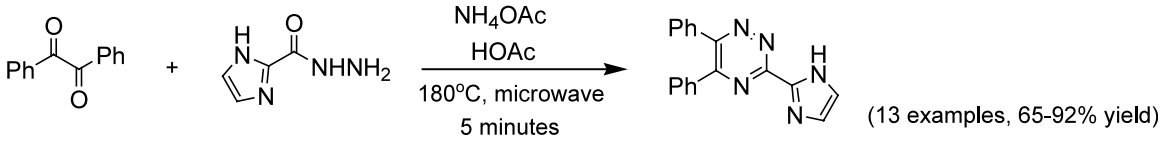
Tetrahedron Letters 44 (2003) 1123

Broadening the scope of 1,2,4-triazine synthesis by the application of microwave technology

Zhijian Zhao,* William H. Leister, Kimberly A. Strauss, David D. Wisnoski and Craig W. Lindsley

Department of Medicinal Chemistry, Technology Enabled Synthesis Group, Merck Research Laboratories, PO Box 4, West Point, PA 19486, USA



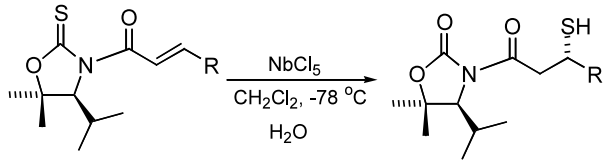
Tetrahedron Letters 44 (2003) 1129

(*S*)-4-Isopropyl-5,5-dimethyl-1,3-oxazolidinethione as chiral auxiliary for the intramolecular sulfur transfer in α,β-unsaturated *N*-acylimides, promoted by $NbCl_5$

Aurelio Ortiz,[a,*] Leticia Quintero,[a] Hector Hernández,[a] Sotero Maldonado,[a] Guadalupe Mendoza[a] and Sylvain Bernès[b]

[a]*Centro de investigación de la Facultad de Ciencias Químicas, Puebla Pue., 72570, Mexico*

[b]*Instituto de Ciencias de la Benemérita Universidad Autónoma de Puebla, Puebla Pue., 72570, Mexico*

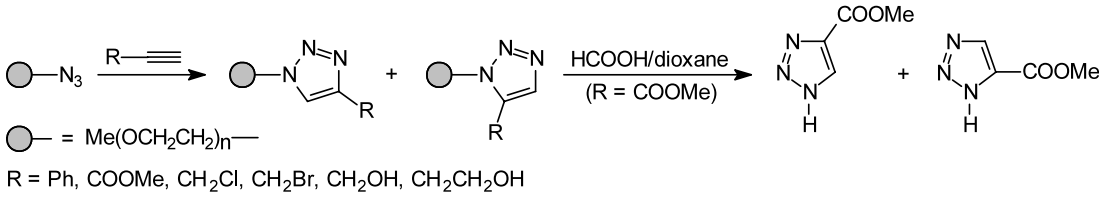


Tetrahedron Letters 44 (2003) 1133

MeOPEG-bounded azide cycloadditions to alkynyl dipolarophiles

Luisa Garanti and Giorgio Molteni*

Università degli Studi di Milano, Dipartimento di Chimica Organica e Industriale, via Golgi 19, 20133 Milano, Italy

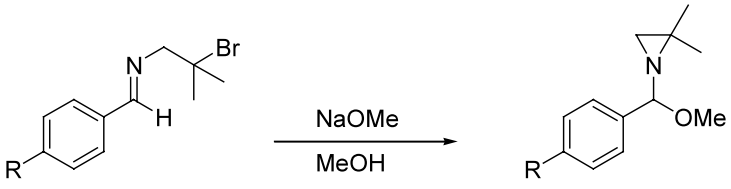


Tetrahedron Letters 44 (2003) 1137

A new route towards *N*-(α-methoxybenzyl)aziridines

Matthias D'hooghe, Arn Hofkens and Norbert De Kimpe*

Department of Organic Chemistry, Faculty of Agricultural and Applied Biological Sciences, Ghent University, Coupure Links 653, B-9000 Ghent, Belgium



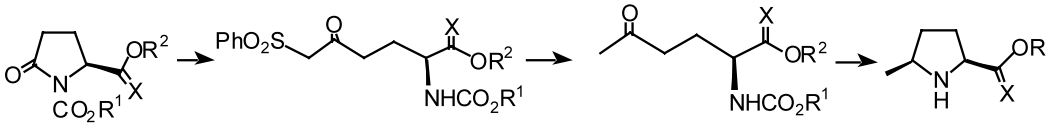
Tetrahedron Letters 44 (2003) 1141

Ring-opening of *N*-alkoxycarbonyl γ-lactams with lithium methylphenylsulphone: application to the synthesis of *cis* 2,5-disubstituted pyrrolidines

Antonio J. Mota and Nicole Langlois*

Institut de Chimie des Substances Naturelles, CNRS, 91198 Gif-sur-Yvette, France

The ring opening of *N*-alkoxycarbonyl γ-lactams with lithium methylphenylsulphone was studied and applied to the synthesis of enantiopure *cis* 2,5-disubstituted pyrrolidines.



Tetrahedron Letters 44 (2003) 1145

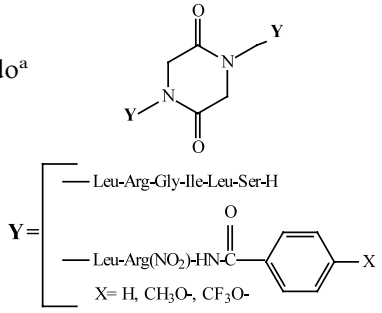
A convenient strategy of dimerization by microwave heating and using 2,5-diketopiperazine as scaffold

Vincenzo Santagada,[a,*] Ferdinando Fiorino,[a] Elisa Perissutti,[a] Beatrice Severino,[a] Sara Terracciano,[a] Giuseppe Cirino[b] and Giuseppe Caliendo[a]

[a]*Dipartimento di Chimica Farmaceutica e Tossicologica, Università di Napoli 'Federico II', Via D. Montesano, 49, 80131 Naples, Italy*

[b]*Dipartimento di Farmacologia Sperimentale, Università di Napoli 'Federico II', Via D. Montesano, 49, 80131 Naples, Italy*

A novel and convenient microwave-assisted dimerization of an active peptide compound using the DKPs as scaffold is described. Conventional and microwave heating of the reactions are compared. Synthesis by microwave irradiation gave the desired compound in higher yields and in shorter reaction times than those obtained by conventional heating.



Tetrahedron Letters 44 (2003) 1149

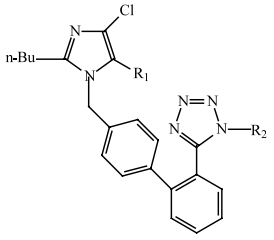
A convenient synthesis by microwave irradiation of an active metabolite (EXP-3174) of losartan

Vincenzo Santagada,[a,*] Ferdinando Fiorino,[a] Elisa Perissutti,[a] Beatrice Severino,[a] Sara Terracciano,[a] Cleber Evandro Teixeira[b] and Giuseppe Caliendo[a]

[a]*Dipartimento di Chimica Farmaceutica e Tossicologica, Università di Napoli «Federico II» Via D. Montesano, 49, 80131 Naples, Italy*

[b]*Department of Pharmacology UNICAMP, Campinas, SP, Brazil*

A novel and convenient microwave-assisted synthesis of an active metabolite (EXP-3174) of losartan is described. Room temperature and microwave irradiation of the reactions are compared. Synthesis by microwave irradiation gave the desired compound in higher yields and in shorter reaction times than those obtained by conventional heating.



	R_1	R_2	IC_{50} (μ M)
DuP 753	CH_2OH	K	0.019
	CHO	H	0.02
EXP 3174	COOH	H	0.001

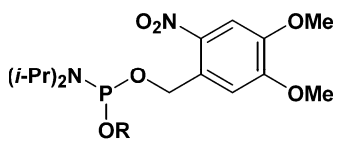
Tetrahedron Letters 44 (2003) 1153

Versatile reagents to introduce caged phosphates

Carlo Dinkel, Oliver Wichmann and Carsten Schultz*

European Molecular Biology Laboratory, Meyerhofstraße 1, 69126 Heidelberg, Germany

Three novel reagents have been prepared to introduce photoactivatable *o*-nitrobenzyl phosphate esters. The use of fluorenylmethyl and *t*-butyl protecting groups allowed for a wide range of chemical transformations after phosphorylation. In addition, the use of *S*-acetylthioethyl and acyloxymethyl groups resulted in photo- and bioactivatable phosphate triesters of phosphatidic acid.



R = *t*Bu, Fm, CH_2CH_2SAc

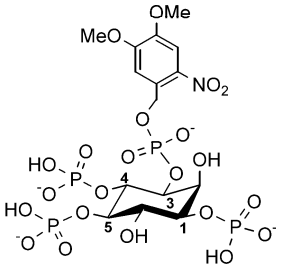
Tetrahedron Letters 44 (2003) 1157

Synthesis of caged *myo*-inositol 1,3,4,5-tetrakisphosphate

Carlo Dinkel and Carsten Schultz*

European Molecular Biology Laboratory, Meyerhofstraße 1, 69126 Heidelberg, Germany

The total synthesis of an enantiomerically pure Ins(1,3,4,5)P_4 derivative equipped with a photosensitive nitroveratryl group at the 3-*O*-phosphate is reported.

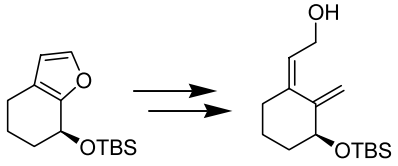


Tetrahedron Letters 44 (2003) 1161

Furan approach to the synthesis of the A-ring of Vitamin D analogues

William H. Miles* and Katelyn B. Connell

Department of Chemistry, Lafayette College, Easton, PA 18042, USA



Tetrahedron Letters 44 (2003) 1165

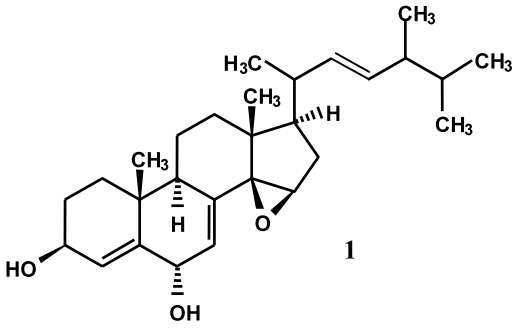
Gymnasterol, a new antitumor steroid against IGF-dependent cells from *Gymnascella dankaliensis*

Yoichi Hayakawa,[a,*] Kazuo Furihata,[b] Kazuo Shin-ya[a] and Toshiya Mori[a]

[a]*Institute of Molecular and Cellular Biosciences, The University of Tokyo, Bunkyo-ku, Tokyo 113-0032, Japan*

[b]*Department of Applied Biological Chemistry, The University of Tokyo, Bunkyo-ku, Tokyo 113-8657, Japan*

A new antitumor substance, gymnasterol (**1**), was isolated from the culture broth of *Gymnascella dankaliensis*. The structure of **1** was determined to be a novel ergostane steroid on the basis of NMR studies. Gymnasterol selectively inhibited IGF-1-dependent growth of MCF-7 human breast cancer cells.



Tetrahedron Letters 44 (2003) 1167

NMR structure elucidation of cyclic sialyl 6-sulfo Lewis x, a biologically dormant form of L-selectin ligand

Toshiyuki Hamada,[a,b] Hiroshi Hirota,[a,b,*] Shigeyuki Yokoyama,[a,c] Masanori Yamaguchi,[d] Nobumasa Otsubo,[d] Hideharu Ishida,[d] Makoto Kiso,[d] Akiko Kanamori[e] and Reiji Kannagi[e]

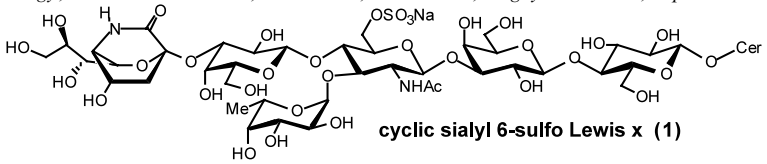
[a]*RIKEN Genomic Sciences Center, 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama 230-0045, Japan*

[b]*Graduate School of Integrated Science, Yokohama City University, 1-7-29 Suehiro-cho, Tsurumi-ku, Yokohama 230-0045, Japan*

[c]*Department of Biophysics and Biochemistry, Graduate School of Science, the University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113-0033, Japan*

[d]*Department of Applied Bioorganic Chemistry, Gifu University, Gifu 501-1193, Japan*

[e]*Department of Molecular Pathology, Aichi Cancer Center, Kanokoden, Chikusa-ku, Nagoya 464-8681, Japan*



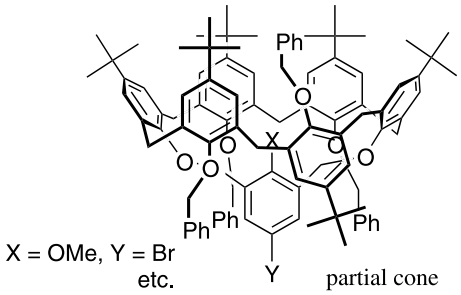
cyclic sialyl 6-sulfo Lewis x (1)

Tetrahedron Letters 44 (2003) 1171

Isolation and structural analysis of novel conformational isomers of the *m*-xylylene-bridged calix[6]arenes: the 'partial cone' and 'inverted cone' isomers

Shigehisa Akine, Kei Goto* and Takayuki Kawashima*

Department of Chemistry, Graduate School of Science, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan



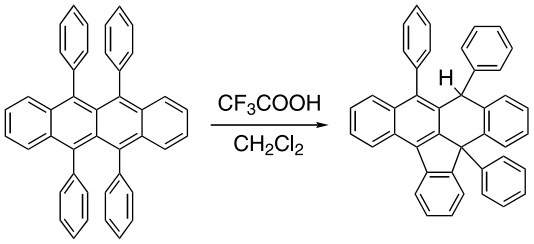
Tetrahedron Letters 44 (2003) 1175

Acid-catalyzed transformation of rubrene to indenonaphthacene and its paired interacting orbitals (PIO) analysis

Takahiro Hosokawa,[a,*] Hiromi Nakano,[a] Kazuto Takami,[a] Kazuya Kobiro[a] and Akinobu Shiga[b]

[a]*Department of Environmental Systems Engineering, Faculty of Engineering, Kochi University of Technology, Tosayamada, Kochi 782-8502, Japan*

[b]*Tsukuba Research Laboratory, Sumitomo Chemical Co. Ltd, Kitahara 6, Tsukuba, Ibaraki 300-3294, Japan*

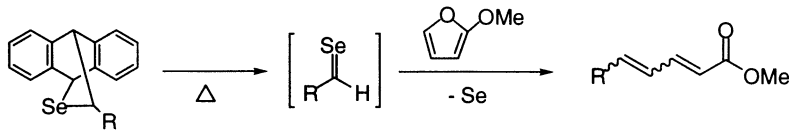


Tetrahedron Letters 44 (2003) 1179

The reaction of selenoaldehydes with 2-methoxyfuran using their generation by retro Diels–Alder reaction

Aojia Zhou, Masahito Segi* and Tadashi Nakajima

Department of Applied Science, Graduate School of Natural Science and Technology, Kanazawa University, 2-40-20 Kodatsuno, Kanazawa 920-8667, Japan

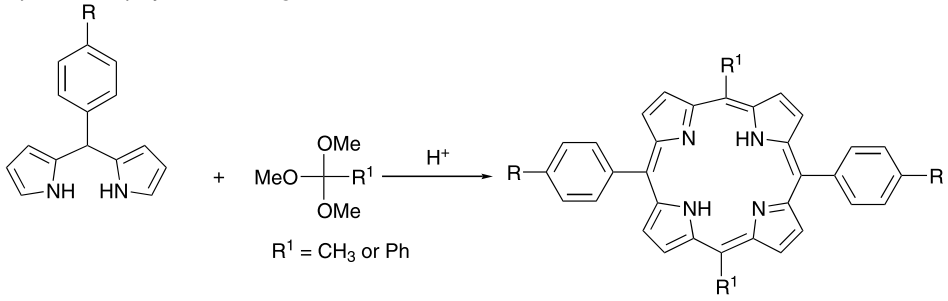


Tetrahedron Letters 44 (2003) 1183

Use of orthoesters in the synthesis of *meso*-substituted porphyrins

Simon Fox, Robert Hudson and Ross W. Boyle*

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



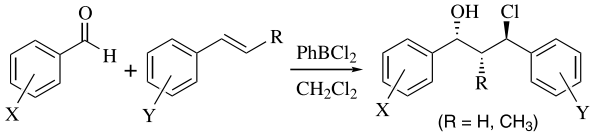
Tetrahedron Letters 44 (2003) 1187

Stereo- and regioselective synthesis of 1,3-diaryl-3-chloro-1-propanols via the reaction of aryl aldehydes with styrene and (*E*)-β-methylstyrene

George W. Kabalka,* Zhongzhi Wu and Yuhong Ju

Departments of Chemistry and Radiology, The University of Tennessee, Knoxville, TN 37996-1600, USA

Reactions of aryl aldehydes with styrene and (*E*)-β-methylstyrene in the presence of phenylboron dichloride regioselectively generate 1,3-diaryl-3-chloro-1-propanols and 1,3-diaryl-3-chloro-2-methyl-1-propanols in good yields with high stereoselectivity.

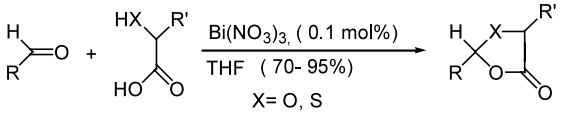


Tetrahedron Letters 44 (2003) 1191

A remarkable bismuth nitrate-catalyzed protection of carbonyl compounds

Neeta Srivastava, Swapan K. Dasgupta and Bimal K. Banik*

The University of Texas, M. D. Anderson Cancer Center, Department of Molecular Pathology, 1515 Holcombe Blvd., Houston, TX 77030, USA



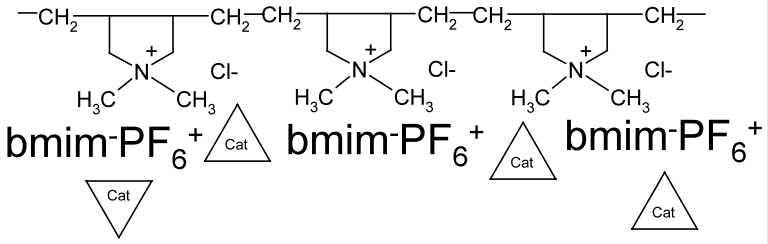
Tetrahedron Letters 44 (2003) 1195

Co-immobilization of transition-metal complexes and ionic liquids in a polymeric support for liquid-phase hydrogenations

Adi Wolfson, Ivo F. J. Vankelecom* and Pierre A. Jacobs

Centre for Surface Chemistry and Catalysis, Faculty of Agricultural and Applied Biological Sciences, Katholieke Universiteit Leuven, Kasteelpark Arenberg 23, 3001 Leuven, Belgium

A new recyclable heterogeneous system that simultaneously incorporates an ionic liquid and a transition-metal catalyst into a polymeric phase via simple mixing of the components, was prepared and tested with re-use in several liquid-phase hydrogenations.

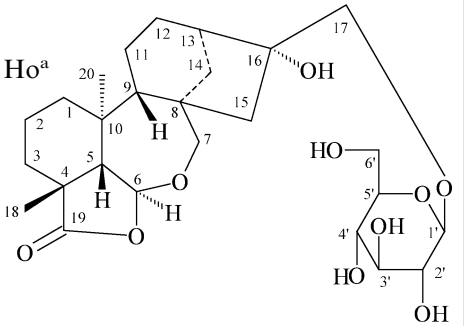


Tetrahedron Letters 44 (2003) 1199

An unusual diterpene glycoside from the nuts of almond (*Prunus amygdalus* Batsch)

Shengmin Sang,[a,*] Guolin Li,[b] Shiying Tian,[c] Karen Lapsley,[d] Ruth E. Stark,[c] Ravindra K. Pandey,[b] Robert T. Rosen[a] and Chi-Tang Ho[a]

[a]*Department of Food Science and Center for Advanced Food Technology, Rutgers University, 65 Dudley Road, New Brunswick, New Jersey, NJ 08901-8520, USA*
[b]*Photodynamic Therapy Center, Roswell Park Cancer Institute, Elm and Carlton streets, Buffalo, NY 14263, USA*
[c]*Department of Chemistry, Graduate Center and College of Staten Island, City University of New York, 2800 Victory Boulevard, Staten Island, NY 10314-6600, USA*
[d]*Almond Board of California, 1150 Ninth Street, Suite 1500, Modesto, CA 95354, USA*



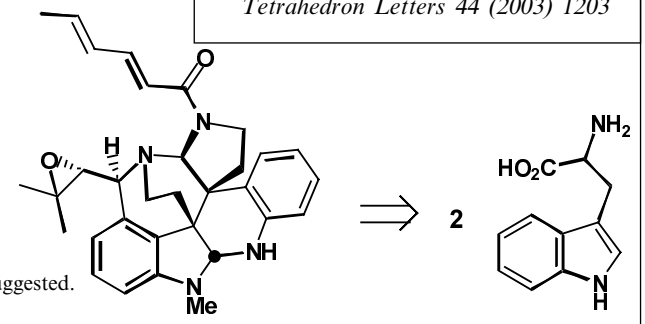
Tetrahedron Letters 44 (2003) 1203

Biomimetic approach to communesin B (a.k.a. nomofungin)

Jeremy A. May, Ryan K. Zeidan and Brian M. Stoltz*

The Arnold and Mabel Beckman Laboratory for Chemical Synthesis Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA 91125, USA

The development of an approach to the alkaloid communesin B based on consideration of a possible biosynthetic pathway is presented. Structure revision for the related natural product nomofungin is also suggested.



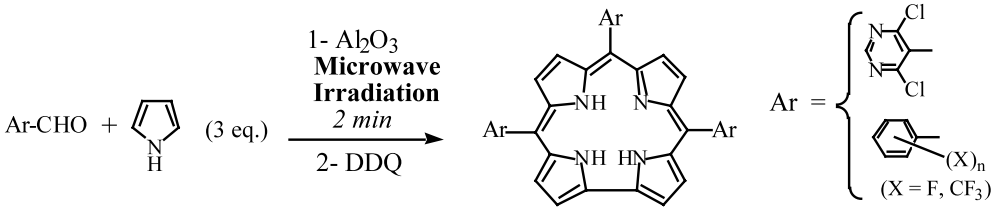
Communesin B (aka Nomofungin)

Tetrahedron Letters 44 (2003) 1207

Microwave-assisted synthesis of corroles

James P. Collman* and Richard A. Decréau

Stanford University, Department of Chemistry, Stanford, CA 94305-5080, USA

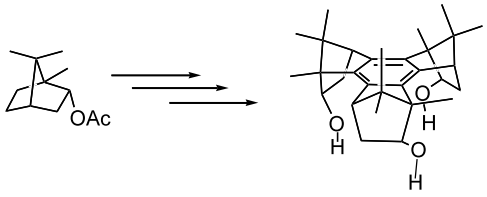


Tetrahedron Letters 44 (2003) 1211

(+)-*syn*-Benzotriborneol: the first functionalised enantiopure C_3-symmetric benzocyclotrimer

Fabrizio Fabris,* Luca Bellotto and Ottorino De Lucchi

Dipartimento di Chimica, Universita' Ca' Foscari di Venezia, Dorsoduro 2137, I-30123 Venezia, Italy



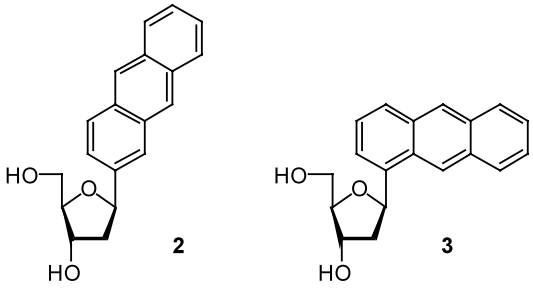
Tetrahedron Letters 44 (2003) 1215

Stereocontrolled synthesis of anthracene β-*C*-ribosides: fluorescent probes for photophysical studies of DNA

Robert S. Coleman* and Mark A. Mortensen

Department of Chemistry, The Ohio State University, 100 West 18th Avenue, Columbus, OH 43210, USA

The regioisomeric anthracene *C*-glycosides **2** and **3** were synthesized by an efficient route that featured a diastereoselective Heck coupling between the corresponding aryl triflate and 2′-deoxyribose glycal. These compounds were designed for use as photophysical probes for the study of ultrafast dynamics of DNA duplexes.

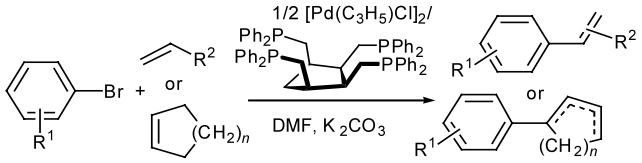


Tetrahedron Letters 44 (2003) 1221

Heck reaction of aryl halides with linear or cyclic alkenes catalysed by a tetraphosphine/palladium catalyst

Florian Berthiol, Henri Doucet* and Maurice Santelli*

Laboratoire de Synthèse Organique associé au CNRS, Faculté des Sciences de Saint Jérôme, Avenue Escadrille Normandie-Niemen, 13397 Marseille Cedex 20, France



R^2 = *alkyl* n = *1, 2, 3, 4 or 8*

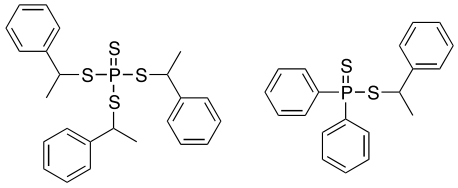
Tetrahedron Letters 44 (2003) 1227

Tetrathiophosphoric acid tri(1-phenylethyl) ester and 1-phenylethyl-diphenylphosphinodithioate as controlled radical polymerization agents

Didier Gigmes,[a] Denis Bertin,[a,*] Sylvain Marque,[a] Olivier Guerret[b] and Paul Tordo[a]

[a]*Laboratoire Structure et Réactivité des Espèces Paramagnétiques case 521, CNRS-UMR 6517 'Chimie, Biologie et Radicaux Libres', Universités d'Aix-Marseille I et III, Centre de Saint-Jérôme, Avenue Escadrille Normandie Niemen, 13397 Marseille Cedex 20, France*

[b]*ATOFINA, Groupement de Recherche de Lacq, BP 34, 64170 Lacq, France*

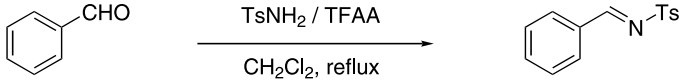


Tetrahedron Letters 44 (2003) 1231

A practical synthesis of *N*-tosylimines of arylaldehydes

Ka Young Lee, Chang Gon Lee and Jae Nyoung Kim*

Department of Chemistry and Institute of Basic Science, Chonnam National University, Kwangju 500-757, South Korea

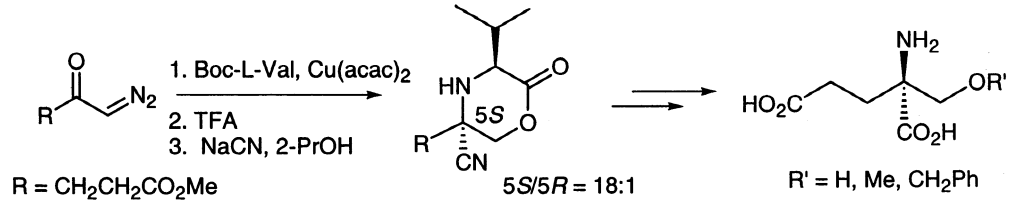


Tetrahedron Letters 44 (2003) 1235

Efficient synthesis of optically active α-substituted glutamate analogs possessing α-hydroxymethyl and α-alkoxymethyl groups

Masanori Kawasaki, Kosuke Namba, Hidekazu Tsujishima, Tetsuro Shinada and Yasufumi Ohfune*

Graduate School of Science, Osaka City University, Sugimoto, Osaka 558-8585, Japan



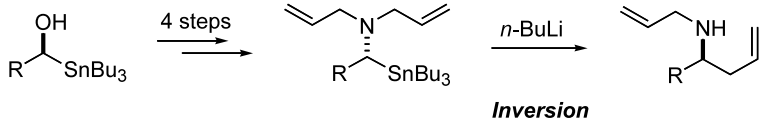
R = $CH_2CH_2CO_2Me$ 5*S*/5*R* = 18:1 R' = H, Me, CH_2Ph

Tetrahedron Letters 44 (2003) 1239

Asymmetric synthesis of enantio-enriched acyclic α-amino alkylstannanes and rearrangement behavior of carbanions thereof

Takahiro Tomoyasu, Katsuhiko Tomooka* and Takeshi Nakai

Department of Applied Chemistry, Graduate School of Science and Engineering, Tokyo Institute of Technology, Meguro-ku, Tokyo 152-8552, Japan



Tetrahedron Letters 44 (2003) 1243

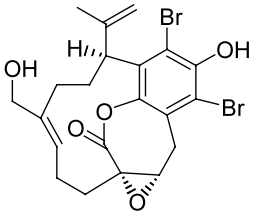
Floresolides, new metacyclophane hydroquinone lactones from an ascidian, *Aplidium* sp.

Hamad H. Issa,[a] Junichi Tanaka,[a] Rachmaniar Rachmat[b] and Tatsuo Higa[a,*]

[a]*Department of Chemistry, Biology, and Marine Science, University of the Ryukyus, Nishihara, Okinawa 903-0213, Japan*

[b]*Research and Development Centre for Oceanology LIPI, Jl. Pasir Tutih I Ancor Timur, Jakarta 11048, Indonesia*

Three new cytotoxic metacyclophane hydroquinone lactones, floresolides A–C, have been isolated from a tunicate, *Aplidium* sp. collected off Flores, Indonesia.

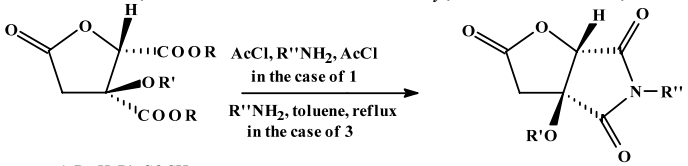


Tetrahedron Letters 44 (2003) 1247

Biologically interesting chiral 3,4-disubstituted pyrrolidines from optically active hydroxycitric acid lactones

Ibrahim Ibnusaud* and Grace Thomas

School of Chemical Sciences, Mahatma Gandhi University, P. D. Hills PO, Kottayam, Kerala 686560, India



1 R= H, R'=$COCH_3$
3 R= CH_3 R'=H

4a R'' = Bn
4b R'' = 4-methoxy Bn
4c R'' = CH_2COOCH_3
4d R'' = 2-(3,4 dimethoxyphenylethyl)

4a' R'' = Bn
4b' R'' = 4-methoxy Bn
4c' R'' = CH_2COOCH_3
4d' R'' = 2-(3,4 dimethoxyphenylethyl)

Tetrahedron Letters 44 (2003) 1251

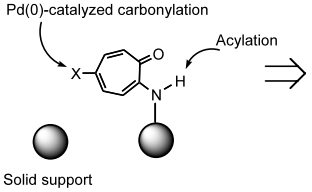
Synthesis of a new troponoid liquid crystalline library on solid support

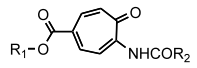
Masashi Hashimoto,[a] Akira Mori,[b,*] Hitoshi Inoue,[c] Hiroyuki Nagamiya,[c] Takayuki Doi[c] and Takashi Takahashi[c]

[a]*Graduate School of Engineering Sciences, Kyushu University, Kasuga-koen, Kasuga, Fukuoka 816-8580, Japan*

[b]*Institute of Advanced Material Study, Kyushu University, Kasuga-koen, Kasuga, Fukuoka 816-8580, Japan*

[c]*Department of Applied Chemistry, Graduate School of Science and Engineering, Tokyo Institute of Technology, Ookayama, Meguro, Tokyo 152-8552, Japan*





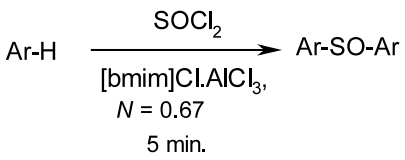
$R_1 = R_2$ = Alkyl
R_1 = Alkyl, R_2 = 4-Substituted phenyl
R_1 = 4-Substituted phenyl, R_2 = Alkyl
$R_1 = R_2$ = 4-Substituted phenyl

Tetrahedron Letters 44 (2003) 1255

An ionic liquid-mediated expeditious route to the syntheses of diaryl sulfoxides

Swapnil S. Mohile, Mahesh K. Potdar and Manikrao M. Salunkhe*

Department of Chemistry, The Institute of Science, 15 Madam Cama Road, Mumbai 400 032, India

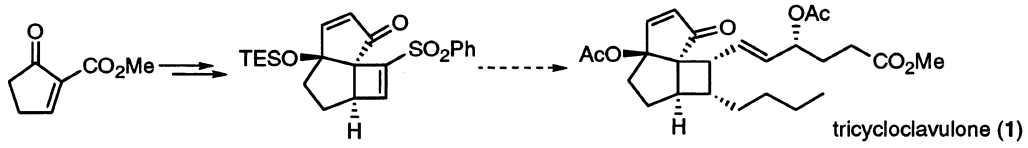


Tetrahedron Letters 44 (2003) 1259

An efficient constructive method for a tricyclic system: an important intermediate for the synthesis of tricycloclavulone

Hisanaka Ito,* Tatsuya Kobayashi, Mineki Hasegawa and Kazuo Iguchi*

School of Life Science, Tokyo University of Pharmacy and Life Science, 1432-1 Horinouchi, Hachioji, Tokyo 192-0392, Japan



Tetrahedron Letters 44 (2003) 1263

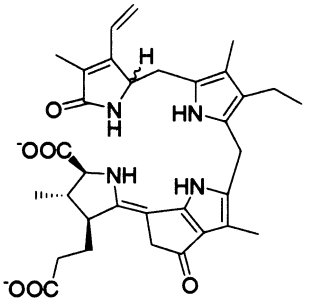
Tracer studies on dinoflagellate luciferin with [^{15}N]-glycine and [^{15}N]-L-glutamic acid in the dinoflagellate *Pyrocystis lunula*

Chun Wu,[a,b,*] Hidetoshi Akimoto[a,b] and Yoshihiro Ohmiya[b]

[a]*PRESTO, JST, Japan*

[b]*Cell Dynamics Research Group, The Special Division for Human Life Technology, National Institute of AIST, Midorigaoka, Ikeda, Osaka 563-8577, Japan*

The bioluminescence of dinoflagellate is a typical luciferin–luciferase reaction. To clarify the biosynthesis of dinoflagellate luciferin, we performed a feeding experiment with [^{15}N]-glycine and [^{15}N]-L-glutamic acid in the dinoflagellate *Pyrocystis lunula*. In a control experiment, we also examined whether or not chlorophyll *a* was incorporated with these labeled compounds. We detected by mass spectrometry the incorporation of [^{15}N]-glycine and [^{15}N]-L-glutamic acid into the four tetrapyrrole rings of the luciferin. In the control experiment, chlorophyll *a* was also incorporated with [^{15}N]-glycine and [^{15}N]-L-glutamic acid. Our results show that either glycine or glutamic acid could be the original component of dinoflagellate luciferin as well as chlorophyll *a* in the dinoflagellate *P. lunula*.



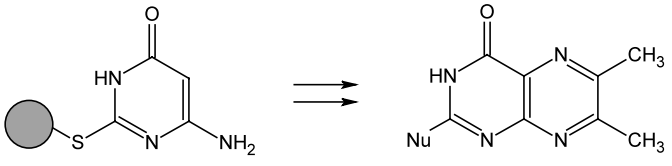
Tetrahedron Letters 44 (2003) 1267

A traceless solid-phase synthesis of pteridines

Colin L. Gibson, Salvatore La Rosa and Colin J. Suckling*

Department of Pure and Applied Chemistry, University of Strathclyde, 295 Cathedral Street, Glasgow G1 1XL, Scotland, UK

Attachment of pyrimidines through 2- or 4-sulfanyl ethers allows the synthesis of a range of pteridines (Nu = OH, NH_2, $HNCH_2CH{=}CH_2$, N-pyrrolidinyl, N_3) via oxidative cleavage.



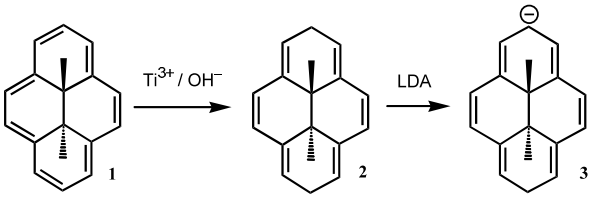
A novel Birch reduction of aromatic compounds using aqueous titanium trichloride: anions of *trans*-10b,10c-dimethyl-2,7,10b,10c-tetrahydropyrene

Tetrahedron Letters 44 (2003) 1271

Jianping Jiang and Yee-Hing Lai*

Department of Chemistry, National University of Singapore, 3 Science Drive 3, Singapore 117543

The Birch reduction of 10b,10c-dimethyl-10b,10c-dihydropyrene **1** and anthracene could be predicted on the basis of their reduction potentials and achieved readily with aqueous titanium trichloride in near quantitative yields. The synthetic availability of the hexaene **2** and thus the anion **3** allows a detailed investigation of its chemistry.

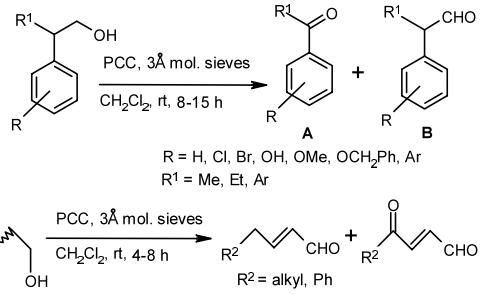


PCC-mediated novel oxidation reactions of homobenzylic and homoallylic alcohols

Tetrahedron Letters 44 (2003) 1275

Rodney A. Fernandes and Pradeep Kumar*

Division of Organic Chemistry: Technology, National Chemical Laboratory, Pune-411008, India



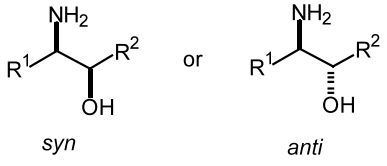
Determination of the relative configuration of *vic*-amino alcohols

Tetrahedron Letters 44 (2003) 1279

Berit Olofsson and Peter Somfai*

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

The relative configuration of *vic*-amino alcohols can easily be determined by ^{1}H NMR. Derivatization or shift reagents are not needed.



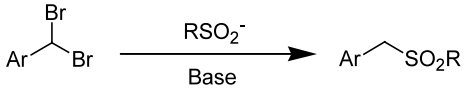
Novel synthesis of sulfones from α,α-dibromomethyl aromatics

Tetrahedron Letters 44 (2003) 1283

Feng Xu,* Kimberly Savary, J. Michael Williams, Edward J. J. Grabowski and Paul J. Reider

Department of Process Research, Merck Research Laboratory, Rahway, NJ 0706, USA

A novel, high yielding preparation of sulfones from α,α-dibromomethyl aromatics through reaction with a sulfinate salt is reported.

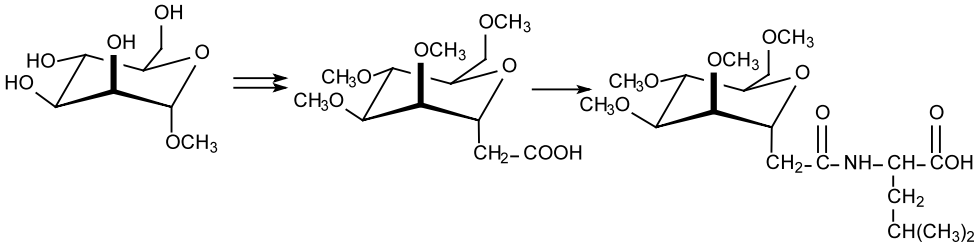


Synthesis of permethylated α-D-mannosylacetic acid, a new type of bioconjugate

Tetrahedron Letters 44 (2003) 1287

Florence M. Brunel, K. Grant Taylor and Arno F. Spatola*

Department of Chemistry and the Institute for Molecular Diversity and Drug Design, University of Louisville, Louisville, KY 40292, USA



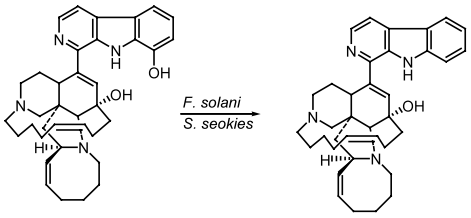
The biocatalytic conversion of 8-hydroxymanzamine A to manzamine A

Tetrahedron Letters 44 (2003) 1291

Noer Kasanah,[a] Karumanchi V. Rao,[a] Muhammad Yousaf,[a] David E. Wedge[b] and Mark T. Hamann[a,*]

[a]*The Department of Pharmacognosy and National Center for Natural Products Research, School of Pharmacy, The University of Mississippi, University, MS 38677, USA*

[b]*USDA-ARS, Natural Product Utilization Research Unit, National Center for Natural Product Research, University, MS 38677, USA*



1 **2**

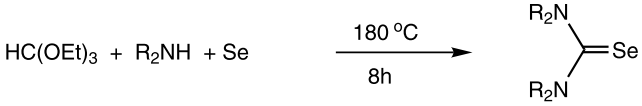
Synthesis and reactivity of subvalent compounds. Part 13: Reaction of triethyl orthoformate with amines and selenium—a convenient one-step three-component synthesis for selenoureas

Tetrahedron Letters 44 (2003) 1295

Yuehui Zhou[b] and Michael K. Denk[a,*]

[a]*Department of Chemistry and Biochemistry, University of Guelph, Guelph, Ontario, Canada N1G 2W1*

[b]*Phosphine Technical Centre, Cytec Canada Inc., Garner Road, Niagara Falls, Ontario, Canada L2E 6T4*



1-7

Solvent-free catalytic preparation of 1,1-diacetates from aldehydes using a Wells–Dawson acid ($H_6P_2W_{18}O_{62}\cdot 24H_2O$)

Tetrahedron Letters 44 (2003) 1301

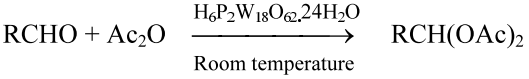
Gustavo P. Romanelli,[a,b] Horacio J. Thomas,[b] Graciela T. Baronetti[c] and Juan C. Autino[a,*]

[a]*Laboratorio de Estudio de Compuestos Orgánicos (LADECOR), Departamento de Química, Facultad de Ciencias Exactas, Universidad Nacional de La Plata. Calles 47 y 115 (1900) La Plata, Argentina*

[b]*Centro de Investigación y Desarrollo en Ciencias Aplicadas, Dr. Jorge J. Ronco (CINDECA), Departamento de Química, Facultad de Ciencias Exactas, Universidad Nacional de La Plata-CONICET. Calle 47 N° 257 (1900) La Plata, Argentina*

[c]*Departamento de Ingeniería Química, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Ciudad Universitaria (1428) Buenos Aires, Argentina*

Aromatic and aliphatic aldehydes were protected (19 examples); yields were 88–98% in 30 min and in solventless conditions.



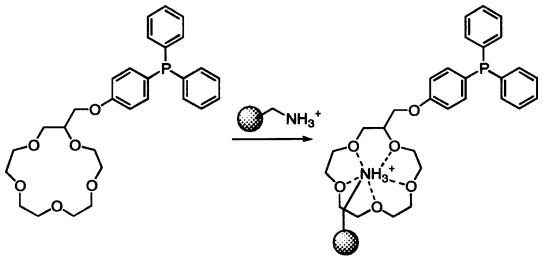
Synthesis and application of crown ether tagged triarylphosphines

Tetrahedron Letters 44 (2003) 1305

Toby Jackson and Anne Routledge*

The Department of Chemistry, University of York, Heslington, York YO10 5DD, UK

The synthesis and application of crown ether tagged triarylphosphines is described.

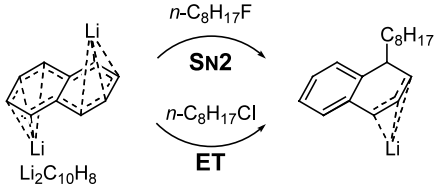


On the dichotomy of the S_N2/ET reaction pathways: an apparent S_N2 reactivity in the reaction of naphthalene dianion with alkyl fluorides

Tetrahedron Letters 44 (2003) 1309

Raquel P. Herrera, Albert Guijarro and Miguel Yus*

Departamento de Química Orgánica, Facultad de Ciencias, Universidad de Alicante, Apartado 99, 03080 Alicante, Spain

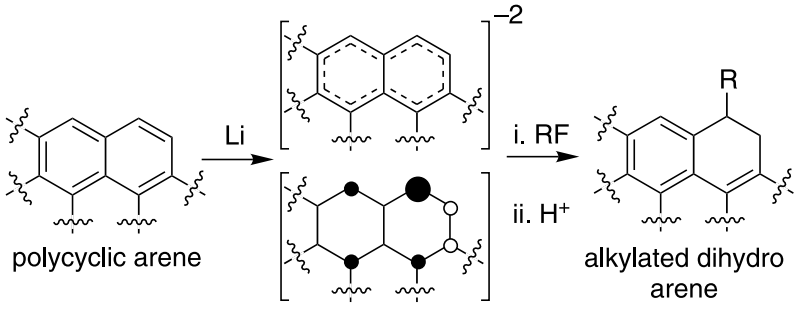


Primary alkyl fluorides as regioselective alkylating reagents of lithium arene dianions. Easy prediction of regioselectivity by MO calculations on the dianion

Tetrahedron Letters 44 (2003) 1313

Raquel P. Herrera, Albert Guijarro and Miguel Yus*

Departamento de Química Orgánica, Universidad de Alicante, Ap. 99, E-03080 Alicante, Spain



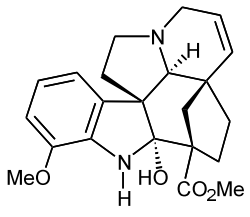
Kopsifolines A, B, and C, indole alkaloids with a novel hexacyclic carbon skeleton from *Kopsia*

Tetrahedron Letters 44 (2003) 1317

Toh-Seok Kam* and Yeun-Mun Choo

Department of Chemistry, University of Malaya, 50603 Kuala Lumpur, Malaysia

Three novel alkaloids, kopsifolines A, B and C, characterized by a novel carbon skeleton were obtained from a *Kopsia* species and the structures established by spectroscopic analysis.



Kopsifoline A