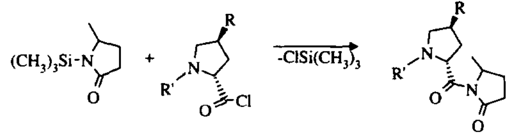
GRAPHICAL ABSTRACTS

Tetrahedron Letters, **1997**, *38*, 2197

SYNTHESIS OF MICROCOLIN ANALOGS USING TRIMETHYLSILYLATED LACTAMS.

Ralph-Heiko Mattern,* Sarath P. Gunasekera and Oliver J. McConnell,
Division of Biomedical Marine Research, Harbor Branch Oceanographic Institution, 5600 U.S. 1, Fort Pierce, Florida 34946, USA

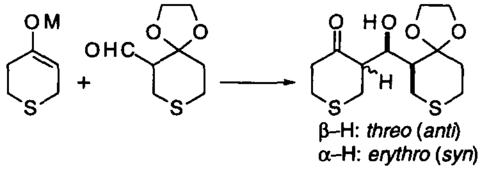
The synthesis of microcolin analogs using trimethylsilylated lactams is described.



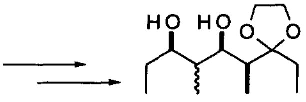
Tetrahedron Letters, **1997**, *38*, 2201

The Thiopyran Route to Polypropionates Revisited: Selective *Syn* and *Anti* Aldol Reactions via 3,6-Dihydro-4-trimethylsilyloxy-2*H*-thiopyran.

Dale E. Ward*, Chuk C. Man, and Cheng Guo
Department of Chemistry, University of Saskatchewan, 110 Science Place, Saskatoon SK S7N 5C9, CANADA.



M	%yield	threo:erythro
Li·HN^{i}Pr$_2$	40	2.5:1
Li	75	7.5:1
OTMS (+ TiCl$_4$)	85	<1:10

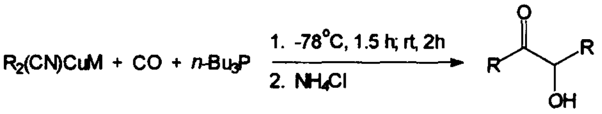


Tetrahedron Letters, **1997**, *38*, 2203

Carbonylation of Dialkylcyanocuprates with Carbon Monoxide: Synthesis of α-Hydroxyketones

George W. Kabalka,* Nan-Sheng Li, and Su Yu
Departments of Chemistry and Radiology;The University of Tennessee; Knoxville, TN 37996-1600

Dialkylcyanocuprates, prepared from copper(I) cyanide and the corresponding alkyllithium or Gringard reagents, readily react with carbon monoxide in the presence of tri-*n*-butylphosphine at -78 °C in THF to give α-hydroxyketones in high yields (65-85%).

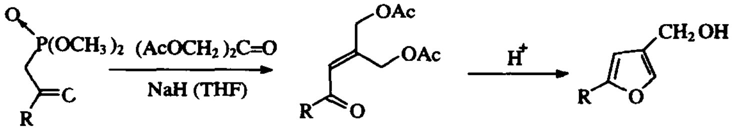


Tetrahedron Letters, **1997**, *38*, 2207

A SIMPLE APPROACH TO 2-SUBSTITUTED-4-FURANMETHANOL COMPOUNDS.

Reyna Díaz-Cortés, Ana L. Silva and Luis A. Maldonado*.
Instituto de Química and División de Estudios de Posgrado, Facultad de Química, UNAM, Ciudad Universitaria, Coyoacán, 04510 México D.F., MEXICO

A two step synthesis of the title compounds is described.

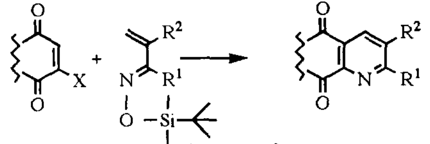


Tetrahedron Letters, **1997**, *38*, 2211

Diels-Alder Reactions of *N*- Silyloxy 1-Azadienes

Mohammad Behforouz,* Zhengxiang Gu, Lindsay S. Stelzer, Mohammad Ahmadian, Jalal Haddad and John A. Scherschel, Department of Chemistry, Ball State University, Muncie , Indiana 47306

Diels-Alder reactions of azadienes **1** and **2** with halobenzoquinones, naphtoquinones, and phenylmaleimide regiospecifically give low to good yields of substituted pyridines, quinoline-5,8-diones and azaanthraquinones.



X = Br, Cl, H

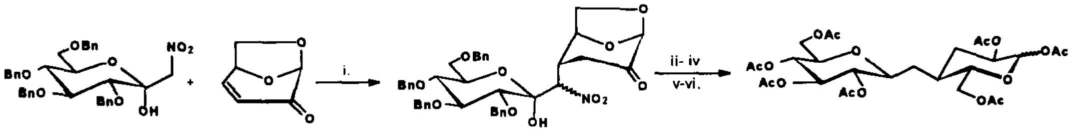
1; $R^1 = CH_3, R^2 = H$

2; $R^1 = H, R^2 = CH_3$

Tetrahedron Letters, **1997**, *38*, 2215

C-Disaccharides I. Stereoselective Approach to β-(1-4)-3-Deoxy-C-Disaccharides from Levoglucosenone.

Zbigniew J. Witczak,* Renu Chhabra, Joanna Chojnacki, School of Pharmacy, Department of Pharmaceutical Sciences, University of Connecticut, Storrs, Connecticut, 06269-2092 U.S.A.



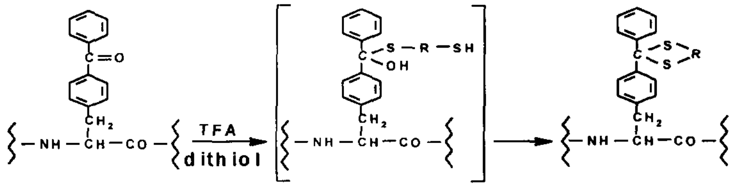
i. $Et_3N/MeCN$ or $KF/MeCN$, or $TMG/MeCN$. ii. $Bu_3SnH/ABCN/toluene$, iii. $BF_3\text{-}Et_2O/Et_3SiH/DCE$, iv.L-Selectride, v. $Pd(OH)_2/C/C_6H_{10}/EtOH$, vi . $Et_3SiOSO_2CF_3/Ac_2O$.

Tetrahedron Letters, **1997**, *38*, 2219

DITHIOKETAL FORMATION DURING SYNTHESIS OF BPA-CONTAINING PEPTIDES.

Michael Breslav,[a] Jeffrey Becker,[b] and Fred Naider.*[a] [a]Department of Chemistry, College of Staten Island, City University of New York, Staten Island, New York 10314.[b]Departments of Microbiology and Biochemistry, Cellular and Molecular Biology, University of Tennessee, Knoxville, Tennessee 37996.

p-Benzoylphenylalanine-containing peptides formed a dithioketal derivative with 1,2-ethanedithiol during TFA cleavage from an HMP resin. This side reaction was eliminated by replacing ethanedithiol with dithiothreitol.

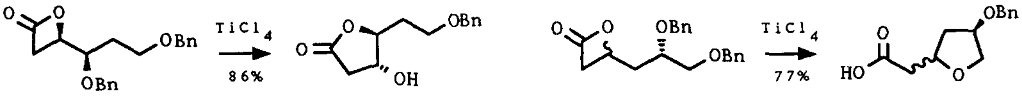


Tetrahedron Letters, **1997**, *38*, 2223

ADDRESSING THE COMPETITION BETWEEN INTRAMOLECULAR ACYL AND BETA RING CLEAVAGE IN β-LACTONES.

Dominique White, Ronald Zemribo and Keith T. Mead,* Department of Chemistry, Mississippi State University, Mississippi State, MS 39762 USA.

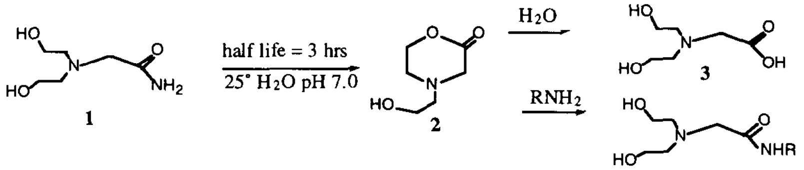
Examples of selective acyl and β-cleavage are reported.



Tetrahedron Letters, **1997**, *38*, 2227

FACILE HYDROLYSIS AND FORMATION OF AMIDE BONDS BY N-HYDROXYETHYLATION OF α-AMINO ACIDS.

J. William Suggs*, Richard M. Pires, Department of Chemistry, Brown University, Providence RI 02912 USA

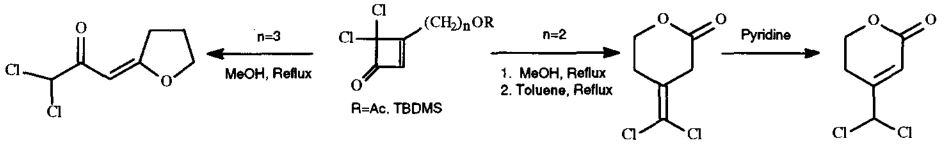


Facile hydrolysis and transamidation of indicated amides in water at neutral pH.

Tetrahedron Letters, **1997**, *38*, 2231

New Annulation Reactions of Cyclobutenones

John L. Dillon*[a], Qi Gao[b], Elizabeth A. Dillon[c], and Nick Adams[c]
a. Process Exploration Labs, Technical Operations Development, Bristol Myers Squibb Co., P. O. Box 4755, Syracuse, New York 13221
b. Analytical Research and Development Department, Pharmaceutical Research Institute, Bristol-Myers Squibb Co., 5 Research Parkway, Wallingford, Connecticut 06492
c. Department of Chemistry, LeMoyne College, LeMoyne Heights, Syracuse, New York 13214



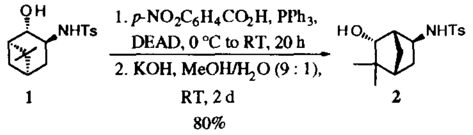
Tetrahedron Letters, **1997**, *38*, 2235

Novel Wagner-Meerwein Rearrangement of a Bicyclo[3.1.1]heptanol under Mitsunobu Conditions

P. Andrew Evans,* Jade D. Nelson and Arnold L. Rheingold

Lammot du Pont Laboratory, Department of Chemistry and Biochemistry, University of Delaware, Newark, DE 19716.

Treatment of the bicyclo[3.1.1]heptanol 1 under standard Mitsunobu conditions afforded after hydrolysis the rearranged bicyclo[2.2.1]heptanol 2 in 80% overall yield.

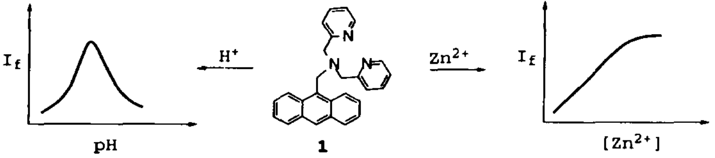


Tetrahedron Letters, **1997**, *38*, 2237

A FLUORESCENT PHOTOINDUCED ELECTRON TRANSFER SENSOR FOR CATIONS WITH AN OFF-ON-OFF PROTON SWITCH

Saliya A. de Silva,* Andres Zavaleta, David E. Baron, Osama Allam, Edward V. Isidor, Norie Kashimura, James M. Percarpio
Department of Chemistry & Biochemistry, Montclair State University, Upper Montclair, NJ 07043, USA

The cation sensor 1 functions as a unique off-on-off fluorescent switch for protons, and an off-on fluorescent switch for zinc (II) ions.

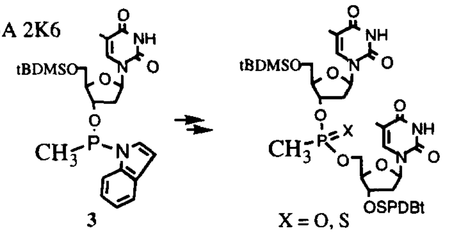


Tetrahedron Letters, **1997**, *38*, 2241

Indole: A Novel Leaving Group in the Synthesis of Oligonucleoside Methylphosphonates

Jian-Chao Wang and George Just*
Department of Chemistry, McGill University, Montreal, Canada H3A 2K6

A P^{III} coupling reagent 3 containing indole group is described. Its usefulness is demonstrated by the synthesis of dinucleoside methylphosphonates and methylthiophosphonates.



Tetrahedron Letters, **1997**, *38*, 2245

CONVERSION OF BENZALDEHYDE INTO BENZYL BENZOATE FROM THE REACTION WITH LITHIUM METAL IN HEXANE

N.Sbarbati Nudelman* and S. Mendiara. Depto. Quim. Org., Facultad de Ciencias Exactas, Universidad de Buenos Aires, Ciudad Universitaria, 1428 Buenos Aires; and Facultad de Ciencias Exactas, Universidad de Mar del Plata, Mar del Plata, Argentina.

Conditions are described that allow reactions within adsorbed species giving benzyl benzoate in quantitative yield.

$$\mathbf{PhCHO + Li \rightarrow [(PhCHO)^{-}/Li^{+}]}$$

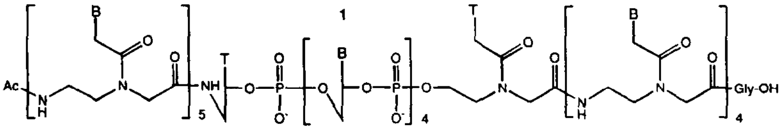
$$\mathbf{[(PhCHO^{-}/Li^{+}] + [PhCHO/Li] \rightarrow [(PhCO)^{-} + PhCH_2O^{-}] \rightarrow (PhCOOCH_2Ph)^{-}}$$

Tetrahedron Letters, **1997**, *38*, 2249

A CONVENIENT AUTOMATED SOLID-PHASE SYNTHESIS OF PNA-(5')-DNA-(3')-PNA CHIMERA.

Alexander C. van der Laan[a], Rick Brill[b], Robert G. Kuimelis[b], Esther Kuyl-Yeheskiely[a], Jacques H. van Boom[a], Alex Andrus[b] and Ravi Vinayak[b]. [a]Leiden Institute of Chemistry, Leiden University, P.O. Box 9502, 2300 RA Leiden, The Netherlands. [b]Applied Biosystems. Perkin-Elmer Corporation, 850 Lincoln Centre Drive, Foster City, CA 94404, USA.

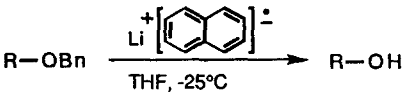
Online solid-phase synthesis and hybridisation properties of chimera 1 are described.



Tetrahedron Letters, **1997**, *38*, 2253

REDUCTIVE CLEAVAGE OF BENZYL ETHER WITH LITHIUM NAPHTHALENIDE. A CONVENIENT METHOD FOR DEBENZYLATION.

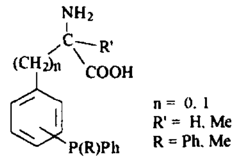
Hsing-Jang Liu,† Judy Yip† and Kak-Shan Shia‡
†Department of Chemistry, University of Alberta, Edmonton, Alberta, Canada, T6G 2G2
‡Department of Chemistry, National Tsing Hua University, Hsinchu, Taiwan 30043, Republic of China.



Tetrahedron Letters, **1997**, *38*, 2257

A SYSTEMATIC SYNTHETIC APPROACH TO PHOSPHINOPHENYLGLYCINE AND ALANINE - CHIRAL PHOSPHINE LIGANDS WITH AMINO ACID MOIETIES

Michael Tepper[a], Othmar Stelzer*[a], Thomas Häusler[b], and William S. Sheldrick[b]
[a]Fachbereich 9, Anorganische Chemie, Bergische Universität-GH Wuppertal, Gaußstr. 20, D-42097 Wuppertal, Germany
[b]Ruhr-Universität Bochum, Universitätsstr. 150, D-44780 Bochum, Germany



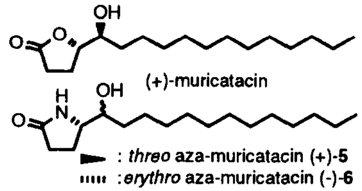
Phosphinophenyl derivatives of glycine and alanine have been obtained by nucleophilic phosphination of fluorophenylglycine and alanine with potassium phosphides Ph(R)PK (R = Me, Ph).

Tetrahedron Letters, **1997**, *38*, 2259

Synthesis of Aza-Muricatacin : an Analogue of the Bioactive Muricatacin an Acetogenin of Annonaceae

Isabelle Baussanne[§], Oliver Schwardt[§], Jacques Royer[§]*
Marianne Pichon[$], Bruno Figadère[$]*, André Cavé[$]

[§]Institut de Chimie des Substances Naturelles, CNRS, Avenue de la Terrasse, 91198 Gif sur Yvette (France)
[$]Laboratoire de Pharmacognosie, associé au CNRS (BIOCIS), Université Paris-Sud, Faculté de Pharmacie, rue J. B. Clément, 92296 Châtenay-Malabry (France)

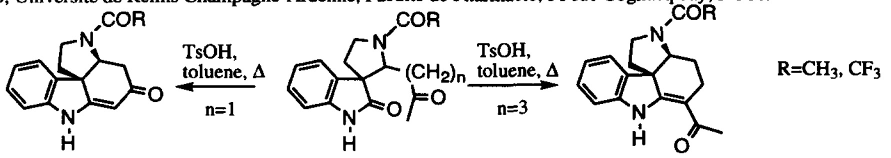


Muricatacin is a hydroxy butanolide extracted from *Annona muricata*, and has shown cytotoxic activity. The *threo* and *erythro* aza-analogues, namely the hydroxy pyrolidones have been synthesized through two different routes.

Tetrahedron Letters, **1997**, *38*, 2263

INTRAMOLECULAR ACID-CATALYZED ALDOLIZATION OF OXINDOLIC METHYLKETONES

Catherine Mirand, Mario Papa, Dominique Cartier and Jean Lévy*, Laboratoire de Transformations et Synthèse de Substances Naturelles, associé au CNRS, Université de Reims Champagne-Ardenne, Faculté de Pharmacie, 51 rue Cognacq-Jay, F-51096 Reims France

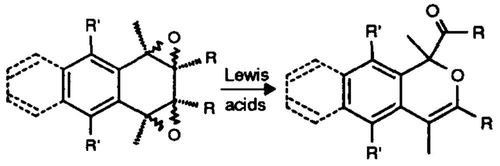


Tetrahedron Letters, **1997**, *38*, 2267

ANTHRACENIC AND NAPHTHALENIC vic-DIEPOXIDES. A NEW KIND OF ISOMERIZATION GOING THROUGH FRAGMENTATION.

Jean Rigaudy and Mohamed Lachgar, Laboratoire de Recherches Organiques de l'ESPCI, Université Pierre et Marie Curie (CNRS URA 476) 10 rue Vauquelin, 75231 PARIS Cedex 05, FRANCE.

Syn and *anti* anthracenic and naphthalenic 1,2;3,4-diepoxides, treated with Lewis acids in anhydrous medium, rearrange more or less completely into 1-acyl-naphtho[2,3-*c*] or benzo[*c*] pyrans.

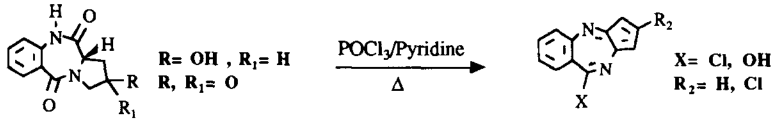


Tetrahedron Letters, **1997**, *38*, 2271

REARRANGEMENT OF PYRROLO[2,1-*c*][1,4]BENZODIAZEPINES INTO CYCLOPENTA[*b*][1,4]BENZODIAZEPINES UNDER MICROWAVE OR CONVENTIONAL HEATING CONDITIONS.

Alain-Claude Gillard, Frédéric Fabis, Sandrine Jolivet-Fouchet and Sylvain Rault*, Centre d'Etudes et de Recherche sur le Médicament de Normandie, U.F.R. des Sciences Pharmaceutiques, 1, rue Vaubénard 14032 Caen, FRANCE.

Heating of 2-hydroxy or 2-oxopyrrolo[2,1-*c*][1,4]benzodiazepines in $POCl_3$/pyridine led to cyclopenta[*b*][1,4]benzodiazepines.

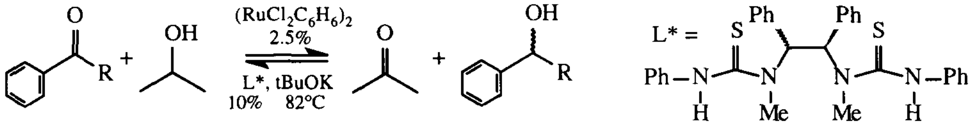


Tetrahedron Letters, **1997**, *38*, 2275

CHIRAL THIOUREA AS LIGAND FOR THE ASYMMETRIC REDUCTION OF PROCHIRAL KETONES.

François Touchard, Patrick Gamez, Fabienne Fache and Marc Lemaire*, Institut de Recherches sur la Catalyse et Laboratoire de Catalyse et Synthèse Organique, CNRS, Université C. Bernard, CPE, Bât. 308, 43 bd. du 11 nov., 69622 Villeurbanne, France.

Reduction of aryl alkyl ketones was performed by hydride transfer reduction with e.e.'s up to 94%.

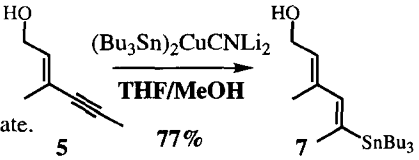


Tetrahedron Letters, **1997**, *38*, 2279

An Efficient Method in Stannylcupration of a Methyl Substituted Enyne or Alkyne by Kinetic Control Using Methanol

Jean-François Betzer,[a] Janick Ardisson,[b*]
Jean-Yves Lallemand,[a] Ange Pancrazi[a*]
[a] *Laboratoire de Synthèse Organique, associé au CNRS*
Ecole Polytechnique, DCSO, 91128, Palaiseau (France).
[b] *Laboratoire de Chimie des Substances Naturelles associé au CNRS*
BIOCIS, Centre d'Etudes Pharmaceutiques, 92290
Châtenay Malabry (France).

Stannyl cupration of enyne **5** led to dienylstannane **7** in 77% yield when the reaction was performed with addition of methanol to the cuprate. Other methods tested to furnish the corresponding boron or zirconium derivatives failed.

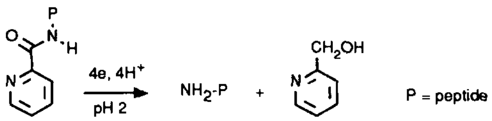


Tetrahedron Letters, **1997**, *38*, 2283

ELECTROCHEMICAL REMOVAL OF THE PICOLINOYL GROUP UNDER MILD ACIDIC CONDITIONS. APPLICATION TO THE PROTECTION OF AMINES IN PEPTIDE SYNTHESIS.

Nicolas Auzeil[#], Gilles Dutruc-Rosset[‡] and Martine Largeron[#*]. [#]Laboratoire de Chimie Analytique et Electrochimie associé au CNRS, Faculté de Pharmacie, 4 avenue de l'Observatoire, 75270 Paris Cedex 06, France. [‡]Rhone-Poulenc Rorer, Centre de Recherches de Vitry-Alfortville, 13 quai Jules Guesde, 94403 Vitry-sur-Seine, France.

The picolinoyl group can be used as a convenient protective group for amines in peptide chemistry, that can be removed by electrochemical reduction.

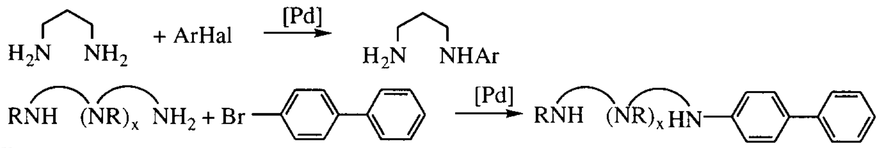


P = peptide

Palladium-Catalyzed Synthesis of Aryl-Substituted Polyamine Compounds from Aryl Halides.

Tetrahedron Letters, **1997**, *38*, 2287

Irina P. Beletskaya*, Alla G. Bessmertnykh, Roger Guilard*
Laboratoire d'Ingénierie Moléculaire pour la Séparation et les Applications des Gaz (L.I.M.S.A.G.), U.M.R. no 5633, Université de Bourgogne/CNRS, Faculté des Sciences Gabriel, 21100 Dijon, France and Department of Chemistry, Moscow State University, Moscow, SU-119899, Russia

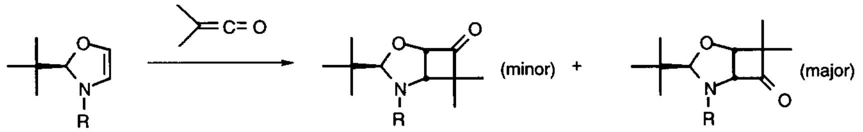


Tetrahedron Letters, **1997**, *38*, 2291

UNUSUAL REGIOCHEMISTRY OF CYCLOADDITION OF KETENES TO (*R*)-2-*tert*-BUTYLDIHYDROOXAZOLE DERIVATIVES. A SIMPLE ROUTE TOWARDS ENANTIOMERICALLY PURE FUNCTIONALISED α-AMINOCYCLOBUTANONES

José Renato Cagnon, Franck Le Bideau, Jacqueline Marchand-Brynaert and Léon Ghosez* Laboratoire de Chimie Organique de Synthèse, Université catholique de Louvain, place Louis Pasteur 1, 1348 Louvain-la -Neuve, Belgium

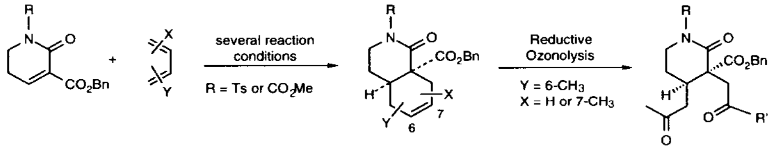
The major product of the [2+2] cycloaddition reaction between an oxazoline and different ketenes results of a steric control.



Diels-Alder Reactions of 5,6-Dihydro-2(1*H*)-pyridones. Preparation of Partially Reduced *cis*-Isoquinolones and *cis*-3,4-Disubstituted Piperidines

Tetrahedron Letters, **1997**, *38*, 2295

Núria Casamitjana,[a] Angela Jorge,[a] Carles G. Pérez,[a] Joan Bosch,[a] Enric Espinosa,[b] and Elies Molins[b]
[a] *Laboratory of Organic Chemistry, Faculty of Pharmacy, University of Barcelona, 08028-Barcelona, Spain*
[b] *Institut de Ciència de Materials (CSIC), Campus UAB, 08193-Cerdanyola, Spain*

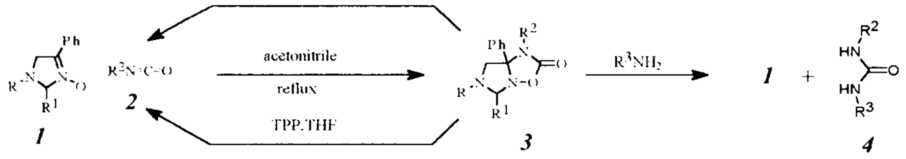


REGIO AND DIASTEREOSELECTIVE ADDITION OF IMIDAZOLINE 3-OXIDES TO ARYL ISOCYANATES.

Tetrahedron Letters, **1997**, *38*, 2299

Necdet Coşkun. Department of Chemistry, Uludağ University, 16059-Bursa ,TURKEY.

Imidazoline 3-oxides underwent regio and diastereoselective addition with aryl isocyanates. Retro cycloadditions with imidazooxadiazolones 3 were performed.

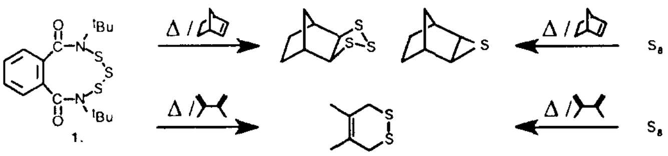


Tetrahedron Letters, **1997**, *38*, 2303

DIATOMIC SULFUR DETECTION BY BUTADIENE AND NORBORNENE: A CAUTIONARY NOTE

Aaron S. Micallef and Steven E. Bottle*, CIDC, School of Chemistry, QUT, Brisbane Qld 4001, Australia.

Thermolysis of benzotrithiadiazacyclononene (1) generates typical diatomic sulfur trapping products. However GC/MS indicates identical trapping products are also obtained via thermolysis of elemental sulfur as well as the previously reported S_2 precursor, dibenzyloxydisulfide (7).

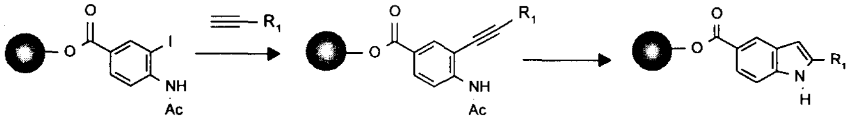


Tetrahedron Letters, **1997**, *38*, 2307

SOLID-PHASE SYNTHESIS OF INDOLES USING THE PALLADIUM-CATALYSED COUPLING OF ALKYNES WITH IODOANILINE DERIVATIVES.

Maria Chiara Fagnola, Ilaria Candiani, Giuseppina Visentin, Walter Cabri,†Franco Zarini, Nicola Mongelli, and Angelo Bedeschi*
Pharmacia & Upjohn, Oncology, Viale Pasteur 10, 20014 Nerviano, (MI), Italy.

Palladium-catalysed solid-phase reaction of aryl iodides with alkynes mediated by TMG gives indoles under mild conditions and in good yields.

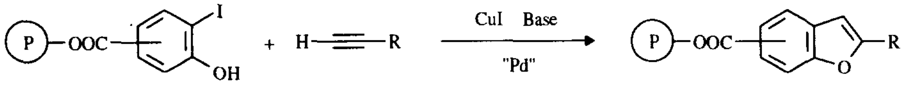


Tetrahedron Letters, **1997**, *38*, 2311

SOLID PHASE SYNTHESIS OF 2-SUBSTITUTED BENZOFURANS VIA THE PALLADIUM-CATALYSED HETEROANNULATION OF ACETYLENES

Daniele Fancelli*, Maria Chiara Fagnola, Dino Severino, and Angelo Bedeschi
Pharmacia & Upjohn, via Pasteur 10, 20014 Nerviano, Milan, (Italy).

The copper/palladium-promoted heteroannulation of terminal acetylenes in the presence of resin bound *ortho*-hydroxy aryl iodides produces 2-substituted benzofuran derivatives in good yield and high purity.

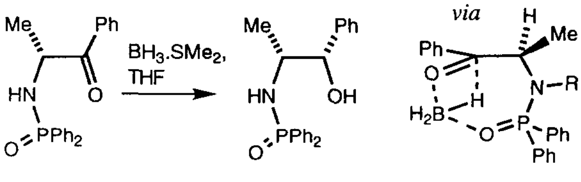


Tetrahedron Letters, **1997**, *38*, 2315

THE USE OF PHOSPHINAMIDE N-PROTECTING GROUPS IN THE DIASTEREOSELECTIVE REDUCTION OF KETONES.

Matthew J. Palmer[a], John R. Studley,[a] Tim C. Walsgrove[b] and Martin Wills.[a]*
a Department of Chemistry, University of Warwick, Coventry, CV4 7AL, UK.
b SmithKline Beecham Pharmaceuticals, Old Powder Mills, Nr Leigh, Tonbridge, Kent, TN11 9AN.

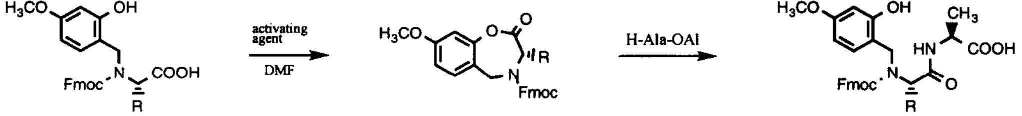
Phosphinamide N-protecting groups direct the diastereoselective reduction of adjacent ketones.



Tetrahedron Letters, **1997**, *38*, 2317

A New Approach to Hmb-Backbone Protection of Peptides: Synthesis and Reactivity of N$^\alpha$-Fmoc-N$^\alpha$-(Hmb)amino Acids.

Ernesto Nicolás,* Montse Pujades, Jordi Bacardit, Ernest Giralt and Fernando Albericio.
Department of Organic Chemistry, University of Barcelona; 08028 Barcelona (Spain)

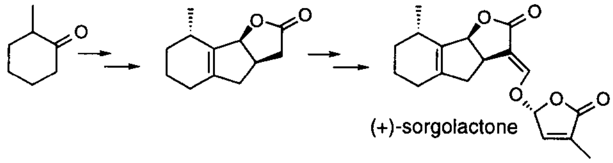


The use of N^α-Fmoc- N^α-(Hmb)amino acids for the introduction of the Hmb backbone protection in peptides is reported. As shown in the scheme, these derivatives, which can be prepared in good yields, are coupled through the formation of a benzoxazepine as the only active especies.

Tetrahedron Letters, **1997**, *38*, 2321

THE FIRST TOTAL SYNTHESIS OF THE NATURALLY OCCURRING GERMINATION STIMULANT SORGOLACTONE.

Yukihiro Sugimoto, Suzanne C.M. Wigchert, Jan Willem J.F. Thuring and Binne Zwanenburg*, NSR Center for Molecular Structure, Design and Synthesis, Department of Organic Chemistry, University of Nijmegen, Toernooiveld, 6525 ED Nijmegen, The Netherlands.

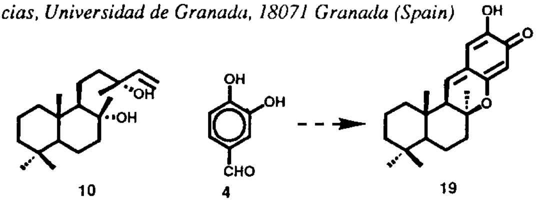


Tetrahedron Letters, **1997**, *38*, 2325

ENANTIOSPECIFIC SYNTHESIS OF (+)-PUUPEHENONE FROM (-)-SCLAREOL AND PROTOCATECHUALDEHYDE

Alejandro F. Barrero,* Enrique J. Alvarez-Manzaneda and Rachid Chahboun
Departamento de Química Orgánica, Facultad de Ciencias, Universidad de Granada, 18071 Granada (Spain)

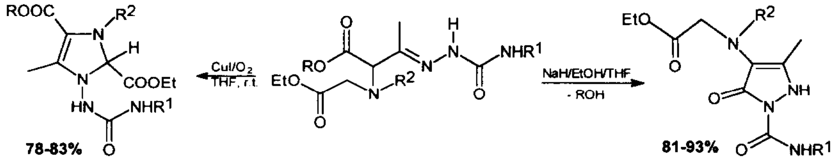
The first enantiospecific synthesis of the antitumor and CETP inhibitor (+)-puupehenone (19) from (-)-sclareol (10) and protocatechualdehyde (4) is described. The key steps of the reaction sequence are the organoselenium-induced cyclization and the simultaneous removal of benzyl and phenylselenyl groups by treating with Raney Ni.



Tetrahedron Letters, **1997**, *38*, 2329

BASE OR COPPER PROMOTED ANNULATION REACTIONS OF α-AMINOHYDRAZONES.

Antonio Arcadi[a]*, Orazio A. Attanasi[b], Lucia De Crescentini[b], Elisabetta Rossi[c].
[a] Dip. di Chimica, Univ. de L'Aquila.[b] Ist. di Chimica Organica, Univ. di Urbino.[c] Ist. di Chimica Organica, Univ. di Milano.



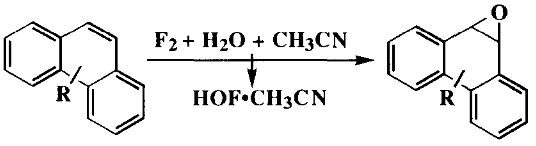
α-Aminohydrazones gave 1-ureido-4-amino-3-methyl-1*H*-pyrazol-5(2*H*)-ones through a base promoted heterocyclization process, while in the presence of copper (I) species the 1-ureido-4-imidazolines were obtained.

Tetrahedron Letters, **1997**, *38*, 2333

EPOXIDATION OF POLYAROMATICS USING HOF-CH_3CN.

Shlomo Rozen,* Yifat Bareket and Jochanan Blum, School of Chemistry,
Tel-Aviv University, Tel-Aviv 69978, Israel.

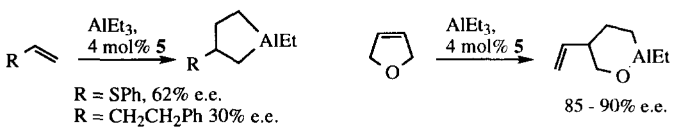
The complex HOF•CH_3CN, made directly from water, fluorine and acetonitrile, epoxidizes phenanthrenes and pyrene at 0 °C, in seconds and in good yields.



Tetrahedron Letters, **1997**, *38*, 2335

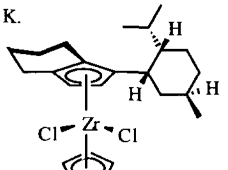
ZIRCONIUM-CATALYSED ENANTIOSELECTIVE 2-ALUMINOETHYLALUMINATION OF ALKENES.

Graham Dawson, Charles A. Durrant, George G. Kirk and Richard J. Whitby*
Department of Chemistry, The University, Southampton, SO17 1BJ, U. K.
Raymond V. H. Jones and Michael C. H. Standen, Zeneca FCMO, Grangemouth, Stirlingshire, FK3 8XG, U. K.



R = SPh, 62% e.e.
R = CH_2CH_2Ph 30% e.e.

85 - 90% e.e.



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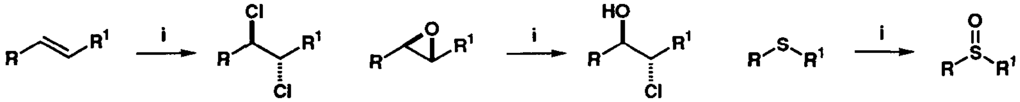
Tetrahedron Letters, **1997**, *38*, 2339

SELECTIVE MANGANESE-MEDIATED REACTIONS USING THE COMBINATION: $KMnO_4$ / Me_3SiCl

István E. Markó*[≠], Paul R Richardson, Mark Bailey, Anita R Maguire*[¥] and Niall Coughlan
[≠] *Université catholique de Louvain, Louvain-la-Neuve, Belgique.* [¥] *University College Cork, Cork, Ireland*



i = $PhCH_2NEt_3Cl$ / $KMnO_4$ / Me_3SiCl / CH_2Cl_2; **R, R¹** = alkyl, aryl

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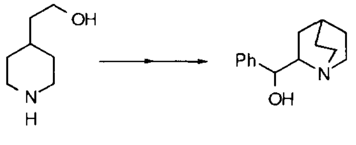
Tetrahedron Letters, **1997**, *38*, 2343

ENANTIO- AND DIASTEREOSELECTIVE SYNTHESIS OF ALL FOUR POSSIBLE STEREOISOMERS OF 2-(PHENYLHYDROXYMETHYL)QUINUCLIDINE.

Barry Lygo*[a], John Crosby[b], Terence R. Lowdon[c] and Philip G. Wainwright[a], a - Department of Chemistry, University of Salford, Salford, M5 4WT, UK; b - Zeneca Pharmaceuticals, Hurdsfield Industrial Estate, Macclesfield, Cheshire, SK10 2NA, UK; c - Hickson and Welch Ltd., Wheldon Road, Castleford, W. Yorks, WF10 2JT, UK.

Starting from piperidine-4-ethanol, all four possible stereoisomers of 2-(phenylhydroxymethyl)quinuclidine are synthesised with high enantio- and diastereoselectivity.

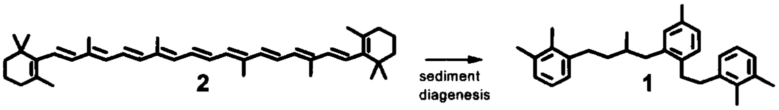


Tetrahedron Letters, **1997**, *38*, 2347

CYCLISATION, AROMATISATION AND EXPULSION REACTIONS OF β-CAROTENE DURING SEDIMENT DIAGENESIS

Jaap S. Sinninghe Damsté*, Marianne Baas, Martin P. Koopmans Netherlands Institute for Sea Research (NIOZ), P.O. Box 59, 1790 AB Den Burg, The Netherlands, Jan A.J. Geenevasen University of Amsterdam, Faculty of Chemistry, Nieuwe Achtergracht 129, 1018 WS Amsterdam.

The structure of a novel sedimentary diaryl isoprenoid **1**, presumably formed from β-carotene **2**, has been determined by ^{1}H and ^{13}C NMR spectroscopy.

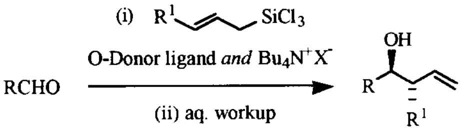


Tetrahedron Letters, **1997**, *38*, 2351

ADDITIVE EFFECTS ON LIGAND ACTIVATED ALLYLATION OF ALDEHYDES BY ALLYLTRICHLOROSILANE

Joanne D. Short, Sandrine Attenoux, and David J. Berrisford,*
Department of Chemistry, Faraday Building, UMIST, Manchester, M60 1QD, UK

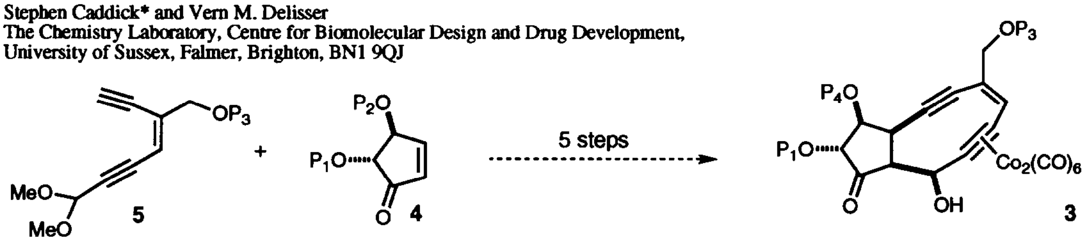
Allylation of aldehydes using a combination of allyltrichlorosilane and O-donor ligands is accelerated by the addition of a range of simple tetra-*n*-butylammonium salts.



Tetrahedron Letters, **1997**, *38*, 2355

STEREOSELECTIVE SYNTHESIS OF A FUNCTIONALISED BICYCLIC CORE OF NEOCARZINOSTATIN AND KEDARCIDIN CHROMOPHORES.

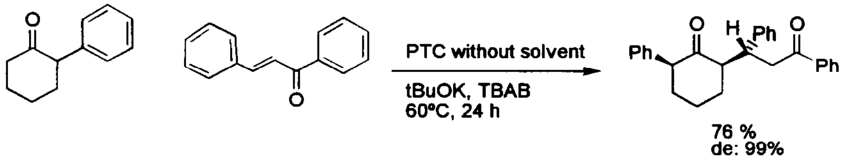
Stephen Caddick* and Vern M. Delisser
The Chemistry Laboratory, Centre for Biomolecular Design and Drug Development, University of Sussex, Falmer, Brighton, BN1 9QJ



Tetrahedron Letters, **1997**, *38*, 2359

REGIOSELECTIVITY AND DIASTEREOSELECTIVITY IN THE PHASE TRANSFER CATALYSED MICHAEL ADDITION OF 2-PHENYLCYCLOHEXANONE

E. Díez-Barra, A. de la Hoz, S. Merino, P. Sánchez-Verdú.
Facultad de Química. Universidad de Castilla-La Mancha. 13071 Ciudad Real. Spain.

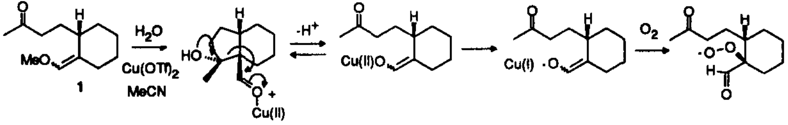


Tetrahedron Letters, **1997**, *38*, 2363

THE FORMATION OF A PERACETAL AND TRIOXANE FROM AN ENOL ETHER WITH COPPER(II) TRIFLATE AND OXYGEN: UNEXPECTED OXYGENATION OF ALDOL INTERMEDIATES

Simone C. Vonwiller,*[a] Jacqueline A. Warner,[a] Simon T. Mann,[a] Richard K. Haynes,*[b] a.The School of Chemistry, The University of Sydney, NSW, 2006, Australia; b.Department of Chemistry, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong.

Reaction of enol ether 1 with copper(II) triflate and water in MeCN affords aldols that upon retroaldolisation undergo oxygenation.



Tetrahedron Letters, **1997**, *38*, 2367

MILD CONVERSION OF PRIMARY CARBOXAMIDES INTO CARBOXYLIC ESTERS.

Pier Lucio Anelli, Marino Brocchetta,* Daniela Palano and Massimo Visigalli
Milano Research Centre, Bracco spa, via E. Folli 50, 20134 Milano, Italy.

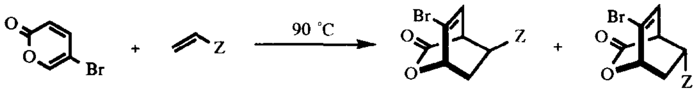
Treatment of a primary carboxamide with dimethylformamide dimethylacetal (DMF-DMA) in the appropriate alcohol leads to the corresponding alkyl carboxylate.

$$\mathrm{RCONH_2} \xrightarrow[\mathrm{R'OH}]{\text{DMF-DMA}} \mathrm{RCOOR'}$$

Tetrahedron Letters, **1997**, *38*, 2369

Unusual Stereoselectivity in Diels-Alder Cycloadditions of 5-Bromopyrone

Kamyar Afarinkia,* Natasha T. Daly, Silvia Gomez-Farnos and Shravan Joshi
Department of Chemistry, King's College, The Strand, London WC2R 2LS, UK.



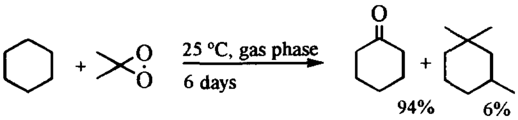
Cycloaddition of 5-bromopyrone affords both endo and exo cycloadducts, depending on the nature of the activating group.

Tetrahedron Letters, **1997**, *38*, 2373

THE OXIDATION OF ALKANES WITH DIMETHYLDIOXIRANE; A NEW MECHANISTIC INSIGHT.

Gregorio Asensio,* Rossella Mello, M. Elena Gonzalez-Nuñez, Carmen Boix, and Jorge Royo. Departamento de Química Orgánica, Universidad de Valencia, Avda. V. A. Estellés s/n 46100-Burjassot, Spain

Cyclohexanone is the only oxygenated product formed in gas-phase oxidation of cyclohexane revealing that the regular DMDO alkane oxidation products are not derived from a radical mechanism.

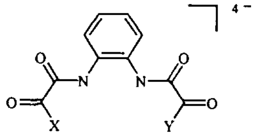


Tetrahedron Letters, **1997**, *38*, 2377

AEROBIC EPOXIDATION OF OLEFINS CATALYSED BY SQUARE PLANAR COBALT(III) COMPLEXES OF BIS-*N,N'*-DISUBSTITUTED OXAMIDES AND RELATED LIGANDS

Jesús Estrada,[a] Isabel Fernández,[a] José R. Pedro*,[a] Xavier Ottenwaelder,[b] Rafael Ruiz,[b] and Yves Journaux*,[b]
[a]Departament de Química Orgànica, Facultat de Química, Universitat de València, 46100 Burjassot (València), Spain. [b]Laboratoire de Chimie Inorganique, URA 420, CNRS, Université de Paris-Sud, 91405 Orsay,France

Three new cobalt(III) complexes of bis-*N,N'*-disubstituted oxamides have been prepared. They catalyse the epoxidation of olefins with molecular oxygen/ pivalaldehyde with very good yields.



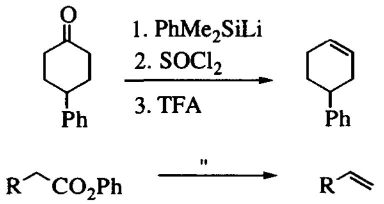
X	Y	Ligand
O	O	opba
O	NCH$_3$	Meopba
NCH$_3$	NCH$_3$	Me$_2$opba

Tetrahedron Letters, **1997**, *38*, 2381

DEHYDRATION OF α-SILYLALCOHOLS IN THE REDUCTIVE CONVERSION OF ESTERS AND KETONES INTO ALKENES

Alain Chénedé, Noorsaadah Abd.Rahman and Ian Fleming*
University Chemical Laboratory, Lensfield Road, Cambridge

The conversion of esters and ketones into easily dehydrated α-silylated alcohols, and protodesilylation of the resultant vinylsilanes, gives alkenes under relatively mild acidic conditions.

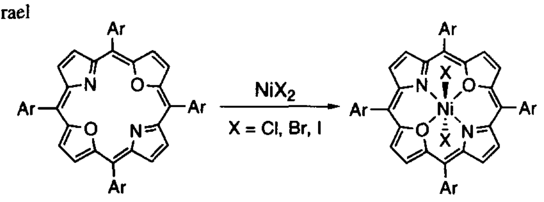


Tetrahedron Letters, **1997**, *38*, 2383

THE FIRST METAL CHELATION BY A NEUTRAL PORPHYRIN ANALOGUE.

Zeev Gross,* Irena Saltsman, Ramasamy P. Pandian, and Claudia M. Barzilay, Department of Chemistry, The Technion - Israel Institute of Technology, Haifa 32000, Israel.

The preparation and spectroscopic characterization of the *trans*-dihalonickel(II) complexes of O$_2$TTP, a modified porphyrin in which the two NH groups are replaced by oxygen atoms, shows that 21,23-dioxaporphyrins are exceptionally well suited for metal complexation and for stabilization of divalent nickel in paramagnetic pseudo-octahedral geometries.



O$_2$TTP

(O$_2$TTP)Ni(X)$_2$

Tetrahedron Letters, **1997**, *38*, 2387

REMOTE ASYMMETRIC INDUCTION IN REACTIONS OF 5-ALKOXYALK-2-ENYLSILANES AND ALDEHYDES PROMOTED BY TIN(IV) CHLORIDE

Christopher T. Brain and Eric J. Thomas,* The Department of Chemistry, The University of Manchester, Manchester M13 9PL, U.K.