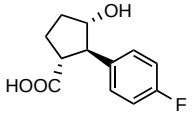
Expeditious synthesis of tri-substituted cyclopentane derivatives

Tetrahedron Letters 43 (2002) 4569

Ranjit C. Desai,* Peter Cicala, Laura C. Meurer and Paul E. Finke

Department of Medicinal Chemistry, Merck Research Laboratories, P.O. Box 2000, Rahway, NJ 07065, USA

An efficient preparation of the cyclopentane scaffold having three contiguous chiral centers is described.



2

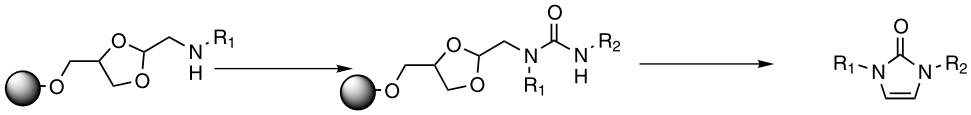
A traceless solid-phase synthesis of 2-imidazolones

Tetrahedron Letters 43 (2002) 4571

Jie-Fei Cheng,* Christopher Kaiho, Mi Chen, Thomas Arrhenius and Alex Nadzan

Department of Chemistry, Chugai Pharma USA, LLC, 6275 Nancy Ridge Dr., San Diego, CA 92121, USA

Resin-bound acetal amines (**3**) that are formed via amination of the bromide precursor are reacted with isocyanates to give the urea acetals (**4**), which upon treatment with TFA afford 2-imidazolones (**5**) in good yield and purity.



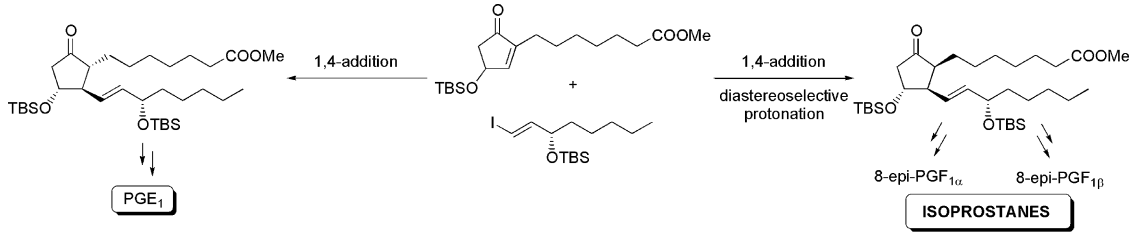
3 **4** **5**

Total synthesis of isoprostanes via the two-component coupling process

Tetrahedron Letters 43 (2002) 4575

Ana R. Rodríguez and Bernd W. Spur*

Department of Cell Biology, University of Medicine and Dentistry of New Jersey, SOM, Stratford, NJ 08084, USA

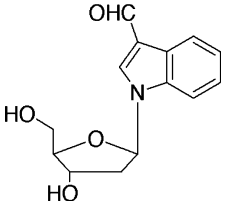


A facile incorporation of the aldehyde function into DNA: 3-formylindole nucleoside as an aldehyde-containing universal nucleoside

Tetrahedron Letters 43 (2002) 4581

Akimitsu Okamoto, Kazuki Tainaka and Isao Saito*

Department of Synthetic Chemistry and Biological Chemistry, Faculty of Engineering, Kyoto University, CREST, Japan Science and Technology Corporation, Kyoto 606-8501, Japan

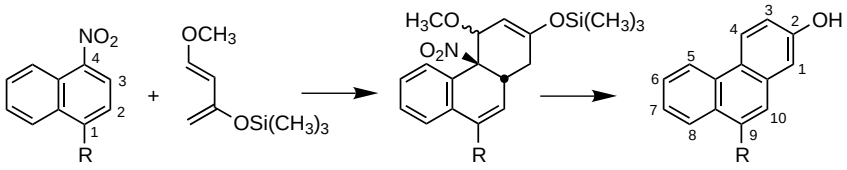


One-step synthesis of 2,9-disubstituted phenanthrenes via Diels–Alder reactions using 1,4-disubstituted naphthalenes as dienophiles

Tetrahedron Letters 43 (2002) 4601

Elisa Paredes, Betina Biolatto, María Kneeteman and Pedro Mancini*

Area de Química Orgánica, Departamento de Química, Facultad de Ingeniería Química, Universidad Nacional del Litoral, Santiago del Estero 2829, 3000 Santa Fe, Argentina



1a, R = NO_2
1b, R = CN
1c, R = $COCH_3$

2

3

4a, R = NO_2
4b, R = CN
4c, R = $COCH_3$

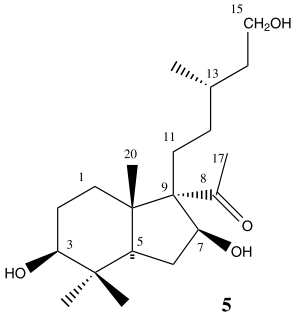
Covilanone: a new rearranged labdane type diterpene

Tetrahedron Letters 43 (2002) 4605

J. M. L. Rodilla,[a,*] M. I. Ismael,[a] L. A. Silva,[a] J. P. Cesário Serrano,[a] J. G. Urones[b] and F. Sanz[c]

[a]*Departamento de Química, Universidade da Beira Interior, 6200 Covilhã, Portugal*
[b]*Departamento de Química Orgánica, Facultad de Ciencias Químicas, Universidad de Salamanca, Plaza de los Caidos 1–5, 37008 Salamanca, Spain*
[c]*Servicio de Difracción de Rayos X, Universidad de Salamanca, 37008 Salamanca, Spain*

A bicyclic diterpene triol, **5**, with a new rearranged labdane carbon skeleton was isolated from the aerial parts of *Halimium viscosum* (S. João da Pesqueira). Its structure was established by FAB MS and two-dimensional NMR experiments and its stereochemistry by NOE and X-ray study.



5

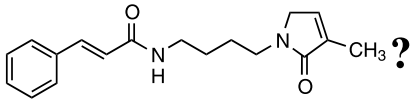
Aglairubine—discrepancies during the course of structure elucidation

Tetrahedron Letters 43 (2002) 4609

Richard Detterbeck and Manfred Hesse*

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

A short synthesis of the originally proposed structure for the putrescine alkaloid aglairubine is presented as well as for a conceivable structure alternative. Due to the ascertained mismatch of spectroscopical data for synthetic and natural compounds, the published aglairubine structure has to be revised.



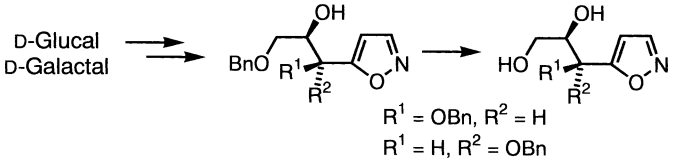
Glycal-mediated synthesis of enantiomerically pure 5-substituted isoxazoles containing a differentially *O*-benzylated glycerol moiety

Tetrahedron Letters 43 (2002) 4613

Hans-Georg Weinig, Pietro Passacantilli,* Marcello Colapietro and Giovanni Piancatelli*

Dipartimento di Chimica Università 'La Sapienza' and Istituto di Chimica Biomolecolare, Sezione di Roma, Piazzale Aldo Moro 5, 00185 Roma, Italy

Novel 5-substituted chiral isoxazoles bearing a glycerol moiety in the side chain have been prepared starting from D-glucal and D-galactal, respectively.



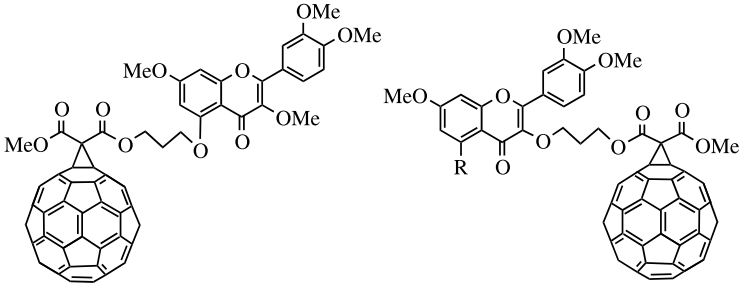
R^1 = OBn, R^2 = H
R^1 = H, R^2 = OBn

Synthesis of [60]fullerene–quercetin dyads

Tetrahedron Letters 43 (2002) 4617

Maria D. L. de la Torre, Augusto C. Tomé,* Artur M. S. Silva and José A. S. Cavaleiro

Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal



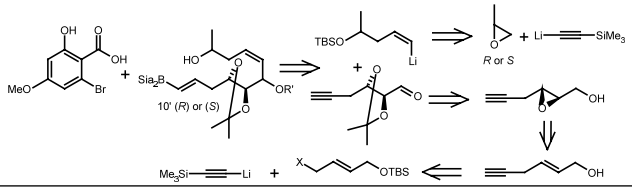
Convergent stereospecific synthesis of C292 (or LL-Z1640-2), and hypothemycin. Part 1

Tetrahedron Letters 43 (2002) 4621

Patrice Sellès and Robert Lett*

Unité Mixte CNRS-AVENTIS Pharma (UMR 26) 102, route de Noisy, 93235 Romainville, France

Stereospecific synthesis of the precursors required for the 14-membered ring formation either via an intramolecular Suzuki coupling or via an intermolecular Suzuki coupling followed by a macrolactonisation. One-pot Suzuki couplings were here achieved with vinyldisiamylboranes generated in situ from the related chiral precursor.



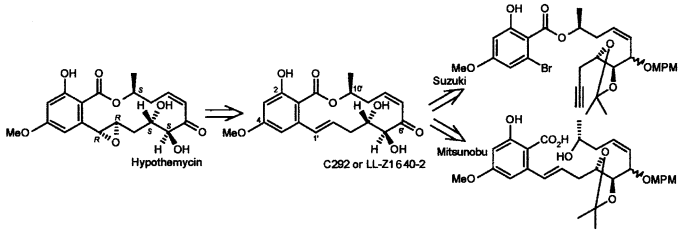
Convergent stereospecific synthesis of LL-Z1640-2 (or C292), hypothemycin and related macrolides. Part 2

Tetrahedron Letters 43 (2002) 4627

Patrice Sellès and Robert Lett*

Unité Mixte CNRS-AVENTIS Pharma (UMR 26) 102, route de Noisy, 93235 Romainville, France

The total synthesis of the resorcylic macrolides C292 (or LL-Z1640-2) and hypothemycin is reported. The 14-membered ring formation has been achieved either via an intramolecular Suzuki coupling or much more efficiently via a Mitsunobu macrolactonisation. Reaction conditions had to be found to preserve the $Z_{7',8'}$ enone; a highly selective epoxidation afforded hypothemycin.

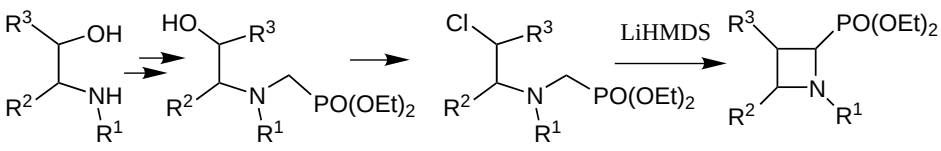


An efficient asymmetric synthesis of azetidine 2-phosphonic acids

Tetrahedron Letters 43 (2002) 4633

Claude Agami,[b] François Couty[a,]* and Nicolas Rabasso[b]

[a]*SIRCOB, UPRESA CNRS 8086, Université de Versailles, 45, avenue des Etats-Unis, 78035 Versailles Cédex, France*
[b]*Laboratoire de Synthèse Asymétrique, UMR 7611, Université Pierre et Marie Curie, 4 place Jussieu, 75005 Paris, France*



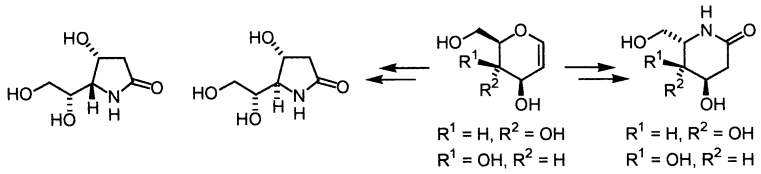
Glycal-mediated syntheses of enantiomerically pure polyhydroxylated γ- and δ-lactams

Tetrahedron Letters 43 (2002) 4653

Antonella Squarcia, Fabrizio Vivolo, Hans-Georg Weinig, Pietro Passacantilli* and Giovanni Piancatelli*

Dipartimento di Chimica, Università 'La Sapienza' and Centro CNR di Studio per la Chimica delle Sostanze Organiche Naturali, Piazzale Aldo Moro 5, I-00185 Roma, Italy

Syntheses of four new γ- and δ-lactams starting from D-glucal and D-galactal, respectively, are described.



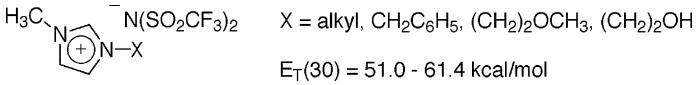
Expanding the polarity range of ionic liquids

Tetrahedron Letters 43 (2002) 4657

Sergei V. Dzyuba and Richard A. Bartsch*

Department of Chemistry and Biochemistry, Texas Tech University, Box 41061, Lubbock, TX 79409-1061, USA

Polarity of ionic liquids can be changed markedly by the introduction of functional group-containing substituents.

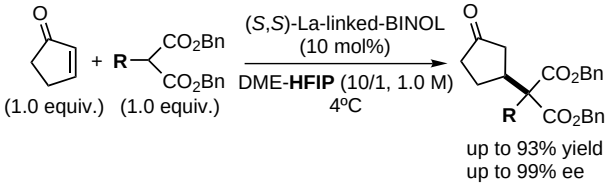


Highly enantioselective catalytic Michael reaction of α-substituted malonates using La-linked-BINOL complex in the presence of HFIP (1,1,1,3,3,3-hexafluoroisopropanol)

Tetrahedron Letters 43 (2002) 4661

Ryo Takita, Takashi Ohshima and Masakatsu Shibasaki*

Graduate School of Pharmaceutical Sciences, The University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113-0033, Japan

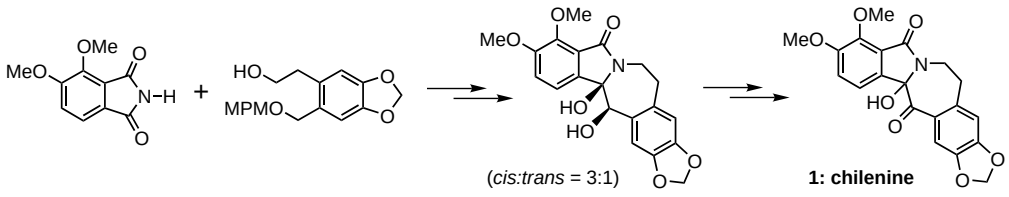


A novel synthetic approach to isoindolobenzazepine alkaloid, chilenine, employing SmI_2-mediated pinacolic coupling reaction

Tetrahedron Letters 43 (2002) 4667

Hidemi Yoda,* Akira Nakahama, Tomomi Koketsu and Kunihiko Takabe

Department of Molecular Science, Faculty of Engineering, Shizuoka University, Johoku 3-5-1, Hamamatsu 432-8561, Japan

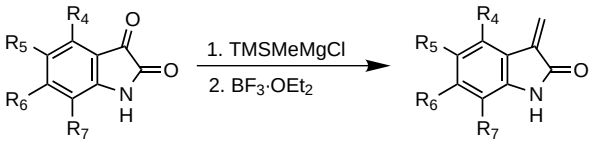


Tetrahedron Letters 43 (2002) 4671

A convenient synthesis of 3-methyleneoxindoles: cytotoxic metabolites of indole-3-acetic acids

Sharon Rossiter*

Gray Cancer Institute, PO Box 100, Mount Vernon Hospital, Northwood, Middlesex HA6 2JR, UK

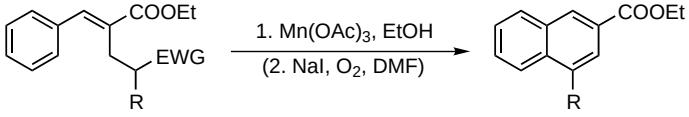


Tetrahedron Letters 43 (2002) 4675

Synthesis of 1,3-disubstituted naphthalenes from the Baylis–Hillman acetates with the aid of manganese(III) acetate

Yang Jin Im,[a] Ka Young Lee,[a] Taek Hyeon Kim[b] and Jae Nyoung Kim[a,*]

[a]*Department of Chemistry and Institute of Basic Science, Chonnam National University, Kwangju 500-757, South Korea*
[b]*Faculty of Applied Chemistry, Chonnam National University, Kwangju 500-757, South Korea*

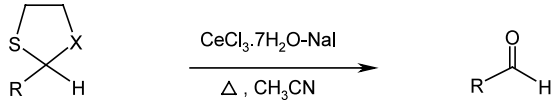


Tetrahedron Letters 43 (2002) 4679

$CeCl_3 \cdot 7H_2O$-Promoted highly chemoselective hydrolysis of 1,3-oxathio- and dithioacetals

J. S. Yadav,* B. V. S. Reddy, S. Raghavendra and M. Satyanarayana

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

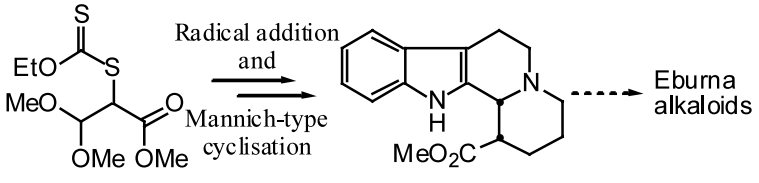


Tetrahedron Letters 43 (2002) 4683

Efficient construction of polycyclic alkaloid synthetic precursors by a xanthate free radical addition and Mannich cyclisation cascade

Edward W. Tate and Samir Z. Zard*

Laboratoire de Synthèse Organique associé au CNRS, Ecole Polytechnique, F-91128 Palaiseau, France

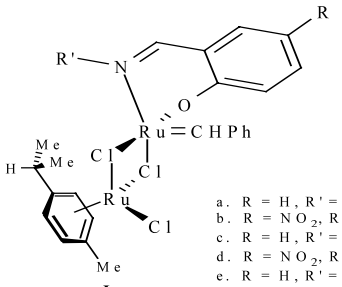


Radical reactions catalysed by homobimetallic ruthenium(II) complexes bearing Schiff base ligands: atom transfer radical addition and controlled polymerisation

Tetrahedron Letters 43 (2002) 4687

Bob De Clercq and Francis Verpoort*

Ghent University, Department of Inorganic and Physical Chemistry, Krijgslaan 281 (S-3), 9000 Ghent, Belgium



I

a. R = H, R' = Me
b. R = NO_2, R' = Me
c. R = H, R' = 2,6-Me-4-BrC_6H_2
d. R = NO_2, R' = 2,6-Me-4-BrC_6H_2
e. R = H, R' = 2,6-$iPrC_6H_3$
f. R = NO_2, R' = 2,6-$iPrC_6H_3$

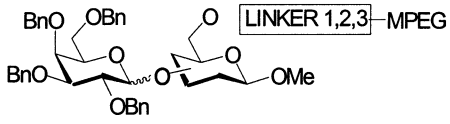
Demixing libraries of saccharides using a multi-linker approach in combination with a soluble polymeric support

Tetrahedron Letters 43 (2002) 4691

Galal A. Elsayed, Tong Zhu and Geert-Jan Boons*

Complex Carbohydrate Research Center, 220 Riverbend Road, Athens, GA 30602, USA

A new method for demixing libraries of compounds that are attached to a soluble polymeric support by tagging starting materials with selective cleavable linkers is described.

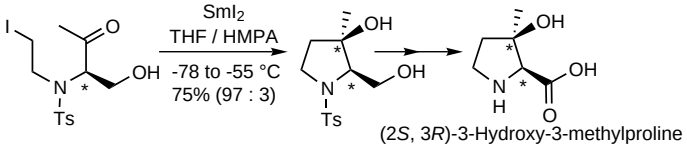


Synthetic studies on polyoxypeptins: stereoselective synthesis of (2*S*,3*R*)-3-hydroxy-3-methylproline using SmI_2-mediated cyclization

Tetrahedron Letters 43 (2002) 4695

Kazuishi Makino, Ai Kondoh and Yasumasa Hamada*

Graduate School of Pharmaceutical Sciences, Chiba University, Yayoi-cho, Inage-ku, Chiba 263-8522, Japan

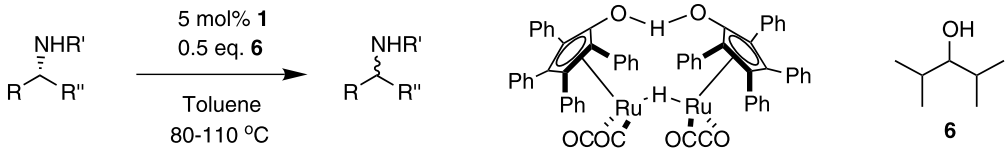


An efficient and mild ruthenium-catalyzed racemization of amines: application to the synthesis of enantiomerically pure amines

Tetrahedron Letters 43 (2002) 4699

Oscar Pàmies, Alida H. Éll, Joseph S. M. Samec, Nina Hermanns and Jan-E. Bäckvall*

Department of Organic Chemistry, Arrhenius Laboratory, Stockholm University, SE-10691 Stockholm, Sweden



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