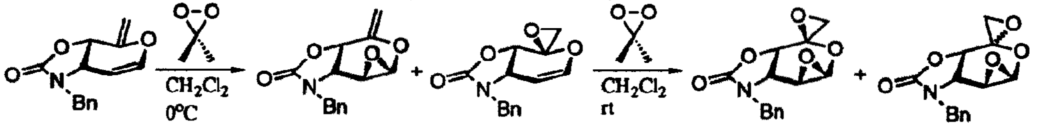
GRAPHICAL ABSTRACTS

Tetrahedron Letters, **1994**, *35*, 9131

EPOXIDES DERIVED FROM PYRANOSYL DIENES: UNUSUALLY STABLE GLYCOSYL DONORS.

J. T. Link, Gayle Schulte, and Samuel J. Danishefsky*
Department of Chemistry, Yale University, New Haven, Connecticut 06511-8118

A pyranosyl diene potentially useful in a total synthesis of staurosporine has been synthesized. The mono-epoxides and bis-epoxides obtained from treatment of this diene with dimethyldioxirane are unusually stable.

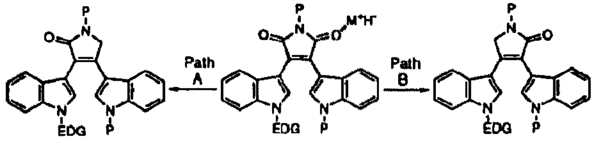


Tetrahedron Letters, **1994**, *35*, 9135

Regioselective Imide Reduction: An Issue in the Total Synthesis of Staurosporine.

J. T. Link and Samuel J. Danishefsky*
Department of Chemistry, Columbia University, New York, NY 10027

An imide was regioselectively reduced to either of its corresponding lactams which can be converted into the aglycone of staurosporine.

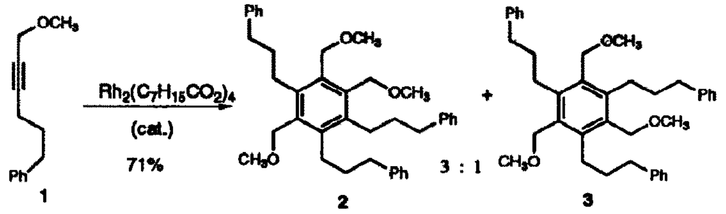


Tetrahedron Letters, **1994**, *35*, 9139

HEXASUBSTITUTED BENZENES BY ALKYNE CYCLOTRIMERIZATION

Douglass F. Taber and Mohammed Rahimizadeh, Department of Chemistry & Biochemistry, University of Delaware, Newark, DE 19716 USA

Rhodium octanoate is shown to be an efficient catalyst for the cyclotrimerization of alkyne 1 to a statistical mixture of 2 and 3.



Tetrahedron Letters, **1994**, *35*, 9141

Laboratory Scale Preparation of 4,4,5,5,5-pentafluoropentan-1-thiol: An Important Chain of Anti-Breast Cancer Agents.

Xun Li, Louis Provencher and Shankar M. Singh,* Medicinal Chemistry Division, Laboratory of Molecular Endocrinology CHUL Research Center, Québec City, Québec G1V 4G2, Canada

An efficient synthesis is described to prepare the title compound in gram quantities.

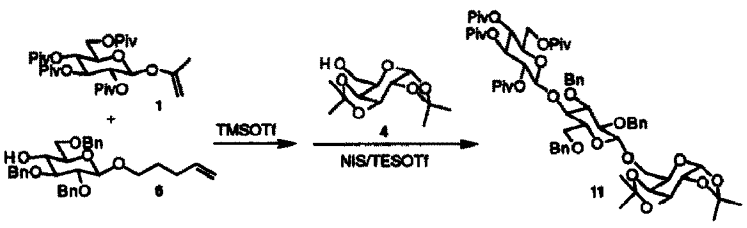
$$CF_3CF_2I + HC{\equiv}CCH_2OH \longrightarrow \longrightarrow \longrightarrow CF_3CF_2CH_2CH_2CH_2SH$$

Tetrahedron Letters, **1994**, *35*, 9145

Glycosyl Transfer by Isopropenyl Glycosides: Trisaccharide Synthesis in One Pot by Selective Coupling of Isopropenyl and *n*-Pentenyl Glycopyranosides

H. Keith Chenault* and Alfredo Castro
Department of Chemistry and Biochemistry
University of Delaware, Newark, DE 19716

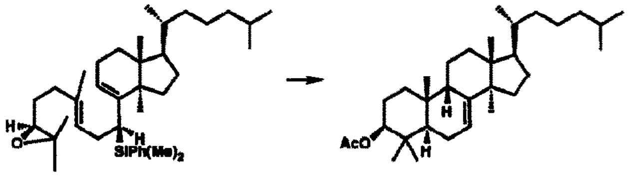
O-Isopropenyl glycosides react to give β-glycosides in good yields. Selective glycosylation of **6** by **1** allows **11** to be synthesized by two successive glycosylations performed in a single pot.



Tetrahedron Letters, **1994**, *35*, 9149

First Demonstration of a Carbocation-Olefin Cyclization Route to the Lanosterol Series

E. J. Corey,* Jaemoon Lee and David R. Liu
Department of Chemistry
Harvard University
Cambridge, Massachusetts 02138



Tetrahedron Letters, **1994**, *35*, 9153

Efficient Stereocontrolled Synthesis of the ABC Subunit of Dumsin

Fang-Tsao Hong and Leo A. Paquette*
Evans Chemical Laboratories, The Ohio State University, Columbus, Ohio 43210

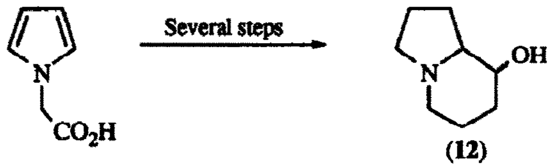
The known lactone **6** has been transformed into **2** in six steps. The intermediate stages proceed with complete stereoselectivity, with three-dimensional details established by X-ray crystallography.

6 **2**

Tetrahedron Letters, **1994**, *35*, 9157

A Simple Route to the Indolizidine Alkaloid Skeleton.

Derek H. R. Barton,* Maria M. M. Araújo Pereira and Dennis K. Taylor.
Department of Chemistry, Texas A&M University, College Station TX 77843-3255, USA.



(12)

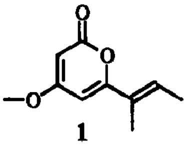
The Barton-Ester (PTOC) methodology allows for the high yielding synthesis of the indolizidine alkaloid skeleton **12**.

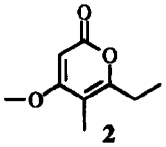
Tetrahedron Letters, **1994**, *35*, 9159

NEW NECTRIAPYRONES BY SALT WATER CULTURE OF A FUNGUS SEPARATED FROM AN INDO-PACIFIC SPONGE

Leif M. Abrell, Xing-Chung Cheng and Phillip Crews*
Dept. of Chemistry and Biochemistry and Institute for Marine Sciences, University of California, Santa Cruz, CA 95064 USA

The salt water culture of an unidentified fungus separated from an Indo-Pacific marine sponge has yielded new tetraketide natural products, demethyl nectriapyrone A (1) and nectriapyrone B (2).


1

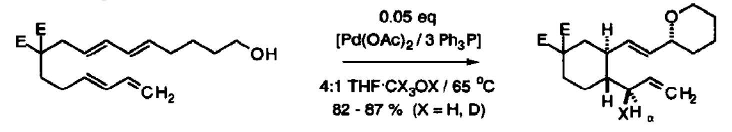

2

Tetrahedron Letters, **1994**, *35*, 9161

CATALYTIC PALLADIUM-MEDIATED TETRAENE CARBOCYCLIZATIONS: DIASTEREOSELECTIVE DEUTERATION AND ITS CONVENIENT ANALYSIS BY A DSPT NMR EXPERIMENT.

James M. Takacs,* Sithamalli V. Chandramouli and Richard Shoemaker, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, NE 68588-0304

In the presence of a deuterium source certain tetraenes undergo palladium-catalyzed cyclization/intramolecular trapping with stereoselective deuteration exocyclic to the newly formed carbocycle. Diastereoselectivity is established by the novel application of a difference spin polarization transfer (DSPT) NMR experiment.

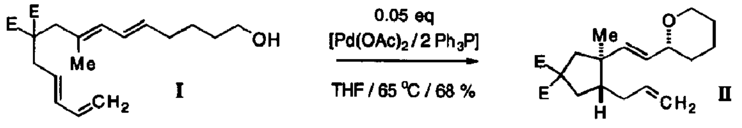


Tetrahedron Letters, **1994**, *35*, 9165

CATALYTIC PALLADIUM-MEDIATED TETRAENE CARBOCYCLIZATIONS: THE EFFICIENT STEREOCHEMICAL CONTROL OF NEWLY-FORMED METHYL-BEARING STEREOCENTERS.

James M. Takacs* and Sithamalli V. Chandramouli, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, NE 68588-0304

Tetraene substrates bearing a trisubstituted double bond as part of one of the diene subunits undergo palladium-catalyzed cascade cyclization to afford products in which a new methyl-bearing stereocenter is generated in a stereoselective fashion (*e.g.*, I to II).

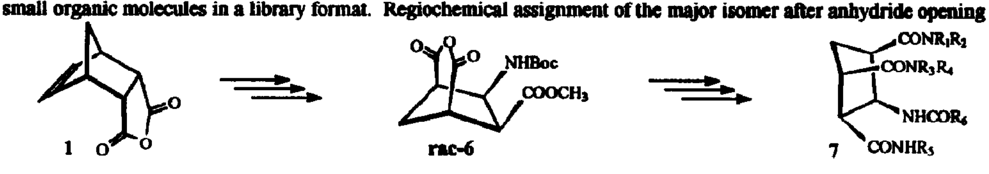


Tetrahedron Letters, **1994**, *35*, 9169

All-cis Cyclopentane Scaffolding for Combinatorial Solid Phase Synthesis of Small Non-Peptide Compounds

Marcel Pátek, Brian Drake and Michal Lebl, Selectide Corporation, 1580 E. Hanley Blvd., Tucson, AZ 85737

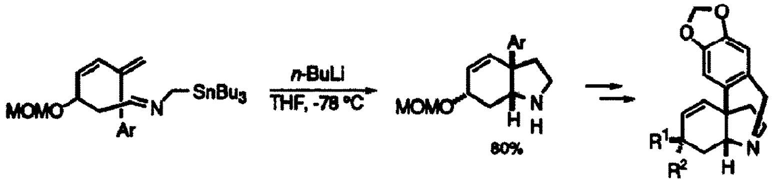
Racemic all-cis substituted anhydride 6 was used for synthesis of model compounds 7 to demonstrate the feasibility of synthesis of small organic molecules in a library format. Regiochemical assignment of the major isomer after anhydride opening is described.



Tetrahedron Letters, **1994**, *35*, 9173

APPLICATION OF THE 2-AZAALLYL ANION CYCLOADDITION METHOD TO SYNTHESES OF (±)-CRININE AND (±)-6-EPICRININE

William H. Pearson* and Frank E. Lovering
Department of Chemistry, The University of Michigan, Ann Arbor, MI 48109-1055



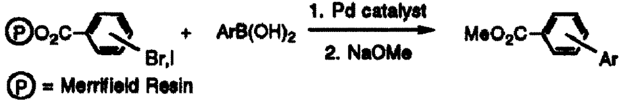
R^1 = OH, R^2 = H: Crinine
R^1 = H, R^2 = OH: 6-Epicrinine

Tetrahedron Letters, **1994**, *35*, 9177

Biaryl Synthesis via Suzuki Coupling on a Solid Support

Richard Frenette and Richard W. Friesen*
Department of Medicinal Chemistry, Merck Frosst Centre for Therapeutic Research,
P.O. Box 1005, Pointe Claire-Dorval, Québec Canada H9R 4P8

Aryl halides bound to a Merrifield resin undergo Suzuki cross-coupling with aryl boronic acids. Transesterification releases biaryl esters in excellent purity and yield.

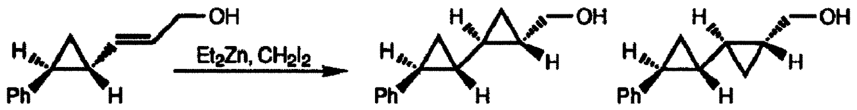


Tetrahedron Letters, **1994**, *35*, 9181

DIASTEREOSELECTIVE SYNTHESIS OF BICYCLOPROPANES

Cory R. Theberge and Charles K. Zercher,* Department of Chemistry,
University of New Hampshire, Durham, NH 03824

Diastereoselective cyclopropanation of a trans-substituted vinyl cyclopropane was studied. The stereochemistry of the major and minor isomers was assigned by diastereoselective synthesis of the two isomers.

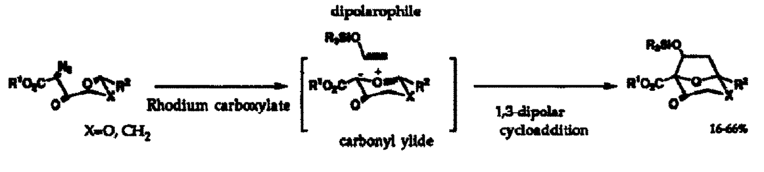


Tetrahedron Letters, **1994**, *35*, 9185

A Novel Synthetic Approach Toward the Zaragozic Acids Core Structure

Hiroo Koyama*, Richard G. Ball, and Gregory D. Berger
Merck Research Laboratories, P. O. Box 2000, Rahway, NJ 07065-0900

An approach via 1,3-dipolar -cycloaddition to the carbonyl ylide is described. The substituent effect of the dipolarophiles is also discussed.

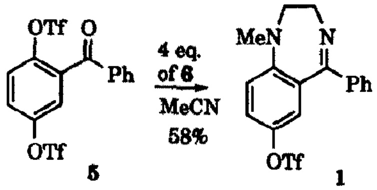


Tetrahedron Letters, **1994**, *35*, 9189

A Direct Preparation of 1,4-Benzodiazepines. The Synthesis of Medazepam and Related Compounds via a Common Intermediate

George A. Kraus* and Hiroshi Maeda
Department of Chemistry, Iowa State University, Ames, Iowa 50011

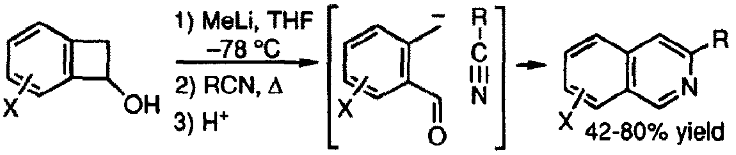
The benzodiazepine skeleton was prepared from benzoquinone in three steps. Medazepam was synthesized.

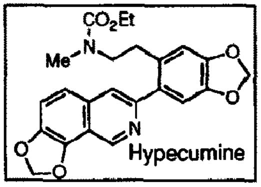


Tetrahedron Letters, **1994**, *35*, 9191

REACTION OF BENZOCYCLOBUTENOXIDES WITH NITRILES: SYNTHESIS OF HYPECUMINE AND OTHER 3-SUBSTITUTED ISOQUINOLINES.

John J. Fitzgerald, Forrest E. Michael, and R. A. Olofson*
Department of Chemistry, The Pennsylvania State University, University Park, PA 16802, USA



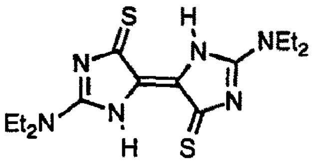


Tetrahedron Letters, **1994**, *35*, 9195

THE FIRST DITHIONO DERIVATIVE OF AN INDIGOID SYSTEM

Rudolf Gompper, Karsten Hartmann, Kurt Polborn
Institut für Organische Chemie, Universität München, Karlstraße 23, D-80333 München

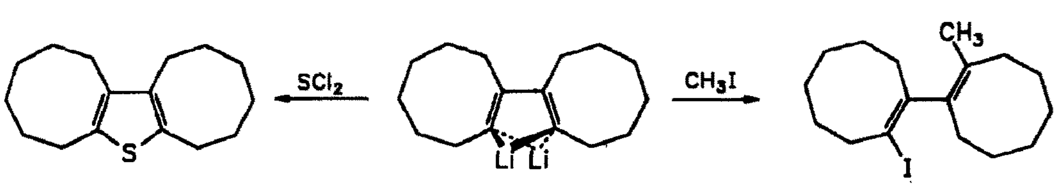
2,6-Bis-diethylamino-3,4,7,8-tetrahydro-1,3,5,7-tetraaza-fulvalene-4,8-dithione is the first dithiono derivative of an indigoid system



Tetrahedron Letters, **1994**, *35*, 9197

2,2′-DILITHIO-1,1′-BICYCLOOCTENYL: SYNTHESIS AND REACTIONS WITH ELECTROPHILES

Adalbert Maercker and Ulrich Girreser - Institut für Organische Chemie der Universität Siegen, D-57068 Siegen (Germany)

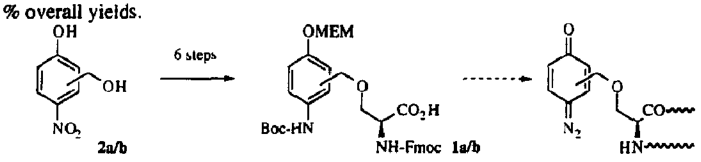


Tetrahedron Letters, **1994**, *35*, 9199

SYNTHESIS OF N-PROTECTED SERINE ETHERS AS PRECURSORS OF NEW PHOTOACTIVATABLE AMINO ACIDS CLEAVABLE BY HYDROGENOLYSIS.

Christophe Dugave*, Pascal Kessler, Christophe Colas and Christian Hirth†.
CEA, DSV, Département d'Ingénierie et d'Etudes des Protéines (DIEP), C.E. Saclay, 91191 Gif-sur-Yvette, France.

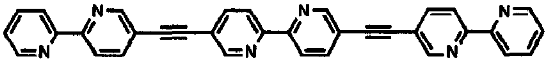
Amino acids **1a/b** were designed as precursors of photoactivatable 4-diazocyclohexa-2,5-dienone containing peptides and were synthesized in 48 / 50 % overall yields.



Tetrahedron Letters, **1994**, *35*, 9203

PREPARATION OF NOVEL MIXED TRITOPIC OLIGOPYRIDINE LIGANDS BUILT WITH CHELATING SPACERS AND USING PALLADIUM(0) CATALYSED COUPLING REACTIONS

Francisco M. Romero and Raymond Ziessel*
Laboratoire de Chimie, d'Electronique et
de Photonique Moléculaires, Ecole Européenne
des Hautes Etudes des Industries Chimiques de Strasbourg,
IPCMS/URM 46, 1, rue Blaise Pascal, 67008 Strasbourg, France

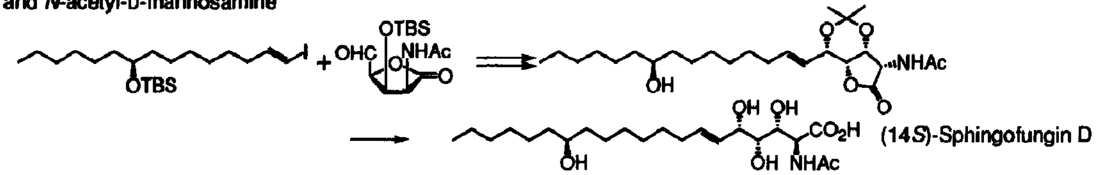


Tetrahedron Letters, **1994**, *35*, 9207

SYNTHESIS OF SPHINGOFUNGIN D AND ITS STEREOISOMER AT C-14.

Kenji Mori*, Ken Otaka, Department of Agricultural Chemistry, The University of Tokyo, Yayoi 1-1-1, Bunkyo-ku, Tokyo 113, Japan

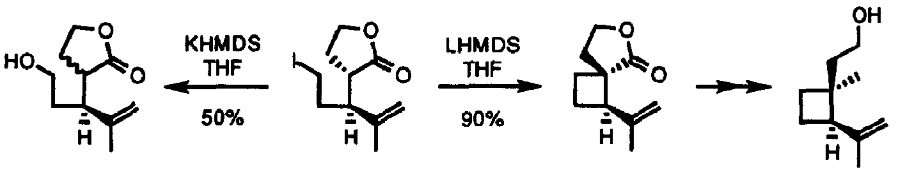
Sphingofungin D and its stereoisomer at C-14 were synthesized by starting from 1-heptyne, (*R*)-1,2-epoxyoctane and *N*-acetyl-D-mannosamine



Tetrahedron Letters, **1994**, *35*, 9211

A STEREOSPECIFIC SYNTHESIS OF (±)-GRANDISOL VIA AN INTRAMOLECULAR LACTONE ENOLATE ALKYLATION: A REMARKABLE REGIODIVERGENCE IN C- VS O-ALKYLATION

Deukjoon Kim*, Young Shin Kwak and Kye Jung Shin
College of Pharmacy, Seoul National University, San 56-1, Shinrim-Dong, Kwanak-Ku, Seoul 151-742, Korea



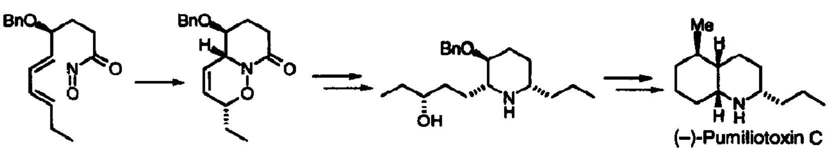
(±)-GRANDISOL

Tetrahedron Letters, **1994**, *35*, 9213

Total Synthesis of (–)-Pumiliotoxin C by Aqueous Intramolecular Acylnitroso Diels–Alder Approach

Masaichi Naruse, Sakae Aoyagi, and Chihiro Kibayashi*
Tokyo College of Pharmacy, Horinouchi, Hachioji, Tokyo 192-03, Japan

(–)-Pumiliotoxin C has been synthesized utilizing an aqueous intramolecular hetero Diels–Alder reaction of a chiral acylnitroso compound as a key feature.

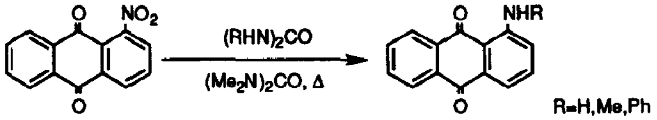


Tetrahedron Letters, **1994**, *35*, 9217

Non-reductive Conversion of 1-Nitro-9,10-anthraquinone to 1-Amino-9,10-anthraquinones Using Ureas in *N,N,N',N'*-Tetramethylurea(TMU).

H. Suzuki*, T. Kawakami, Department of Chemistry, Faculty of Science, Kyoto University, Kyoto 606-01, Japan;
K. Maeda, Central Research Institute, Nissan Chemical Industries, Ltd., Funabashi, Chiba 274, Japan

Reaction of the title nitroquinone with excess of ureas in hot TMU leads to the corresponding aminoquinones.

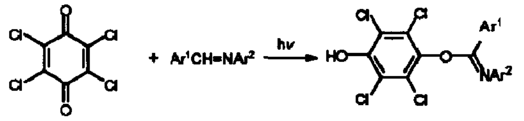


Tetrahedron Letters, **1994**, *35*, 9221

PHOTOINDUCED REACTIONS OF CHLORANIL WITH AROMATIC IMINES

Chuan-Feng Chen, Zhao-Guo Zhang, Bao-Zhen Yan⁺ and Jian-Hua Xu*
Department of Chemistry, Nanjing University, Nanjing 210093, China
⁺Department of Applied Chemistry, Beijing Institute of Chemical Technology, Beijing 100029,China

Photoinduced reactions of chloranil with Schiff bases **1-7** gave the aryl esters of aryl benzenecarboximidic acids **8-14** respectively.

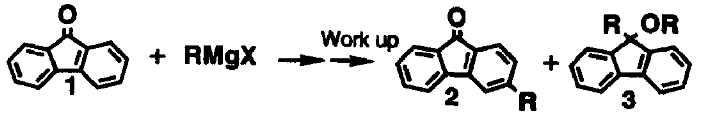


Tetrahedron Letters, **1994**, *35*, 9225

DOES THE REACTION BETWEEN FLUORENONE AND GRIGNARD REAGENTS INVOLVE FREE FLUORENONE ANION RADICALS?

Torben Lund, Morten L. Pedersen and Lars A. Frandsen, Institute of Chemistry, University of Roskilde, DK-4000.

The ratio between 2 and 3 in the reactions of electrogenerated fluorenone anion radicals with RX in THF were similar to the ratio obtained in the Grignard reaction of fluorenone with RMgX in THF.

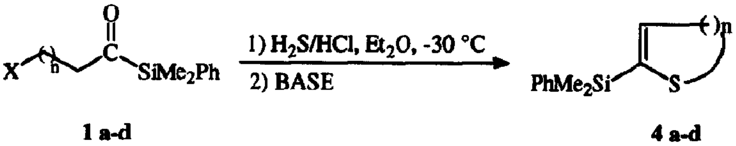


Tetrahedron Letters, **1994**, *35*, 9227

A NEW SYNTHETIC METHOD FOR 2-SILYL-THIACYCLOALK-2-ENES OF DIFFERENT RING SIZE BY INTRAMOLECULAR CYCLIZATION THROUGH SILYL THIONES.

B. F. Bonini*, M. Comes-Franchini, G. Mazzanti, A. Ricci, L. Rosa-Fauzza, P. Zani
Dipartimento di Chimica Organica "A. Mangini", Facoltà di Chimica Industriale, Viale Risorgimento 4, 40136 Bologna, Italy

An efficient route to obtain thiacycloalkenes of different ring size starting from ω-haloacylsilanes

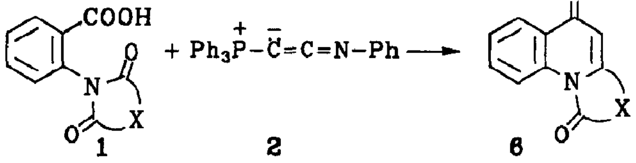


Tetrahedron Letters, **1994**, *35*, 9229

AN EFFICIENT SYNTHESIS OF QUINOLONES USING *N*-PHENYL(TRIPHENYLPHOSPHORANYLIDENE)ETHENIMINE

Pradeep Kumar*, Chimmanamada U. Dinesh and Bipin Pandey
National Chemical Laboratory, Pune-411 008, INDIA

Coupling of *N*-substituted anthranilic acid 1 with phosphacumulene ylide 2 provides an efficient entry into quinolones, via intramolecular Wittig reaction.

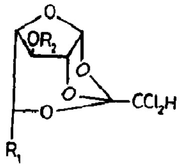


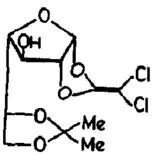
Tetrahedron Letters, **1994**, *35*, 9233

Tricyclic Ortho Ester Formation from Trichloroethylidene Acetals of Sugars via Ketene Acetals

Yeşim Gül Salman, Ömür Makinabakan, Levent Yüceer
Faculty of Science, Department of Chemistry,
Ege University, Bornova-İzmir-Turkey

One step formation of tricyclic ortho esters from trichloroethylidene acetals of D-galactose and D-arabinose are described. An intermediate ketene acetal was obtained from the suitably protected acetal.



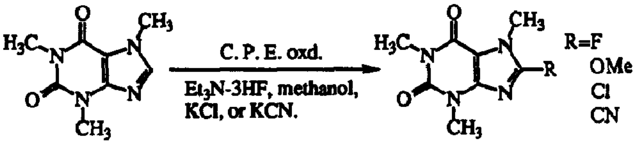


Tetrahedron Letters, **1994**, *35*, 9237

FUNCTIONALISATION INCLUDING FLUORINATION OF CAFFEINE, GUANOSINE TETRAACETATE, AND URIDINE TRIACETATE USING ELECTROCHEMICAL OXIDATION

Masakazu Sono*, Naoko Toyoda, Yoshikazu Shizuri, and Motoo Tori
Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Yamashiro cho, Tokushima 770, Japan

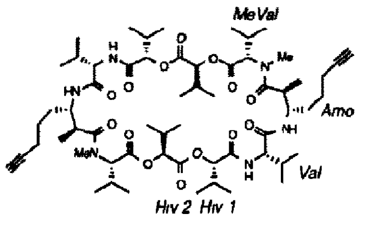
Electrochemical oxidation of caffeine with Et_3N-3HF, methanol, KCl or KCN yielded 8-fluorocaffeine, 8-methoxycaffeine, 8-chlorocaffeine, or 8-cyanocaffeine, respectively.



Tetrahedron Letters, **1994**, *35*, 9239

ONCHIDIN: A CYTOTOXIC DEPSIPEPTIDE WITH C_2 SYMMETRY FROM A MARINE MOLLUSC. Jaime Rodríguez[1], Rogelio Fernández[1], Emilio Quiñoá[1] and Ricardo Riguera[1]* and Cécile Debitus[2] and Philippe Bouchet[3]. [1]Departamento de Química Orgánica, Facultad de Química, Universidad de Santiago de Compostela. 15706, Santiago de Compostela, Spain. FAX 34-81-591091. [2]Centre ORSTON, B. P. A5, Nouméa, Cedex, New Calедonia. [3]Museum National d'Histoire Naturelle, Paris, France.

Onchidin is a cytotoxic depsipeptide isolated from the pulmonate mollusc *Onchidium* sp. It is cyclo (MeVal-Amo-Val-Hiv-Hiv-MeVal-Amo-Val-Hiv-Hiv) and has C_2-symmetry and this makes one half homotopic to the other so only signals for a "monomer" can be seen in the NMR spectra. The structure and absolute stereochemistry (all S) of onchidin was determined by extensive spectroscopic analysis, selective hydrolysis and chiral GCMS.

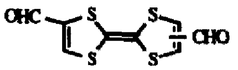


Tetrahedron Letters, **1994**, *35*, 9243

THE SYNTHESIS OF 4,4'(5')-DIFORMYLTETRATHIAFULVALENE

Raquel Andreu[a], Javier Garín*[a], Jesús Orduna[a], María Savirón[a], Jack Cousseau[b], Alain Gorgues*[b], Vincent Morisson[b], Tomasz Nozdryn[b], Jan Becher*[c], Rasmus P. Clausen[c], Martin R. Bryce*[d], Peter J. Skabara[d] and Wim Dehaen[e].

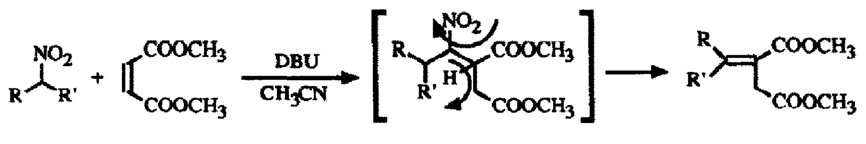
[a] *Departamento de Química Orgánica, ICMA, Universidad de Zaragoza-CSIC, E-50009 Zaragoza, Spain* [b] *IMMO, EP66 CNRS, Université d'Angers, 2 Bd. Lavoisier, F-49045 Angers, France* [c] *Department of Chemistry, Odense University, DK-5230 Odense M, Denmark* [d] *Department of Chemistry, University of Durham, Durham DH1 3LE, UK* [e] *Department of Chemistry, University of Leuven, Celestijnenlaan 200F, B-3001 Heverlee, Belgium.*



The synthesis of the title compound, by three different routes, is described for the first time.

Tetrahedron Letters, **1994**, *35*, 9247

MICHAEL ADDITION OF NITROALKANES TO DIMETHYL MALEATE WITH DBU. A NEW DIRECT METHOD FOR THE SYNTHESIS OF POLYFUNCTIONALIZED α,β -UNSATURATED ESTERS. Roberto Ballini*, and Alessandro Rinaldi. Dipartimento di Scienze Chimiche dell'Università, Via S. Agostino n. 1, 62032 Camerino - I. Michael addition of nitroalkanes to dimethyl maleate, in acetonitrile and with DBU as base, affords, directly, polyfunctionalizedα,β -unsaturated esters, *via* elimination of nitrous acid.



Tetrahedron Letters, **1994**, *35*, 9251

DIVERGENT BEHAVIOUR IN THE ISOCYANATE-INDUCED AND THERMAL GENERATION OF NITRILE OXIDES FROM ETHYL NITROACETATE

Morag G. Leslie-Smith,[a] R. Michael Paton[a]* and Nigel Webb[b]

[a] Department of Chemistry, The University of Edinburgh, West Mains Road, Edinburgh, EH9 3JJ, UK

[b] Castrol International, Technology Centre, Whitchurch Hill, Pangbourne, Reading, RG8 7QR, UK

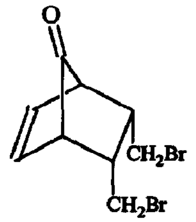
Ethyl nitroacetate provides a source of three nitrile oxides (1-3) depending on the reaction conditions

$$\underset{\mathbf{2}}{HC{\equiv}\overset{+}{N}{-}\overset{-}{O}} \xleftarrow[\substack{-\,EtOH\\-\,CO_2}]{\Delta} EtO_2CCH_2NO_2 \xrightarrow{RNCO} \underset{\mathbf{1}}{EtO_2CC{\equiv}\overset{+}{N}{-}\overset{-}{O}} \text{ or } \underset{\mathbf{3}}{RNHCOC{\equiv}\overset{+}{N}{-}\overset{-}{O}}$$

Tetrahedron Letters, **1994**, *35*, 9255

DESIGNED NUCLEOPHILIC ATTACK BASED ON MOLECULAR ELECTROSTATIC POTENTIAL György M. Keserű, Research Group for Alkaloid Chemistry, Hungarian Academy of Sciences, P.O.Box 91, H-1521 Budapest, Hungary, Mária Kajtár-Peredy, Central Research Institute for Chemistry, Hungarian Academy of Sciences, P.O.Box 17, H-1521 Budapest, Hungary, Gábor Náray-Szabó,* Department of Theoretical Chemistry, Eötvös University Budapest, P.O. Box 32, H-1518 Budapest 112, Hungary

Molecular electrostatic potential-based computer-aided design of the steric preference in a nucleophilic attack on the sterically unbiased carbonyl group of 2,3-bis(bromomethyl)-5,6-norbornen-7-on and 2,3-bis(bromomethyl)-norbornan-7-on.

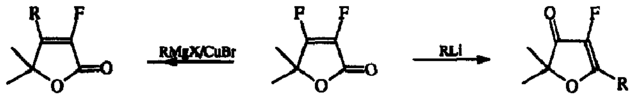


Tetrahedron Letters, **1994**, *35*, 9259

A Novel Rearrangement Induced by the Addition of Organyllithium Reagents to 2,3-Difluoro-4,4-dimethylbut-2-enolide

Oldrich Paleta[a], *Andrew Pelter*[b] *and Josef Kebrle*[a]

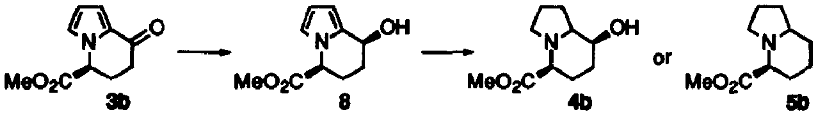
[a] Department of OrganicChemistry, Prague Institute of Chemical Technology, Technicka 5, 16628 Prague 6, Czech Republic.
[b] Department of Chemistry, University of Wales, Swansea, Singleton Park, Swansea SA2 8PP, UK.



Tetrahedron Letters, **1994**, *35*, 9263

THE ORIGINS OF CHEMOSELECTIVITY IN THE HYDROGENATION OF INDOLIZIDINE PRECURSORS
Timothy J. Bond, Robert Jenkins and Paul C. Taylor*, Department of Chemistry, University of Warwick, Coventry, CV4 7AL, UK.

It is proposed that the result of the hydrogenation of α-ketopyrrole 3b depends on the relative rates of (a) hydrogenation of and (b) iminium ion formation from intermediate alcohol 8.

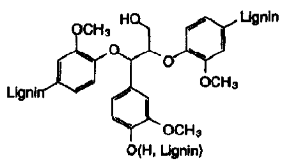


Tetrahedron Letters, **1994**, *35*, 9267

APPLICATION OF THREE-DIMENSIONAL HMQC-HOHAHA NMR SPECTROSCOPY TO WOOD LIGNIN, A NATURAL POLYMER.

Ilkka Kilpeläinen* and Erja Ämmälahti, Institute of Biotechnology, P.O. Box 45, FIN-00014 University of Helsinki, Finland.
Gösta Brunow, Department of Chemistry, P.O. Box 6, FIN-00014 University of Helsinki., Finland.
Danielle Robert, Centre D'Études Nucleaires de Grenoble, 85X, 38041 Grenoble Cedex , France.

Three-dimensional HMQC-HOHAHA experiment gives unambiguous assignments for lignin side-chain structures. By this technique it was possible to show, for the first time, that α,β-diaryl ether structures are present at low abundance in an isolated poplar wood lignin preparation.

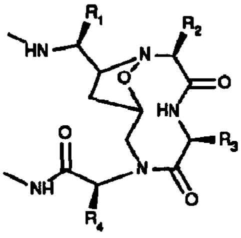


Tetrahedron Letters, **1994**, *35*, 9271

PEPTIDE BACKBONE-TO-BACKBONE CYCLISATION AS AN AVENUE TO β-TURN MIMICS

Pedro H.H. Hermkens,* Theo G.v. Dinther, Colinda W. Joukema,
Gerard N. Wagenaars, Harrie C.J. Ottenheijm
Scientific Development Group, N.V. Organon, P.O. Box 20, 5340 BH, Oss,
The Netherlands

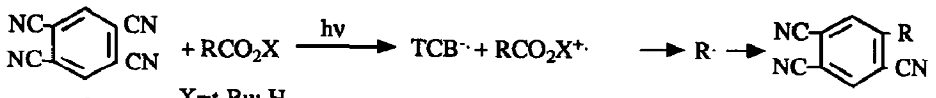
The synthesis of conformationally restricted β-turn mimics via a backbone-to-backbone cyclisation is described.



Tetrahedron Letters, **1994**, *35*, 9275

ALKYL RADICALS FROM t-BUTYL ESTERS THROUGH PHOTOINDUCED ELECTRON TRANSFER.

E.Fasani, D.Peverali, and A.Albini, dept.Organic Chemistry, The University, Pavia, Italy



TCB

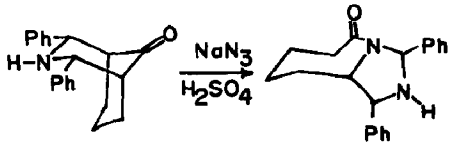
X=t-Bu; H

Tetrahedron Letters, **1994**, *35*, 9279

A NEW REARRANGEMENT OF 2,4-DIPHENYL-3-AZA BICYCLO[3.3.1]NONAN-9-ONE LEADING TO 8,10-DIPHENYL-1,9-DIAZABICYCLO[5.3.0]DECAN-2-ONE

Ramasubbu Jeyaraman* and Udayampalayam P. Senthilkumar
Department of Chemistry, Bharathidasan University
Tiruchirappalli-620 024, India

Treatment of 2,4-diphenyl-3-azabicyclo[3.3.1]nonan-9-one (1) with hydrazoic acid in $CHCl_3$-H_2SO_4 mixture resulted in a new rearrangement leading to 8,10-diphenyl-1,9-diazabicyclo[5.3.0]decan-2-one (3).



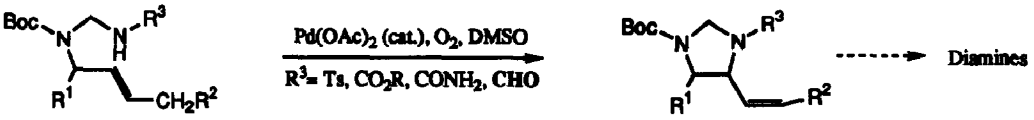
1 3

Tetrahedron Letters, **1994**, *35*, 9281

FORMAMIDE AS A SUPERIOR NITROGEN NUCLEOPHILE IN PALLADIUM(II) MEDIATED SYNTHESIS OF IMIDAZOLIDINES

Rolf A. T. M. van Benthem, Henk Hiemstra,* Gema Rodríguez Longarela and W. Nico Speckamp, Department of Organic Chemistry, University of Amsterdam, Nieuwe Achtergracht 129, 1018 WS, Amsterdam, The Netherlands

Formamides emerge as superior nitrogen nucleophiles in palladium(II) catalyzed oxidative 5-*exo* cyclizations of formaldehyde aminals.

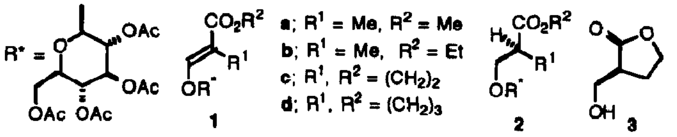


Tetrahedron Letters, **1994**, *35*, 9285

DIASTEREOSELECTIVE HYDROGENATIONS OF α-(2',3',4',6'-TETRA-*O*-ACETYL-β-D-GLUCOPYRANOSYLOXYMETHYLENE) CARBOXYLIC ESTERS: A ROUTE TO STEREOPURE ALDOL DERIVATIVES

David S. Larsen, Anthony Schofield, Richard J. Stoodley* and Peter D. Tiffin, Department of Chemistry, UMIST, PO Box 88, Manchester M60 1QD, UK

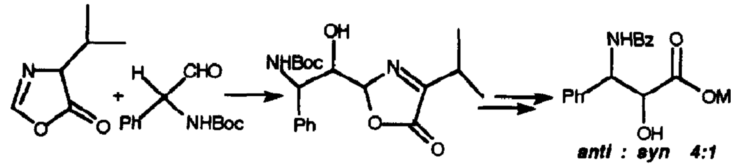
Catalytic hydrogenation of **1a–d** leads predominantly to **2a–d**; acidic hydrolysis of **2c** affords **3** in an enantiopure state.



Tetrahedron Letters, **1994**, *35*, 9289

A CHEMOENZYMATIC APPROACH TO CHIRAL PHENYLISOSERINATES USING 4-ISOPROPYL-2-OXAZOLIN-5-ONE AS MASKED UMPOLED SYNTHON FOR HYDROXYCARBONYL ANION.

A. Barco[a], S. Benetti[a], C. De Risi[b], G. P. Pollini[b], R. Romagnoli[a] and V. Zanirato[b].
[a]Dipartimento di Chimica, Via Borsari 46, Ferrara; [b]Dipartimento di Scienze Farmaceutiche, Via Fossato di Mortara, 44100 Ferrara

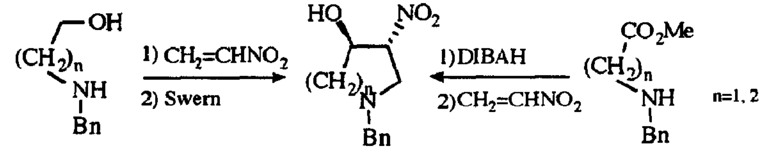


The predominant *anti* racemate has been resolved by lipase from *Pseudomonas fluorescens* (P) using vinyl acetate as the acyl donor.

Tetrahedron Letters, **1994**, *35*, 9293

A ONE-POT SYNTHESIS OF NITROHYDROXYLATED PYRROLIDINE AND PIPERIDINE RING SYSTEMS BY TANDEM MICHAEL-HENRY REACTION.

A. Barco[a], S. Benetti[a], C. De Risi[b], G. P. Pollini[b], R. Romagnoli[a] and V. Zanirato[b].
[a]Dipartimento di Chimica, Via Borsari 46, Ferrara; [b]Dipartimento di Scienze Farmaceutiche, Via Fossato di Mortara 19, 44100 Ferrara.



Tetrahedron Letters, **1994**, *35*, 9297

TOTAL SYNTHESIS OF (±)-EPIBATIDINE.

E. Albertini[a], A. Barco[b], S. Benetti[b], C. De Risi[a], G. P. Pollini[b], R. Romagnoli[b] and V. Zanirato[b].
[a]Dipartimento di Scienze Farmaceutiche, Via Fossato di Mortara 19, 44100 Ferrara.
[b]Dipartimento di Chimica, Via Borsari 46, 44100 Ferrara.