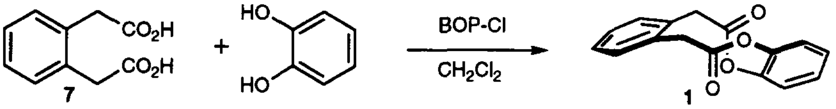
GRAPHICAL ABSTRACTS

Tetrahedron Letters, **1997**, *38*, 1469

SYNTHESIS, STRUCTURE AND AM1 CONFORMATIONAL STUDY OF 1,12-DIOXA-2,11-DIOXO[3.3]ORTHOCYCLOPHANE.

Graham J. Bodwell,* Tom J. Houghton and David Miller, Chemistry Department, Memorial University of Newfoundland,
St. John's, Newfoundland, Canada, A1B 3X7.

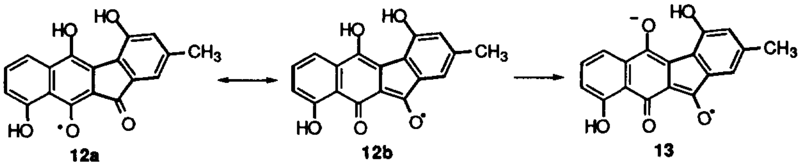
The BOP-Cl mediated esterification of diacid 7 with catechol affords the cyclophane 1, which adopts a previously unknown twisted anticlinal conformation in the solid state.



Tetrahedron Letters, **1997**, *38*, 1473

NMR SILENT, NATURALLY-OCCURRING QUINONES: A CASE OF RADICALS

Steven J. Gould* and Chris R. Melville
Department of Chemistry, Oregon State University, Corvallis, Oregon 97331-4003



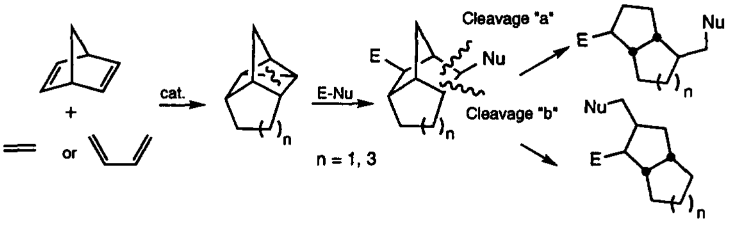
Kinobscurinone exists under ambient conditions in mixed oxidation states that include a radical (perhaps 12a, 12b, or 13), as do a number of other benzo[*b*]fluorene quinones.

Tetrahedron Letters, **1997**, *38*, 1477

OPENING NORBORNADIENE HOMO DIELS-ALDER ADDUCTS TO BICYCLIC SYSTEMS.

Yan Chen and John K. Snyder*, Dept. of Chemistry, Boston University, 590 Commonwealth Ave., Boston, MA 02215

Deltacyclenes and deltacyclanes produced from the [2+2+2] homo Diels-Alder reaction of norbornadiene are opened to the corresponding biquinanes. Similarly, opening the [4+2+2]-adducts yields the bicyclo[5.3.0]decanes.

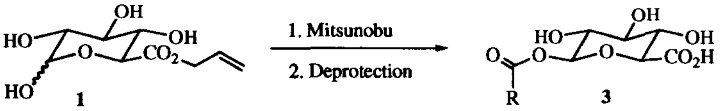


Tetrahedron Letters, **1997**, *38*, 1481

A Convenient Synthesis of β-Acyl Glucuronides

Hélène Juteau,* Yves Gareau and Marc Labelle.
Merck Frosst Centre for Therapeutic Research, P.O. Box 1005, Pointe-Claire, Québec, Canada, H9R 4P8.

β-Acyl glucuronides are readily prepared in two steps from allyl D-glucuronate 1.

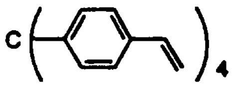


Tetrahedron Letters, **1997**, *38*, 1485

Tetrastyrylmethane

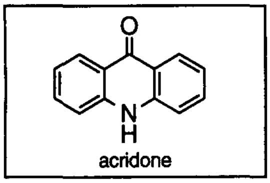
D. Su and F. M. Menger
Department of Chemistry, Emory University, Atlanta, GA 30322 USA

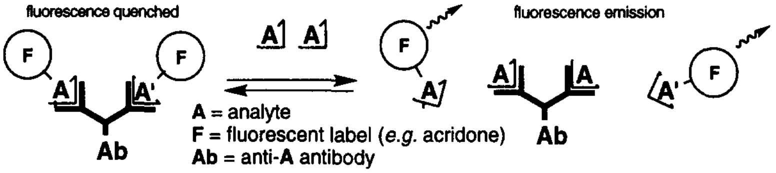
The first synthesis of tetrastyrylmethane is reported.



Tetrahedron Letters, **1997**, *38*, 1489

HIGHLY PHOTORESISTANT CHEMOSENSORS USING ACRIDONE AS FLUORESCENT LABEL Nicolaus Bahr, Emily Tierney and Jean-Louis Reymond* Department of Molecular Biology, The Scripps Research Institute, 10666 North Torrey Pines Road, La Jolla, CA 92037, USA. Highly photoresistant and selective chemosensors have been prepared using acridone as fluorescent label in combination with monclonal antibodies.


acridone



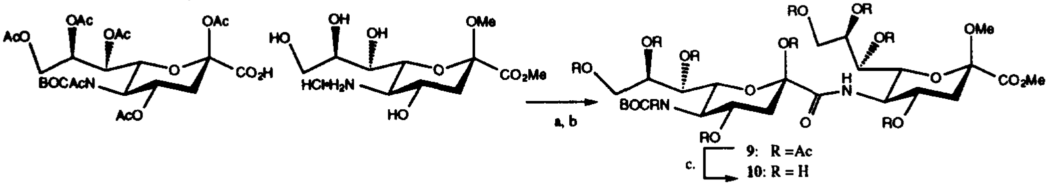
A = analyte
F = fluorescent label (*e.g.* acridone)
Ab = anti-**A** antibody

Tetrahedron Letters, **1997**, *38*, 1493

Solution Phase Synthesis of (1→5)-Amide Linked Sugar Amino Acid Dimers Derived from Sialic Acids

Jacquelyn Gervay,* Terrence M. Flaherty and Can Nguyen, Dept. of Chemistry, The University of Arizona, Tucson, Arizona 85721

These monomers were coupled in solution using BOP activation of the carboxy terminus to form (1→5)-amide linked dimers of sialyl amino acid derivatives.

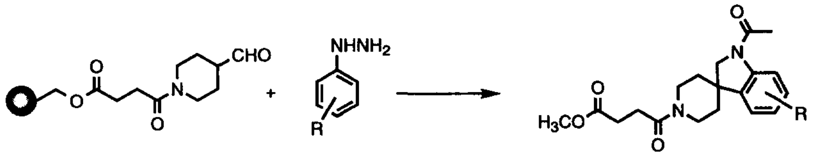


Tetrahedron Letters, **1997**, *38*, 1497

Solid Phase Synthesis of Spiroindoline Yuan Cheng and Kevin. T. Chapman

Automated Synthesis Group, Department of Molecular Design and Diversity,
Merck Research Laboratories, Rahway, NJ 07065

Spiroindoline derivatives were synthesized on solid support in good yields and high purity using the Fischer Indole reaction.

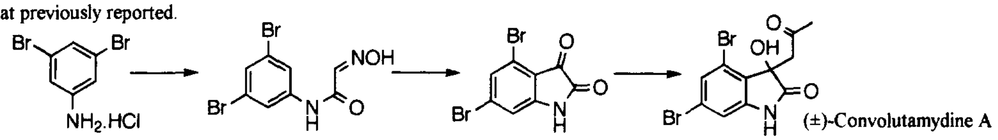


Tetrahedron Letters, **1997**, *38*, 1501

A MODIFIED SANDMEYER METHODOLOGY AND THE SYNTHESIS OF (±)-CONVOLUTAMYDINE A.

Simon J. Garden*, José C. Torres, Alexandre A. Ferreira, Rosangela B. Silva and Angelo C. Pinto. Instituto de Química, Departamento de Química Orgânica, Universidade Federal do Rio de Janeiro, Ilha do Fundão, Rio de Janeiro, CEP 21910-240, Brazil.

The first synthesis of Convolutamydine A was achieved, during which the yield of the key α-isonitrosoacetanilide was improved by >700% of that previously reported.



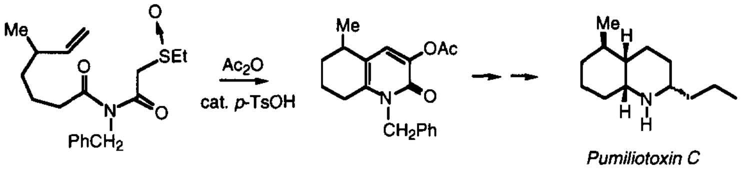
Tetrahedron Letters, **1997**, *38*, 1505

THE TANDEM PUMMERER-ISOMÜNCHNONE ROUTE TO (±)-PUMILIOTOXIN C

Jeffrey T. Kuethe and Albert Padwa*

Department of Chemistry, Emory University, Atlanta, GA 30322 USA

The Pummerer reaction of imidosulfoxides containing tethered π-bonds results in the formation of isomünchnone dipoles which readily undergo dipolar cycloaddition to furnish 5-substituted α-pyridones. An application of the method to (±)-pumiliotoxin C was carried out.

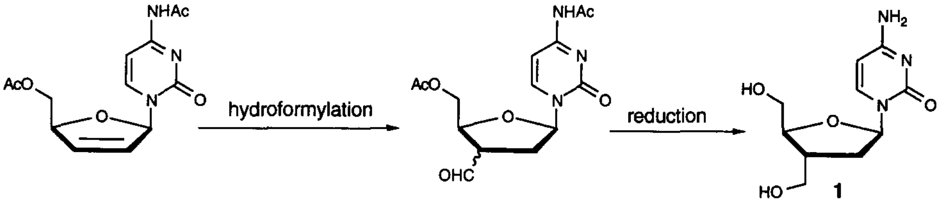


Pumiliotoxin C

Tetrahedron Letters, **1997**, *38*, 1509

Synthesis of 2',3'-Dideoxy-3'-hydroxymethylcytidine (1): A Novel Hydroformylation Route

Stephen W. Kaldor, James E. Fritz, and Jeffrey A. Ward*
Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN 46285

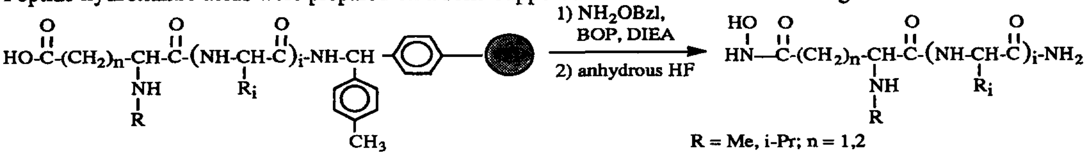


Tetrahedron Letters, **1997**, *38*, 1511

Solid Phase Synthesis of Peptide Hydroxamic Acids

Jack J. Chen and Arno F. Spatola,* Department of Chemistry, University of Louisville, Louisville, KY 40292, USA

Peptide hydroxamic acids were prepared on a solid support and released with HF cleavage.



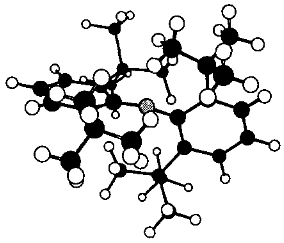
R = Me, i-Pr; n = 1,2

Tetrahedron Letters, **1997**, *38*, 1515

COMPUTATIONAL PREDICTION OF A GROUND-STATE TRIPLET ARYLNITRENIUM ION AND A POSSIBLE GROUND-STATE TRIPLET SILYLENE

Christopher J. Cramer*‡ and Daniel E. Falvey*§—‡ Department of Chemistry and Supercomputer Institute, University of Minnesota, Minneapolis, MN 55455. § Department of Chemistry and Biochemistry, University of Maryland, College Park, MD 20742.

Density functional calculations predict that *bis*-(2,6-di-*t*-butyl)phenyl-nitrenium has a triplet ground state and that the corresponding silylene has essentially degenerate singlet and triplet states. The steric bulk of the aryl ligand strongly destabilizes the singlets in each case relative to the triplets.

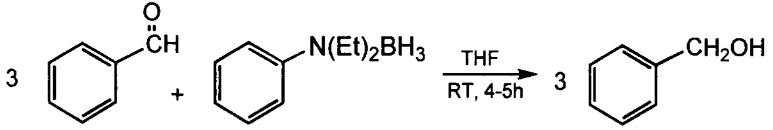


Tetrahedron Letters, **1997**, *38*, 1519

N,N-Diethylaniline·Borane, an Efficient Reducing Agent for Reduction of Representative Functional Groups

Ashok M. Salunkhe and Elizabeth R. Burkhardt* *Callery Chemical Company, 1420 Mars-Evans City Road, Evans City, PA 16033*

N,N-Diethylaniline·borane (DEANB) reduces representative functional groups such as aldehydes, ketones, carboxylic acids, tertiary amides, lactams and Schiff bases in excellent yields, e.g.,

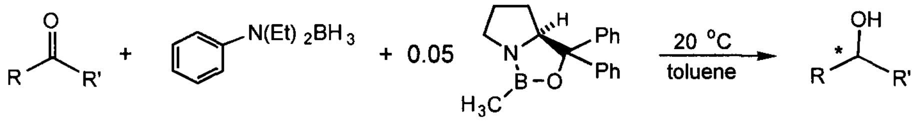


Tetrahedron Letters, **1997**, *38*, 1523

Highly Enantioselective Reduction of Prochiral Ketones with *N,N*-Diethylaniline·borane (DEANB) in Oxazaborolidine-catalyzed Reductions

Ashok M. Salunkhe and Elizabeth R. Burkhardt, Callery Chemical Company, 1420 Mars-Evans City Road, Evans City, PA 16033

The asymmetric reduction of prochiral ketones has been achieved in excellent enantioselectivity using 5 mol% MeCBS catalyst and *N,N*-diethylaniline·borane as the borane source. The enantiomeric excess of the resulting chiral alcohols was in the range of 90 to ≥99% ee.

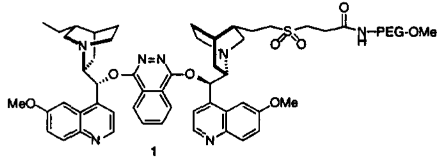


Tetrahedron Letters, **1997**, *38*, 1527

A Soluble Polymer-Bound Approach to the Sharpless Catalytic Asymmetric Dihydroxylation (AD) Reaction: Preparation and Application of a [$(DHQD)_2$PHAL-PEG-OMe] Ligand

Hyunsoo Han and Kim D. Janda,* The Scripps Research Institute, Department of Chemistry and
The Skaggs Institute for Chemical Biology, 10550 North Torrey Pines Road, La Jolla, CA 92037

The synthesis of a MeO-PEG-NH_2 bound $(DHQD)_2$PHAL ligand **1** and its successful use in the AD reaction are described.



1

Olefin $\xrightarrow[\text{NMO or } K_3FeCN_6]{1,\ OsO_4}$ Diol

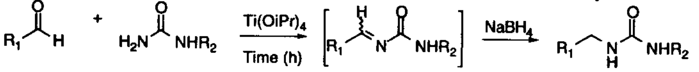
ee's: 72-99 %

A Novel Synthesis of Disubstituted Ureas Using Titanium(IV) Isopropoxide and Sodium Borohydride

Tetrahedron Letters, **1997**, *38*, 1531

Joseph D. Armstrong, III,* Chad N. Wolfe†, Jennifer L. Keller, Joseph Lynch, M. Bhupathy and R.P. Volante
Department of Process Research, Merck Research Laboratories, P.O. Box 2000, Rahway, New Jersey 07065
Robert J. DeVita
Department of Medicinal Chemistry, Merck Research Laboratories, P.O. Box 2000, Rahway, New Jersey 07065

This paper describes a high yield preparation of unsymmetrically disubstituted ureas by a titanium(IV) isopropoxide/sodium borohydride mediated reductive amidation of aromatic aldehydes with monosubstituted ureas.

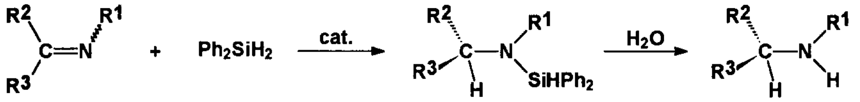


The Hydrosilylation of Ald- and Ketimines Catalyzed by Titanocene Complexes

Tetrahedron Letters, **1997**, *38*, 1533

Annegret Tillack*, Claudia Lefeber, Normen Peulecke, Dominique Thomas and Uwe Rosenthal, Max-Planck-Gesellschaft, Arbeitsgruppe „Komplexkatalyse“ an der Universität Rostock, Buchbinderstr. 5-6, D-18055 Rostock, Germany

Different titanocene complexes **1** - **10** were tested in the catalytic hydrosilylation of ald- and ketimines with Ph_2SiH_2. The highest conversions were obtained with $Cp_2Ti(PhC{\equiv}CSiMe_3)$ **1** up to 98 % at room temperature.



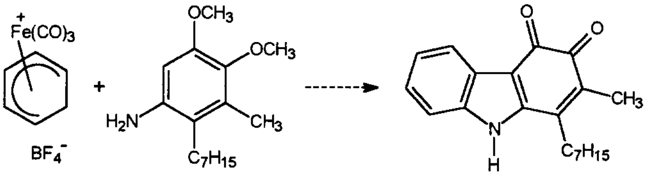
Transition Metal Complexes in Organic Synthesis – Part 37.

Tetrahedron Letters, **1997**, *38*, 1535

Convergent Iron-Mediated Total Synthesis of the Potent Lipid Peroxidation Inhibitor Carbazoquinocin C

*Hans-Joachim Knölker** and *Wolfgang Fröhner*; Institut für Organische Chemie, Universität Karlsruhe, Richard-Willstätter-Allee, 76131 Karlsruhe, Germany

The antioxidative agent carbazoquinocin C has been synthesized by a convergent iron-mediated construction of the carbazole nucleus using a novel one-pot C–C and C–N bond formation of complex **1** and the arylamine **2**, which is carried out in the air.

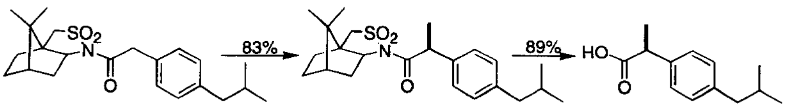


1 **2** **Carbazoquinocin C**

Asymmetric Synthesis of Ibuprofen *via* Diastereoselective Alkylation of a Homochiral *N*-Acylbornanesultam

Tetrahedron Letters, **1997**, *38*, 1539

Wolfgang Oppolzer, Stephane Rosset and Jef De Brabander*, Département de Chimie Organique, Université de Genève, CH-1211 Genève, Switzerland

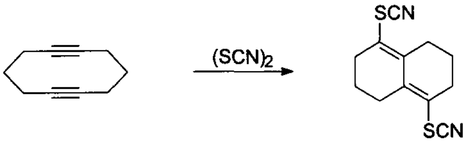


6 **7** (d.e.>95%) **1**

Tetrahedron Letters, **1997**, *38*, 1541

Transannular Additions to 1,6-Cyclodecadiyne

Hagen Weigl and Rolf Gleiter, Organisch-Chemisches
Institut der Universität Heidelberg Im Neuenheimer Feld 270, D-69120 Heidelberg, Germany

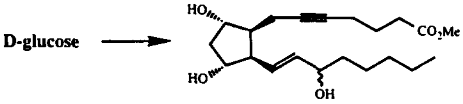


Tetrahedron Letters, **1997**, *38*, 1543

Total Synthesis of 15(RS)-5,6-Dehydro-8-*epi*PGF$_{2\alpha}$ Methyl Ester by a Biomimetic Process.

A. Guy, T. Durand, J-P. Vidal and J-C. Rossi* Laboratoire de Chimie Biomoléculaire et Intéractions Biologiques associé au C.N.R.S., Université Montpellier I, Faculté de Pharmacie, 15 Av. Ch. Flahault, F-34060 Montpellier, France.

The first total synthesis of 15(RS)-5,6-dehydro-8-*epi*-PGF$_{2\alpha}$ methyl ester **1** with high stereoselectivity and good yield, is described using D-glucose as starting material.



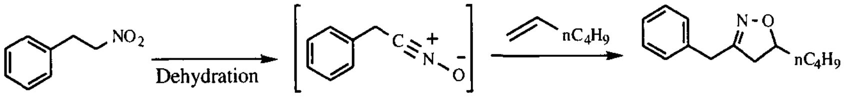
15(RS)-5,6-dehydro-8-*epi*-PGF$_{2\alpha}$
1

Tetrahedron Letters, **1997**, *38*, 1547

NEW CONDITIONS FOR THE GENERATION OF NITRILE OXIDES FROM PRIMARY NITROALKANES.

Nathalie Maugein, Alain Wagner, Charles Mioskowski*
Laboratoire de Synthèse Bioorganique, Université Louis Pasteur de Strasbourg, Unité associée au CNRS,
Faculté de Pharmacie, 74 route du Rhin - BP 24 - 67401 Illkirch, France.

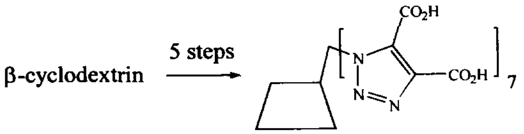
Burgess salt, DAST, acetic anhydride and oxalyl chloride are shown to be useful reagents for the efficient formation of nitrile oxides from primary nitro compounds.



Tetrahedron Letters, **1997**, *38*, 1551

A SIMPLE SYNTHESIS OF A HIGHLY WATER SOLUBLE SYMMETRICAL β-CYCLODEXTRIN DERIVATIVE.

Christine Roehri-Stoeckel,[1] Olivier Dangles*[2] and Raymond Brouillard,[1] 1: Université Louis Pasteur, 1, rue Blaise Pascal, F-67008 Strasbourg, 2: Université Claude Bernard, 43, bld du 11 Novembre 1918, F-69622 Villeurbanne

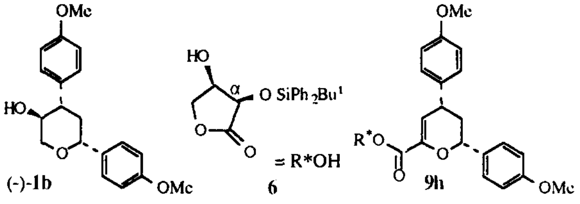


Asymmetric Endoselective [4+2] Heterocycloadditions of Styrene Dienophiles with Chiral Benzylidenepyruvic Esters. Total Synthesis of (–)-*O*-Dimethylsugiresinol

Tetrahedron Letters, **1997**, *38*, 1555

Gilles Dujardin, Mickaël Maudet and Eric Brown
Laboratoire de Synthèse Organique, associé au CNRS,
Faculté des Sciences,Avenue Olivier Messiaen, BP 535,
F-72017 Le Mans, France

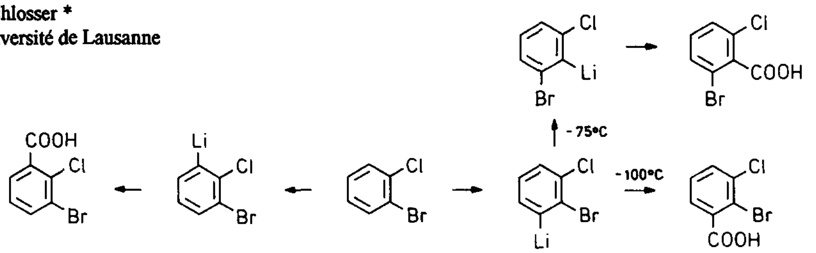
The 4-methoxybenzylidenepyruvic ester deriving from α-(-)-O-silyl ether 6 of (D)-(-)-erythronolactone reacted with *p*-methoxystyrene in the presence of Eu(fod)$_3$, and gave the *endo* adduct 9h with high diastereofacial selectivity (dr 95/5). Five further steps led to (-)-*O*-dimethylsugiresinol (-)-1b.



THE ACIDIFYING EFFECTS OF CHLORINE AND BROMINE : LITTLE DIFFERENCE

Tetrahedron Letters, **1997**, *38*, 1559

Florence Mongin and Manfred Schlosser *
Institut de Chimie organique, Université de Lausanne

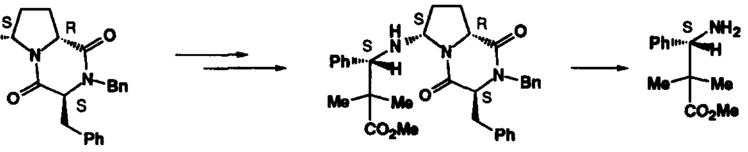


PYRROLIDINOPIPERAZINEDIONE AS CHIRAL AUXILIARY AND ITS USE IN ASYMMETRIC MANNICH SYNTHESIS

Tetrahedron Letters, **1997**, *38*, 1563

F. Guenoun[a,b], T. Zair[b], F. Lamaty[a], M. Pierrot[c], R. Lazaro[a], P. Viallefont[a]
a-Laboratoire des Aminoacides, Peptides et Protéines, CNRS-Université Montpellier II, Place E. Bataillon, 34095 Montpellier Cédex 05, France. b- Faculté des Sciences, Département de Chimie BP4010, Meknès, Marocco. c-Laboratoire de Bioinorganique Structurale, CNRS-Université Aix-Marseille III, 13397 Marseille Cédex 20, France

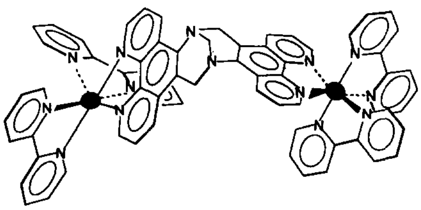
A functionalised diketopiperazine has been used as a new chiral auxiliary to prepare an optically pure β-amino ester.



A PHENANTHROLINE ANALOGUE OF TRÖGER'S BASE AS BRIDGING LIGAND IN THE SYNTHESIS OF A BIMETALLIC RUTHENIUM (II) COMPLEX

Tetrahedron Letters, **1997**, *38*, 1567

Olivier Van Gijte[b], Arnaud Tatibouët[a], Martine Demeunynck[a]*, Jean Lhomme[a] and Andrée Kirsch-De Mesmaeker[b]*
a) LEDSS, CNRS /Université J. Fourier, BP 53, 38041 Grenoble cédex, France
b) Université Libre de Bruxelles, Physical Organic Chemistry, CP160/08,
50 Av. F. D. Roosevelt, B-1050, Bruxelles, Belgique

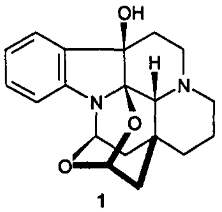


Tetrahedron Letters, **1997**, *38*, 1571

TERENGGANENSINES A AND B, DIHYDROEBURNANE ALKALOIDS FROM *KOPSIA TERENGGANENSIS*.

Shasya Uzir[a], Ali M. Mustapha[b], A. Hamid A. Hadi[a], Khalijah Awang[a], Christophe Wiart[c], Jean-François Gallard[c] and *Mary Païs[c]. [a]Department of Chemistry, University of Malaya, 59100 Kuala Lumpur, Malaysia. [b]Department of Pharmacology, University of Malaya, 59100 Kuala Lumpur, Malaysia. [c]Institut de Chimie des Substances Naturelles, CNRS, 91198 Gif-sur-Yvette, France.

Five known indole alkaloids, (+)-quebrachamine, (-)-eburnamine, (+)-isoeburnamine, (-)-eburnaminol and (+)-larutensine, and two new alkaloids, terengganensines A 1 and B 2, possessing a unique dihydroeburnane skeleton were isolated from the bark of *Kopsia terengganensis*. The structures of the new compounds were elucidated by spectral methods.

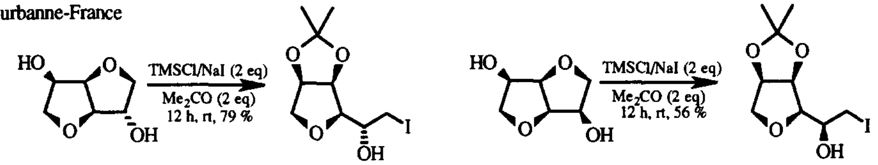


1

Tetrahedron Letters, **1997**, *38*, 1575

A DIRECT SINGLE RING CLEAVAGE OF ISOSORBIDE AND ISOMANNIDE WITH IODOTRIMETHYLSILANE.

Soumeya Ejjiyar[a], Christine Saluzzo[b], Roger Amouroux[b]* and Mohamed Massoui[a]
a) Lab. de Chimie des Agroressources, Faculté des Sciences, Université Ibn Tofail, BP 133 Kénitra- Maroc
b) Lab.de Chimie Organique Physique et Synthétique - CNRS et Université Claude Bernard, 43 Bd du 11 Novembre 1918, 69622 Villeurbanne-France

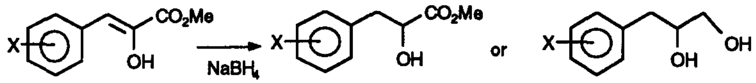


Tetrahedron Letters, **1997**, *38*, 1577

CHEMOCONTROLLED REDUCTION OF AROMATIC α-KETOESTERS BY $NaBH_4$: SELECTIVE SYNTHESIS OF α-HYDROXYESTERS OR 1,2-DIOLS

Vincent Dalla, Laboratoire de Chimie Organique et Macromoléculaire, associé au CNRS, Université des Sciences et Technologies, 59655 Villeneuve d'Ascq, France

α-hydroxyesters **5** or diols **6** have been specifically obtained from the parent α-ketoesters esters **4** by treatment with $NaBH_4$.

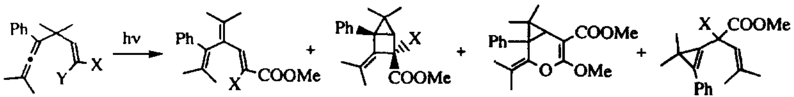


4a-g **5a-g** **6a-g**

Tetrahedron Letters, **1997**, *38*, 1581

ALLENYL(VINYL)METHANE PHOTOCHEMISTRY. PHOTOCHEMISTRY OF 4,4,7-TRIMETHYL-5-PHENYL-2,5,6-OCTATRIENATE DERIVATIVES

Takashi Tsuno,* Hidetaka Hoshino, and Kunio Sugiyama, Department of Industrial Chemistry, College of Industrial Technology, Nihon University, Narashino-shi, Chiba 275, Japan



X=Y=COOMe
or X=COOMe,Y=H

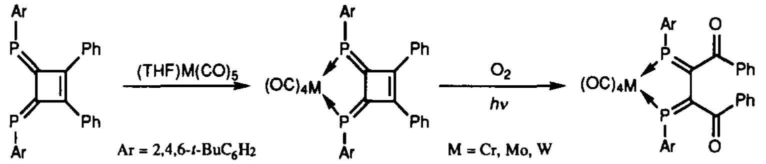
X=COOMe or H X=COOMe or H X=COOMe or H

Tetrahedron Letters, **1997**, *38*, 1585

OXIDATION OF 1,2-DIPHENYL-3,4-DIPHOSPHINIDENECYCLOBUTENE ON THE GROUP-6 METAL TETRACARBONYL COMPLEXES

Masaaki Yoshifuji,* Yoshito Ichikawa, and Kozo Toyota
Department of Chemistry, Faculty of Science, Tohoku University, Aoba, Sendai 980-77, Japan

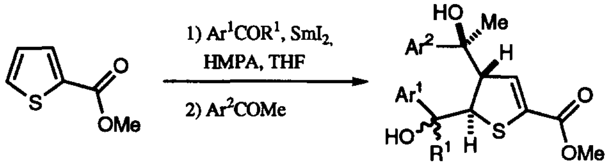
1,2-Diphenyl-3,4-diphosphinidenecyclobutene on the group-6 metal tetracarbonyl complexes were oxidized to give 2,3-dibenzoyl-1,4-diphospha-1,3-butadiene.



Tetrahedron Letters, **1997**, *38*, 1589

REDUCTIVE DOUBLE ELECTROPHILIC REACTIONS OF METHYL THIOPHENECARBOXYLATE MEDIATED BY SAMARIUM DIIODIDE AND HEXAMETHYLPHOSPHORAMIDE

Shyh-Ming Yang and Jim-Min Fang, Department of Chemistry, National Taiwan University, Taipei 107, Taiwan



Three-component reactions of methyl thiophenecarboxylate with carbonyl compounds are achieved in a one-pot procedure .

Tetrahedron Letters, **1997**, *38*, 1593

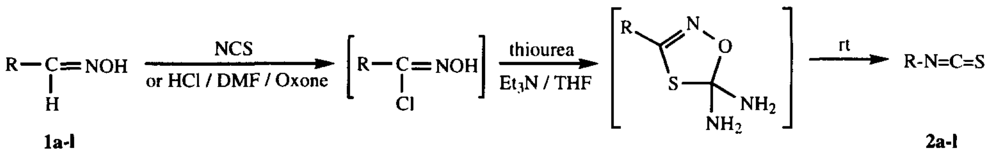
FACILE SYNTHESIS OF (S)-β-HYDROXY-β-TRICHLOROMETHYLATED AROMATIC KETONES BY THE REGIOSELECTIVE RING CLEAVAGE OF CHIRAL β-TRICHLOROMETHYL-β-PROPIOLACTONE UNDER THE FRIEDEL-CRAFTS CONDITIONS

T. FUJISAWA*, T. ITO, K. FUJIMOTO, and M. SHIMIZU, Department of Chemistry for Materials, Mie University, Tsu, Mie 514, Japan. H. WYNBERG and E. G. J. STARING, Department of Organic Chemistry, University of Groningen, Nijenborgh 4, 9747 AG Groningen, The Netherlands.

Tetrahedron Letters, **1997**, *38*, 1597

A FACILE ONE-POT PREPARATION OF ISOTHIOCYANATES FROM ALDOXIMES

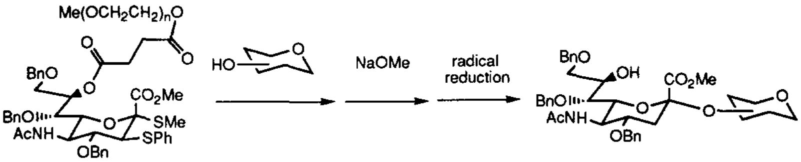
Jae Nyoung Kim*, Keum Shin Jung, Hong Jung Lee, and Ji Suk Son
Department of Chemistry, Chonnam National University, Kwangju 500-757, Korea



Tetrahedron Letters, **1997**, *38*, 1599

Synthesis of a Polymer-Supported Sialic Acid Glycosyl Donor

L. O. Kononov, Y. Ito, and T. Ogawa
The Institute of Physical and Chemical Research (RIKEN), Saitama, 351-01 Japan



9

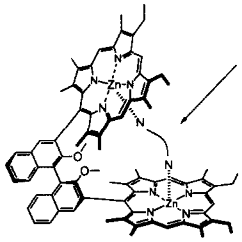
Preparation of **9** and its use for stereoselective glycosylation are described.

Tetrahedron Letters, **1997**, *38*, 1603

MOLECULAR RECOGNITION OF α,ω-DIAMINES BY METALLOPORPHYRIN DIMER.

Takashi Hayashi,* Masanori Nonoguchi, Toshihiro Aya and Hisanobu Ogoshi*,
Department of Synthetic Chemistry and Biological Chemistry,
Faculty of Engineering, Kyoto University, Sakyo-ku,
Kyoto 606-01, Japan

Zinc porphryin dimer is a good ditopic coreceptor for several α,ω-diamines and its complex gives the significant CD spectra depending on the length of diamine.



1,8-diaminooctane

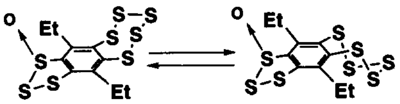
$K_a = (2.1 \pm 0.3) \times 10^6\ M^{-1}$

CD data λ(Δε):
1st 423(+1140), 2nd 417(-648)

Tetrahedron Letters, **1997**, *38*, 1607

PREPARATION AND CONFORMATIONAL ANALYSIS OF 6,10-DISUBSTITUTED [1,2,3]TRITHIOLO[*h*]BENZOPENTATHIEPIN MONOOXIDES

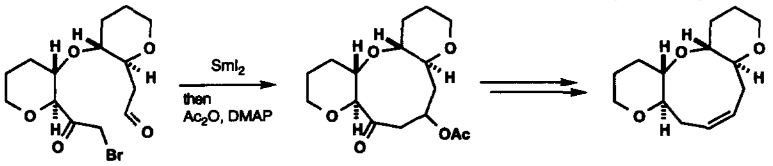
Takeshi Kimura,[†] Masayuki Hanzawa,[†] Ernst Horn,[‡] Yasushi Kawai,[††] Satoshi Ogawa,[†] and Ryu Sato[†*]
[†]*Department of Applied Chemistry and Molecular Science, Faculty of Engineering, Iwate University, Morioka, Iwate 020,* [‡]*Tsukuba Advanced Research Alliance Center, University of Tsukuba, Tsukuba, Ibaraki 305,* [††] *Institute for Chemical Research, Kyoto University, Uji, Kyoto 611, Japan*



Tetrahedron Letters, **1997**, *38*, 1611

CONSTRUCTION OF FUSED OXONENE RING AND REPRODUCTION OF CONFORMATIONAL BEHAVIOR SHOWN BY RING F OF CIGUATOXIN

Masayuki Inoue, Makoto Sasaki, and Kazuo Tachibana*
Department of Chemistry, School of Science, The University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113, Japan

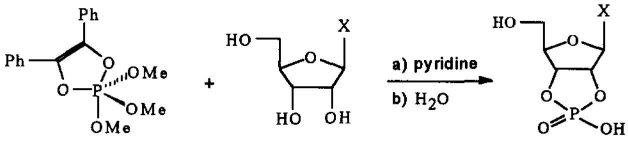


Tetrahedron Letters, **1997**, *38*, 1615

DIRECT PHOSPHORYLATION OF NUCLEOSIDES BY OXYPHOSPHORANE

Xin Chen, Nan-Jing Zhang, Yan-Mei Li, Yang Jiang, Xiang Zhang, Yu-Fen Zhao*
Bioorganic Phosphorus Chemistry Lab, Department of Chemistry, Tsinghua University, Beijing 100084, P. R. China

The ester exchange reaction of oxyphosphorane provided an efficient one-pot phosphorylation methodology for ribonucleosides and 2'-deoxyribonucleosides with no protection needed.

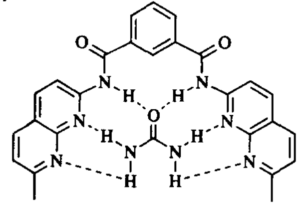


Tetrahedron Letters, **1997**, *38*, 1619

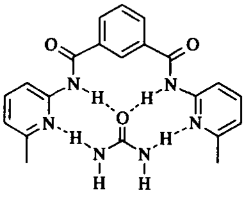
MOLECULAR RECOGNITION: A SIMPLE DINAPHTHYRIDINE RECEPTOR FOR UREA.

Shyamaprosad Goswami* and Rakhi Mukherjee
Department of Chemistry, Indian Institute of Technology, Kharagpur 721302, India

A newly designed receptor **1** binds strongly and selectively to urea over thiourea to form a chloroform soluble 1:1 complex. The truncated receptor **2** binds poorly to urea compared to receptor **1** due to less number of hydrogen bond formation in complexation.



Urea Complex with **1**



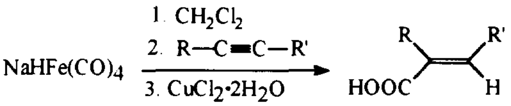
Urea Complex with **2**

Tetrahedron Letters, **1997**, *38*, 1623

A NEW METHOD FOR THE REGIO- AND STEREOSELECTIVE HYDROCARBOXYLATION OF ALKYNES USING $NaHFe(CO)_4/CH_2Cl_2$ SYSTEM

M. Periasamy*, U. Radhakrishnan, C. Rameshkumar, J.J. Brunet
School of Chemistry, University of Hyderabad, Hyderabad-500 046, India
Labratoire de Chimie de Coordination du CNRS unite No 8241, 205 route de Narbonne, 31077, Toulouse Cedex, France

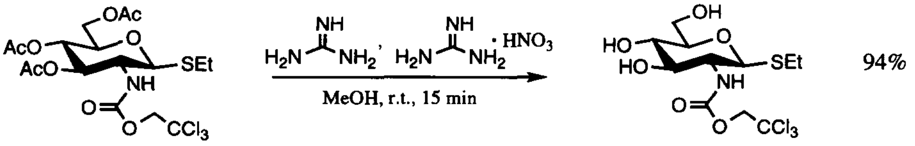
The reagent generated *in situ* using $NaHFe(CO)_4$ and CH_2Cl_2 in THF was used for the hydrocarboxylation of alkynes to obtain (E)-alkenoic acids.



Tetrahedron Letters, **1997**, *38*, 1627

GUANIDINE/GUANIDINIUM NITRATE; A MILD AND SELECTIVE O-DEACETYLATION REAGENT THAT LEAVES THE N-TROC GROUP INTACT.

Ulf Ellervik and Göran Magnusson*, Organic chemistry 2, Center for Chemistry and Chemical Engineering, The Lund Institute of Technology, Lund University, P. O. Box 124, S-221 00 Lund, Sweden.

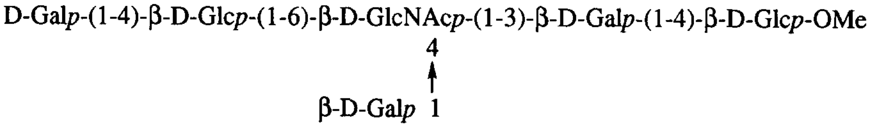


Tetrahedron Letters, **1997**, *38*, 1629

A HIGHLY CONVERGENT SYNTHESIS OF A HEXASACCHARIDE DERIVED FROM THE OLIGOSACCHARIDE OF GROUP B TYPE III *STREPTOCOCCUS*

Alexei Demchenko, Geert-Jan Boons,* School of Chemistry, The University of Birmingham, Edgbaston, Birmingham B15 2TT, UK

A hexasaccharide has been assembled from appropriate building blocks without a single protecting group interconversion.

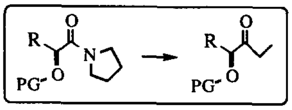


$$\begin{array}{l} \text{D-Gal}p\text{-(1-4)-}\beta\text{-D-Glc}p\text{-(1-6)-}\beta\text{-D-GlcNAc}p\text{-(1-3)-}\beta\text{-D-Gal}p\text{-(1-4)-}\beta\text{-D-Glc}p\text{-OMe} \\ \qquad\qquad\qquad\qquad\qquad\qquad\qquad\quad 4 \\ \qquad\qquad\qquad\qquad\qquad\qquad\qquad\quad \uparrow \\ \qquad\qquad\qquad\qquad\qquad\qquad\quad \beta\text{-D-Gal}p\ 1 \end{array}$$

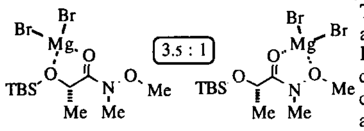
Tetrahedron Letters, **1997**, *38*, 1633

A SIMPLE PROCEDURE FOR THE PREPARATION OF ENANTIOPURE ETHYL α-HYDROXYALKYL KETONES

R. Martín, O. Pascual, P. Romea, R. Rovira, F. Urpí, and J. Vilarrasa
Departament de Química Orgànica, Universitat de Barcelona, 08028 Barcelona



Pyrrolidine-derived α-OBn and α-O-TBS amides (TBS = t-BuMe$_2$Si) react with EtLi or EtMgCl to give enantiopure ethyl ketones; no tertiary alcohols, or only trace amounts, are detected. Thus, use of *N*-methoxy amides (Weinreb amides) is not required in these substrates. In fact, it is shown that even the TBS-O group contributes to the stabilisation of the complex with MgBr$_2$ more than the *N*-OMe group —the ratio between the two chelates appears to be 3.5:1— which may account for the performance of the approach reported here.

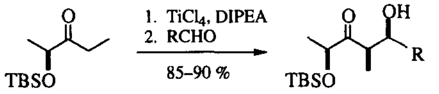


Tetrahedron Letters, **1997**, *38*, 1637

HIGHLY STEREOSELECTIVE ALDOL REACTIONS OF TITANIUM ENOLATES FROM ETHYL α-SILYLOXYALKYL KETONES

S. Figueras, R. Martín, P. Romea, F. Urpí, and J. Vilarrasa
Departament de Química Orgànica, Universitat de Barcelona, 08028 Barcelona

Titanium enolates of ethyl α-*tert*-butyldimethylsilyloxyalkyl ketones react with several aldehydes to afford aldols in high yields and with excellent stereoselectivities (*syn-syn/anti-syn* ratios >30:1). By contrast, the analogous reactions with the benzyl protecting group instead of *t*-BuMe$_2$Si (TBS) are hardly stereoselective. A plausible mechanistic explanation of these differences is given.



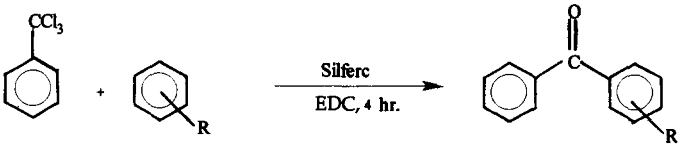
R = $CH_2CH_2CH_3$
R = $CH(CH_3)_2$
R = $C(CH_3)=CH_2$
R = Ph

Tetrahedron Letters, **1997**, *38*, 1641

SYNTHESIS OF BENZOPHENONES USING SILICA-GEL SUPPORTED LEWIS ACID CATALYST.

Bhushan M Khadilkar* & Shobha D. Borkar,
University, Department of Chemical Technology, University of Bombay, Matunga, Mumbai, 400 019, India.

Benzoylation of different aromatics using silica gel supported FeCl$_3$ and benzotrichloride is described.



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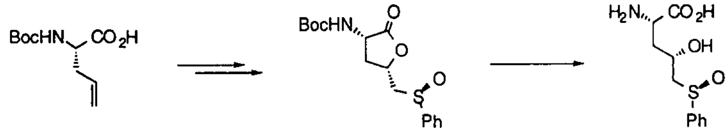
Tetrahedron Letters, **1997**, *38*, 1643

TOWARDS A TOTAL SYNTHESIS OF USTILOXINS A & B. STEREOCONTROLLED SYNTHESIS OF *(2S,4S,6S)*-4-HYDROXY-5-PHENYLSULFINYLNORVALINE.

Craig A. Hutton* and Jonathan M. White,
School of Chemistry, The University of Melbourne, Parkville, Victoria 3052, Australia

A short, stereocontrolled synthesis of *(2S,4S,6S)*-4-hydroxy-5-phenylsulfinylnorvaline, an unusual amino acid component of ustiloxins A & B, is described.

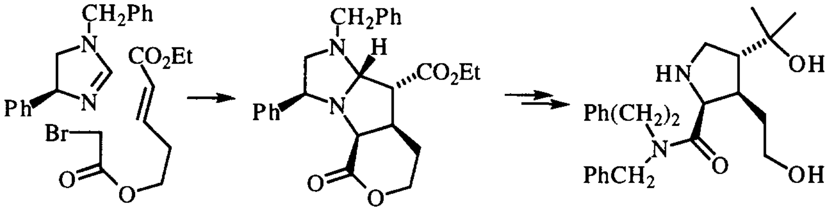


Tetrahedron Letters, **1997**, *38*, 1647

A RAPID ASSEMBLY OF HOMOCHIRAL 2,3,4-TRISUBSTITUTED PYRROLIDINES

Raymond C F Jones,* Kevin J Howard and John S Snaith; Department of Chemistry, The Open University, Walton Hall, Milton Keynes MK7 6AA, UK

Intramolecular 1,3-dipolar cycloaddition of homochiral dihydroimidazolium ylides, generated *in situ* rapidly affords optically active functionalised 2,3,4-trisubstituted pyrrolidines.

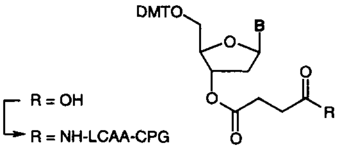


Tetrahedron Letters, **1997**, *38*, 1651

A DIRECT AND EFFICIENT METHOD FOR DERIVATISATION OF SOLID SUPPORTS FOR OLIGONUCLEOTIDE SYNTHESIS

Andrew J. Walsh, G. Claudine Clark and William Fraser*, Pharmaceutical Sciences Institute, Aston University, Aston Triangle, Birmingham, B4 7ET.

A direct, efficient and general DCC/DhbtOH-mediated coupling method for derivatisation of LCAA-CPG solid supports has been developed.

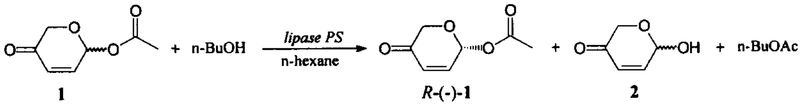


Tetrahedron Letters, **1997**, *38*, 1655

OPTICALLY ACTIVE 6-ACETYLOXY-2H-PYRAN-3(6H)-ONE OBTAINED BY LIPASE CATALYZED TRANSESTERIFICATION AND ESTERIFICATION

Marco van den Heuvel, Agnes D. Cuiper, Hanneke van der Deen, Richard M. Kellogg*, Ben L. Feringa*
Department of Organic and Molecular Inorganic Chemistry, Groningen Center for Catalysis and Synthesis,
University of Groningen, Nijenborgh 4, 9747 AG Groningen, The Netherlands

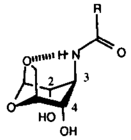
Lipase catalyzed transesterification of 6-acetyloxy-pyranone (**1**) by immobilized lipase PS in hexane/n-butanol yields enantiomerically pure *R*-(-)-6-acetyloxy-pyranone, whereas esterification of 6-hydroxy-pyranone (**2**) with vinyl acetate gives the *S*-enantiomer (e.e. up to 76%).



Tetrahedron Letters, **1997**, *38*, 1659

CONFORMATIONAL RESTRICTION BY INTRAMOLECULAR HYDROGEN BONDING. CARBOHYDRATE-CARBOHYDRATE SELF-ASSEMBLY.

Manuela López de la Paz[a], Gary Ellis[b], Soledad Penadés[a], Cristina Vicent[a]*. [a]Grupo de Carbohidratos, Departamento de Química Orgánica Biológica, Instituto de Química Orgánica (CSIC) Juan de la Cierva 3, E-28006 Madrid, Spain. [b]Departamento de Física e Ingeniería, Instituto de Ciencia y Tecnología de Polímeros (CSIC) Juan de la Cierva 3, E-28006 Madrid, Spain.

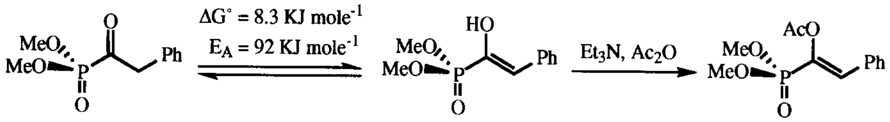


3-amido-1,6-anhydro-3- deoxy-β-D-glucopyranose as a hydroxyl-based interaction unit and its ability to provide conformational control of self-recognition processes by intramolecular hydrogen bonding.

Tetrahedron Letters, **1997**, *38*, 1663

FACILE ENOLISATION OF α-KETOPHOSPHONATES

Kamyar Afarinkia,* Juan Echenique and Stanley C. Nyburg
Department of Chemistry, King's College, The Strand, London WC2R 2LS, UK.



α-Ketophosphonates can be easily enolised and converted to the corresponding enolacetate. The enol derivatives have E-configuration exclusively.