

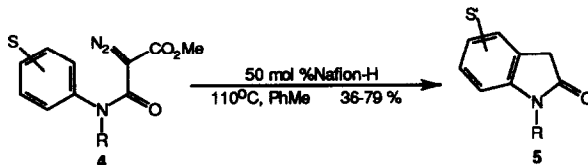
GRAPHICAL ABSTRACTS

Tetrahedron, 1994, 50, 609

The Nafion-H Catalysed Cyclization of α -Carbomethoxy- α -Diazoacetanilides. Synthesis of 3-Unsubstituted-2-Indolinones.

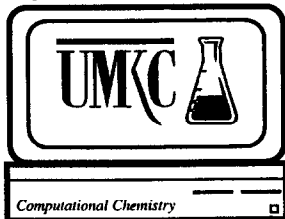
Andrew G. Wee* and Baosheng Liu, Department of Chemistry, University of Regina, Saskatchewan, S4S 0A2, Canada.

The diazoanilides **4** undergo Nafion-H catalysed cyclization and concomitant decarboxylation to give 3-unsubstituted-2(3H)-indolinones **5**.



Tetrahedron, 1994, 50, 627

ADDENDUM TO SAM1 RESULTS PREVIOUSLY PUBLISHED; A.J. Holder, R.D. Dennington II, C. Jie; Univ. of Missouri-Kansas City, Dept. of Chemistry, Kansas City, MO 64110. Corrected data and additional molecules are presented for the new SAM1 semiempirical method recently published by M.J.S Dewar *et al.*

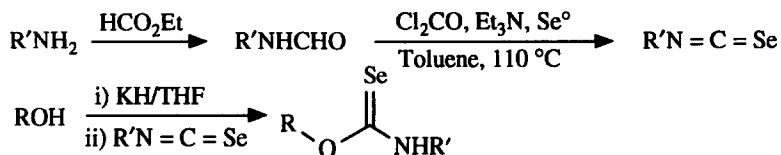


New results for SAM1.

Tetrahedron, 1994, 50, 639

A Convenient and High Yielding Procedure for the Preparation of Isoselenocyanates. Synthesis and Reactivity of O-Alkylselenocarbamates.

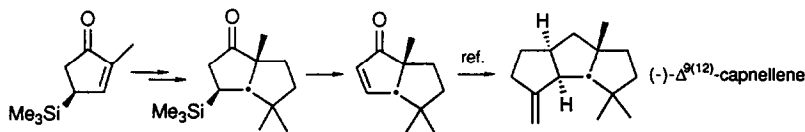
Derek H. R. Barton*, Shyamal I. Parekh, Mahmood Tajbakhsh, Emmanouil A. Theodorakis and Chi-Lam Tse
Department of Chemistry; Texas A & M University; College Station, TX 77843-3255



Tetrahedron, 1994, 50, 655

An Enantioselective Route to (-)- $\Delta^9(12)$ -Capnellene Employing Silyl Group Directed Stereo Control

Morio Asaoka,* Kazuyuki Obuchi, and Hisashi Takei
Department of Life Chemistry, Tokyo Institute of Technology, Midoriku, Yokohama 227, Japan



A formal synthesis of a marine natural product (-)- $\Delta^9(12)$ -capnellene has been achieved by employing silyl group directed stereo control, starting from (-)-2-methyl-4-trimethylsilyl-2-cyclopenten-1-one.

TOTAL SYNTHESIS OF UPIAL, A MARINE SESQUITERPENE POSSESSING BICYCLO[3.3.1]NONANE RING SYSTEM

Hiroto Nagaoka,^a Kimiyuki Shibuya^b and Yasuji Yamada^c

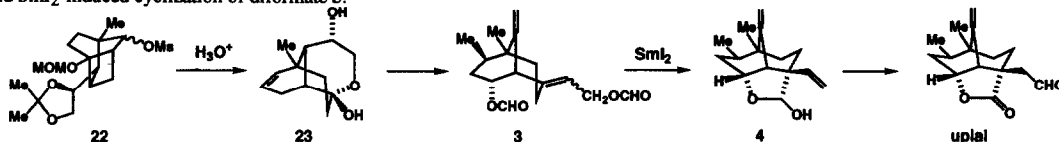
^a Meiji College of Pharmacy, Yato-cho, Tanashi, Tokyo 188, Japan

^b Tokyo Research Laboratories Kowa Co. Ltd., 2-17-43 Noguchi-cho, Higashimurayama, Tokyo 189, Japan

^c Tokyo College of Pharmacy, Horinouchi, Hachioji, Tokyo 192-03, Japan

Tetrahedron, 1994, 50, 661

Total synthesis of marine sesquiterpene upial was achieved from D-mannitol via fragmentation reaction of tricyclic compound 22 and SmI₂-induced cyclization of diformate 3.



Nucleosides and Nucleotides. 124.

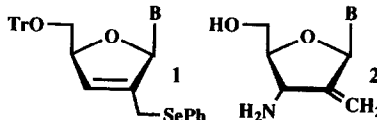
Chemical Reactivity of the Sugar Moiety

of 2'-Deoxy-2'-methylidene Pyrimidine Nucleosides: Synthesis of 3'-Amino-2',3'-dideoxy-2'-methylidene pyrimidine Nucleosides via [2,3]-Sigmatropic Rearrangement of Allylic Selenides as Potential Antitumor Agents

Abdalla Elsyed A. Hassan, Satoshi Shuto, and Akira Matsuda*

Faculty of Pharmaceutical Sciences, Hokkaido University,^a Kita-12, Nishi-6, Kita-ku, Sapporo 060, Japan

Synthesis of 2 was achieved via oxidative [2,3]-sigmatropic rearrangement of 1.

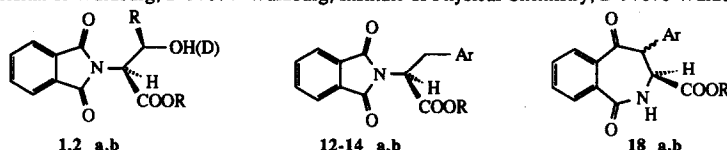


Tetrahedron, 1994, 50, 689

PHOTOCHEMISTRY OF N-PHTHALOYL DERIVATIVES OF ELECTRON-DONOR-SUBSTITUTED AMINO ACIDS

A. G. Griesbeck, A. Henz, J. Hirt, V. Platschek, T. Engel, D. Löffler, F. W. Schneider; Institute of Organic Chemistry, Universität of Würzburg, D-97074 Würzburg; Institute of Physical Chemistry, D-97070 Würzburg, Germany.

Tetrahedron, 1994, 50, 701



The photochemistry of N-phthaloyl derivatives of threonine (1a,b), serine (2a,b), phenylalanine (13a,b), tyrosine (13a,b), and DOPA (14a,b) strongly depends on the solvent polarity and on the electronic configuration of the phthalimido chromophore.

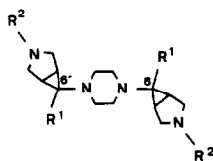
Photo electron transfer processes are operating for most compounds, especially for the DOPA substrates 14a,b where exclusively ring enlargement products (18a,b) were formed upon irradiation in polar solvents.

FUNCTIONALIZED CHLOROENAMINES IN AMINOCYCLOPROPANE SYNTHESIS - XIII. AZAANNULATED CYCLOPROPANES - RIGID BUILDING BLOCKS FOR OLIGOAMINES

Jens Seibel, Elmar Vilsmaier*, Karin Fröhlich, Gerhard Maas and Rolf Wagemann, Fachbereich Chemie der Universität Kaiserslautern, Erwin-Schroedinger-Straße, D-67663 Kaiserslautern, Germany

Tetrahedron, 1994, 50, 715

- 5: 6,6'-endo-piperazine
- 6: 6-endo,6'-exo-piperazine
- 7: 6,6'-exo-piperazine

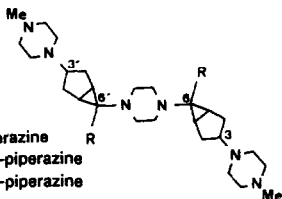


Meander-type bis(azabicyclohexyl)-piperazine derivatives 5 were prepared with high stereoselectivity from di(chloroenamines) 8 and several nucleophiles. Basicity, conformation and molecular flexibility of oligoamines 5 were studied. In one case, diastereomers 6 and 7 also could be obtained.

FUNCTIONALIZED CHLOROENAMINES IN AMINOCYCLOPROPANE SYNTHESIS - XIV. AMINOANNULATED CYCLOPROPANES - RIGID BUILDING BLOCKS FOR OLIGOAMINES

Tetrahedron, 1994, 50, 731

Rolf Wagemann, Jens Seibel, Elmar Vilsmaier* and Gerhard Maas, Fachbereich Chemie der Universität Kaiserslautern, Erwin-Schroedinger-Straße, D-67663 Kaiserslautern, Germany



- 5: 3,3',6,6'-*endo*-piperazine
 6: 3,3'-*exo*,6,6'-*endo*-piperazine
 7: 3,6,6'-*endo*,3'-*exo*-piperazine

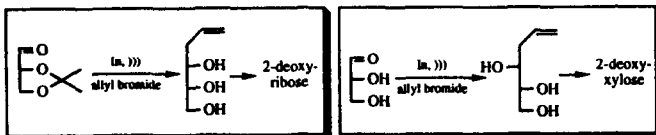
Diastereomeric bis(piperazinylbicyclohexyl)-piperazine derivatives 5, 6 and 7 were prepared with high stereoselectivity. Basicity, conformation and molecular flexibility of isomers 5 with a meander-type molecular shape were studied.

INDIUM-MEDIATED ALLYLATION OF ALDEHYDES: A CONVENIENT ROUTE TO 2-DEOXY AND 2,6-DIDEOXY CARBOHYDRATES

Tetrahedron, 1994, 50, 749

Wolfgang H. Binder, Reinhard H. Prenner and Walther Schmid*
 Institut für Organische Chemie der Universität Wien, Währingerstraße 38, A-1090 Vienna, AUSTRIA

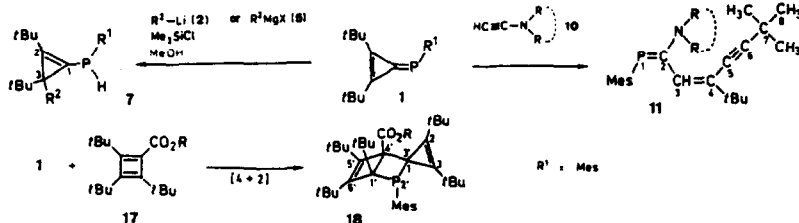
Indium mediated allylation of protected or unprotected polyhydroxy aldehydes yields one diastereomeric polyol preferentially. Further transformation leads to 2-deoxy and 2,6-dideoxy carbohydrates.



ORGANOPHOSPHORUS COMPOUNDS - 60.1 REACTIONS OF PHOSPHATRIAFULVENES WITH NUCLEOPHILIC PARTNERS

Tetrahedron, 1994, 50, 759

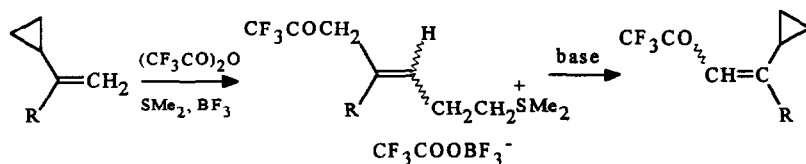
Eberhard Fuchs, Fred Krebs, Heinrich Heydt, and Manfred Regitz*
 Fachbereich Chemie der Universität, Erwin-Schrödinger-Straße, D-67663 Kaiserslautern, Germany



THE PERFLUOROACYLATION OF CYCLOPROPYLCONTAINING ALKENES

Tetrahedron, 1994, 50, 775

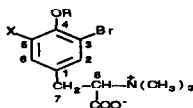
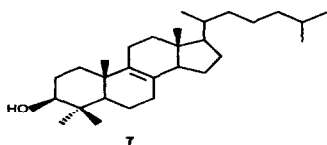
V.G.Nenajdenko, I.F. Leshcheva, E.S.Balenkova
 Moscow State University, Moscow, 119889, Russia



CHEMISTRY OF VERONGIDA SPONGES. I. CONSTITUENTS OF THE CARIBBEAN SPONGE *PSEUDOCERATINA CRASSA*.

S. Albrizio^a, P. Ciminiello^a, E. Fattorusso^{a*}, S. Magno^a, M. Pansini^a. ^aUniversità degli studi di Napoli "Federico II", Via D. Montesano 49, 80131 Napoli, Italy, ^bUniversità degli studi di Genova, Via Balbi 5, 16126 Genova, Italy.

A new triterpene and four new bromotyrosine derivatives were determined by spectroscopic analysis.

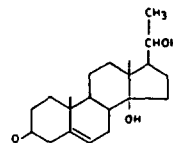
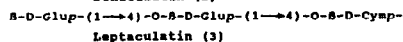
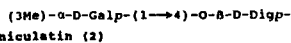
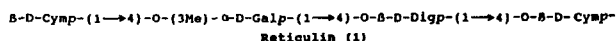


8 R=H; X=Br
9 R=Me; X=Br
10 R=Me; X=H
11 R=H; X=H

THREE NOVEL PREGNANE GLYCOSIDES FROM *LEPTADENIA RETICULATA* WIGHT AND ARN.

Sanjay Srivastav, Dush Deepak and Anakshi Khare^a
Department of Chemistry, Lucknow University, Lucknow - 226 007, India.

Abstract: The structure of three novel pregnane glycosides viz. Reticulin (1), Deniculatin (2) and Leptaculatin (3) isolated from *Leptadenia reticulata* (fam. Asclepiadaceae) were elucidated with modern physico-chemical methods and chemical transformations.



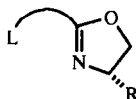
PREPARATION OF NOVEL SULFUR AND PHOSPHORUS CONTAINING OXAZOLINES AS LIGANDS FOR ASYMMETRIC CATALYSIS

Joanne V Allen,^a Graham J. Dawson,^a Christopher G. Frost,^a Jonathan M. J. Williams^{a*} and Steven J. Coote^b
^aDepartment of Chemistry, Loughborough University of Technology, Loughborough, Leicestershire, LE11 3TU, UK.

^bGlaxo Group Research Ltd., Ware, Herts, SG12 0DP, UK.

A range of oxazoline ligands tethered to sulfur and phosphorus donor atoms have been prepared from homochiral amino alcohols

Auxiliary Donor Atom

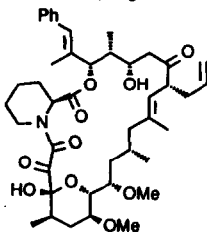


Homochiral Oxazoline Moiety

L = S, P; R = Me, Bn, Ph, iPr, tBu

TOTAL SYNTHESIS OF CLOSE ANALOGUES OF THE IMMUNOSUPPRESSANT FK506

Mark J Batchelor, Roger J Gillespie, Julian M C Golec, Charles J R Hedgecock, Stuart D Jones, and Robert Murdoch.
Roussel Laboratories Ltd, Kingfisher Drive, Covingham, Swindon, Wiltshire, SN35 BZ, England



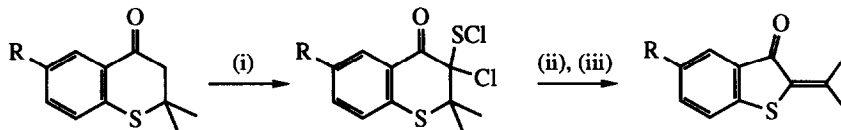
A new methodology for the conversion of 1,3-hydroxyamides to tricarbonyl systems is demonstrated in the total syntheses of C₂₈-phenyl analogues of FK506

Tetrahedron, 1994, 50, 827

RING CONTRACTION OF SULFENAMIDES DERIVED FROM THIOCHROMAN-4-ONES

Christopher D. Gabbutt, John D. Hepworth, B. Mark Heron and Magan Kanjia.

Department of Chemistry, University of Central Lancashire, Preston, PR1 2HE, England.



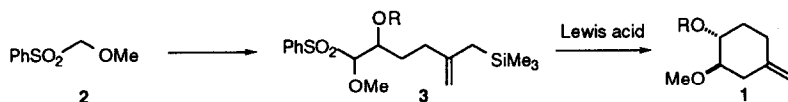
Reagents: (i) SOCl_2 , (ii) 2° amine, (iii) H_3O^+

Tetrahedron, 1994, 50, 835

Towards the Synthesis of the C₃₇-C₄₂ Fragment of Rapamycin: Intramolecular Reactions of Allyl Silanes with Oxonium Ions Generated from α -Alkoxy Sulfones.

Steven V. Ley* and Cyrille Kouklovsky
University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, U.K.

The synthesis of cyclohexane derivative **1** using an intramolecular reaction of an allyl silane with an oxonium ion generated from an α -alkoxy sulfone is described. The acyclic precursor **3** is prepared from methoxymethyl phenyl sulfone **2**.



LINTENOLIDES, NEW PENTACYCLIC BIOACTIVE SESTERTERPENES FROM THE CARIBBEAN SPONGE CACOSPONGIACF. LINTEIFORMIS.

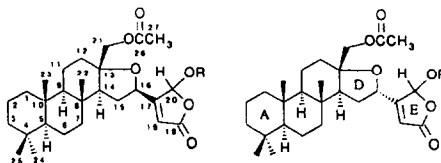
Tetrahedron, 1994, 50, 849

Maria R. Conte^a, Ernesto Fattorusso^{a*}, Virginia Lanzotti^b, Silvana Magno^a and Luciano Mayol^a

^a Università degli Studi di Napoli, Via D. Montesano, 49, 80131 Napoli, Italy.

^b Università degli Studi del Molise, Via Tiberio 21, 86100 Campobasso, Italy

New pentacyclic sesterterpenes, lintenolide A (**2 a, b**) and lintenolide B (**3 a, b**) have been characterized by using 2D NMR experiments. Compounds showed high ichthyotoxicity and antifeedant activity.



2 a, b R=H
2 c, d R=COCH₃

3 a, b R=H
3 c, d R=COCH₃

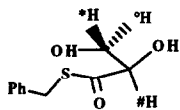
a, b and c, d epimers at C20

Tetrahedron, 1994, 50, 857

ON THE MECHANISM OF BAKER'S YEAST MEDIATED SYNTHESIS OF (R)- S-BENZYL THIOGLYCERATE. EXPERIMENTS IN DEUTERATED WATER

G. Fronza, C. Fuganti, A. Mele, G. Pedrocchi-Fantoni and S. Servi

Dipartimento di Chimica del Politecnico, CNR Centro per la Chimica delle Sostanze Organiche Naturali,
Via Mancinelli 7, 20131 Milano, Italy



Baker's yeast fermentation of benzyl mercaptan in D₂O affords trideuterated (R)-S-benzyl thioglycerate. The amount of deuterium incorporated (*H, #H, or #H) depends upon the monosaccharide used as carbon source.

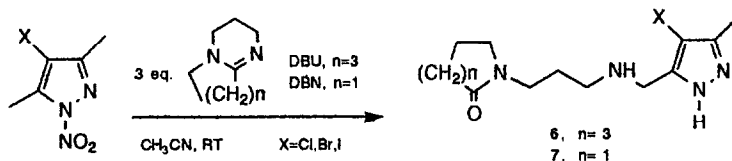
NUCLEOPHILIC BEHAVIOUR OF DBU AND DBN IN REACTIONS WITH 4-HALO-3,5-DIMETHYL-1-NITRO-1H-PYRAZOLES.

Hendrik Lammers*, Pauline Cohen-Fernandes, and Clarisse L. Habraken

University of Leiden, Gorlaeus Laboratories, P.O. Box 9502, 2300 RA Leiden, The Netherlands

Tetrahedron, 1994, 50, 865

The unexpected nucleophilic behaviour of DBU and DBN in the reaction with 4-halo-3,5-dimethyl-1-nitro-1H-pyrazoles in acetonitrile affording 6 and 7, is described.



ALLYLATION USING ALLYLBORATES

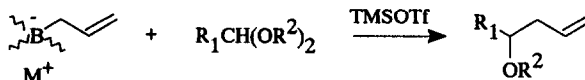
Tetrahedron, 1994, 50, 871

Roger Hunter¹*, Joseph P. Michael² and Geoffrey D. Tomlinson²

1. Department of Chemistry, University of Cape Town, Rondebosch 7700, South Africa.

2. Department of Chemistry, University of the Witwatersrand, P.O. Wits 2050, Johannesburg, South Africa.

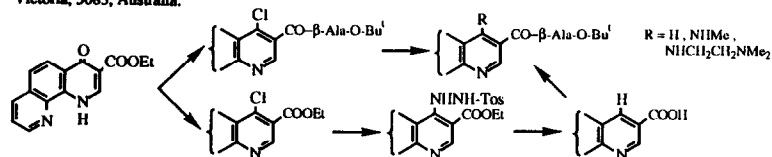
Allyl transfer from a range of allylborates to activated (TMSOTf) acetals produces homoallylic ethers in good to moderate yields.



SYNTHESIS OF 4-AMINO SUBSTITUTED AND 4-UNSUBSTITUTED 1,10-PHENANTHROLINE-3-CARBOXYLIC ACID DERIVATIVES AS POTENTIAL DNA CLEAVAGE REAGENTS

Francis C.K. Chiu*, Robert T.C. Brownlee, Don R. Phillips, Department of Biochemistry, La Trobe University, Bundoora, Victoria, 3083, Australia.

Tetrahedron, 1994, 50, 889



Abstract: A series of 1,10-phenanthroline-3-carboxy derivatives was reported. 4-Amino derivatives were prepared by displacement of the 4-chloro substituent, and 4-unsubstituted phenanthrolines by base-catalysed elimination of the 4-tosyl hydrazide.

X=Y-ZH COMPOUNDS AS POTENTIAL 1, 3-DIPOLES. PART 41¹. AZOMETHINE YLIDE FORMATION FROM THE REACTION OF α -AMINO ACIDS AND ESTERS WITH ALLOXAN (STRECKER DEGRADATION) AND WITH 1-PHENYL-3-METHYLPYRAZOLINE-4,5-DIONE.

Moustafa F. Aly^a, Galal M. El-Naggar^b, Talaat I. El-Emary^b, Ronald Grigg^{a*}, Saoud A. M. Metwally^c and Sasikala Sivagnanam.

a. School of Chemistry, Leeds University, Leeds, LS2 9JT.

b. Department of Chemistry, Faculty of Science, Assiut University, Egypt.

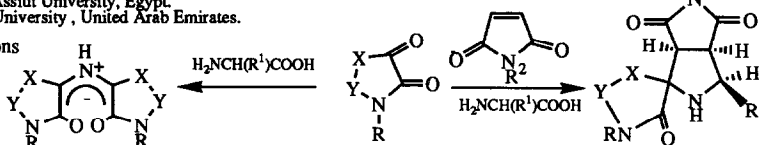
c. Chemistry Department, United Arab Emirates University, United Arab Emirates.

Tetrahedron, 1994, 50, 895

The Strecker degradation and related reactions proceed via azomethine ylide formation

X-Y = CONHCO, R = H

X-Y = MeC=N, R = Ph



Tetrahedron, 1994, 50, 907

Conformationally Restricted Peptides:

Solution Conformation of Tetra And Hepta Peptides Containing α, β -Dehydrophenylalanine Residues in Alternate Positions

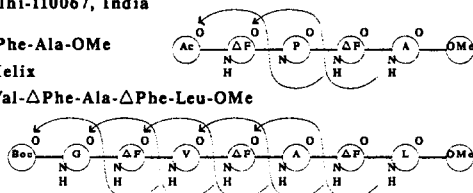
Ratanmani Jain, Mahak Singh and Virander S. Chauhan
ICGEB, New Delhi-110067, India

Ac- Δ Phe-Pro- Δ Phe-Ala-OMe

Incipient 3_{10} -Helix

Boc-Gly- Δ Phe-Val- Δ Phe-Ala- Δ Phe-Leu-OMe

3_{10} -Helix

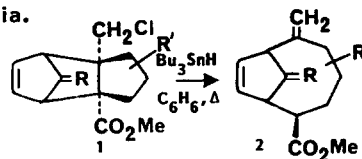


CARBON-CARBON BOND CLEAVAGE VIA CARBON CENTRED RADICAL IN STRAINED TRICYCLO[5.2.1.0^{2,6}]DECENES. A FACILE ROUTE TO BRIDGED EIGHT MEMBERED RINGS RELATED TO TAXANES

Subrata Sarkar and Subrata Ghosh*

Department of Organic Chemistry, Indian Association for the Cultivation of Science, Jadavpur, Calcutta - 700 032, India.

C-C bond cleavage during reaction of the chloro-esters 1 to 2 with Bu_3SnH is found to be facilitated by the strain arising through nonbonded interaction involving $\text{C}_{10}\text{-H}$ with those at $\text{C}_3, \text{C}_4, \text{C}_5$.



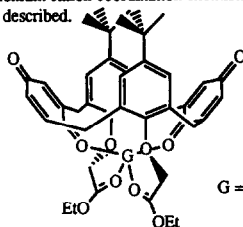
Tetrahedron, 1994, 50, 921

DIESTER-CALIX[4]ARENEDIQUINONE COMPLEXATION AND ELECTROCHEMICAL RECOGNITION OF GROUP 1 AND 2, AMMONIUM AND ALKYL AMMONIUM GUEST CATIONS.

Paul D. Beer*, Zheng Chen and Philip A. Gale.

Inorganic Chemistry Laboratory, University of Oxford, South Parks Road, Oxford, OX1 3QR.

The synthesis, metal, ammonium and alkyl ammonium cation coordination chemistry and electrochemical recognition studies of a new diester-calix[4]arene-diquinone receptor are described.



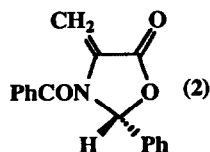
$G = \text{Na}^+, \text{K}^+, \text{Ba}^{2+}, \text{NH}_4^+, \text{Bu}^n\text{NH}_3^+$.

Tetrahedron, 1994, 50, 931

Exo Diastereoselective Diels-Alder Reactions of (R)-2-Phenyl-4-Methylene-Oxazolidin-5-one

S. G. Pyne,* J. Safaei-G, D.C.R. Hockless, B.W. Skelton, A.N. Sobolev and A.H. White
Department of Chemistry, University of Wollongong, Australia.

Exo diastereoselective Diels-Alder reactions of (2) are described.



Tetrahedron, 1994, 50, 941