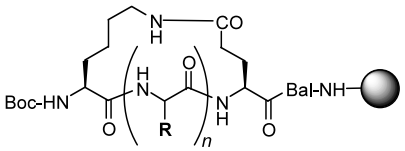
Tetrahedron Letters 44 (2003) 9243

Temporary attachment of carbohydrates to cyclopeptide templates: a new strategy for single-bead analysis of multivalent neoglycopeptides

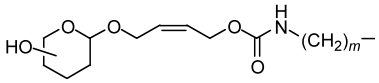
Valentin Wittmann,[a,b,*] Sonja Seeberger[a] and Hermann Schägger[c]

[a]*Institut für Organische Chemie und Chemische Biologie, Goethe-Universität, Marie-Curie-Straße 11, 60439 Frankfurt, Germany*
[b]*Fachbereich Chemie, Universität Konstanz, 78457 Konstanz, Germany*
[c]*Zentrum der Biologischen Chemie, Klinikum der Goethe-Universität, Theodor-Stern-Kai 7, 60596 Frankfurt, Germany*

A strategy for single-bead Edman degradation of compounds of type **1** is described.



1: **R** = amino acid side chain or

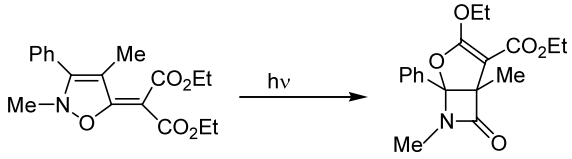


Tetrahedron Letters 44 (2003) 9247

Photochemical synthesis of a 4,5-dihydrofuroazetidinone, a novel β-lactam system

Donato Donati, Stefania Fusi and Fabio Ponticelli*

Department of Chemistry, University of Siena, 53100 Siena, Italy



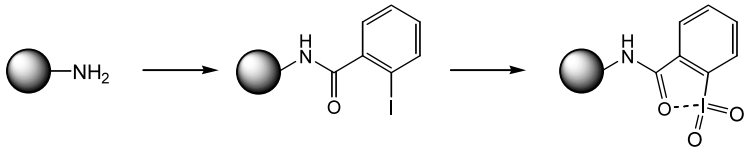
Tetrahedron Letters 44 (2003) 9251

Simple preparation of polymer supported IBX esters and amides and their oxidative properties

Woo-Jae Chung, Duk-Ki Kim and Yoon-Sik Lee*

School of Chemical Engineering, Seoul National University, Kwanak-Ku, Seoul 151-744, Republic of Korea

Novel polymer supported IBX esters and amides were prepared in two steps and proved to be mild and efficient oxidants.

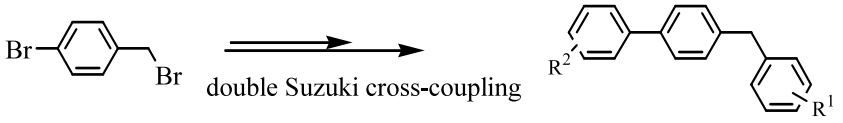


Tetrahedron Letters 44 (2003) 9255

Selective double Suzuki cross-coupling reactions. Synthesis of unsymmetrical diaryl (or heteroaryl) methanes

Sandrine Langle, Mohamed Abarbri and Alain Duchêne*

Laboratoire de Physicochimie des Interfaces et des Milieux Réactionnels, Faculté des Sciences de Tours, Parc de Grandmont, F-37200 Tours, France



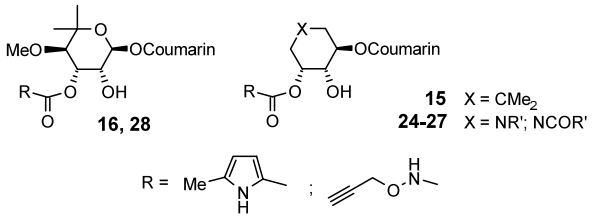
Tetrahedron Letters 44 (2003) 9259

Noviose mimics of the coumarin inhibitors of gyrase B

Branislav Musicki,[a,*] Anne-Marie Periers,[a] Laurent Piombo,[a] Patrick Laurin,[a] Michel Klich,[a] Claudine Dupuis-Hamelin,[b] Patrice Lassaigne[b] and Alain Bonnefoy[b]

[a]*Medicinal Chemistry, Infectious Disease, Aventis Pharma, 102 route de Noisy, 93235 Romainville Cedex, France*
[b]*Medicinal Chemistry, Aventis Pharma, 102 route de Noisy, 93235 Romainville Cedex, France*

The structure–activity relationship and in vitro biological activity of coumarin antibiotics **16** and **28** bearing the noviose sugar portion modified are described. The noviose was replaced with the simplified 5′,5′-dimethylcyclohexane **15** or the piperidine skeleton **24**–**27**.



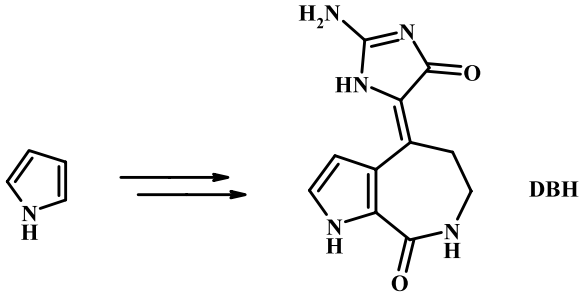
Tetrahedron Letters 44 (2003) 9263

An expeditious multigram preparation of the marine protein kinase inhibitor debromohymenialdisine

Bernard Portevin,[a] Roy M. Golsteyn,[b] Alain Pierré[b] and Guillaume De Nanteuil[a,*]

[a]*Division D of Medicinal Chemistry, Institut de Recherches Servier, 11 rue des Moulineaux, 92150 Suresnes, France*
[b]*Division of Cancer Research, Institut de Recherches Servier, 125 Chemin de Ronde, 78290 Croissy sur Seine, France*

Starting from pyrrole, a short, multigram scale synthesis of debromohymenialdisine (DBH) has been developed.

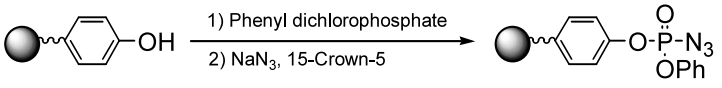


Tetrahedron Letters 44 (2003) 9267

Preparation and applications of a polymer-supported phosphoryl azide

Yuhua Lu and Richard T. Taylor*

Department of Chemistry & Biochemistry, Miami University, Oxford, OH 45056, USA

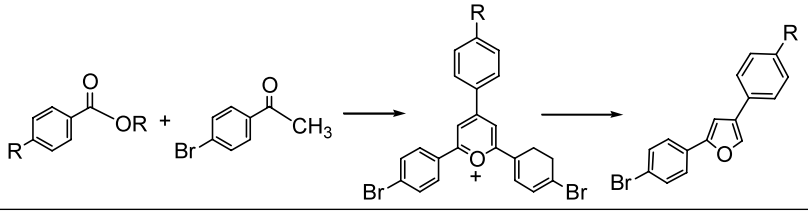


Tetrahedron Letters 44 (2003) 9271

Improved synthesis of pyrylium salts leading to 2,4-disubstituted diarylfurans via novel mechanism

Angélica M. Bello and Lakshmi P. Kotra*

Faculty of Pharmacy, Department of Chemistry and Molecular Design and Information Technology Center, 19 Russell Street, University of Toronto, Toronto, Ontario, Canada M5S 2S2



Tetrahedron Letters 44 (2003) 9275

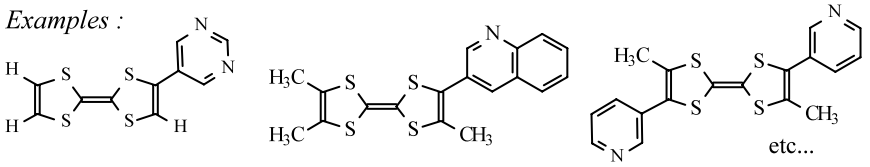
Synthesis and characterization of TTF-type precursors for the construction of conducting and magnetic molecular materials

S. Bouguessa,[a] A. K. Gouasmia,[a] S. Golhen,[b] L. Ouahab[b] and J. M. Fabre[a,*]

[a]*Laboratoire de chimie organique: Hétérochimie et matériaux organiques, UMR 5076, ENSCM, 8, rue de l'école normale, 34296 Montpellier cedex 5, France*

[b]*Laboratoire de chimie du solide et inorganique moléculaire, UMR 6511, CNRS Université de Rennes 1, Institut de Chimie de Rennes, 35042 Rennes cedex, France*

Examples :



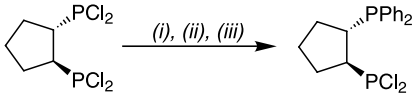
Tetrahedron Letters 44 (2003) 9279

Homochiral cyclopentane-based C_1-symmetric *P,P* ligands $C_5H_8(PPh_2)(PR_2)$ from C_2-symmetric $C_5H_8(PCl_2)_2$

Lutz Dahlenburg* and Andreas Wühr

Institut für Anorganische Chemie, Friedrich-Alexander-Universität Erlangen-Nürnberg, Egerlandstrasse 1, D-91058 Erlangen, Germany

A simple high-yield synthesis of cyclopentane-based dissymmetric *P,P* ligands involving $C_5H_8(PPh_2)(PCl_2)$ as a key intermediate is described.



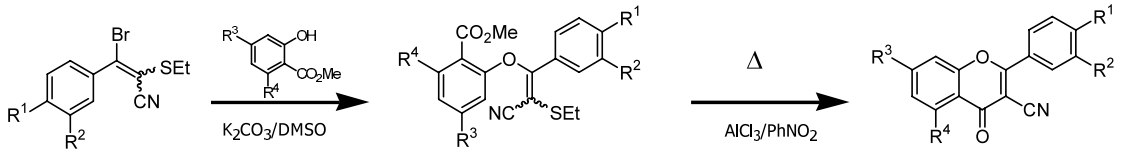
(i) $C_2H_4(NHPr\text{-}i)_2$; *(ii)* PhMgBr; *(iii)* HCl

Tetrahedron Letters 44 (2003) 9283

A convenient access to 3-cyanoflavones

Frédéric Lassagne* and Francis Pochat

Laboratoire de Chimie Organique, Université de Rennes 1, Bat 7, Campus de Beaulieu, 35042 Rennes, France



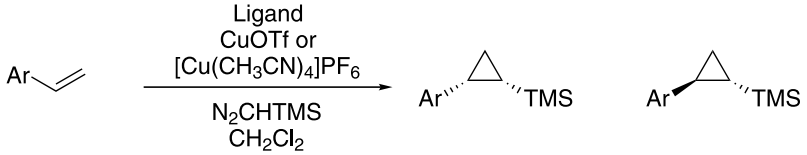
Tetrahedron Letters 44 (2003) 9287

High *trans* selectivity in the copper bis(oxazoline)-catalyzed asymmetric cyclopropanation of olefins by (trimethylsilyl)diazomethane

Marcia B. France,* Allyn K. Milojevich, Tracy A. Stitt and Angela J. Kim

Department of Chemistry, Washington and Lee University, Lexington, VA 24450, USA

High *trans* diastereoselectivities have been observed in the cyclopropanation of styrene derivatives with (trimethylsilyl)diazomethane by copper bis(oxazoline) complexes.

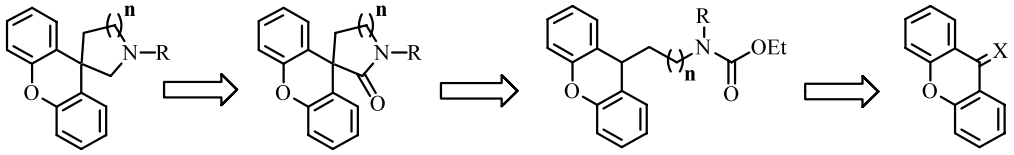


Tetrahedron Letters 44 (2003) 9291

Synthesis of spiro[pyrrolidine or piperidine-3,9′-xanthenes] by anionic cycloacylation of carbamates

Domingo Quintás, Alberto García and Domingo Domínguez*

Departamento de Química Orgánica y Unidad Asociada al CSIC, Facultad de Química, Universidad de Santiago de Compostela, 15782 Santiago de Compostela, Spain

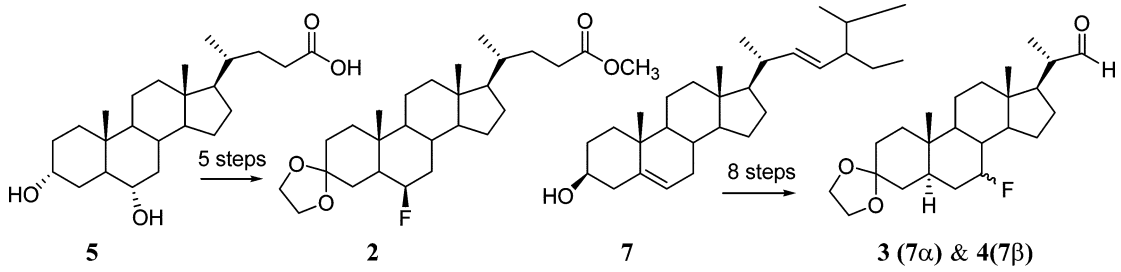


Tetrahedron Letters 44 (2003) 9295

The application of diethylaminosulfur trifluoride in the synthesis of fluorinated sterols and bile acids

Jibo Xia, Yili Chen, Kathryn M. Liberatore and Barry S. Selinsky*

Chemistry Department, Villanova University, Villanova, PA 19085, USA

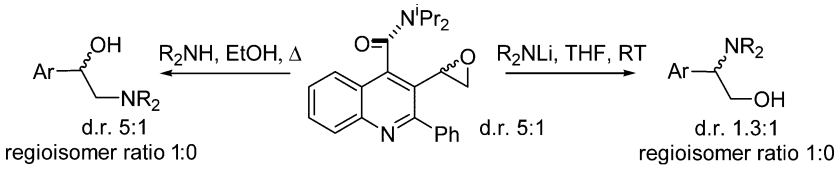


Tetrahedron Letters 44 (2003) 9299

Ring opening reactions of quinoline substituted epoxides

Andrew N. Boa,* Stephen Clark, Paul R. Hirst and Robert Westwood

Department of Chemistry, University of Hull, Cottingham Road, Hull HU6 7RX, UK

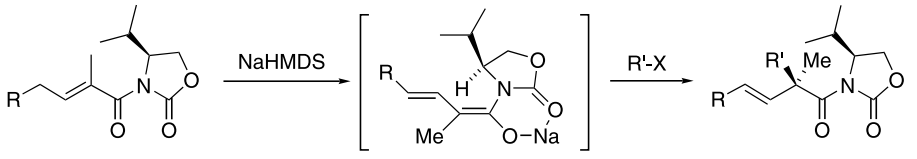


Tetrahedron Letters 44 (2003) 9303

Stereoselective construction of a quaternary carbon substituted with multifunctional groups: application to the concise synthesis of (+)-ethosuximide

Tomoaki Abe, Tatsuo Suzuki, Kazuhiko Sekiguchi, Seijiro Hosokawa and Susumu Kobayashi*

Faculty of Pharmaceutical Sciences, Tokyo University of Science, Frontier Research Center for Genomic Drug Discovery, Tokyo University of Science, Yamazaki, Noda, Chiba 278-8510, Japan



Tetrahedron Letters 44 (2003) 9307

A novel synthesis of α-hydroxy- and α,α′-dihydroxyketone from α-iodo and α,α′-diiodo ketone using photoirradiation

C. Akira Horiuchi,[a,*] Akinori Takeda,[a] Wen Chai,[a] Kishoh Ohwada,[a] Shun-Jun Ji[b] and T. Tomoyoshi Takahashi[c]

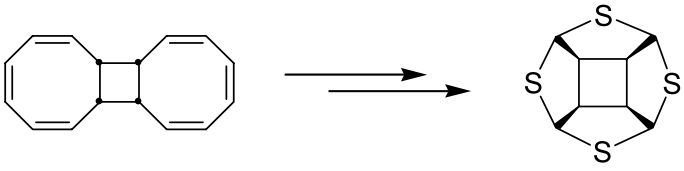
[a]*Department of Chemistry, Rikkyo (St. Paul's) University, Nishi-Ikebukuro, Toshima-Ku, Tokyo 171-8501, Japan*
[b]*Department of Chemistry and Chemical Engineering, Suzhou University, 1 Shizi St. Suzhou, Jiangsu 215006, PR China*
[c]*Department of Chemistry, The Jikei University School of Medicine, Kokuryo-cho, Chofu-shi, Tokyo 182-8570, Japan*

Tetrahedron Letters 44 (2003) 9313

Thiabowls: synthesis, molecular structure and the solid state architecture of tetrathia-[4]-peristylane

Goverdhan Mehta,[a,*] Vanessa Gagliardini,[a] Carsten Schaefer[b] and Rolf Gleiter[b,*]

[a]*Department of Organic Chemistry, Indian Institute of Science, Bangalore 560012, India*
[b]*Organisch-Chemisches Institut, Universität Heidelberg, INF 270, D-69120 Heidelberg, Germany*

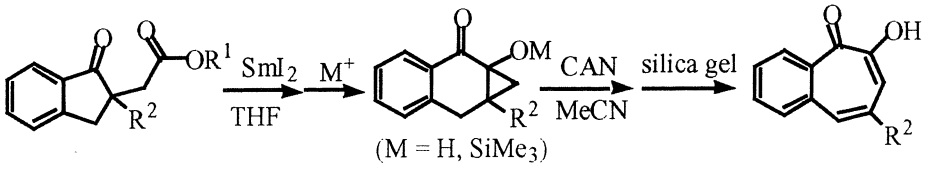


Tetrahedron Letters 44 (2003) 9317

Novel transformation of 2-substituted alkyl 1-indanone-2-acetates to 6-substituted 3,4-benzotropolones through sequential reduction and oxidation processes using Sm(II) and Ce(IV) salts

Kazuki Iwaya, Mutsuko Tamura, Momoe Nakamura and Eietsu Hasegawa*

Department of Chemistry, Faculty of Science, Niigata University, Ikarashi-2 8050, Niigata 950-2181, Japan



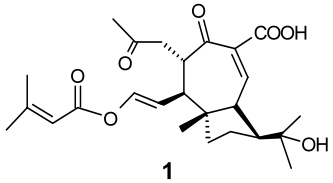
Tetrahedron Letters 44 (2003) 9321

Vibsanin O, a novel diterpenoid from *Viburnum awabuki*

Chang-Yih Duh,[a,*] Ali A. H. El-Gamal[a] and Shang-Kwei Wang[b]

[a]*Department of Marine Resources, National Sun Yat-sen University, Kaohsiung, Taiwan, ROC*
[b]*Department of Microbiology, Kaohsiung Medical University, Kaohsiung, Taiwan, ROC*

Vibsanin O, isolated from the leaves and twigs of *Viburnum awabuki*, is an unprecedented bicyclic diterpenoid. The structure of vibsanin O (**1**) was established by extensive analysis of spectroscopic data.



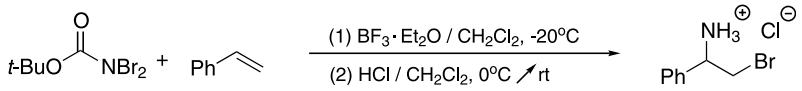
1

Tetrahedron Letters 44 (2003) 9323

Ionic addition of *t*-butyl *N*,*N*-dibromocarbamate (BBC) to alkenes and cycloalkenes

Anna Śliwińska and Andrzej Zwierzak*

Institute of Organic Chemistry, Technical University (Politechnika), Żeromskiego 116, 90-924 Łódź, Poland

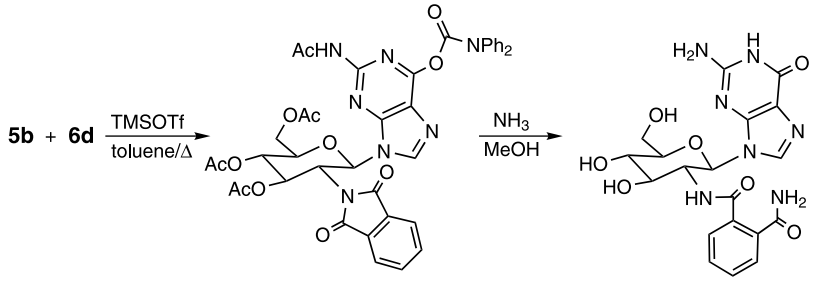


Tetrahedron Letters 44 (2003) 9327

Regioisomers in Vorbrüggen's guanine nucleoside synthesis; N9 selectivity with a glucosamine derivative and 2-*N*-acetyl-6-*O*-diphenylcarbamoylguanine

Minghong Zhong and Morris J. Robins*

Department of Chemistry and Biochemistry, Brigham Young University, Provo, UT 84602-5700, USA

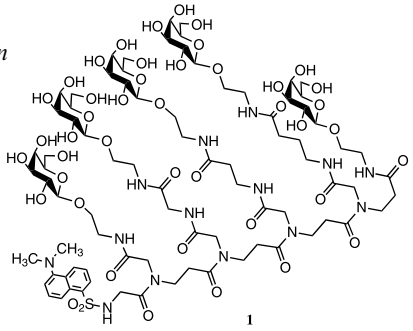


Tetrahedron Letters 44 (2003) 9331

Synthesis of new peptidic glycoclusters derived from β-alanine

Koji Sato, Noriyasu Hada and Tadahiro Takeda*

Kyoritsu College of Pharmacy, 1-5-30 Shibakoen, Minato-ku, Tokyo 105-8512, Japan



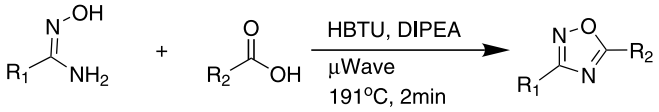
Tetrahedron Letters 44 (2003) 9337

The accelerated development of an optimized synthesis of 1,2,4-oxadiazoles: application of microwave irradiation and statistical design of experiments

Marc D. Evans,[a] Jessica Ring,[a] Adam Schoen,[a] Andrew Bell,[b] Paul Edwards,[b] Didier Berthelot,[b] Robb Nicewonger[a,*] and Carmen M. Baldino[a]

[a]*Chemistry Department, ArQule, Inc., 19 Presidential Way, Woburn, MA, 01801, USA*

[b]*Library Design & Production Group, Sandwich Labs, Pfizer Global Research and Development, Sandwich CT13 9NJ, UK*



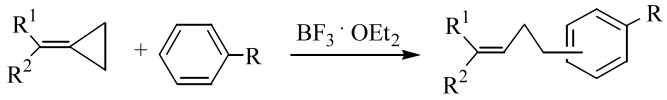
Lewis acid $BF_3{\cdot}OEt_2$-catalyzed Friedel–Crafts reaction of methylenecyclopropanes with arenes

Tetrahedron Letters 44 (2003) 9343

Jin-Wen Huang and Min Shi*

State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 354 Fenglin Lu, Shanghai 200032, China

Methylenecyclopropanes react with various arenes to give the Friedel–Crafts reaction products in good yields in the presence of Lewis acid $BF_3{\cdot}OEt_2$.



R^1 and R^2= aryl or aliphatic groups.

R= Me or OMe. yield: 60-100%.

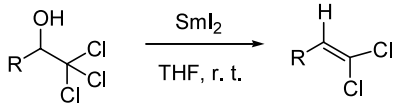
SmI_2-mediated elimination reaction of trichloromethyl carbinols: a facile method to synthesize vinyl dichlorides

Tetrahedron Letters 44 (2003) 9349

Jian Li,[a] Xiaoliang Xu[a] and Yongmin Zhang[a,b,*]

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

Samarium diiodide-mediated elimination reaction provides an attractive method to synthesize vinyl dichlorides from trichloromethyl carbinols directly in good to excellent yields.



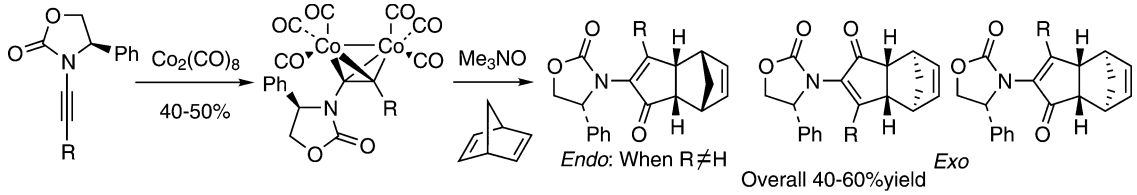
Pauson–Khand cycloaddition reactions of chiral ynamides. Observation of an unusual *endo*-addition with norbornadiene

Tetrahedron Letters 44 (2003) 9353

Lichun Shen and Richard P. Hsung*

Department of Chemistry, University of Minnesota, Minneapolis, MN 55455, USA

Pauson–Khand cycloadditions using chiral ynamides are achieved in modest to good yields with excellent regioselectivity and modest stereoselectivity. An unusual *endo* addition is found when using norbornadiene and substituted ynamides, leading to cycloadducts that were not observed in previous studies using ynamides or ynamines.



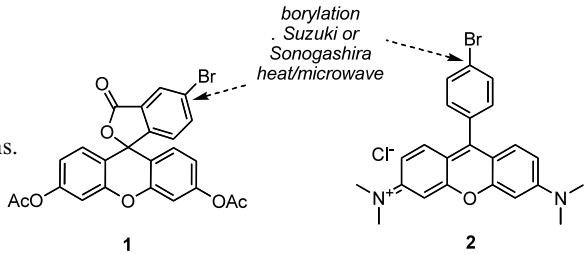
Microwave-assisted functionalization of bromo-fluorescein and bromorhodamine derivatives

Tetrahedron Letters 44 (2003) 9359

Jin Wook Han, Juan C. Castro and Kevin Burgess*

Department of Chemistry, Texas A & M University, Box 30012, College Station, TX 77842-3012, USA

Systems **1** and **2** were elaborated and coupled with each other via microwave assisted borylation, Suzuki, and Sonogashira reactions.

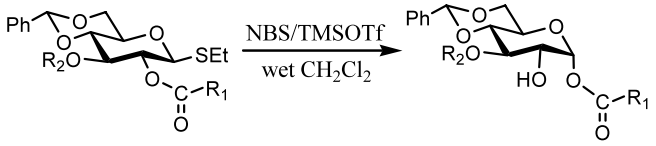


Tetrahedron Letters 44 (2003) 9363

An efficient method for the preparation of glycosides with a free C-2 hydroxyl group from thioglycosides

Hai Yu and Harry E. Ensley*

Department of Chemistry, Tulane University, New Orleans, LA 70118, USA



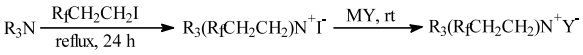
Tetrahedron Letters 44 (2003) 9367

Quaternary trialkyl(polyfluoroalkyl)ammonium salts including liquid iodides

Om D. Gupta,[a] Paul Douglas Armstrong[b] and Jean'ne M. Shreeve[c,*]

[a]*Department of Chemistry, University of Rajasthan, Jaipur 302017, India*
[b]*Department of Chemistry, Olivet Nazarene University, Bourbonnais, IL 60914-2271, USA*
[c]*Department of Chemistry, University of Idaho, Moscow, ID 83844-2343, USA*

New quaternary ammonium salts that contain polyfluorinated alkyl substituents were prepared by the polyfluoroalkylation of tertiary amines with polyfluorinated alkyl iodides. Metathesis reactions of the iodide salts with fluorine-containing anions resulted in new low melting salts. The iodide salts of the tri(isooctyl)polyfluoroalkyl amines are also liquids at 25°C.

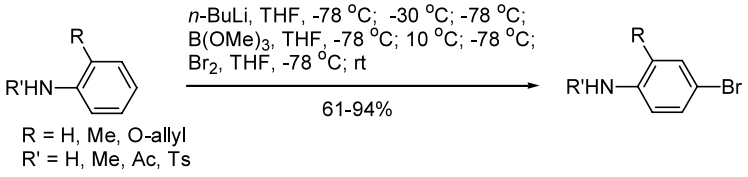


Tetrahedron Letters 44 (2003) 9371

A new mild regioselective bromination of arylamines

Jingrui Zhao,[a,b] Xueshun Jia[b] and Hongbin Zhai[a,*]

[a]*Laboratory of Modern Synthetic Organic Chemistry and State Key Laboratory of Bio-Organic and Natural Products Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 200032 Shanghai, China*
[b]*Department of Chemistry, Shanghai University, 200436 Shanghai, China*



Tetrahedron Letters 44 (2003) 9375

A new strategy for synthesizing the steroids with side chains from steroidal sapogenins: synthesis of the aglycone of OSW-1 by using the intact skeleton of diosgenin

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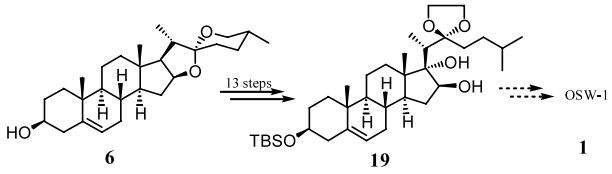

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Stereoselective synthesis of an advanced taxusin intermediate: an application of the type 2 intramolecular Diels–Alder reaction

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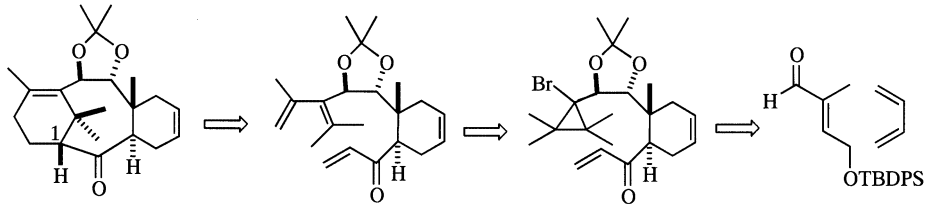

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A concise total synthesis of (−)-dehydroclausenamide utilizing the novel formation of *cis*-epoxide as the key step

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A novel fluoroalkanosulfonyl fluoride induced transformation of vicinal diol into the corresponding *cis*-epoxy was successfully applied to the asymmetric total synthesis of (−)-dehydroclausenamide.