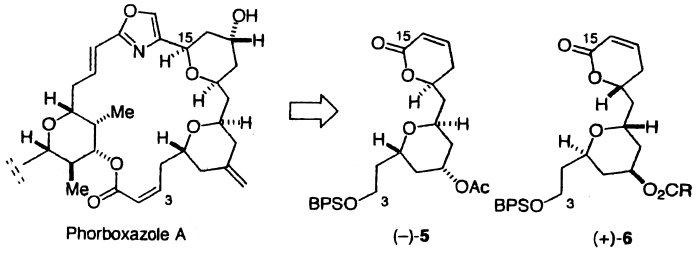
Synthetic studies directed toward the phorboxazoles: preparation of the C3–C15 bisoxane segment and two stereoisomers

Tetrahedron 58 (2002) 6009

Patrick B. Greer and William A. Donaldson*

Department of Chemistry, Marquette University, P.O. Box 1881, Milwaukee, WI 53201-1881, USA

A synthetic approach to the C3–C15 segment of the cytotoxic marine metabolite phorboxazoles is described. The C5–C9 pyran ring was constructed by a Lewis acid catalyzed diene–aldehyde cyclocondensation, while the C11–C15 pyrone ring was constructed by an asymmetric allylation–esterification-ring closing metathesis strategy.



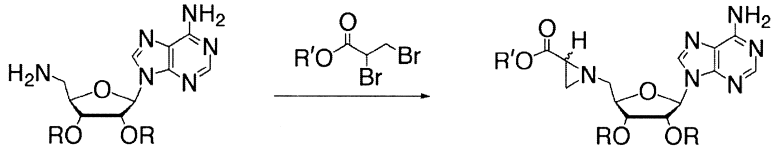
Expeditious synthesis of aziridine-based cofactor mimics

Tetrahedron 58 (2002) 6019

Lindsay R. Comstock and Scott R. Rajski*

School of Pharmacy, University of Wisconsin-Madison, 777 Highland Avenue, Madison, WI 53705, USA

5′-Amino adenosine derivatives readily react with dibromopropionates to cleanly afford 5′-aziridino nucleosides. In the adenosine case presented, this affords a facile route to aziridine-based cofactor mimics capable of taking part in methyltransferase-mediated reactions. In contrast to naturally occurring *S*-adenosyl-L-methionine, these cofactor mimics allow for elaborate functionalization of a site ordinarily reserved for biological methylation.

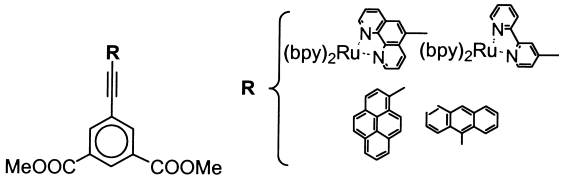


Synthesis of rigid-rod linkers to anchor chromophores to semiconductor nanoparticles

Tetrahedron 58 (2002) 6027

Dong Wang, James M. Schlegel and Elena Galoppini*

Department of Chemistry, Rutgers University, 73 Warren Street, Newark, NJ 07102, USA

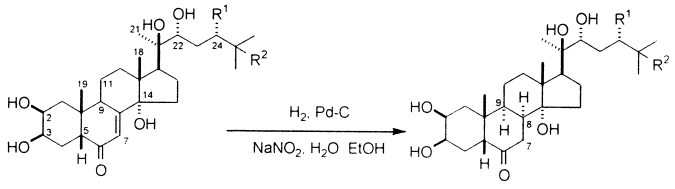


Stereoselective catalytic hydrogenation of Δ^7-6-ketosteroids in the presence of sodium nitrite

Tetrahedron 58 (2002) 6033

Apichart Suksamrarn,* Tanud Tanachatchairatana and Chana Sirigarn

Department of Chemistry, Faculty of Science, Ramkhamhaeng University, Bangkok 10240, Thailand



1 R^1 = H, R^2 = OH
2 R^1 = R^2 = H
7 R^1 = OH, R^2 = H

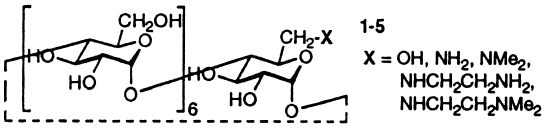
3 R^1 = H, R^2 = OH
6 R^1 = R^2 = H
8 R^1 = OH, R^2 = H

Spectrophotometric determination of binding constants between some aminocyclodextrins and nitrobenzene derivatives at various pH values

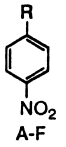
Tetrahedron 58 (2002) 6039

Paolo Lo Meo,* Francesca D'Anna, Serena Riela, Michelangelo Gruttadauria and Renato Noto*

Dipartimento di Chimica Organica 'E. Paternò', Università degli Studi di Palermo, Viale delle Scienze, Parco d'Orleans II, 90128 Palermo, Italy



1-5
X = OH, NH_2, NMe_2, $NHCH_2CH_2NH_2$, $NHCH_2CH_2NMe_2$



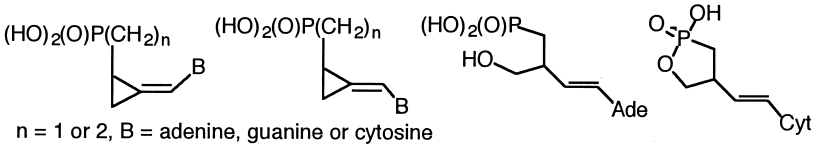
A-F
R = NH_2, NHMe, NMe_2, Et, *i*-Pr, OMe

Synthesis of phosphonate derivatives of methylenecyclopropane nucleoside analogues by alkylation–elimination method and unusual opening of cyclopropane ring

Tetrahedron 58 (2002) 6047

Hui-Ping Guan,[a] Yao-Ling Qiu,[a] Mohamad B. Ksebati,[b] Earl R. Kern[c] and Jiri Zemlicka[a,*]

[a]*Developmental Therapeutics Program, Department of Chemistry, Barbara Ann Karmanos Cancer Institute, Wayne State University School of Medicine, 10E. Warren Avenue, Detroit, MI 48201-1379, USA*
[b]*Central Instrumentation Facility, Department of Chemistry, Wayne State University, Detroit, MI 48202, USA*
[c]*Department of Pediatrics, The University of Alabama at Birmingham, Birmingham, AL 35294, USA*



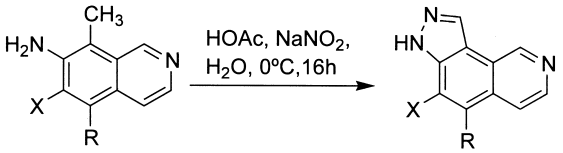
n = 1 or 2, B = adenine, guanine or cytosine

Synthetic studies of the formation of pyrazoloisoquinolines

Tetrahedron 58 (2002) 6061

R. Bryan Miller, Joseph G. Stowell, Sundeep Dugar, Thomas E. Moock, Christopher W. Jenks,* Steven C. Farmer, Bach Phan, Chad E. Wujcik and Marilyn M. Olmstead

Department of Chemistry, University of California, Davis, CA 95616 USA

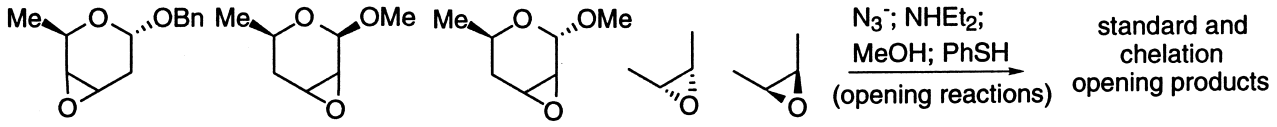


Regiochemical control of the ring opening of 1,2-epoxides by means of chelating processes. Part 17: Synthesis and opening reactions of *cis*- and *trans*-oxides derived from (2*S*,6*R*)-2-benzyloxy-6-methyl-3,6-dihydro-2*H*-pyran, (2*R*,6*R*)- and (2*S*,6*R*)-2-methoxy-6-methyl-5,6-dihydro-2*H*-pyran

Tetrahedron 58 (2002) 6069

Paolo Crotti,* Valeria Di Bussolo, Lucilla Favero, Franco Macchia and Mauro Pineschi

Dipartimento di Chimica Bioorganica e Biofarmacia, Università di Pisa, Via Bonanno 33, I-56126 Pisa, Italy

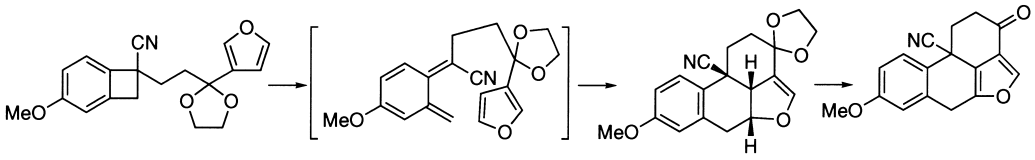


Model studies toward the total synthesis of halenaquinol and halenaquinone

Tetrahedron 58 (2002) 6097

Naoki Toyooka, Mamiko Nagaoka, Etsuko Sasaki, Hongbo Qin, Hiroko Kakuda and Hideo Nemoto*

Faculty of Pharmaceutical Sciences, Toyama Medical and Pharmaceutical University, Sugitani 2630, Toyama 930-0194, Japan



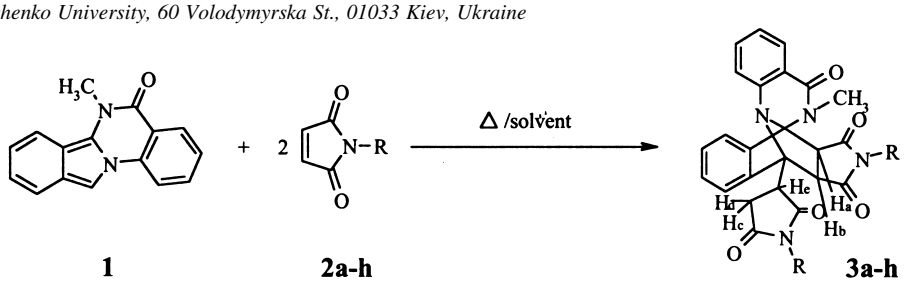
Synthesis of novel tricyclic derivatives of 7-azabenzonorbornene system

Tetrahedron 58 (2002) 6103

V. P. Samoylenko,[a] Z. V. Voitenko,[a,*] B. Donnadieu[b] and J.-J. Bonnet[b]

[a]*Department of Chemistry, Kiev Taras Shevchenko University, 60 Volodymyrska St., 01033 Kiev, Ukraine*
[b]*Laboratoire de Chimie de Coordination, CNRS, 205 route de Narbonne, 31077 Toulouse Cedex 4, France*

The reaction of isoindole **1** with maleinimides in the ratio 1:2 was investigated.



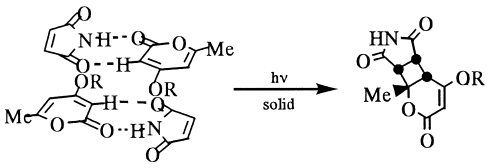
1 **2a-h** **3a-h**

X-Ray and MO analysis of highly stereoselective solid-state photocycloadditions of 2-pyrones with maleimide

Tetrahedron 58 (2002) 6111

Tetsuro Shimo,[a] Takahiro Uezono,[a] Toru Obata,[a] Mikio Yasutake,[b] Teruo Shinmyozu[b] and Kenichi Somekawa[a,*]

[a]*Department of Applied Chemistry and Chemical Engineering, Faculty of Engineering, Kagoshima University, Korimoto 1-21-40, Kagoshima 890-0065, Japan*
[b]*Institute for Fundamental Research of Organic Chemistry (IFOC), Kyushu University, Hakozaki 6-10-1, Higashi-ku, Fukuoka 812-8581, Japan*



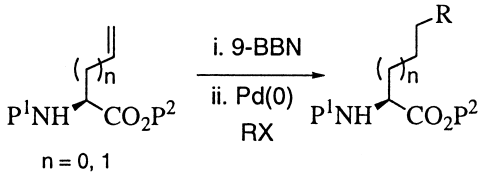
Single crystal X-ray diffraction
Powder X-ray diffraction
MO analysis

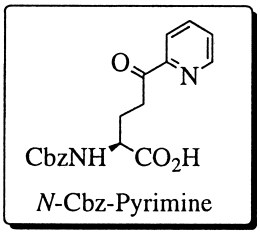
Hydroboration–Suzuki cross coupling of unsaturated amino acids; the synthesis of pyrimine derivatives

Tetrahedron 58 (2002) 6117

Philip N. Collier,[a] Andrew D. Campbell,[a] Ian Patel[b] and Richard J. K. Taylor[a,*]

[a]*Department of Chemistry, University of York, Heslington, York YO10 5DD, UK*
[b]*AstraZeneca, Avlon Works, Severn Road, Hallen, Bristol BS10 7ZE, UK*





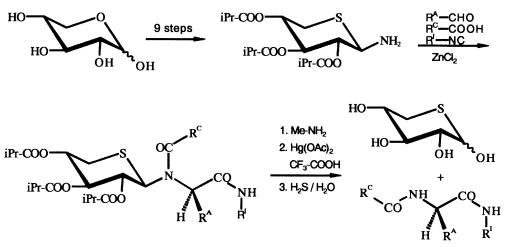
Stereoselective U-4CRs with 1-amino-5-desoxy-5-thio-2,3,4-*O*-isobutanoyl-β-D-xylopyranose—an effective and selectively removable chiral auxiliary

Tetrahedron 58 (2002) 6127

Günther F. Ross, Eberhardt Herdtweck and Ivar Ugi*

Organische Chemie 1, Technische Universität München, Lichtenbergstr. 4, 85747 Garching, Germany

The Ugi four component reaction (U-4CR) offers a short and direct route for the synthesis of α-amino acid and peptide derivatives. With 1-amino-5-desoxy-5-thio-2,3,4-*O*-isobutanoyl-β-D-xylopyranose as a chiral amine component excellent chemical yields and stereoselectivities are obtained. After the U-4CR the chiral auxiliary can be cleaved off selectively under mild conditions. The configuration of one of the products was confirmed by X-ray analysis.



Azepines from the intramolecular Prins cyclization of an aminoderivative of lapachol

Tetrahedron 58 (2002) 6135

Celso A. Camara,[a] Angelo C. Pinto,[a] Maria D. Vargas[b,*] and Julio Zukerman-Schpector[c]

[a]*Centro de Tecnologia, Instituto de Química, Universidade Federal do Rio de Janeiro, Bloco A, Ilha do Fundão, 21945-970 Rio de Janeiro, RJ Brazil*
[b]*Instituto de Química, Universidade Estadual de Campinas, CP 6154, 13083-970 Campinas, SP Brazil*
[c]*Departamento de Química, Universidade Federal de São Carlos, CP 676, 13565-905 Sao Carlos, SP Brazil*