Copper-mediated regioselective allylation and propargylation of 2-(alkylthio)oxazoles

Tetrahedron Letters 44 (2003) 7395

Joseph P. Marino* and Hanh Nho Nguyen

Department of Chemistry, University of Michigan, Ann Arbor, MI 48109, USA

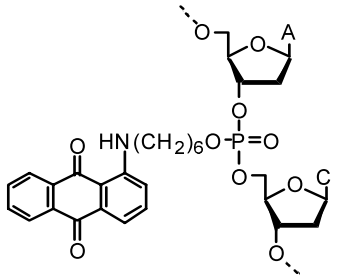
Novel dinucleoside phosphotriester unit conjugated with an intercalative moiety in a stereospecific manner enhances thermal stability of an alternate-stranded triple helix

Tetrahedron Letters 44 (2003) 7399

Takanori Miyashita,[a] Noritake Matsumoto,[b] Tomohisa Moriguchi[b] and Kazuo Shinozuka[b,*]

[a]*Chemistry Lab., Yamasa Corporation, 2-10-1 Araoicho, Choshi 288-0056, Japan*
[b]*Department of Chemistry, Faculty of Engineering, Gunma University, Kiryu 376-8515, Japan*

An α-β chimeric oligoDNA conjugated with a novel dinucleoside phosphotriester unit bearing an intercalative moiety exhibited enhanced thermal stability of an alternate-stranded triplex in a stereospecific manner.

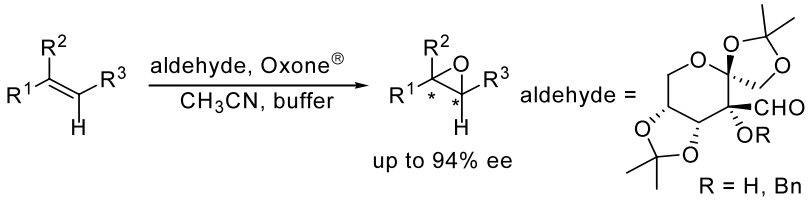


First highly enantioselective epoxidation of alkenes with aldehyde/Oxone®

Tetrahedron Letters 44 (2003) 7403

Ghanashyam Bez and Cong-Gui Zhao*

Department of Chemistry, University of Texas at San Antonio, 6900 N. Loop 1604 W., San Antonio, TX 78249-0698, USA

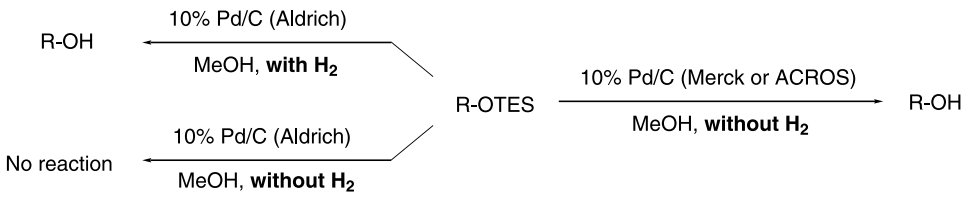


Significant supplier-dependent disparity in catalyst activity of commercial Pd/C toward the cleavage of triethylsilyl ether

Tetrahedron Letters 44 (2003) 7407

Hironao Sajiki,* Takashi Ikawa and Kosaku Hirota*

Laboratory of Medicinal Chemistry, Gifu Pharmaceutical University, 5-6-1 Mitahora-higashi, Gifu 502-8585, Japan

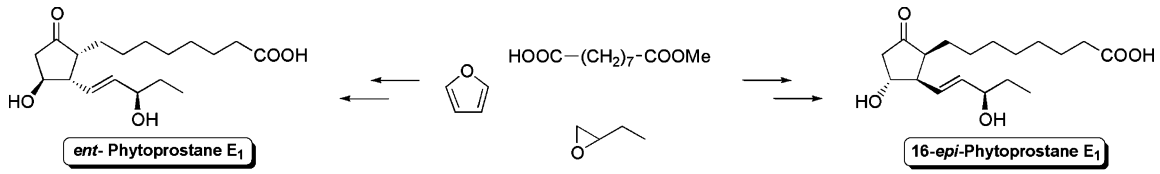


Tetrahedron Letters 44 (2003) 7411

First total synthesis of the E type I phytoprostanes

Ana R. Rodríguez and Bernd W. Spur*

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



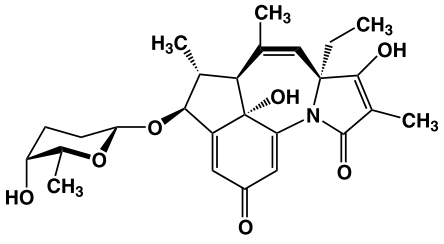
Tetrahedron Letters 44 (2003) 7417

Revised structure of tetrapetalone A and its absolute stereochemistry

Toshikazu Komoda,[a] Yasumasa Sugiyama,[a] Naoki Abe,[a] Misako Imachi,[b] Hiroshi Hirota,[c,d] Hiroyuki Koshino[e] and Akira Hirota[a,*]

[a]*Laboratory of Applied Microbiology, School of Food and Nutritional Sciences, University of Shizuoka, Yada 52-1, Shizuoka 422-8526, Japan*
[b]*Bruker BioSpin K. K., 3-21-5 Ninomiya, Tsukuba 305-0051, Japan*
[c]*Protein Research Group, RIKEN Genomics Sciences Center, 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama 230-0045, Japan*
[d]*Science of Biological Supramolecular Systems, Yokohama City University, 1-7-29 Suehiro-cho, Tsurumi-ku, Yokohama 230-0045, Japan*
[e]*Molecular Characterization Team, Advanced D&S Center, RIKEN, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan*

The chemical structure of tetrapetalone A was revised by using the $^{1}H-^{15}N$ HMBC technique, and its absolute stereochemistry was revealed.



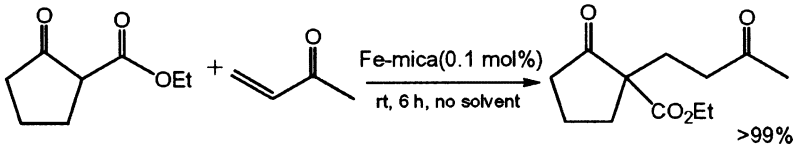
tetrapetalone A

Tetrahedron Letters 44 (2003) 7421

Fe^{3+}-exchanged fluorotetrasilicic mica as an active and reusable catalyst for Michael reaction

Ken-ichi Shimizu,[a,*] Masato Miyagi,[b] Toshiki Kan-no,[a] Tatsuya Kodama[b] and Yoshie Kitayama[b]

[a]*Graduate School of Science and Technology, Niigata University, Ikarashi-2, Niigata 950-2181, Japan*
[b]*Department of Chemistry and Chemical Engineering, Faculty of Engineering, Niigata University, Ikarashi-2, Niigata 950-2181, Japan*

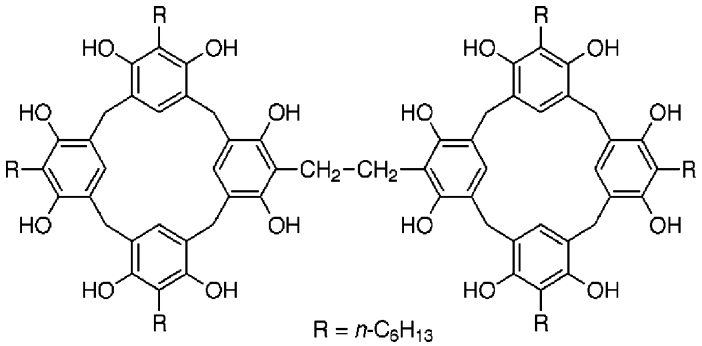


Tetrahedron Letters 44 (2003) 7425

Singly bridged double resorcin[4]arene bearing sixteen hydroxyl groups. Formation of capsular-type inclusion complexes in methanol

Hisatoshi Konishi,* Osamu Morikawa, Kazuhiro Kobayashi, Kazuyuki Abe and Atsushi Ohkubo

Department of Materials Science, Faculty of Engineering, Tottori University, 4-101 Koyama-minami, Tottori 680-8552, Japan

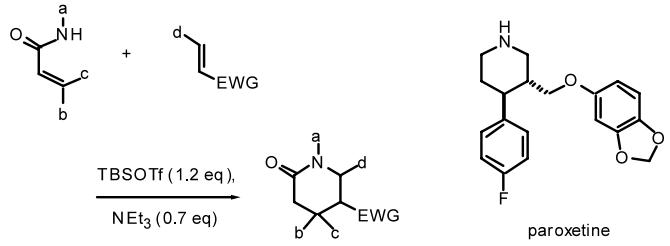


Tetrahedron Letters 44 (2003) 7429

A direct entry to substituted piperidinones from α,β-unsaturated amides by means of aza double Michael reaction

Kiyosei Takasu,* Naoko Nishida and Masataka Ihara*

Department of Organic Chemistry, Graduate School of Pharmaceutical Sciences, Tohoku University, Aobayama, Sendai 980-8578, Japan

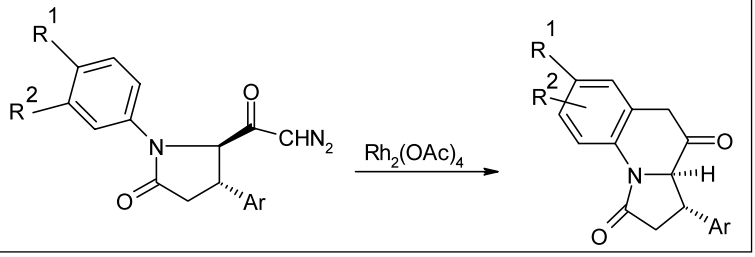


Tetrahedron Letters 44 (2003) 7433

Highly regioselective rhodium(II)-catalysed carbenoid insertion reaction into sp^2 C–H bond: a general method for the synthesis of 3,3a-dihydro-2*H*,5*H*-pyrrolo[1,2-*a*]quinoline-1,4-dione ring system

Pranab Haldar, Gandhi K. Kar and Jayanta K. Ray*

Department of Chemistry, Indian Institute of Technology, Kharagpur 721302, India

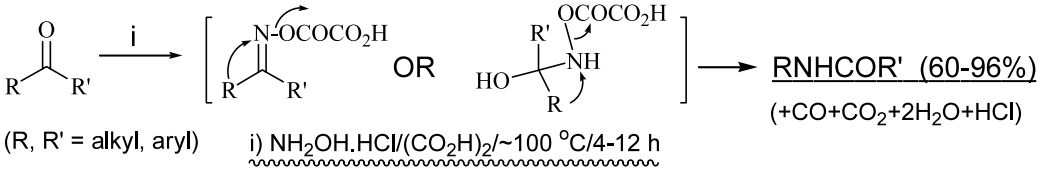


Tetrahedron Letters 44 (2003) 7437

Ketones to amides via a formal Beckmann rearrangement in 'one pot': a solvent-free reaction promoted by anhydrous oxalic acid. Possible analogy with the Schmidt reaction

Sosale Chandrasekhar* and Kovuru Gopalaiah

Department of Organic Chemistry, Indian Institute of Science, Bangalore 560 012, India



Tetrahedron Letters 44 (2003) 7441

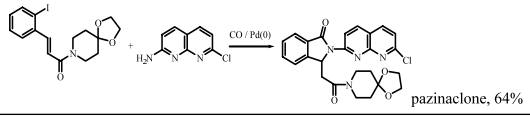
Synthesis of 3-substituted isoindolin-1-ones via a palladium-catalysed 3-component carbonylation/amination/Michael addition process

Xinjie Gai,[a] Ronald Grigg,[a,*] Tossapol Khamnaen,[b] Shuleewan Rajviroongit,[b] Visuvanathar Sridharan,[a] Lixin Zhang,[a] Simon Collard[c] and Ann Keep[c]

[a]*Molecular Innovation Diversity and Automated Synthesis (MIDAS) Centre, School of Chemistry, Leeds University, Leeds LS2 9JT, UK*

[b]*Department of Chemistry, Faculty of Science, Mahidol University, Rama 6 Road, Rajthevee, Bangkok 10400, Thailand*

[c]*Johnson Matthey, Orchard Road, Royston, Herts SG8, UK*



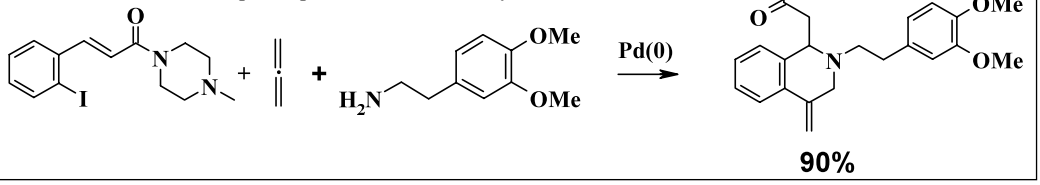
Tetrahedron Letters 44 (2003) 7445

Synthesis of carbo- and heterocycles via a palladium-catalysed allene insertion–nucleophile incorporation–Michael addition cascade

Xinjie Gai, Ronald Grigg,* Ines Köppen, John Marchbank and Visuvanathar Sridharan

Molecular Innovation, Diversity and Automated Synthesis (MIDAS) Centre, School of Chemistry, Leeds Univeristy, Leeds LS2 9JT, UK

A three-component palladium catalysed cascade employing allene and a wide range of both 2-(2′-iodoaryl)-Michael acceptors and *C*- and *N*-nucleophiles proceeds in excellent yield.



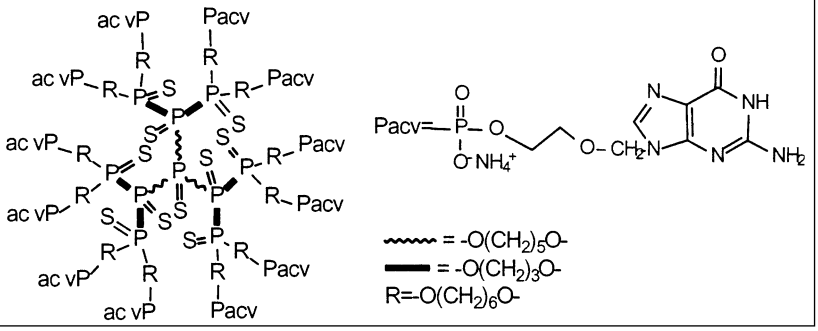
Tetrahedron Letters 44 (2003) 7449

Acyclovir terminated thiophosphate dendrimers

Grzegorz M. Salamończyk*

Department of Heteroorganic Chemistry, Centre of Molecular and Macromolecular Studies, The Polish Academy of Sciences, Sienkiewicza 112, 90-363 Łódź, Poland

Acyclovir was successfully grafted on the surface of thiophosphate dendrimers via thio- and phosphodiester linkages, providing water- soluble prodrug candidates.

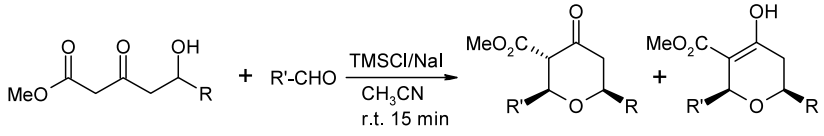


Tetrahedron Letters 44 (2003) 7455

Iodotrimethylsilane induced diastereoselective synthesis of tetrahydropyranones by a tandem Knoevenagel–Michael reaction

Gowravaram Sabitha,[a,*] G. S. Kiran Kumar Reddy,[a] M. Rajkumar,[a] J. S. Yadav,[a] K. V. S. Ramakrishna[b] and A. C. Kunwar[b]

[a]*Organic Division I, Indian Institute of Chemical Technology, Hyderabad 500 007, India*
[b]*Centre for Nuclear Magnetic Resonance, Indian Institute of Chemical Technology, Hyderabad 500 007, India*



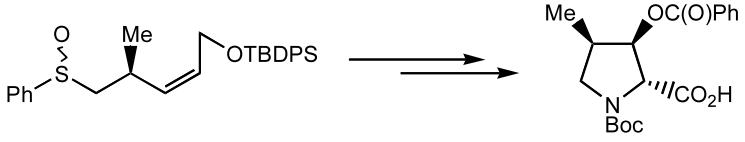
Tetrahedron Letters 44 (2003) 7459

Practical, efficient, stereoselective, formal synthesis of (2*R*,3*R*,4*R*)-3-hydroxy-4-methylproline

Sadagopan Raghavan* and S. Ramakrishna Reddy

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

A highly efficient and stereoselective synthesis of (2*R*,3*R*,4*R*)-HMP is disclosed.



Tetrahedron Letters 44 (2003) 7463

Regeneration of carbonyl compounds by cleavage of C=N bonds under mild and completely heterogeneous conditions

F. Shirini,[a,*] M. A. Zolfigol,[b] A. Safari,[a] I. Mohammadpoor-Baltork[c] and B. F. Mirjalili[d]

[a]*Department of Chemistry, College of Science, Guilan University, Rasht, Iran*
[b]*Department of Chemistry, College of Science, Bu-Ali Sina University, Hamadan, Iran*
[c]*Department of Chemistry, College of Science, Isfahan University, Isfahan, Iran*
[d]*Department of Chemistry, College of Science, Yazd University, Yazd, Iran*

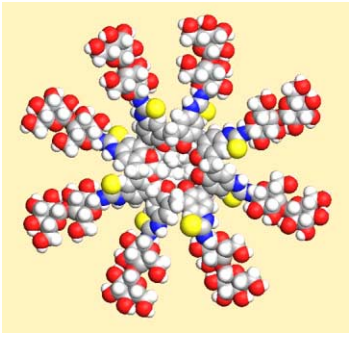
Oximes, hydrazones, semicarbazones and azines are converted to the corresponding carbonyl compounds by a combination of $Zr(HSO_4)_4$ and wet SiO_2 in good to high yields under mild and completely heterogeneous conditions. Desemicarbazonation proceeds selectively in the presence of oximes, hydrazones and azines at room temperature using small amounts of the reagent.

Tetrahedron Letters 44 (2003) 7467

Calix[8]arene-based glycoconjugates as multivalent carbohydrate-presenting systems

Grazia M. L. Consoli,[a,*] Francesca Cunsolo,[a] Corrada Geraci,[a,*] Tommaso Mecca[a] and Placido Neri[b]

[a]*Istituto di Chimica Biomolecolare—Sezione di Catania, C.N.R., Via del Santuario 110, I-95028 Valverde (CT), Italy*
[b]*Dipartimento di Chimica, Università di Salerno, Via S. Allende 43, I-84081 Baronissi (SA), Italy*

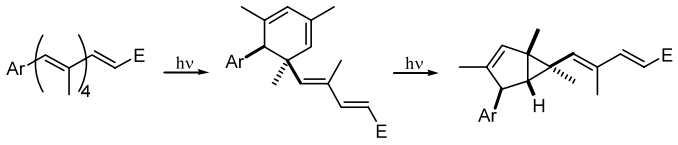


Tetrahedron Letters 44 (2003) 7471

Mechanistic evidence supporting the biosynthesis of photodeoxytridachione

Sébastien Brückner,[a] Jack E. Baldwin,[a,*] John Moses,[a] Robert M. Adlington[a] and Andrew R. Cowley[b]

[a]*Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY, UK*
[b]*Chemical Crystallography, Oxford University, South Parks Road, Oxford OX1 3QR, UK*



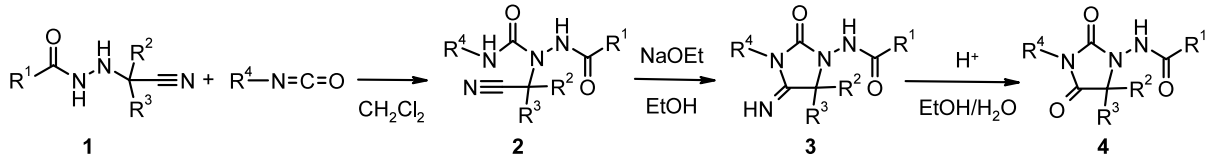
E = CO_2Et
Ar = *p*-NO_2-Ph

Tetrahedron Letters 44 (2003) 7475

A versatile method for the synthesis of substituted 1-aminohydantoin derivatives

Iván Bélai*

Plant Protection Institute, Hungarian Academy of Sciences, PO Box 102, H-1525 Budapest, Hungary



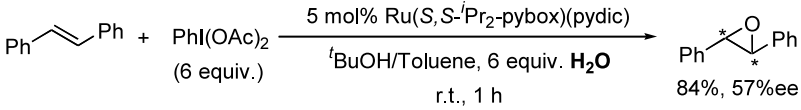
Tetrahedron Letters 44 (2003) 7479

An improved protocol for the ruthenium(pybox)-catalyzed asymmetric alkene epoxidation

Man Kin Tse, Santosh Bhor, Markus Klawonn, Christian Döbler and Matthias Beller*

Leibniz-Institut für Organische Katalyse an der Universität Rostock e.V. (IfOK), Buchbinderstraße 5-6, D-18055 Rostock, Germany

A significant rate enhancement of the Ru(pybox)-catalyzed epoxidation of stilbene was observed by careful control of the water content of the reaction mixture. This led to the development of a new general ruthenium-catalyzed epoxidation procedure.

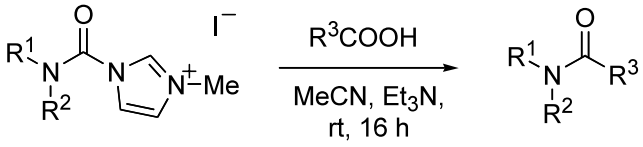


Tetrahedron Letters 44 (2003) 7485

Carbamoylimidazolium salts as diversification reagents: an application to the synthesis of tertiary amides from carboxylic acids

Justyna A. Grzyb and Robert A. Batey*

Davenport Research Laboratories, Department of Chemistry, University of Toronto, 80 St. George Street, Toronto, Ontario, M5S 3H6, Canada

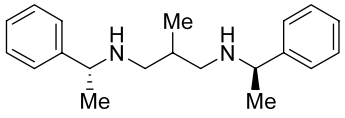


Tetrahedron Letters 44 (2003) 7489

Application of chiral bidentate NMR solvents for assignment of the absolute configuration of alcohols: scope and limitation

Yoshihisa Kobayashi, Nobuyuki Hayashi and Yoshito Kishi*

Department of Chemistry and Chemical Biology, Harvard University, 12 Oxford Street, Cambridge, MA 02138, USA



1: (*R,R*)-BMBA-*p*-Me

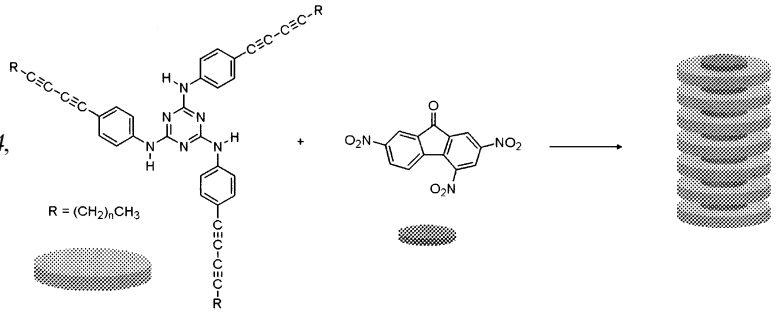
Tetrahedron Letters 44 (2003) 7493

Molecular ordering of photoreactive nonmesogenic 1,3,5-triazine compounds into columnar mesophases by charge transfer interaction

Seung Ju Lee and Ji Young Chang*

School of Materials Science and Engineering, and Hyperstructured Organic Materials Research Center, College of Engineering ENG445, Seoul National University, Seoul 151-744, South Korea

Charge transfer complexes of photoreactive nonmesogenic 1,3,5-triazine compounds with TNF assembled into columnar mesophases. Their UV-irradiation yielded oligomers.

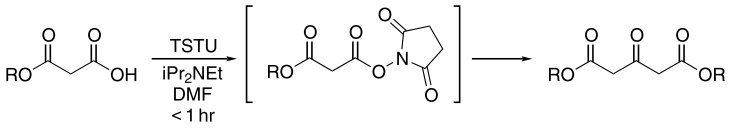


Tetrahedron Letters 44 (2003) 7499

Self-condensation of activated malonic acid half esters: a model for the decarboxylative Claisen condensation in polyketide biosynthesis

Youngha Ryu and A. Ian Scott*

Center for Biological NMR, Department of Chemistry, Texas A&M University, College Station, TX 77843, USA

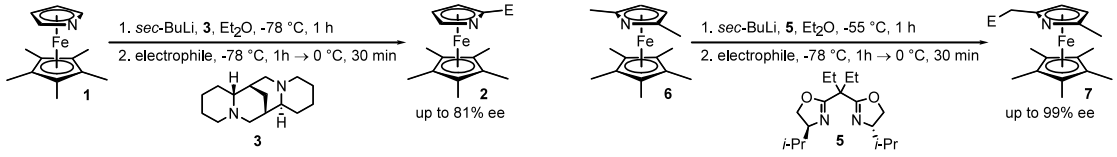


Tetrahedron Letters 44 (2003) 7503

Enantioselective synthesis of planar chiral azaferrocenes via chiral ligand-mediated ring- and lateral-lithiations

Tsutomu Fukuda, Kengo Imazato and Masatomo Iwao*

Department of Applied Chemistry, Faculty of Engineering, Nagasaki University, 1-14 Bunkyo-machi, Nagasaki 852-8521, Japan

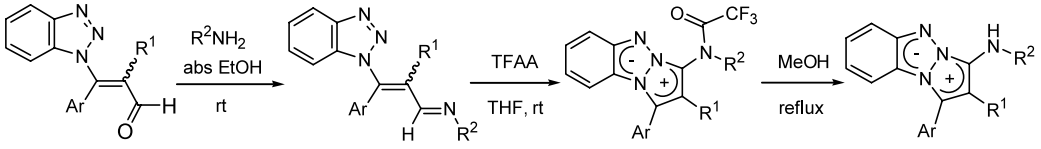


Tetrahedron Letters 44 (2003) 7507

A novel synthesis of 4,5-diaryl-6-arylamino-2,3-benzo-1,3a,6a-triazapentalenes

Yu-Ah Choi, Kyongtae Kim* and Young Ja Park

School of Chemistry and Molecular Engineering, Seoul National University, Seoul 151-742, South Korea

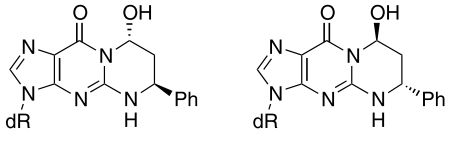


Tetrahedron Letters 44 (2003) 7513

Stereoselective synthesis of the 1,N^2-deoxyguanosine adducts of cinnamaldehyde. A stereocontrolled route to deoxyguanosine adducts of α,β-unsaturated aldehydes

Mansoureh Rezaei, Thomas M. Harris and Carmelo J. Rizzo*

Department of Chemistry and Center in Molecular Toxicology, Vanderbilt University, VU Station B 351822, Nashville, TN 37235-1822, USA

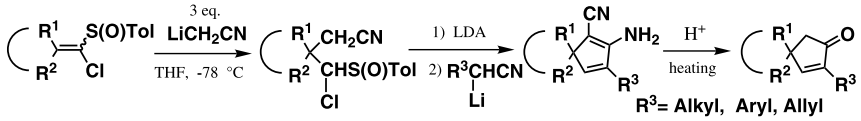


Tetrahedron Letters 44 (2003) 7517

A novel synthesis of 2,4,4-trisubstituted 2-cyclopentenones by consecutive reaction of 1-chlorovinyl *p*-tolyl sulfoxides with acetonitrile and its homologues

Tsuyoshi Satoh* and Daisuke Wakasugi

Department of Chemistry, Faculty of Science, Tokyo University of Science, Kagurazaka, Shinjuku-ku, Tokyo 162-8601, Japan

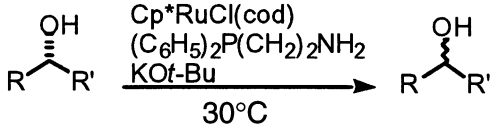


Tetrahedron Letters 44 (2003) 7521

Rapid racemization of chiral non-racemic *sec*-alcohols catalyzed by $(\eta^5\text{-}C_5(CH_3)_5)$Ru complexes bearing tertiary phosphine–primary amine chelate ligands

Masato Ito, Akihide Osaku, Sachiko Kitahara, Makoto Hirakawa and Takao Ikariya*

Department of Applied Chemistry, Graduate School of Science and Engineering and Frontier Collaborative Research Center, Tokyo Institute of Technology, 2-12-1 O-okayama, Meguro-ku, Tokyo 152-8552, Japan

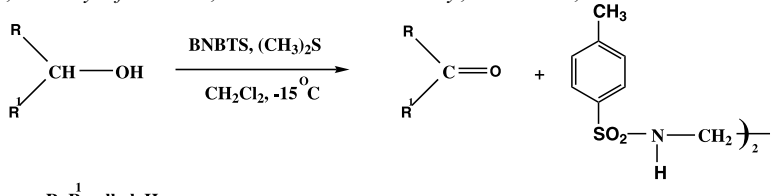


Tetrahedron Letters 44 (2003) 7525

The application of *N*,*N*′-dibromo-*N*,*N*′-1,2-ethanediylbis-(*p*-toluenesulphonamide) as a powerful reagent for the oxidation of primary and secondary alcohols to aldehydes and ketones

Ramin Ghorbani-Vaghei* and Ardeshir Khazaei

Department of Chemistry, Faculty of Science, Bu-Ali Sina University, Hamadan, Iran

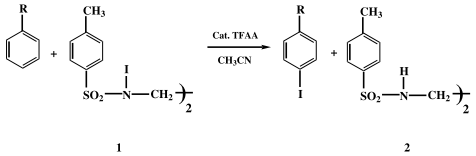


Tetrahedron Letters 44 (2003) 7529

Mild and regioselective iodination of aromatic compounds with *N*,*N*′-diiodo-*N*,*N*′-1,2-ethanediylbis(*p*-toluenesulphonamide)

Ramin Ghorbani-Vaghei*

Department of Chemistry, Faculty of Science, Bu-Ali Sina University, Hamadan, Iran



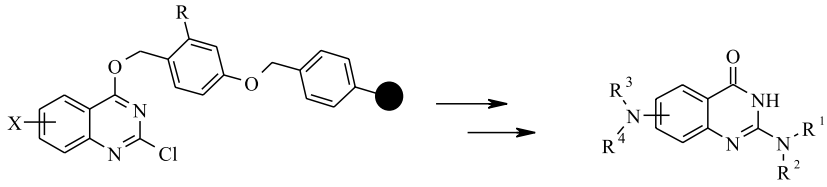
Solid-phase synthesis of 2,6- and 2,7-diamino-4(3*H*)-quinazolinones via palladium-catalyzed amination

Tetrahedron Letters 44 (2003) 7533

Csaba Wéber,* Ádám Demeter, Györgyi I. Szendrei and István Greiner

Chemical and Biotechnological Research and Development, Gedeon Richter Ltd, PO Box 27, H-1475 Budapest, Hungary

X = Cl, Br; R = H, MeO; NR^1R^2 and NR^3R^4 = primary or secondary amines.

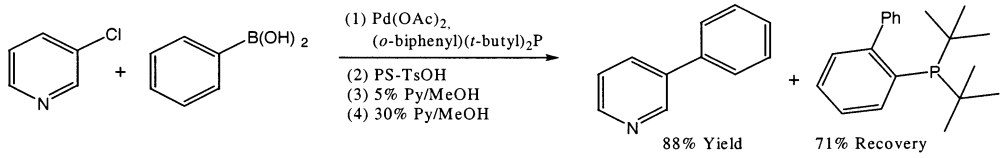


Selective catch and release of a synthetically useful phosphine ligand

Tetrahedron Letters 44 (2003) 7537

Jennifer L. Marugg, Martin L. Neitzel* and John Tucker*

Elan Pharmaceuticals, South San Francisco, CA 94080, USA

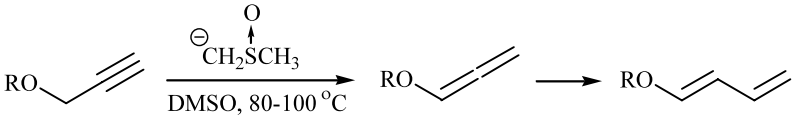


Formation of (*E*) 1-alkoxy-1,3-butadienes from corresponding propargyl ethers; vicarious nucleophilic substitution in alkoxyallenes

Tetrahedron Letters 44 (2003) 7541

Robert Łysek, Ewa Woźny, Tong Thanh Danh and Marek Chmielewski*

Institute of Organic Chemistry Polish Academy of Sciences, Kasprzaka 44/52, 01-224 Warsaw, Poland

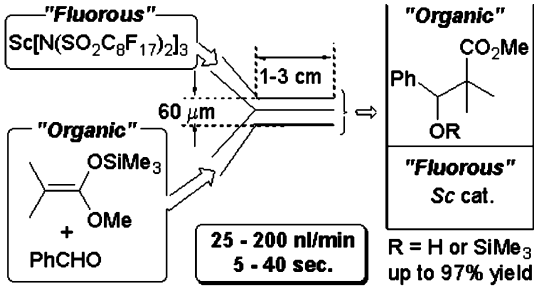


Dramatic increase in the rate of the Mukaiyama aldol reaction by 'fluorous nano flow' system in the lowest concentration of a fluorous catalyst

Tetrahedron Letters 44 (2003) 7545

Koichi Mikami,[a,*] Masahiro Yamanaka,[a] Md. Nazrul Islam,[a] Kenichi Kudo,[b] Nobuko Seino[c] and Masaki Shinoda[c]

[a]*Department of Applied Chemistry, Graduate School of Science and Engineering, Tokyo Institute of Technology, 2-12-1 O-okayama, Meguro-ku, Tokyo 152-8552, Japan*
[b]*KYA Technologies Corporation, 16-4 Kawa-machi, Hachioji-city, Tokyo 191-0154, Japan*
[c]*Fuji Electric Co. Ltd, 1 Fuji-machi, Hino-city, Tokyo 191-8502, Japan*

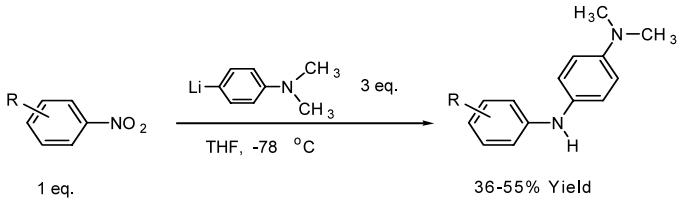


Tetrahedron Letters 44 (2003) 7549

Preparation of diarylamines by the addition of 4-(*N*,*N*-dimethylamino)phenyllithium to nitroarenes

Tianle Yang and Bongsup P. Cho*

Department of Biomedical Sciences, College of Pharmacy, University of Rhode Island, Kingston, RI 02881, USA



Tetrahedron Letters 44 (2003) 7553

Efficient preparation of (*Z*)-alkenyl derivatives from (*Z*)-vinyl (*N*,*N*-diisopropyl)carbamate via Ni-catalysed coupling reactions

François-Hugues Porée, Alexandre Clavel, Jean-François Betzer,* Ange Pancrazi and Janick Ardisson

Laboratoire de Synthèse Organique Sélective et Chimie Organométallique, CNRS-UCP-ESCOM, UMR 8123, 13, Bd de l'Hautil, F-95092 Cergy-Pontoise Cedex, France