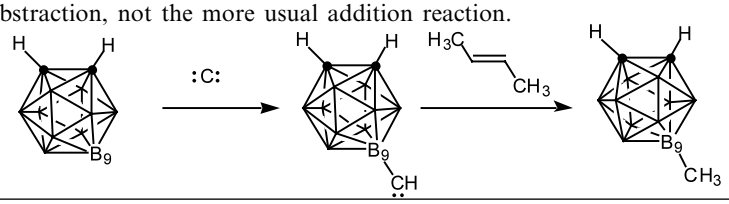
9-Carboranylcarbene by indirection

Tetrahedron Letters 43 (2002) 735

Qing Ye,[a] Ji Li,[a] Maitland Jones, Jr.,[a,*] Haitao Wu,[b]
Michael L. McKee[b] and Philip B. Shevlin[b]
[a]*Department of Chemistry, Princeton University, Princeton, NJ 08544, USA*
[b]*Department of Chemistry, Auburn University, Auburn, AL 36849, USA*

9-Carboranylcarbene is formed by reaction of carbon atoms with *o*-carborane. Reaction of the triplet state with alkenes is through hydrogen abstraction, not the more usual addition reaction.

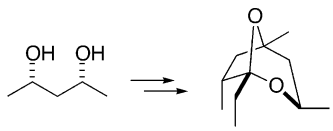


Synthesis of (±)-7-episordidin

Tetrahedron Letters 43 (2002) 737

Duncan J. Wardrop* and Raymond E. Forslund
Department of Chemistry, University of Illinois at Chicago, 845 West Taylor Street, Chicago, IL 60607-7061, USA

The stereoselective synthesis of (±)-7-episordidin, an aggregation pheromone from the male banana weevil, using intramolecular C–H insertion is reported.



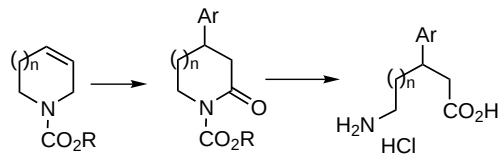
7-episordidin

Heck arylations of *N*-acyl-3-pyrroline and *N*-acyl-1,2,5,6-tetrahydropyridine with aryldiazonium salts. Short syntheses of aryl γ- and δ-lactams, baclofen, homobaclofen and analogues

Tetrahedron Letters 43 (2002) 741

Marcos José S. Carpes and Carlos Roque D. Correia*
Instituto de Química, Universidade Estadual de Campinas, UNICAMP, C.P. 6154, CEP 13083-970, Campinas, São Paulo, Brazil

Arylated γ- and δ-lactams, baclofen and homobaclofen were prepared from the Heck arylation of *N*-acylpyrroline and *N*-acyltetrahydropiperidine using diazonium salts.



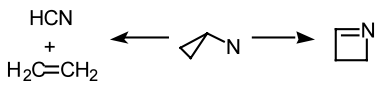
n = 0, 1; R = *t*-Bu, Bn

A computational study of cyclopropylnitrene

Tetrahedron Letters 43 (2002) 745

Meng-Lin Tsao, Christopher M. Hadad* and Matthew S. Platz*
Department of Chemistry, The Ohio State University, 100 W. 18th Avenue, Columbus, OH 43210, USA

Singlet cyclopropylnitrene is predicted to have a closed-shell electronic structure and to fragment with little or no barrier. Singlet cyclopropylnitrene will have a sub-nanosecond lifetime, in solution at ambient temperature.

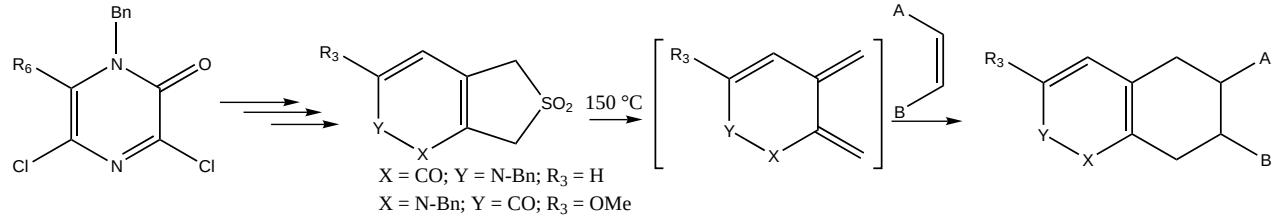


Sulfolene pyridinones as precursors for pyridinone *ortho*-quinodimethanes and their Diels–Alder adducts

Tetrahedron Letters 43 (2002) 799

Tom C. Govaerts, Ilse Vogels, Frans Compernolle and Georges Hoornaert*

Laboratorium voor Organische Synthese, Department of Chemistry K.U. Leuven, Celestijnenlaan 200F, B-3001 Leuven, Belgium



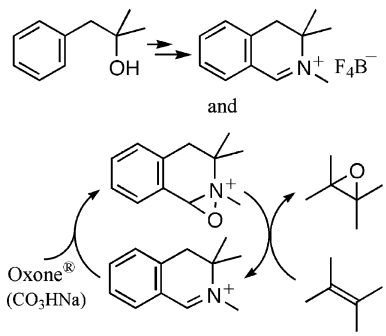
Catalytic oxaziridinium-mediated epoxidation of olefins by Oxone®. A convenient catalyst excluding common side reactions

Tetrahedron Letters 43 (2002) 803

Luis Bohé* and Majed Kammoun

Institut de Chimie des Substances Naturelles, CNRS, Avenue de la Terrasse, 91198 Gif sur Yvette, France

The easily prepared and handled 3,3-dimethyl-3,4-dihydroisoquinolinium fluoroborate is an efficient catalyst for the oxaziridinium-mediated epoxidation of olefins by Oxone®.

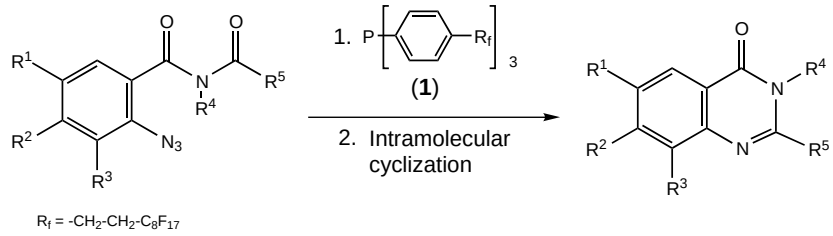


Parallel fluorous biphasic synthesis of 3*H*-quinazolin-4-ones by an Aza-Wittig reaction employing perfluoroalkyl-tagged triphenylphosphine

Tetrahedron Letters 43 (2002) 807

Sophie Barthélémy, Siegfried Schneider and Willi Bannwarth*

Institut für Organische Chemie und Biochemie, Universität Freiburg, Albertstraße 21, D-79104 Freiburg, Germany



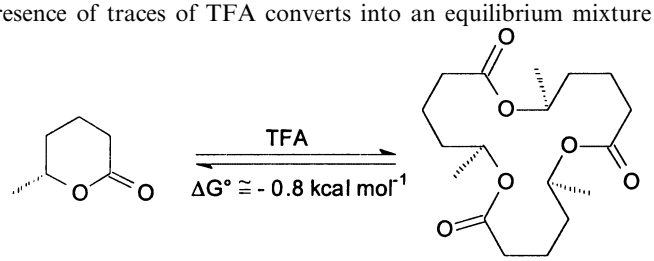
TFA-catalyzed trimerization of *R*-(+)-6-methyl-tetrahydro-pyran-2-one

Tetrahedron Letters 43 (2002) 811

Fabio Fazio and Manfred P. Schneider*

FB 9-Bergische Universität-GH-Wuppertal, D-42097 Wuppertal, Germany

The title compound in the presence of traces of TFA converts into an equilibrium mixture with its trimer corresponding to a $\Delta G \cong -0.8$ kcal mol^{-1}.

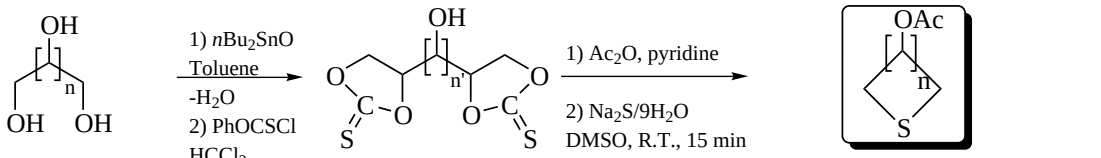


Tetrahedron Letters 43 (2002) 815

New synthesis of alditol thiaheterocycles via ring closure of vicinal bis-cyclic thionocarbonates of alditols

Sami Halila, Mohammed Benazza* and Gilles Demailly

Laboratoire des Glucides, Université de Picardie Jules Verne, 33 rue Saint-Leu F-80039 Amiens, France



n = 2 = Tetritols
n = 3 = Pentitols
n = 4 = Hexitols

n' = 0 (95-97%)
n' = 1 (55-87%)
n' = 2 (69-90%)

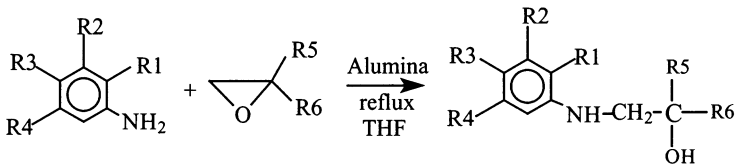
n = 2 Tetrahydrothiofene (50- 63%)
n = 3 Tetrahydrothiopyrane (54-69%)
n = 4 Thiepane (47-68%)

Tetrahedron Letters 43 (2002) 819

Mild cleavage of aliphatic epoxides with substituted anilines on alumina

Y. Harrak and M. D. Pujol*

Laboratori de Química Farmacèutica, Facultad de Farmàcia, Universitat de Barcelona 643, 08028-Barcelona, Spain

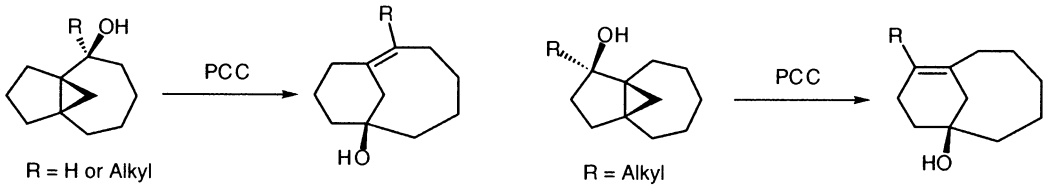


Tetrahedron Letters 43 (2002) 823

Selective cyclopropylcarbinyl rearrangement of tricyclo[5.3.1.0]undecanols induced by pyridinium chlorochromate

Janine Cossy,[a,*] Samir BouzBouz,[a] Mohamed Laghgar[b] and Badia Tabyaoui[b]

[a]*Laboratoire de Chimie Organique associé au CNRS, ESPCI, 10 rue Vauquelin 75231 Paris Cedex 05, France*
[b]*Laboratoire de Chimie Organique, Université Chouaib Doukkali, Faculté des Sciences, 2500 El Jadida, Morocco*

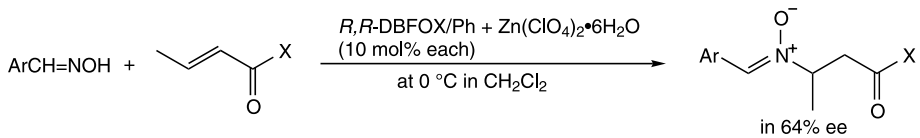


Tetrahedron Letters 43 (2002) 829

Enantioselective conjugate additions of aldoximes to 3-crotonoyl-2-oxazolidinone and 1-crotonoyl-3-phenyl-2-imidazolidinone catalyzed by the aqua complex between *R,R*-DBFOX/Ph and zinc(II) perchlorate

Kimitaka Nakama,[a] Sumito Seki[a] and Shuji Kanemasa[b,*]

[a]*Department of Molecular and Material Sciences, Graduate School of Engineering Sciences, Kyushu University, 6-1 Kasugakoen, Kasuga 816-8580, Japan*
[b]*Institute of Advanced Material Study, CREST of JST (Japan Science and Technology), Kyushu University, 6-1 Kasugakoen, Kasuga 816-8580, Japan*

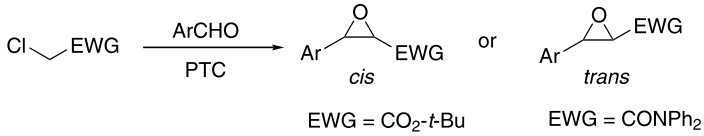


Tetrahedron Letters 43 (2002) 833

Diastereoselective Darzens reactions of α-chloroesters, amides and nitriles with aromatic aldehydes under phase-transfer catalyzed conditions

Shigeru Arai,* Yukari Suzuki, Kazuyuki Tokumaru and Takayuki Shioiri*

Graduate School of Pharmaceutical Sciences, Nagoya City University, Tanabe-dori, Mizuho-ku, Nagoya 467-8603, Japan



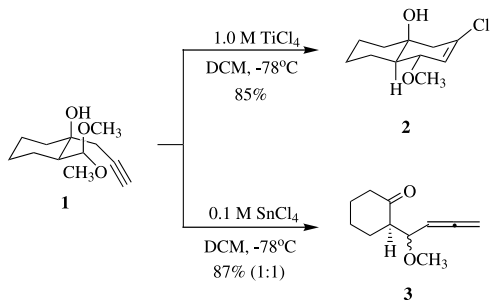
Tetrahedron Letters 43 (2002) 837

Intramolecular $TiCl_4$-mediated cyclization reaction of β-hydroxy alkynyl acetals

Yong-Hyun Kim,[a] Kee-Young Lee,[a] Chang-Young Oh,[a] Jae-Gwon Yang[b] and Won-Hun Ham[a,*]

[a]*College of Pharmacy, SungKyunKwan University, Suwon 440-746, Republic of Korea*
[b]*Kolon Central Research Park 207-2, Mabuk-ri, Guseong-eup, Yong-in, Republic of Korea*

Intramolecular $TiCl_4$-mediated cyclization reaction of 1,1-dimethoxy-3-hydroxy-hex-5-yne derivatives produced *anti*-1-hydroxy-3-methoxy-cyclohex-5-ene derivatives with high diastereoselectivity via antiperiplanar manner on pseudo six-membered chair like conformation.

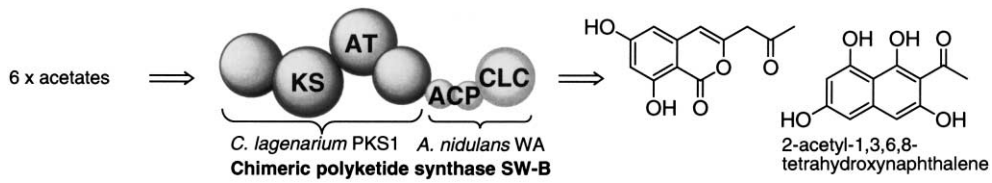


Tetrahedron Letters 43 (2002) 843

A novel hexaketide naphthalene synthesized by a chimeric polyketide synthase composed of fungal pentaketide and heptaketide synthases

Akira Watanabe and Yutaka Ebizuka*

Graduate School of Pharmaceutical Sciences, The University of Tokyo, Bunkyo-ku, Tokyo 113-0033, Japan

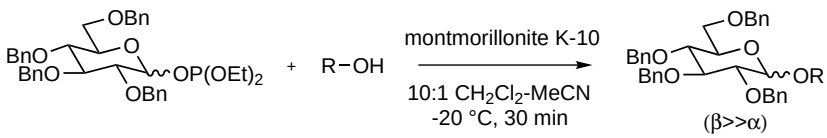


Tetrahedron Letters 43 (2002) 847

Environmentally benign and stereoselective formation of β-*O*-glycosidic linkages using benzyl-protected glucopyranosyl phosphite and montmorillonite K-10

Hideyuki Nagai, Shuichi Matsumura and Kazunobu Toshima*

Department of Applied Chemistry, Faculty of Science and Technology, Keio University, 3-14-1 Hiyoshi, Kohoku-ku, Yokohama 223-8522, Japan



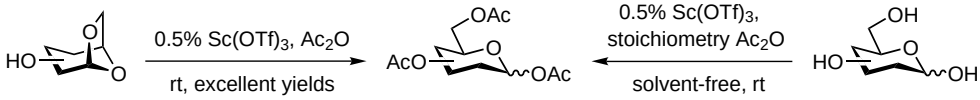
$Sc(OTf)_3$-catalyzed acetolysis of 1,6-anhydro-β-hexopyranoses and solvent-free per-acetylation of hexoses

Tetrahedron Letters 43 (2002) 851

Jinq-Chyi Lee,[b] Cheng-An Tai[c] and Shang-Cheng Hung[a,*]

[a]*Institute of Chemistry, Academia Sinica, Taipei 115, Taiwan*
[b]*Department of Chemistry, National Tsing Hua University, Hsinchu 300, Taiwan*
[c]*Department of Chemistry, National Chung Cheng University, Chiayi 621, Taiwan*

Acetolysis of 1,6-anhydro-β-hexopyranoses and solvent-free per-acetylation of hexoses in excellent yields employing 0.5 mol% scandium(III) trifluoromethanesulfonate as an extremely efficient catalyst are, respectively, described here.



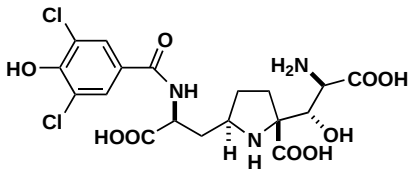
Synthesis of the proposed structure and revision of stereochemistry of kaitocephalin

Tetrahedron Letters 43 (2002) 857

Masayuki Okue,[a] Hiroyuki Kobayashi,[a] Kazuo Shin-ya,[b] Kazuo Furihata,[a] Yoichi Hayakawa,[b] Haruo Seto,[b] Hidenori Watanabe[a,*] and Takeshi Kitahara[a,*]

[a]*Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Yayoi, Bunkyo-ku, Tokyo 113-8657, Japan*
[b]*Institute of Molecular and Cellular Biosciences, The University of Tokyo, Yayoi, Bunkyo-ku, Tokyo 113-0032, Japan*

A stereoselective synthesis of the proposed structure of kaitocephalin was accomplished, but its NMR data were not identical with those of the natural product. The correct stereochemistry of kaitocephalin (**16**) was inferred from further experiments employing diastereomers and model compounds.



Revised Structure of Kaitocephalin (**16**)

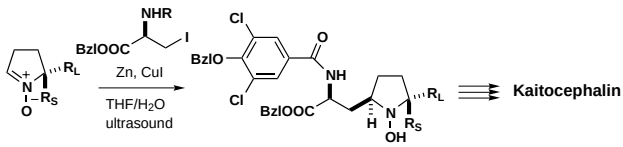
The first synthesis of kaitocephalin based on the structure revision

Tetrahedron Letters 43 (2002) 861

Hidenori Watanabe,* Masayuki Okue, Hiroyuki Kobayashi and Takeshi Kitahara*

Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, 1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-8657, Japan

A total synthesis of kaitocephalin, a glutamate receptor antagonist, was accomplished employing a novel stereoselective C–C bond forming reaction of a nitrone and a halide with zinc and sonication in aqueous solvent as a key step. The absolute configuration of kaitocephalin was confirmed to be 2*R*,3*S*,4*R*,7*R*,9*S*.

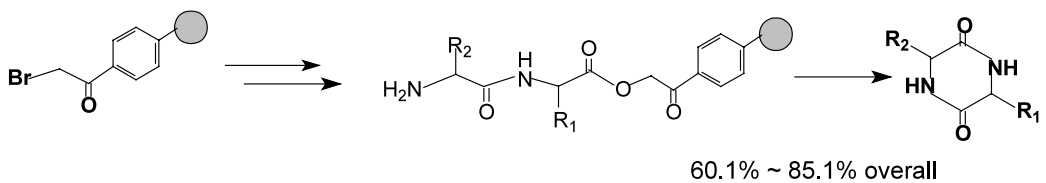


A facile pathway to synthesize diketopiperazine derivatives

Tetrahedron Letters 43 (2002) 865

De-Xin Wang,* Ming-Tao Liang, Gui-Jie Tian, Hao Lin and Hong-Qiang Liu

Institute of Materia Medica, Chinese Academy of Medical Sciences, Beijing 100050, China



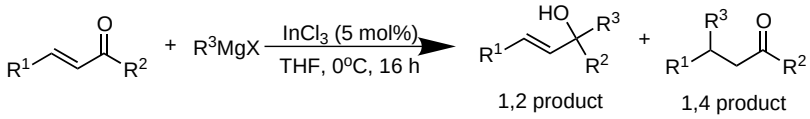
Effect of $InCl_3$ on the addition of Grignard reagents to α,β-unsaturated carbonyl compounds

Tetrahedron Letters 43 (2002) 887

Brian G. Kelly and Declan G. Gilheany*

Chemistry Department and Conway Institute of Biomolecular and Biomedical Sciences, University College Dublin, Belfield, Dublin 4, Ireland

The presence of $InCl_3$ significantly altered the regioselective outcome of the reaction of a number of Grignard reagents with various α,β-unsaturated compounds.



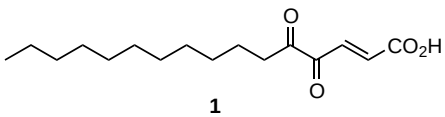
Synthesis of podoscyphic acid

Tetrahedron Letters 43 (2002) 891

Johan Eriksson, Martin Johansson and Olov Sterner*

Department of Organic and Bioorganic Chemistry, Lund University, PO Box 124, SE-221 00 Lund, Sweden

Podoscyphic acid (**1**), an effective and selective inhibitor of reverse transcription, has been synthesised via the ethyl ester, which was hydrolysed enzymatically to the natural product.



1

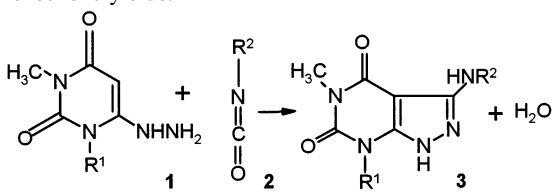
Studies on uracils: a facile one-pot synthesis of pyrazolo[3,4-*d*]-pyrimidines

Tetrahedron Letters 43 (2002) 895

P. J. Bhuyan, H. N. Borah and J. S. Sandhu*

Regional Research Laboratory, Jorhat 785006, Assam, India

The reaction of 6-hydrazino uracils **1** with isocyanates **2** gave access to an efficient one-pot synthesis of pyrazolo[3,4-*d*]pyrimidines **3** in excellent yields.



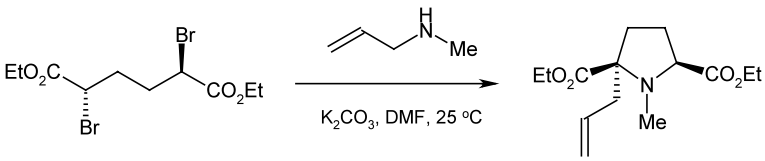
1 **2** **3**

Tandem cyclisation and [2,3]-Stevens rearrangement to 2-substituted pyrrolidines

Tetrahedron Letters 43 (2002) 899

Stephen C. Smith* and Philip D. Bentley

Discovery Chemistry, Syngenta, Jealott's Hill International Research Centre, Bracknell, Berkshire RG42 6ET, UK

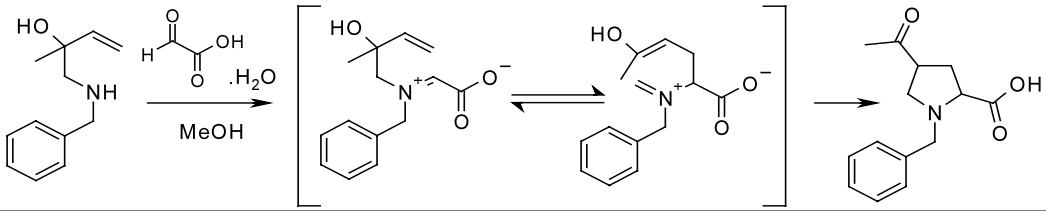


Tetrahedron Letters 43 (2002) 903

A facile synthesis of *N*-benzyl-4-acetylproline via a tandem cationic aza-Cope rearrangement-Mannich reaction

Andrew Cooke,[a,*] Jonathan Bennett[a] and Emma McDaid[b]

[a]*Department of Medicinal Chemistry, Organon Laboratories Ltd., Newhouse, Scotland ML1 5SH, UK*
[b]*Department of Chemistry, University of Edinburgh, West Mains Road, Edinburgh EH9 3JJ, UK*

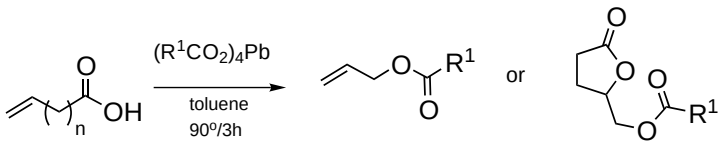


Tetrahedron Letters 43 (2002) 907

Novel alkylation, lactonisation and cascade coupling processes mediated by lead tetracarboxylates: the importance of ligands

Mark G. Moloney,* Ewan Nettleton and Kirsty Smithies

The Department of Chemistry, Dyson Perrins Laboratory, The University of Oxford, South Parks Road, Oxford OX1 3QY, UK



Tetrahedron Letters 43 (2002) 911

A D-glucose selective fluorescent internal charge transfer (ICT) sensor

Susumu Arimori, Laurence I. Bosch, Christopher J. Ward and Tony D. James*

Department of Chemistry, University of Bath, Bath BA2 7AY, UK