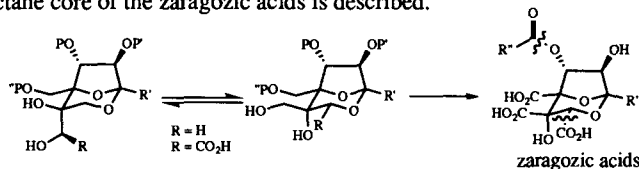


## GRAPHICAL ABSTRACTS

### The Synthesis of the Zaragozic Acids: Equilibrium Control of Stereochemistry in the Dioxabicyclo[3.2.1]octane Core.

Sayee G. Hegde and David C. Myles,\* Department of Chemistry and Biochemistry, UCLA, Los Angeles, California 90095-1569, USA.

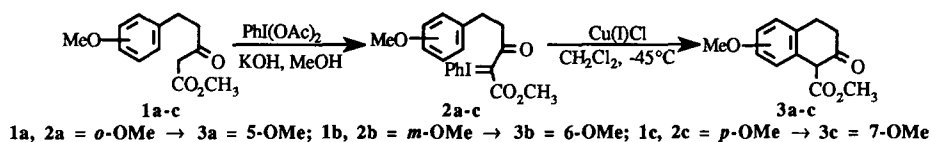
The synthesis of the core of zaragozic acid Bx3 and a general strategy for the synthesis of the dioxabicyclo[3.2.1]octane core of the zaragozic acids is described.



*Tetrahedron Letters*, 1997, 38, 4329

### Intramolecular Cyclization of Aryl Substituted Iodonium Ylides with Copper(I) Chloride.

Robert M. Moriarty\*, Eric J. May and Om Prakash†, Department of Chemistry, University of Illinois at Chicago, Chicago, IL 60607-7061 USA

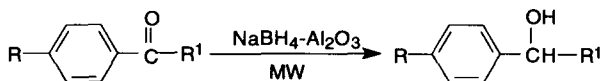


*Tetrahedron Letters*, 1997, 38, 4333

### MICROWAVE-ASSISTED REDUCTION OF CARBONYL COMPOUNDS IN SOLID STATE USING SODIUM BOROHYDRIDE SUPPORTED ON ALUMINA

Rajender S. Varma\* and Rajesh K. Saini  
Department of Chemistry and Texas Regional Institute for Environmental Studies (TRIES),  
Sam Houston State University, Huntsville, Texas 77341-2117, U.S.A.

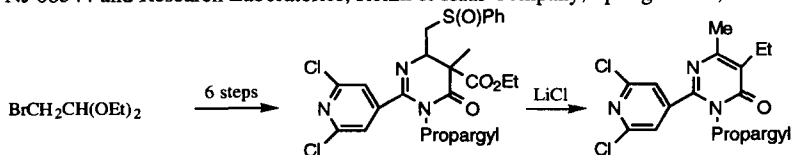
A manipulatively simple and rapid method for the reduction of carbonyl compounds is described that is conducted under solventless 'dry' conditions using alumina supported sodium borohydride and microwave irradiation.



*Tetrahedron Letters*, 1997, 38, 4337

### SYNTHESIS OF 2-(2,6-DICHLORO-4-PYRIDYL)-3-PROPARGYL-5-ETHYL-6-METHYL-4(3H)-PYRIMIDINONE, A PROMISING NEW HERBICIDE.

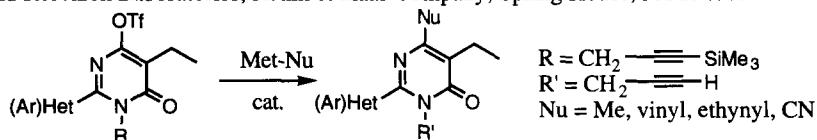
Edward C. Taylor\*, Ping Zhou, Colin M. Tice, Zev Lidert and Renee C. Roemmele, Department of Chemistry, Princeton University, Princeton, NJ 08544 and Research Laboratories, Rohm & Haas Company, Spring House, PA 19477.



*Tetrahedron Letters*, 1997, 38, 4339

## 6-TRIFLUOROMETHANESULFONYLOXY-4(3H)-PYRIMIDINONES

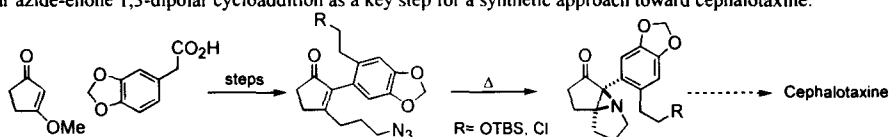
AS VERSATILE INTERMEDIATES FOR THE SYNTHESIS OF 6-FUNCTIONALIZED 4(3H)-PYRIMIDINONES. Edward C. Taylor\*, Ping Zhou, and Colin M. Tice, Department of Chemistry, Princeton University, Princeton, NJ 08544 and Research Laboratories, Rohm & Haas Company, Spring House, PA 19477.



## INTRAMOLECULAR 1,3-DIPOLAR CYCLOADDITION AS A TOOL FOR THE PREPARATION OF AZASPIROCYCLIC KETO AZIRIDINES. SYNTHESIS OF INTERMEDIATES FOR THE TOTAL SYNTHESIS OF (±)-CEPHALOTAXINE.

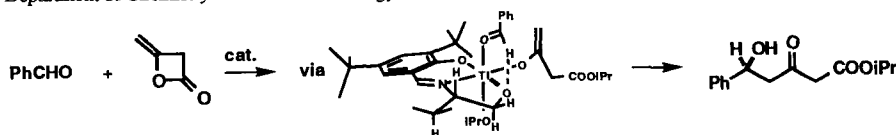
Gary A. Molander\* and Martin Hiersemann, Department of Chemistry and Biochemistry, University of Colorado, Boulder, Colorado 80309-0215.

Intramolecular azide-enone 1,3-dipolar cycloaddition as a key step for a synthetic approach toward cephalotaxine.



## The Formyl C-H...O Hydrogen Bond as a Critical Factor in Enantioselective Reactions of Aldehydes, Part 4. Aldol, Ethylation, Hydrocyanation and Diels-Alder Reactions Catalyzed by Chiral B, Ti and Al Lewis Acids.

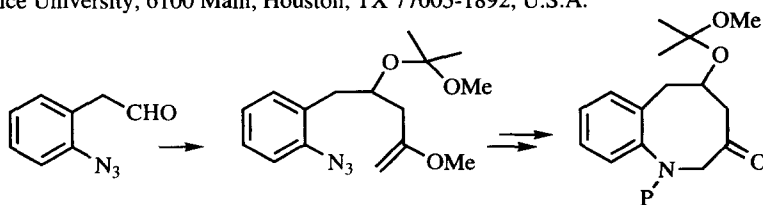
E. J. Corey,\* David Barnes-Seeman, and Thomas W. Lee  
Department of Chemistry and Chemical Biology, Harvard University, Cambridge, Massachusetts 02138



## APPLICATION OF ENE-LIKE REACTIONS OF ALDEHYDES WITH VINYL ETHERS: FACILE ASSEMBLY OF BENZAZOCENONE INTERMEDIATES FOR MITOMYCINOIDS

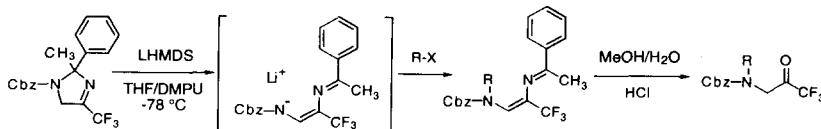
Marco A. Ciufolini,\* Mingying Chen, Dennis P. Lovett and Melissa V. Deaton  
Department of Chemistry, MS60, Rice University, 6100 Main, Houston, TX 77005-1892, U.S.A.

Benzazocenones are readily assembled by an ene-type reaction of an azidoaldehyde in tandem with a 1,3-dipolar azide cycloaddition and photolysis of the resulting triazoline



**TRIFLUOROMETHYL-SUBSTITUTED  $\Delta^3$ -IMIDAZOLINES:**  
**SYNTHESIS AND REACTIVITY.** Christopher W. Derstine, David N. Smith  
 and John A. Katzenellenbogen,\* Department of Chemistry, University of Illinois  
 600 S. Mathews Avenue, Urbana, Illinois 61801

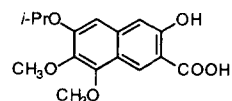
5-Trifluoromethyl- $\Delta^3$ -imidazolines, prepared from silylimines by a 3+2 cycloaddition of azomethine ylides and trifluoroacetonitrile, can be hydrolyzed to trifluoromethyl  $\alpha$ -acylamino ketones. Attempts at alkylation is preceded by a base-induced ring opening.



**SYNTHESIS OF THE NAPHTHOIC ACID COMPONENT OF KEDARCIDIN CHROMOPHORE BY ROUTES EMPLOYING PHOTOCHEMICAL AND THERMAL ELECTROCYCLIC RING CLOSURE REACTIONS.**

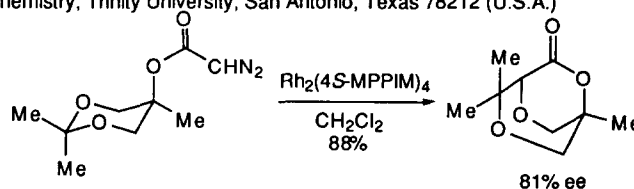
Andrew G. Myers\* and Yoshiaki Horiguchi, Arnold and Mabel Beckman Laboratories of Chemical Synthesis, California Institute of Technology, Pasadena, CA 91125 USA

Two different synthetic routes to the naphthoic acid component of kedarcidin chromophore were developed featuring photochemical and thermal electrocyclic ring closure reactions, respectively, as the key step. X-ray crystallographic analysis of the synthetic naphthoic acid confirmed its structure and comparison of  $^1\text{H}$  and  $^{13}\text{C}$  NMR data from its methylamide derivative with those reported for kedarcidin chromophore correspond closely, suggesting that this component of the natural product is correctly assigned.



**HIGHLY ENANTIOSELECTIVE OXONIUM YLIDE FORMATION AND STEVENS REARRANGEMENT CATALYZED BY CHIRAL DIRHODIUM(II) CARBOXAMIDATES.** Michael P. Doyle\*, Doina G. Ene, David C. Forbes, and Jason S. Tedrow. Department of Chemistry, Trinity University, San Antonio, Texas 78212 (U.S.A.)

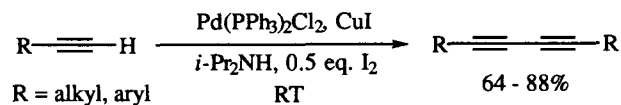
Chiral dirhodium(II) carboxamidates catalyze oxonium ylide formation and subsequent [1,2]-insertion with high chemoselectivity and with enantiocontrol reaching to 88% ee.



**A Facile Synthesis of Diynes**

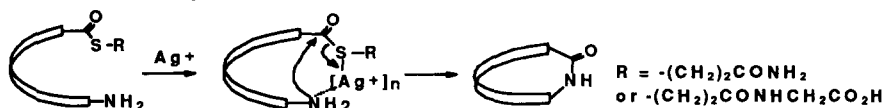
Qibo Liu and Donald J. Burton\*  
 Department of Chemistry, The University of Iowa, Iowa City, Iowa 52242, USA.

The title compounds are obtained from self-coupling of terminal acetylenes in good yields under mild reaction condition.



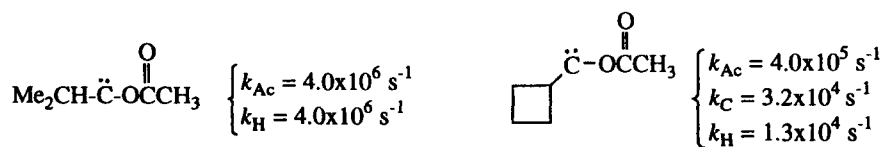
**METAL ION-ASSISTED PEPTIDE CYCLIZATION.** Lianshan Zhang and James P. Tam, Department of Microbiology and Immunology, Vanderbilt University, A5119 MCN, Nashville, TN 37232-2363, USA

Thiophilic metal ions coordinate the reactive functionalities of the N- and C-termini of a flexible linear peptide thioester to a cyclic intermediate, thus facilitating the intramolecular cyclization reaction.



**COMPETITIVE REARRANGEMENTS OF ALKYLACETOXYCARBENES.**

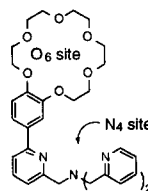
R. A. Moss, S. Xue, W. Ma and H. Ma, Department of Chemistry, Rutgers University, New Brunswick, New Jersey 08903 USA



**Synthesis of a Dinucleating Ligand with Addressed Ion Binding Sites**

Osvaldo dos Santos, Ajay R. Lajmi, and James W. Canary\*  
Department of Chemistry, New York University, New York, NY 10003

A ligand was synthesized that binds two different metal ions at sites determined by hardness and ionic radius.



**THE CHROMIUM-REFORMATSKY REACTION:**

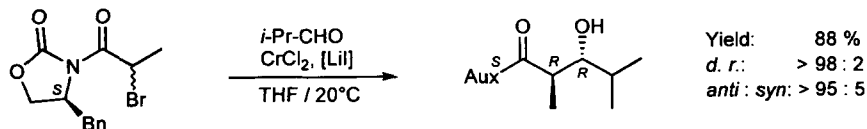
**ANTI-SELECTIVE EVANS-TYPE ALDOL REACTIONS WITH**

**EXCELLENT INVERSE INDUCTION AT AMBIENT TEMPERATURE.**

Tobias Gabriel, Ludger Wessjohann\*

Institut für Organische Chemie, Ludwig-Maximilians-Universität München, Karlstraße 23, D-80333 München, Germany

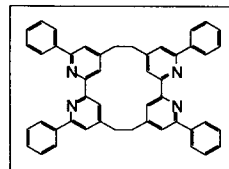
Chromium(III) Evans' enolates provide easy access to *anti*-aldol products with "non-Evans" induction under neutral reaction conditions.



**DESIGN, SYNTHESIS AND STRUCTURAL ANALYSIS OF EXODITOPIC MACROCYCLIC LIGANDS BASED ON BIPYRIDINE UNITS**

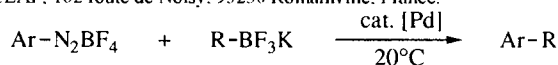
Christian Kaes, Mir Wais Hosseini\*, André De Cian, Jean Fischer  
 Institut de Chimie, Université Louis Pasteur, 4, rue Blaise Pascal, F-67000 Strasbourg, France

The synthesis of new macrocyclic ligands based on 2,2'-bipyridine units, bearing two or four phenyl groups at the 6 and 6' positions, interconnected at the 4 and 4' positions by ethylene chains was achieved. Their structures were elucidated in the solid state by X-ray studies.

**CROSS-COUPLING REACTIONS OF ARENEDIAZONIUM TETRAFLUOROBORATES WITH POTASSIUM ARYL- OR ALKENYL-TRIFLUOROBORATES CATALYZED BY PALLADIUM.**

Sylvain Darses, Jean-Pierre Genêt\*, Jean-Louis Brayer<sup>1</sup>, Jean-Pierre Demouté<sup>1</sup>  
 Laboratoire de Synthèse Organique, ENSCP, 11 rue P. et M. Curie, 75231 Paris Cedex 05, France.

<sup>1</sup>Centre de Recherche Roussel UCLAF, 102 route de Noisy, 93230 Romainville, France.



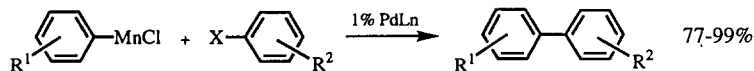
R = alkenyl or aryl.

[Pd] = Pd(OAc)<sub>2</sub>, Pd<sub>2</sub>(μ-OAc)<sub>2</sub>(P(*o*-tolyl)<sub>3</sub>)<sub>2</sub>

**PALLADIUM-CATALYZED SELECTIVE SYNTHESIS OF UNSYMMETRICAL BIARYLS FROM ARYL HALIDES OR TRIFLATES AND ORGANOMANGANESE REAGENTS.**

Eric Riguet, Mouâd Alami\* and Gérard Cahiez\*

Ecole Supérieure de Chimie Organique et Minérale, Département de Chimie, 13 bd de l'Hautail, 95092 Cergy Pontoise, France



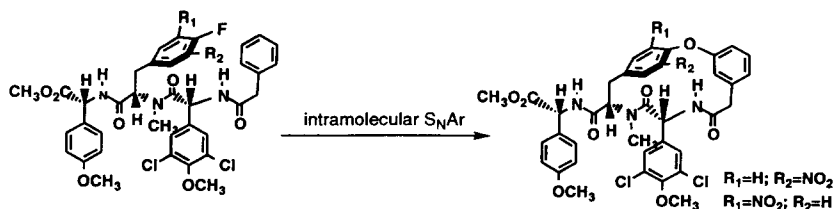
R<sup>1</sup> = H, Me, OMe, NMe<sub>2</sub>

X = I, Br, OTf

R<sup>2</sup> = H, Me, CN, COOEt

**SYNTHESIS OF A MODEL OF CHLOROPEPTINS I, II WESTERN SUB-UNIT BY THE INTRAMOLECULAR S<sub>N</sub>Ar BASED METHODOLOGY**

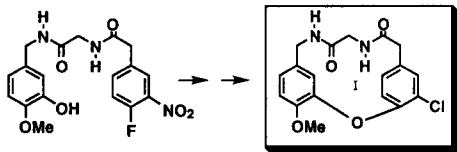
Georges Roussi, \* Eduardo González Zamora, Annie-Claude Carboneille, and René Beugelmanns  
 Institut de Chimie des Substances Naturelles, CNRS, 91198, Gif-sur-Yvette, France



**THE FIRST SYNTHESIS OF A 15-MEMBERED MACROCYCLE.  
MODEL OF RING I OF KISTAMYCIN**

Georges Roussi, \* Eduardo González Zamora, Annie-Claude Carbonnelle, and René Beugelmans  
Institut de Chimie des Substances Naturelles, CNRS, 91198, Gif-sur-Yvette, France

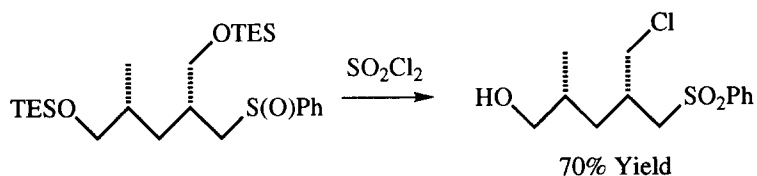
*Tetrahedron Letters*, 1997, 38, 4405



**THE SILY-DURST CHLORINATION  
OF HYDROXY SULFOXIDES**

Gilles Odon and Daniel Guen\*, E.C.P.M., 67008 Strasbourg (France)

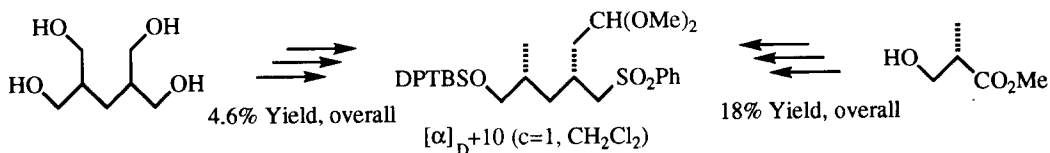
*Tetrahedron Letters*, 1997, 38, 4407



**TOWARD A TOTAL SYNTHESIS OF  
SPIRAMYCINE; TWO COMPLEMENTARY  
ACCESSES TO A C-5/C-9 FRAGMENT**

Gilles Odon and Daniel Guen\*, E.C.P.M., 67008 Strasbourg (France)

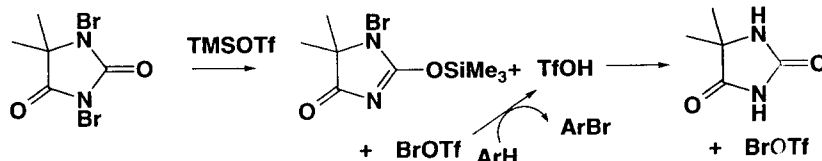
*Tetrahedron Letters*, 1997, 38, 4411



**1,3-DIBROMO-5,5-DIMETHYLHYDANTOIN, A USEFUL REAGENT  
FOR AROMATIC BROMINATION.**

Christophe Chassaing, Arnaud Haudrechy and Yves Langlois,  
Laboratoire de Synthèse des Substances Naturelles,  
ICMO, Université de Paris-Sud, 91405, Orsay, France.

*Tetrahedron Letters*, 1997, 38, 4415

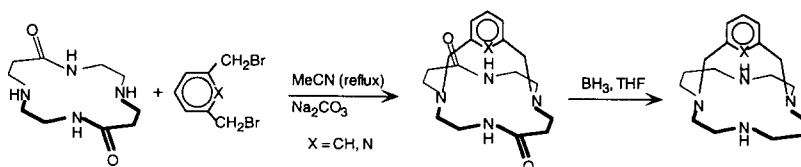


### A TWO-STEP SYNTHESIS OF NEW MACROBICYCLIC AZA-LIGANDS STARTING FROM "TRANS"DIOXYCYCLAM AS DIPROTECTED MACROCYCLE.

Franck Denat, Sylvie Lacour, Stéphane Brandès and Roger Guilard\*

Laboratoire d'Ingénierie Moléculaire pour la Séparation et les Applications des Gaz (LIMSAG), U.M.R. n° 5633 Université de Bourgogne, 6, Boulevard Gabriel, 21100 - Dijon, France.

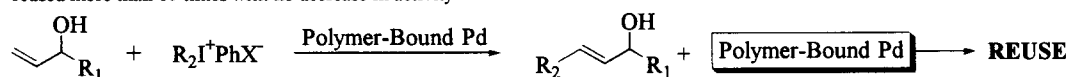
Reaction of "trans"dioxocyclam with a biselectrophilic reagent gives new cryptands containing a cyclam unit.



### Polymer-bound Palladium-catalyzed Coupling of Allylic Alcohols with Hypervalent Iodonium Salts

Su-Bum Jang\* \*Research & Development Center, DaeWoong Pharmaceutical Co. Ltd., 223-23 Sangdaewon-Dong, Joongwon-Gu, Sungnam 462-120, Kyunggi-Do, Korea

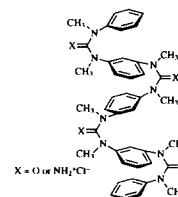
The polymer-bound palladium-catalyzed cross-coupling reaction of allylic alcohols hypervalent iodonium salts with to form carbon-carbon bonds was achieved at room temperature under extremely mild and aqueous conditions even in the absence of base with very high activity in the Heck coupling reaction. The polymeric catalyst can be easily separated from a reaction mixture and reused more than 10 times with no decrease in activity



### Helical Aromatic Urea and Guanidine

Aya Tanatani,<sup>a</sup> Hiroyuki Kagechika,<sup>a</sup> Isao Azumaya,<sup>a</sup> Ryuuta Fukutomi,<sup>a</sup> Yuji Ito,<sup>a</sup> Kentaro Yamaguchi,<sup>b</sup> and Koichi Shudda\*

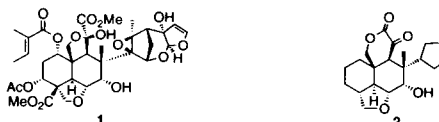
\*Faculty of Pharmaceutical Sciences, University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113, Japan, <sup>b</sup>Chemical Analysis Center, Chiba University, 1-33 Yayoi-cho, Inage-ku, Chiba 263, Japan  
Aromatic multidecked helices were constructed based on the *cis* conformational preference of *N*-methylated urea and guanidine bonds.



### SYNTHETIC STUDY ON AZADIRACHTIN (PART2). CONSTRUCTION OF THE DECALIN MOIETY WITH FULL FUNCTIONALITY ON B-RING.

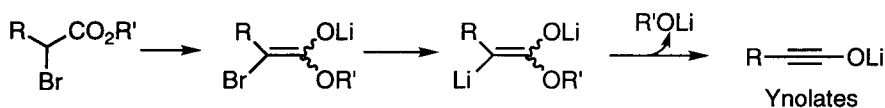
Hidenori Watanabe, Takeru Watanabe and Takeshi Kitahara, Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, the University of Tokyo, 1-1-1 Yayoi, Bunkyo-ku, Tokyo 113, Japan.  
Kenji Mori, Department of Chemistry, Science University of Tokyo, 1-3 Kagurazaka, Shinjuku-ku, Tokyo 162, Japan.

As a synthetic study towards a potent insect antifeedant azadirachtin (1), a stereoselective synthesis of a highly functionalized model compound (2) is described



**A SYNTHESIS OF YNOLATES VIA THE CLEAVAGE OF ESTER DIANIONS.** Mitsuru Shindo,\*  
Institute for Medicinal Resources, University of Tokushima,  
Sho-machi 1, Tokushima 770, Japan

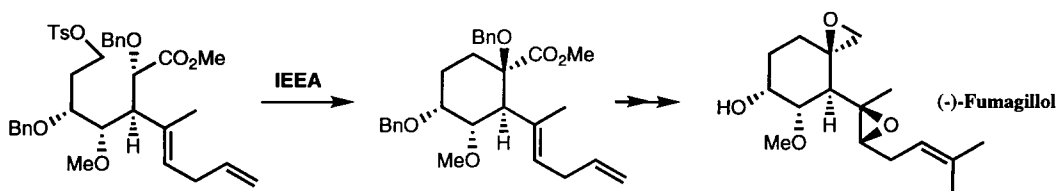
A new method for ynolate synthesis via the cleavage of ester dianions has been developed.



**AN ASYMMETRIC SYNTHESIS OF (-)-FUMAGILLOL**

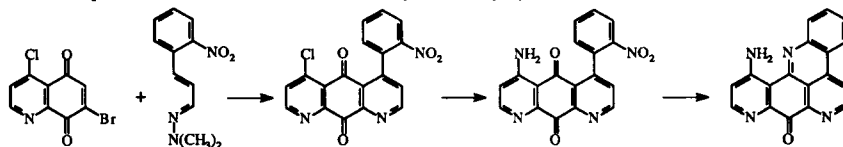
Deukjoon Kim\*, Soon Kil Ahn, Hoon Bae, Won Jun Choi, and Hak Sung Kim

College of Pharmacy, Seoul National University, San 56-1, Shinrim-Dong, Kwanak-Ku, Seoul 151-742, Korea



**SYNTHESIS OF CYSTODAMINE, A PENTACYCLIC AZA-AROMATIC ALKALOID.** Yoshiyasu Kitahara, Fumiyasu Tamura, and Akinori Kubo\*  
Meiji College of Pharmacy, 1-35-23 Nozawa, Setagaya-ku, Tokyo 154, Japan

A pentacyclic aza-aromatic alkaloid, cystodamine and its isomer were synthesized from 7-(or 6)-bromo-4-chloro-5,8-quinolinedione and *o*-nitrocinnamaldehyde dimethylhydrazone.

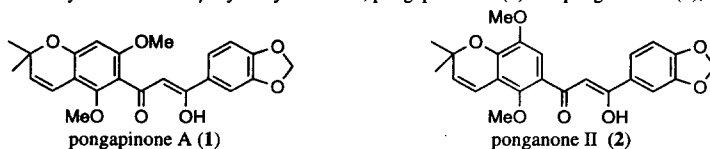


**SYNTHESIS OF NEW  $\beta$ -HYDROXYCHALCONES: PONGAPINONE A AND PONGANONE II.** Hiroyuki Nakahira\* and Makoto Sunagawa

Sumitomo Pharmaceuticals Research Center

1-98, Kasugadenaka 3-chome, Konohana-ku, Osaka 554, Japan

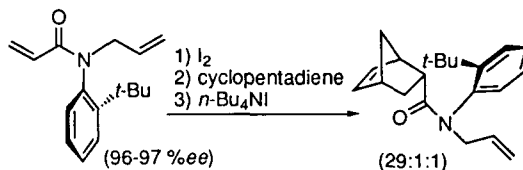
Practical synthesis of new  $\beta$ -hydroxychalcones, pongapinone A (1) and ponganone II (2), is described.





**AN EFFICIENT SYNTHESIS OF OPTICALLY ACTIVE AXIALLY CHIRAL ANILIDE AND ITS APPLICATION TO IODINE-MEDIATED ASYMMETRIC DIELS-ALDER REACTION**

Osamu Kitagawa, Hiroataka Izawa, Takeo Taguchi\* and Motoo Shiro†  
Tokyo University of Pharmacy and Life Science,  
1432-1 Horinouchi, Hachioji, Tokyo 192-03, Japan  
†Rigaku Corporation, 3-9-12 Matsubara-chou,  
Akishima, Tokyo 196, Japan



**A NOVEL APPROACH TO AN OXOBORANE AND ITS LEWIS BASE COMPLEX**

Mitsuhiro Ito, Norihiro Tokitoh,\* and Renji Okazaki\*  
Department of Chemistry, Graduate School of Science, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113, Japan

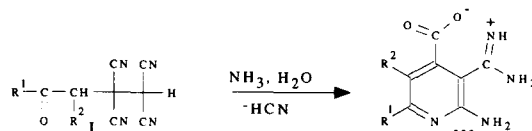
Formation of the first oxoborane-Lewis base complex by the reaction of a 1,3,2,4-dithiastannoborene derivative with dimethyl sulfoxide and its reactions are described.



**THE SYNTHESIS OF 3-AMIDINIO-2-AMINOPYRIDINE-4-CARBOXYLATES**

Oleg E.Nasakin\*, Vladimir P.Sheverdov, Inna V.Moiseeva, Anatoli N.Lyshchikov, Oleg V.Ershov, Vladimir N.Nesterov  
Department of Chemistry, Chuvash State University, 428015  
Cheboksary, Russian Federation

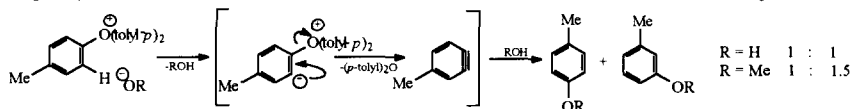
A synthesis of 3-amidinio-2-aminopyridine-4-carboxylates (III) via the  $\beta,\beta,\gamma,\gamma$ -tetracyanoalkanes (I).



**REACTION OF TRIARYLOXONIUM SALTS WITH BASES VIA DEHYDROARENES.**

Tatiana P. Tolstaya\*, Dmitry A. Tsariev, Yury N. Luzikov  
Department of Chemistry, M. V. Lomonosov Moscow State University, Moscow, 119899, Russia

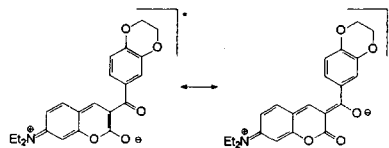
Tri-*p*-tolylloxonium tetrafluoroborate reacts with NaOH in water or MeOH via 3,4-dehydrotoluene.



**UNUSUAL BEHAVIOUR OF 7-DIETHYLAMINO-3-(3,4-ETHYLEN-DIOXYBENZOYL)COUMARINE TOWARDS GROUP IIA CATIONS:**

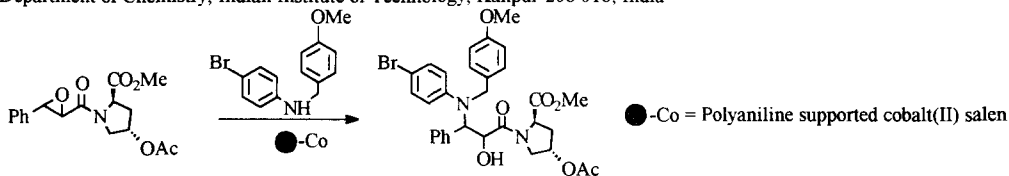
**A POTENTIAL PHOTOACTIVE PROBE FOR MAGNESIUM.** Ernesto Brunet,\* Maria T. Alonso, Olga Juanes, Rosa Sedano and Juan C. Rodriguez-Ubis\*, Departamento de Quimica Organica, C-I. Facultad de Ciencias. Universidad Autonoma de Madrid, 28049-Madrid, Spain.

The titled compound showed, upon spectrophotometric titrations with Group IIA cations, spectacular bathochromic shift (c.a. 50 nm) with  $Mg^{2+}$  but not with the other cations. This result is understood in terms of internal charge-transfer species specially favored by  $Et_2N$  and  $ArCO$  substituents and best matching of ionic diameter and charge density of  $Mg^{2+}$ . This finding may lead to new simple photoactive probes.


**POLYANILINE SUPPORTED COBALT(II) SALEN CATALYSED SYNTHESIS OF PYRROLIDINE CONTAINING  $\alpha$ -HYDROXYAMIDE CORE STRUCTURES AS INHIBITORS FOR HIV PROTEASES**

T. Punniyamurthy and Javed Iqbal\*

Department of Chemistry, Indian Institute of Technology, Kanpur-208 016, India

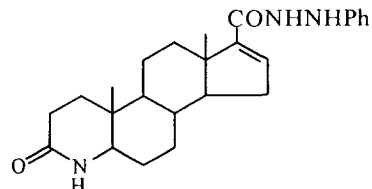

**FACILE, HIGH-YIELDING SYNTHESIS OF STEROIDAL HIDRAZIDES VIA HOMOGENEOUS HYDRAZINOCARBONYLATION REACTION**

László Kollár <sup>a</sup>, Zsolt Szarka <sup>a</sup>, Judit Horváth <sup>b</sup> and Zoltán Tuba <sup>b</sup>

a) University of Veszprém, Department of Organic Chemistry, H-8201 Veszprém, P.O.Box 158, Hungary

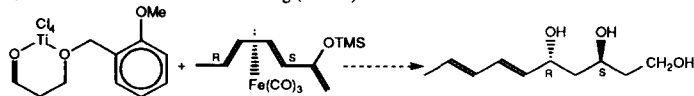
b) Chemical Works of Gedeon Richter Ltd., H-1103 Budapest, Hungary

Functionalised androstanes possessing 17-N-(phenylamino)-carbamoyl moiety were synthesised in high yields in homogeneous palladium-catalysed carbonylation reactions.


**Aldol Condensation Reactions of Chiral (Dienone) Tricarbonyliron Complexes.**
**2. Enantioselective Synthesis of the Dienic Polyols Streptenols C and D (Metabolites from *Streptomyces Fimbriatus*).**

Michel Franck-Neumann, Paul Bissinger, Philippe Geoffroy

Laboratoire de Chimie Organique Synthétique, associé au CNRS, Institut de Chimie, Université Louis Pasteur, 1, rue Blaise Pascal 67000 - Strasbourg (France).

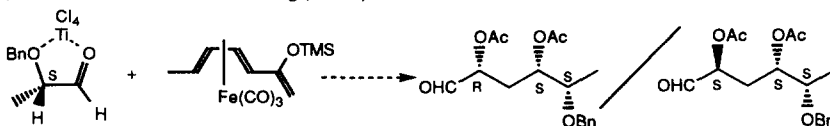


**Aldol Condensation Reactions of (Dienone)  
Tricarbonyliron Complexes.**

**3. Enantioselective Total Synthesis of 3,6-Dideoxyhexoses from Lactaldehyde.**

Michel Franck-Neumann, Paul Bissinger, Philippe Geoffroy

Laboratoire de Chimie Organique Synthétique, associé au CNRS, Institut de Chimie, Université Louis Pasteur,  
1, rue Blaise Pascal 67000 - Strasbourg (France).

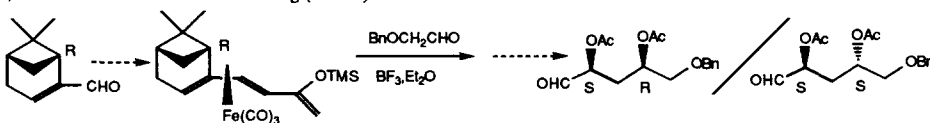


**Aldol Condensation Reactions of (Dienone)  
Tricarbonyliron Complexes.**

**4. Enantioselective Total Synthesis of 3-Deoxypentoses from (-)-Myrtenal.**

Michel Franck-Neumann, Paul Bissinger, Philippe Geoffroy

Laboratoire de Chimie Organique Synthétique, associé au CNRS, Institut de Chimie, Université Louis Pasteur,  
1, rue Blaise Pascal 67000 - Strasbourg (France).



**A HIGHLY EFFICIENT PRACTICAL METHOD FOR THE SYNTHESIS OF  
CHIRAL POLYHYDROXY-(E,E)-1-CHLORODIENOLS AND (E)-5-HYDROXY  
ENYNES**

J.S. Yadav\*, D.K. Barma and Dinah Dutta

Indian Institute of Chemical Technology, Hyderabad-500 007, India.

An effective practical method for the synthesis chiral polyhydroxy chlorodienols and enynes is described.



THE DIRECTIONAL CHANGES IN TORSION ANGLES ALONE AFTER  
COMPLEXATION OF THE CARBONYL OXYGEN WITH A PROTOTYPICAL  
CATION SUCH AS H<sup>+</sup> PREDICT THE FACIAL SELECTIVITY OF  
SUBSTITUTED CYCLOHEXANONES. AN ab INITIO INVESTIGATION

Duraiswamy A. Jeyaraj, Arpita Yadav, Veejendra K. Yadav\*

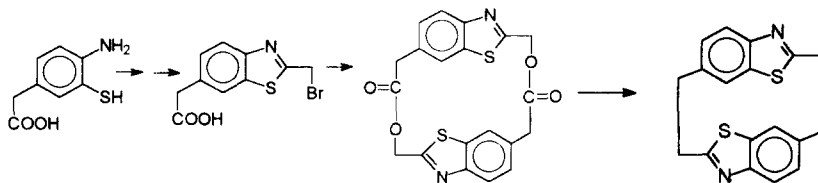
Department of Chemistry, Indian Institute of Technology, Kanpur 208 016, India

Based on the theory of stereoelectronic control and corroborated by ab initio MO calculations, a simple approach to the prediction of facial control in reactions of selected substituted cyclohexanones with nucleophiles is described. Some evidence is also presented against the known transition state models.

**SYNTHESIS OF ANTI-[2.2](2,6)BENZOTHAZOLOPHANE: THE FIRST EXAMPLE OF [2.2]BENZOFUSED HETEROPHANE.**

Sabir H. Mashraqui, and Kishor R. Nivalkar, Department of Chemistry, University of Mumbai, Vidyanagari, Santacruz(E), Mumbai 400098, INDIA.

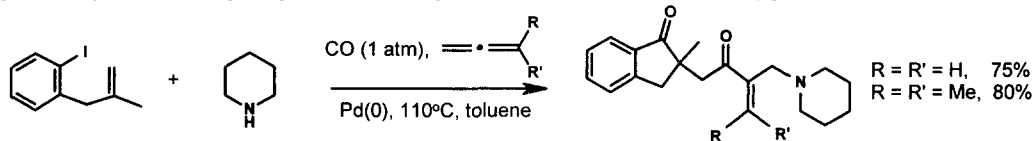
The synthesis and conformational behaviour of bislactone and the benzoheterophane is described.

**PALLADIUM CATALYSED PENTAMOLECULAR QUEUING CASCADES.**

Ronald Grigg\* and Robert Pratt

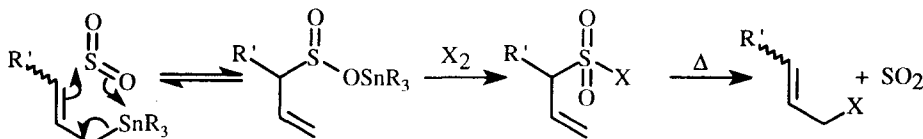
Molecular Innovation, Diversity and Automated Synthesis (MIDAS) Centre, School of Chemistry, Leeds University, LS2 9JT.

Regiospecific pentamolecular queuing cascades involving formation of 5 new bonds and cycloacylpalladation have been achieved.

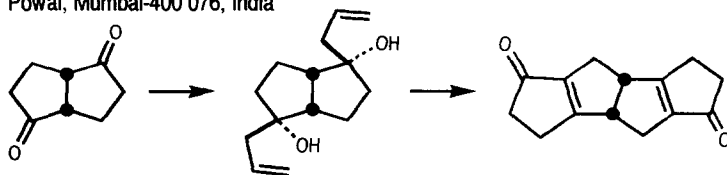
**THE THERMAL DESULFINATION OF ALLYLIC SULFONYL HALIDES.**

Malcolm D. King, Rodney E. Sue, Rodney H. White and David J. Young\*

Faculty of Science and Technology, Griffith University, Nathan 4111, Australia. Email: D.Young@sct.gu.edu.au

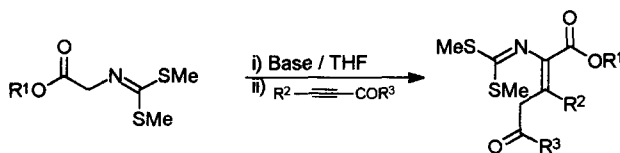
**A SIMPLE ROUTE TO CYCLOPENTANE ANNULATION**

Sambasivarao Kotha\*, Enugurthi Brahmachary, Rallapalli Sivakumar, Arul Joseph and Nampally Sreenivasachary, Department of Chemistry, Indian Institute of Technology, Powai, Mumbai-400 076, India



**REACTION OF N-[BIS(METHYLTHIO)METHYLENE]GLYCINATES WITH ELECTRON DEFICIENT ALKYNES. SYNTHESIS OF (Z)- $\alpha,\beta$ -DIDEHYDROGLUTAMIC ACID DERIVATIVES.**

Carlos Alvarez-Ibarra\*, Aurelio G. Csáky, Elena Martín Ortega, M. Jesús de la Morena and M. Luz Quiroga. Departamento de Química Orgánica I, Facultad de Química, Universidad Complutense. 28040 - Madrid. Spain

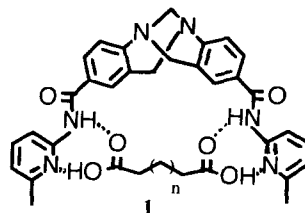


**Molecular Recognition: Chain Length Selectivity Studies of Dicarboxylic Acids by the Cavity of a New Troger's Base Receptor**

**Shyamaprosad Goswami\* and Kumares Ghosh**

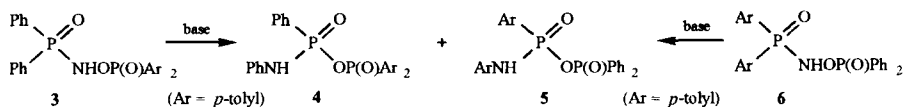
Department of Chemistry, Indian Institute of Technology, Kharagpur 721302, India.

A new Troger's base receptor **1** has been designed and synthesised. Binding studies with a series of dicarboxylic acids show that **1** is selective for suberic acid.



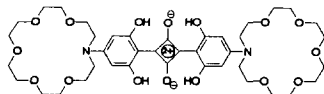
**TRANSPOSITION OF THE PHOSPHINOYL GROUPS IN THE BASE-INDUCED REARRANGEMENTS OF N,O-BIS(DIARYLPHOSPHINOYL)-HYDROXYLAMINES.** Martin J. P. Harger, Department of Chemistry, The University, Leicester LE1 7RH, UK.

Because the *N*- and *O*-phosphinoyl groups can change places prior to rearrangement, **3** and **6** both give a mixture of **4** and **5** with  $\text{KO}^t\text{Bu}$  in  $\text{Bu}^t\text{OH}$ . The transposition of the phosphinoyl groups may involve phosphorane intermediates having the P atom contained within a three-membered ring.



**ONE-POT SYNTHESIS OF A RED-FLUORESCENT CHEMO-SENSOR FROM AN AZACROWN, PHLOROGLUCINOL AND SQUARIC ACID: A SIMPLE IN SOLUTION CONSTRUCTION OF A FUNCTIONAL MOLECULAR DEVICE.**

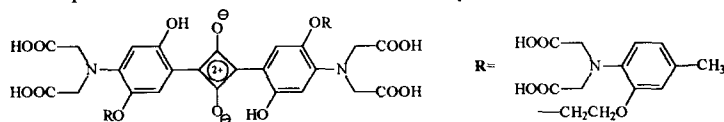
Umut Oguz and Engin U. Akkaya\*, Middle East Technical University, Department of Chemistry, Ankara, TR-06531, TURKEY.



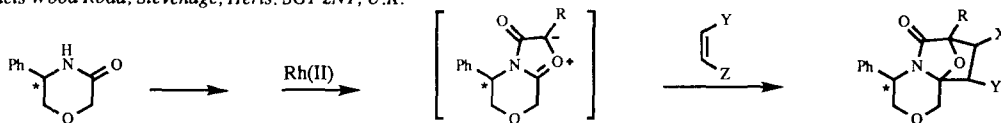
**A SQUARINE-BASED NEAR IR FLUORESCENT CHEMOSENSOR FOR CALCIUM.**

Engin U. Akkaya\* and Serhan Turkyilmaz, Middle East Technical University, Department of Chemistry, Ankara, TR-06531, TURKEY.

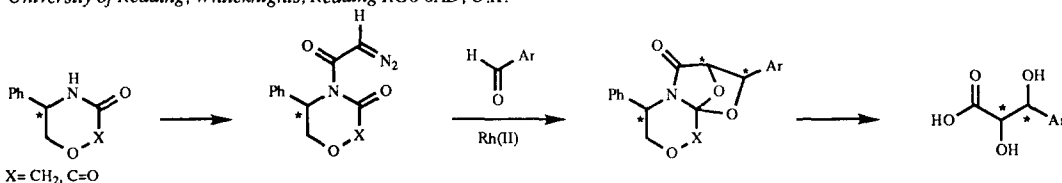
A Calcium specific NIR fluorescent chemosensor has been synthesized and characterized.


**Cycloadditions of 1,3-Oxazolium-4-olates (Isomünchnones) by Rhodium(II)-Induced Decomposition of  $\alpha$ -Diazocarbonyl Derivatives of (5*R*)- and (5*S*)-Phenyloxazin-3-one as a Chiral Template.**

Richard Angell,<sup>c</sup> Michael G. B. Drew,<sup>a</sup> Marion Fengler-Veith,<sup>a</sup> Harry Finch,<sup>c</sup> Laurence M. Harwood,<sup>\*a</sup> Archie W. Jahans,<sup>a</sup> and Toby T. Tucker<sup>b</sup>; <sup>a</sup>Department of Chemistry, University of Reading, Whiteknights, Reading RG6 6AD, U.K.; <sup>b</sup>Dyson Perrins Laboratory, University of Oxford, South Parks Road, Oxford OX1 3QY, U.K.; <sup>c</sup>Glaxo-Wellcome, Medicines Research Centre, Gunnels Wood Road, Stevenage, Herts. SG1 2NY, U.K.


**Highly Selective Chirally Templated Isomünchnone Cycloadditions of Achiral Aldehydes: Synthesis of an Enantiopure  $\alpha,\beta$ -Dihydroxyacid.**

Michael G. B. Drew, Marion Fengler-Veith, Laurence M. Harwood,<sup>\*</sup> Archie W. Jahans; Department of Chemistry, University of Reading, Whiteknights, Reading RG6 6AD, U.K.


**STEREOSELECTIVE SYNTHESIS OF EITHER *E*- OR *Z*-DIHODOALKENES FROM ALKYNES USING ICl AND IODIDE.**

Nadine Hénaff, Sarah K. Stewart and Andrew Whiting\*.  
Department of Chemistry, U.M.I.S.T., P.O. Box 88, Manchester, M60 1QD.

