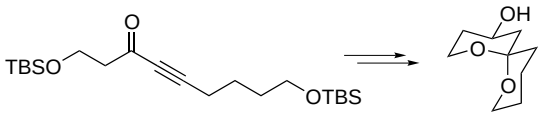
Application of the double intramolecular hetero-Michael addition (DIHMA) approach in spiroketal synthesis: total synthesis of (±)-(4*S**,6*S**)-4-hydroxy-1,7-dioxaspiro[5.5]undecane, a *Dacus oleae* olive fly pheromone

Tetrahedron Letters 43 (2002) 1

Junliang Hao and Craig J. Forsyth*

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



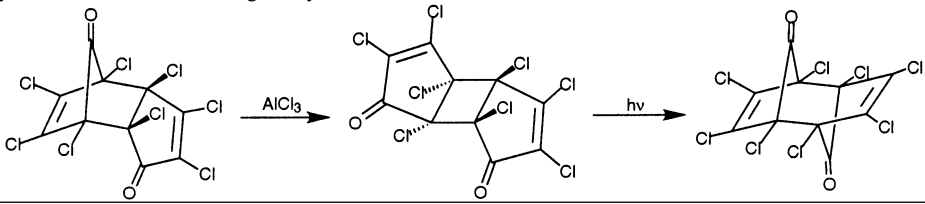
Lewis acid-induced rearrangement of the Diels–Alder dimer of tetrachlorocyclopentadienone: structure reassignments

Tetrahedron Letters 43 (2002) 3

Philip E. Eaton,[a,*] Datong Tang[a] and Richard Gilardi[b]

[a]*Department of Chemistry, University of Chicago, 5735 S Ellis Ave., Chicago, IL 60637, USA*
[b]*Laboratory for the Structure of Matter, Naval Research Laboratory, Washington, DC 20375, USA*

The structures of various perhalodiones available by isomerization of the Diels–Alder dimers of tetrachloro- and tetrabromocyclopentadienone have finally been determined unambiguously.



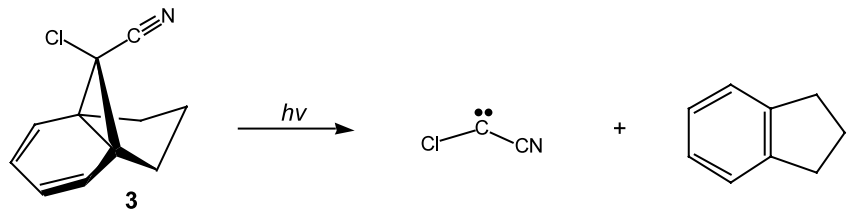
Pyridine trapping of chlorocyanocarbene

Tetrahedron Letters 43 (2002) 7

Ying Sun, Igor Likhotvorik and Matthew S. Platz*

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

Laser flash photolysis of **3** (308 nm) produces chlorocyanocarbene which is trapped by pyridine to form an ylide.



3

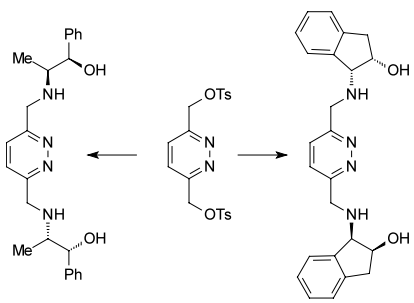
C_2-chiral dinucleating ligands with a 3,6-disubstituted pyridazine core

Tetrahedron Letters 43 (2002) 11

Alexandre Picot and François P. Gabbaï*

Chemistry Department, Texas A&M University, 3255 TAMU, College Station, TX 77843-3255, USA

The synthesis of C_2-chiral dinucleating ligands containing a 3,6-disubstituted pyridazine core flanked by aminoalcohol pendant arms are reported along with their binding properties toward copper(II) cations.



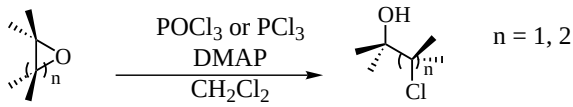
Novel ring-opening of epoxides and oxetanes with $POCl_3$ or PCl_3 in the presence of DMAP

Tetrahedron Letters 43 (2002) 15

Fernando Sartillo-Piscil,[a,*] Leticia Quintero,[a,*] Clarisa Villegas,[a] Ericka Santacruz-Juárez[b] and Cecilia Anaya de Parrodi[b,*]

[a]*Centro de Investigación de la Facultad de Ciencias Químicas, Universidad Autónoma de Puebla, 72570 Puebla, Puebla, Mexico*
[b]*Departamento de Química y Biología, Universidad de las Américas-Puebla, 72820 Santa Catarina Mártir, Puebla, Mexico*

Efficient synthesis of chlorohydrins by cleavage of oxiranes and oxetanes using $POCl_3$ or PCl_3 in the presence of DMAP (4-*N*,*N*-dimethylaminopyridine) has been studied.



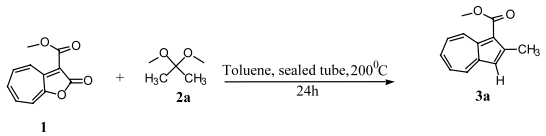
Intermolecular [8+2] cycloaddition reactions of 2*H*-3-methoxycarbonylcyclohepta[*b*]furan-2-one with vinyl ethers: an approach to bicyclo[5.3.0]azulene derivatives

Tetrahedron Letters 43 (2002) 19

Wellington Pham, Ralph Weissleder and Ching-Hsuan Tung*

Center for Molecular Imaging Research, Massachusetts General Hospital, Harvard Medical School. 149 13th Street, Charlestown, MA 02129, USA

[8+2] Cycloaddition reactions of 2*H*-3-methoxycarbonylcyclohepta[*b*]furan-2-one with vinyl ether—an acetal decomposition product—are described. The reactions were found to be temperature and solvent dependent.

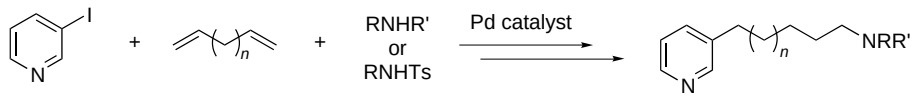


Synthesis of pyridine alkaloids via Pd-catalyzed coupling of 3-iodopyridine, 1,ω-dienes and nitrogen nucleophiles

Tetrahedron Letters 43 (2002) 21

Richard C. Larock* and Yao Wang

Department of Chemistry, Iowa State University, Ames, IA 50011, USA



n	R	R	
9	H	H	Theonelladin C
9	H	Me	Theonelladin D
10	Me	OMe	Xestamine D

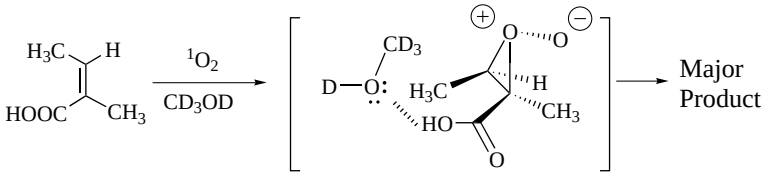
Novel solvent hydrogen-bonding effects in the singlet oxygen ene reaction: a comparison of α,β-unsaturated esters and acids

Tetrahedron Letters 43 (2002) 25

Kristina L. Stensaas,* Jason A. Payne, Alexa N. Ivancic and Anisha Bajaj

Department of Chemistry, Millsaps College, 1701 N. State Street, Jackson, MS 39210, USA

The product distributions of the singlet oxygen ene reactions of α,β-unsaturated acids are affected by a hydrogen-bonding interaction between the acid group and the solvent.



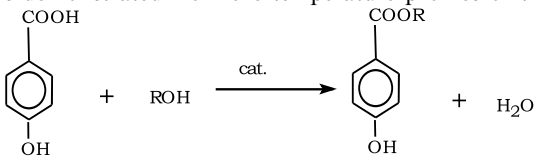
A novel way to prepare *n*-butylparaben under microwave irradiation *Tetrahedron Letters 43 (2002) 45*

Xiangjun Liao,[a] G. S. V. Raghavan[a,*] and V. A. Yaylayan[b]

[a]*Department of Agricultural & Biosystems Engineering, Macdonald Campus of McGill University, 21,111 Lakeshore Road, Ste-Anne-de-Bellevue, Canada QC H9X 3V9*

[b]*Department of Food Science and Agricultural Chemistry, Macdonald Campus of McGill University, 21,111 Lakeshore Road, Ste-Anne-de-Bellevue, Canada QC H9X 3V9*

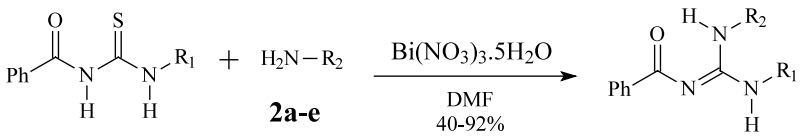
The synthesis of *n*-butylparaben under microwave irradiation using $ZnCl_2$ is reported. The advantage of using microwave irradiation for this reaction is demonstrated from the temperature profiles of this reaction.



Bismuth nitrate pentahydrate: a new and environmentally benign reagent for guanidylation of *N*-benzoylthioureas *Tetrahedron Letters 43 (2002) 49*

Silvio Cunha,* Byanka R. de Lima and Aparecido R. de Souza

Instituto de Química, Universidade Federal de Goiás, CP 131, Goiânia, GO 74001-970, Brazil

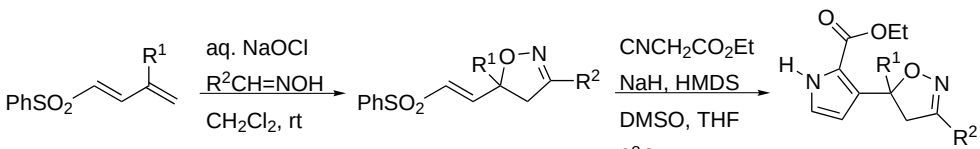


1a-e **2a-e** **3a-e**

1,3-Dipolar cycloaddition of nitrile oxides to 1-phenylsulfonyl-1,3-butadienes: synthesis of 3-(4,5-dihydroisoxazol-5-yl)pyrroles *Tetrahedron Letters 43 (2002) 53*

Sung Hee Hwang and Mark J. Kurth*

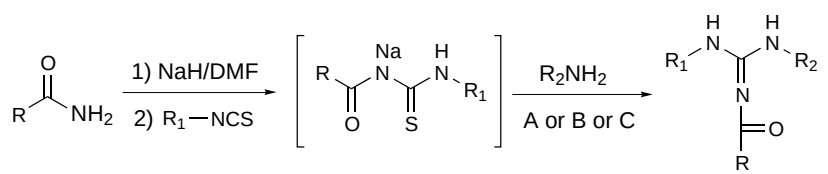
Department of Chemistry, University of California, One Shields Avenue, Davis, CA 95616-5295, USA



One-pot synthesis of *N*,*N*′-disubstituted acylguanidines *Tetrahedron Letters 43 (2002) 57*

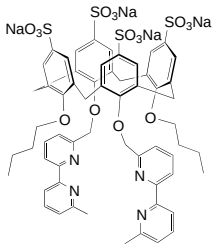
Jing Zhang, Yan Shi,* Phlip Stein, Karnail Atwal and Chi Li

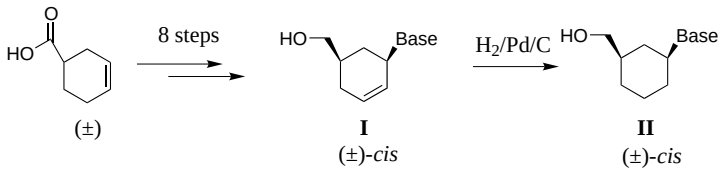
The Bristol-Myers Squibb Pharmaceutical Research Institute, PO Box 4000, Princeton, NJ 08543-4000, USA



A = $HgCl_2$.
B = EDCI, DMAP, Et_3N.
C = 2-Chloro-1-methylpyridium iodide.

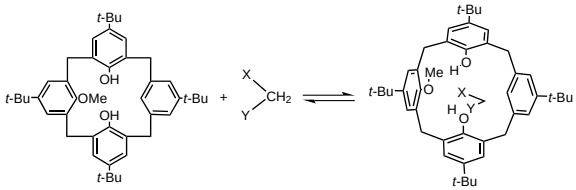
1 **2** **3**

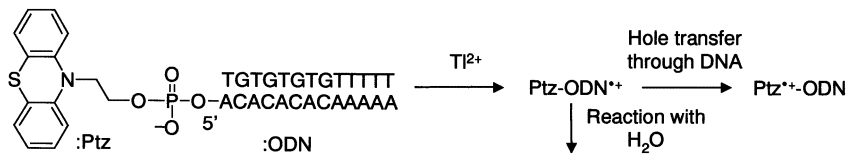




(±) **I** (±)-*cis* **II** (±)-*cis*

Base : cytosin-1-yl (**I**, **II**); thymin-1-yl (**I**, **II**); adenin-9-yl (**I**, **II**); guanin-9-yl (**I** only)





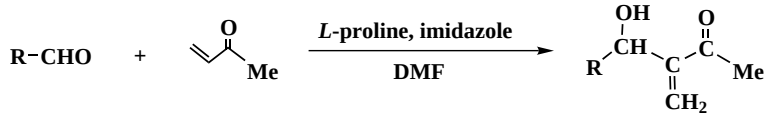
Tetrahedron Letters 43 (2002) 127

Lewis base and L-proline co-catalyzed Baylis–Hillman reaction of arylaldehydes with methyl vinyl ketone

Min Shi,* Jian-Kang Jiang and Chao-Qun Li

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

The Baylis–Hillman reaction can be co-catalyzed by imidazole and L-proline under mild reaction conditions.

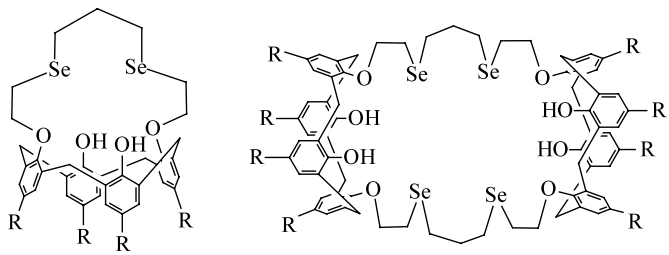


Tetrahedron Letters 43 (2002) 131

The first synthesis of a calix[4](diseleno)crown ether as a sensor for ion-selective electrodes

Xianshun Zeng,[a,*] Xinxin Han,[a] Langxing Chen,[b] Qingshan Li,[a] Fengbo Xu,[a] Xiwen He[b] and Zheng-Zhi Zhang[a,*]

[a]*State Key Laboratory of Elemento-Organic Chemistry, Nankai University, Tianjin 300071, PR China*
[b]*Department of Chemistry, Nankai University, Tianjin 300071, PR China*



R = H; *t*-Bu

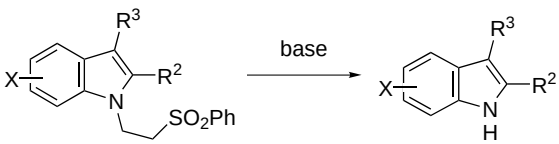
Tetrahedron Letters 43 (2002) 135

A new protecting-group strategy for indoles

Katherine E. Bashford,[a] Anthony L. Cooper,[b] Peter D. Kane[b] and Christopher J. Moody[a,*]

[a]*School of Chemistry, University of Exeter, Stocker Road, Exeter EX4 4QD, UK*
[b]*Tripos Receptor Research Ltd., Bude-Stratton Business Park, Bude, Cornwall EX23 8LY, UK*

The 2-phenylsulfonylethyl group is a useful alkyl protecting group for nitrogen during indole synthesis; it is readily removed from the indole nitrogen under basic conditions.



Tetrahedron Letters 43 (2002) 139

Dirhodium(II) carboxylate-catalysed oxidation of allylic and benzylic alcohols

Christopher J. Moody* and Francine N. Palmer

School of Chemistry, University of Exeter, Stocker Road, Exeter EX4 4QD, UK

Allylic and benzylic alcohols are oxidised to the corresponding carbonyl compounds using *tert*-butyl hydroperoxide and dirhodium(II) tetraacetate as catalyst (1 mol%) in CH_2Cl_2 at room temperature.