Graphical abstracts

Dynamic kinetic resolution

Tetrahedron 59 (2003) 8291

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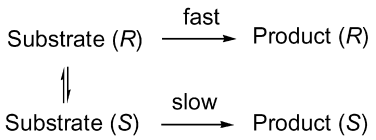
The principal techniques used to obtain dynamic kinetic resolution by enzymatic or non-enzymatic methods including the atroposelective reactions are reviewed. The diversity of useful products obtained through this concept is well illustrated.



Protease inhibitors from a Slovenian Lake Bled toxic waterbloom of the cyanobacterium *Planktothrix rubescens*

Tetrahedron 59 (2003) 8329

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[a]*School of Chemistry, Raymond and Beverly Sackler Faculty of Exact Sciences, Tel Aviv University, Ramat Aviv, Tel Aviv 69978, Israel*
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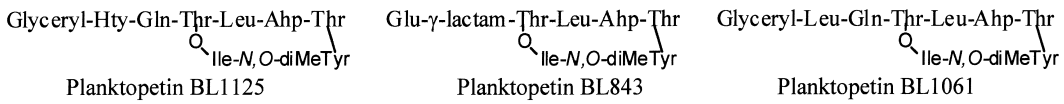

Amide rotamers of *N*-acetyl-1,3-dimethyltetrahydroisoquinolines: synthesis, variable temperature NMR spectroscopy and molecular modelling

Tetrahedron 59 (2003) 8337

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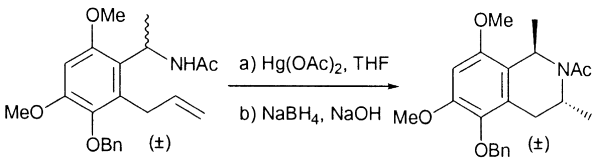
Substituted *N*-acetyl-1,3-dimethyl-1,2,3,4-tetrahydroisoquinolines were synthesized by a novel N/C-3 ring closure using amidomercuration. The rotamers formed were studied by NMR spectroscopy and molecular modelling.



Isolated pentagon rule in buckybowls: a computational study on thermodynamic stabilities and bowl-to-bowl inversion barriers

Tetrahedron 59 (2003) 8347

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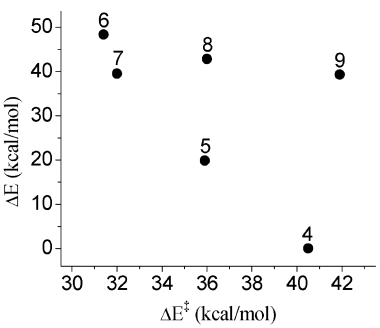
Pentagon isolation imparts stability but does not significantly alter bowl rigidity.



Rate coefficient for the H atom reaction with acrylate monomers in aqueous solution

Tetrahedron 59 (2003) 8353

László Wojnárovits,[a,*] Erzsébet Takács,[a] Katalin Dajka,[a] Salvatore S. Emmi,[b] Marialuisa Russo[b] and Mila D'Angelantonio[b]

[a]*Institute of Isotope and Surface Chemistry, CRC, Hungarian Academy of Sciences, P.O. Box 77, H-1525 Budapest, Hungary*
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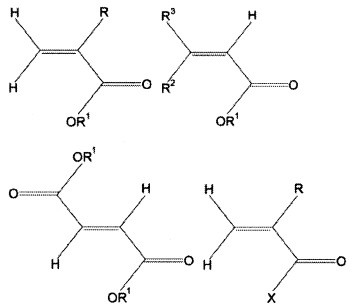
The rate coefficients of H atom addition to vinyl monomers are discussed for compounds involving acrylates, methacrylates, acrylamides, crotonates, maleates and fumarates.



Synthesis and photochromic reactivity of a diarylethene dimer linked by a phenyl group

Tetrahedron 59 (2003) 8359

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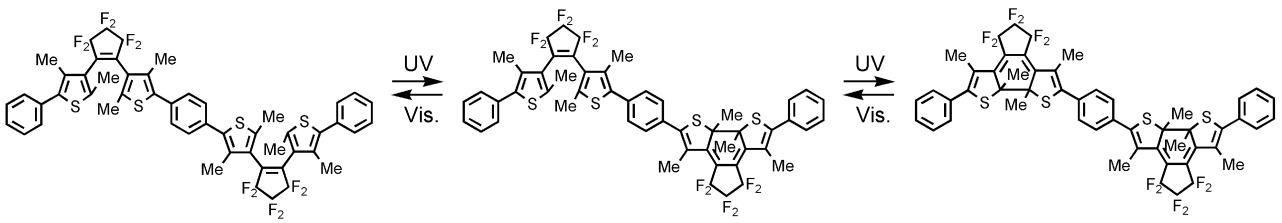
Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, Hakozaki 6-10-1, Higashi-ku, Fukuoka 812-8581, Japan

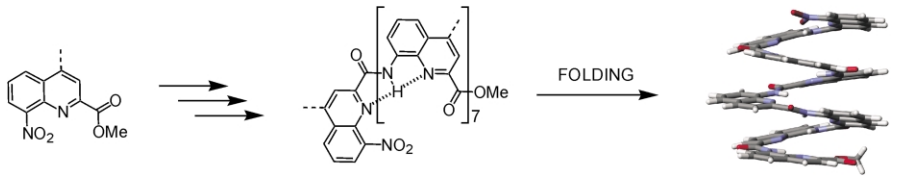


Aromatic δ-peptides: design, synthesis and structural studies of helical, quinoline-derived oligoamide foldamers

Tetrahedron 59 (2003) 8365

Hua Jiang,[a] Jean-Michel Léger,[b] Christel Dolain,[a] Philippe Guionneau[c] and Ivan Huc[a,*]

[a]*Institut Européen de Chimie et Biologie, 16 av. Pey Berland, 33607 Pessac Cedex, France*
[b]*Laboratoire de Pharmacochimie, Université Victor Segalen Bordeaux II, 146 rue Léo Saignat, 33076 Bordeaux, France*
[c]*Institut de Chimie de la Matière Condensée de Bordeaux, 87 Avenue du Docteur Schweitzer, 33608 Pessac Cedex, France*

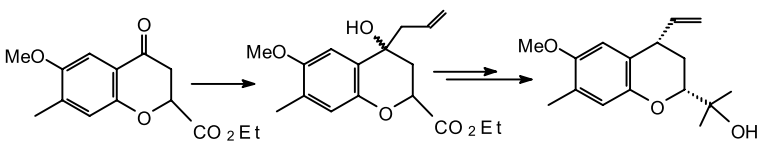


Synthesis of *O*-methyl *epi*-heliannuol E

Tetrahedron 59 (2003) 8375

Subir Kumar Sabui and Ramanathapuram V. Venkateswaran*

Department of Organic Chemistry, Indian Association for the Cultivation of Science, Jadavpur, Kolkata 700032, India

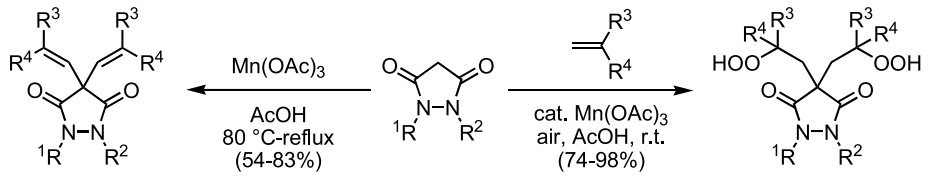


Manganese(III)-based oxidation of 1,2-disubstituted pyrazolidine-3,5-diones in the presence of alkenes

Tetrahedron 59 (2003) 8383

Md. Taifur Rahman[a] and Hiroshi Nishino[b,*]

[a]*Department of Materials and Life Science, Graduate School of Science and Technology, Kumamoto University, Kurokami 2-39-1, Kumamoto 860-8555, Japan*
[b]*Department of Chemistry, Faculty of Science, Kumamoto University, Kurokami 2-39-1, Kumamoto 860-8555, Japan*



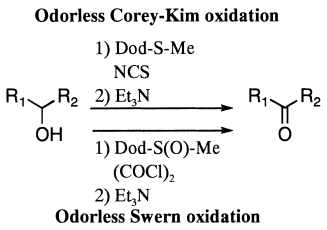
New odorless method for the Corey–Kim and Swern oxidations utilizing dodecyl methyl sulfide (Dod-S-Me)

Tetrahedron 59 (2003) 8393

Shin-ichi Ohsugi,[a] Kiyoharu Nishide,[a] Keiji Oono,[b] Kazunori Okuyama,[b,*] Masato Fudesaka,[a] Sumiaki Kodama[a] and Manabu Node[a]

[a]*Kyoto Pharmaceutical University, Misasagi, Yamashina, Kyoto 607-8414, Japan*
[b]*Wako Pure Chemical Industries, Ltd, 1633 Matoba, Kawagoe, Saitama 350-1101, Japan*

The new odorless method of Corey–Kim and Swern oxidations using dodecyl methyl sulfide (Dod-S-Me) or sulfoxide could greatly improve the physical environment of the researcher working. Furthermore, this Corey–Kim reaction could be performed in environmental common solvents.



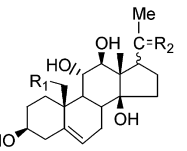
Polyhydroxy pregnanes from *Dregea volubilis*

Tetrahedron 59 (2003) 8399

Nilendu Panda,[a] Nirup B. Mondal,[a] Sukdeb Banerjee,[a] Niranjan P. Sahu,[a,*] Kazuo Koike,[b] Tamotsu Nikaido,[b] Manuela Weber[c] and Peter Luger[c]

[a]*Steroid and Terpenoid Chemistry Division, Indian Institute of Chemical Biology, 4 Raja S.C. Mullick Road, Jadavpur, Kolkata 700 032, India*
[b]*Department of Biomedical Sciences, School of Pharmaceutical Sciences, Toho University, Miyama 2-2-1, Funabashi, Chiba 274-8510, Japan*
[c]*Free University of Berlin Institut for Chemistry/Crystallograhy Frei Universität Berlin, Institut für Chemie/Kristallographie, Takustr. 6, D-14195 Berlin, Germany*

Three new polyhydroxy pregnanes, dregealol (**1**), volubilogenone (**2**) and volubilol (**3**), in addition to *iso*-drevogenin P. 17α-marsdenin and drevogenin D, were isolated from *Dregea volubilis*. The structures were established by spectroscopic methods. For **3**, X-ray crystallographic analysis was also done.



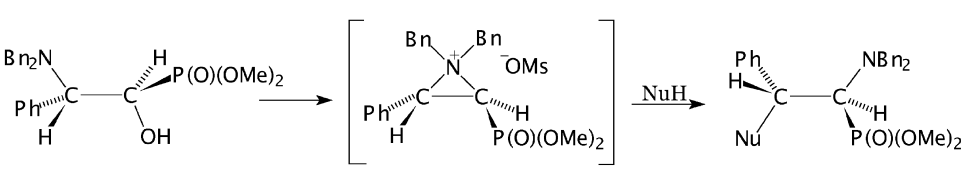
1. (17*S*, 20*R*)-Dregealol, R_1 = H; R_2 = H, *O*- tigloyl
2. (17*R*)-Volubilogenone, R_1 = OH; R_2 = O
3. (17*S*, 20*R*)-Volubilol, R_1 = OH; R_2 =H, OH

Stereoselective synthesis of β-functionalized α-amino-phosphonates via aziridinium ions

Tetrahedron 59 (2003) 8405

Dorota G. Piotrowska and Andrzej E. Wróblewski*

Bioorganic Chemistry Laboratory, Faculty of Pharmacy, Medical University of Łódź, 90-151 Łódź, Muszyńskiego 1, Poland

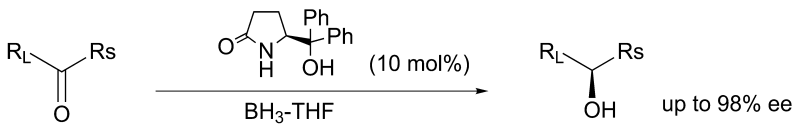


Practical enantioselective reduction of ketones using oxazaborolidine catalyst generated in situ from chiral lactam alcohol and borane

Tetrahedron 59 (2003) 8411

Yasuhiro Kawanami,[a,*] Shinichi Murao,[b] Takahiko Ohga[a] and Nobuyo Kobayashi[a]

[a]*Department of Biochemistry and Food Science, Faculty of Agriculture, Kagawa University, Miki-cho, Kagawa 761-0795, Japan*
[b]*Department of Chemistry, Faculty of Education, Kagawa University, Takamatsu, Kagawa 760-8522, Japan*



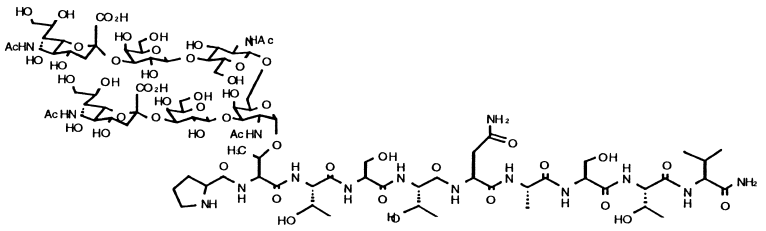
Solid-phase synthesis of core 2 O-linked glycopeptide and its enzymatic sialylation

Tetrahedron 59 (2003) 8415

Yutaka Takano, Naoya Kojima, Yuko Nakahara, Hironobu Hojo and Yoshiaki Nakahara*

Department of Applied Biochemistry, Institute of Glycotechnology, Tokai University, 1117 Kitakaname, Hiratsuka-shi, Kanagawa 259-1292, Japan

Chemo-enzymatic synthesis of the core 2-O-linked sialoglycopeptide is demonstrated.

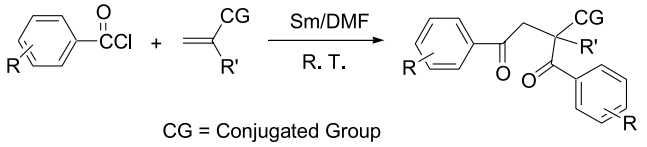


Formation of 1,4-diketones via bis-acylation of the conjugated carbon–carbon double bonds in acrylates, acrylamides, methyl vinyl ketone and styrenes with aroyl chlorides promoted by samarium metal in DMF

Tetrahedron 59 (2003) 8429

Yongjun Liu[a] and Yongmin Zhang[a,b,*]

[a]*Department of Chemistry, Zhejiang University (Campus Xixi), Hangzhou 310028, People's Republic of China*
[b]*State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai 200032, People's Republic of China*



CG = Conjugated Group

Diastereoselective synthesis of 2-substituted-piperidin-4-ones as convenient precursors for an asymmetric approach to carbacephams

Tetrahedron 59 (2003) 8439

Achille Barco,[a] Nikla Baricordi,[b] Simonetta Benetti,[a,*] Gisella Biondini,[a] Carmela De Risi[b] and Gian Piero Pollini[b]

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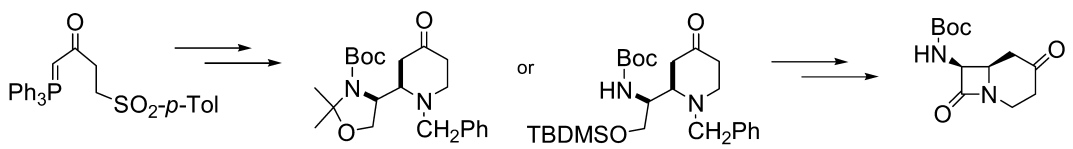
[b]*Dipartimento di Scienze Farmaceutiche, Università di Ferrara, Via Fossato di Mortara 19, 44100 Ferrara, Italy*



26 Space group changes and 6 crystallographic puzzles found in Tetrahedron journals

Tetrahedron 59 (2003) 8445

Dore Augusto Clemente

Dipartimento di Ingegneria dei Materiali e di Chimica Applicata, Università di Trieste, Sede di Pordenone, Via Prasecco 3/A, 33170 Pordenone, Italy

Although the symmetry axis present in this molecule is evident, it may go unrecognised during X-ray analysis.