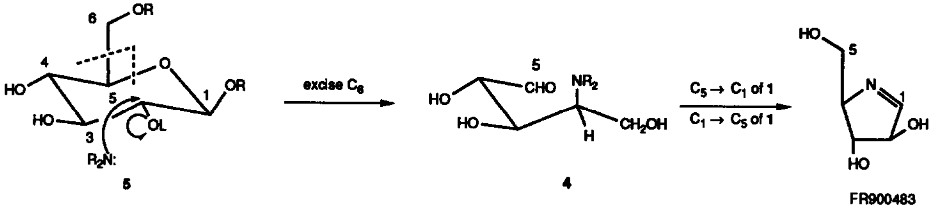
GRAPHICAL ABSTRACTS

Tetrahedron Lett. **1990**, *31*, 2229

NEW SYNTHESES OF THE NOVEL IMMUNOACTIVATOR FR90083

Sui-Hui Chen and Samuel J. Danishefsky*
Department of Chemistry, Yale University, New Haven, CT 06511

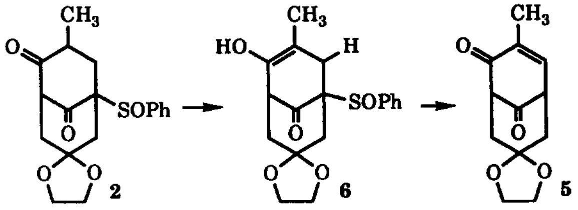


Tetrahedron Lett. **1990**, *31*, 2233

THE PREPARATION AND REARRANGEMENT OF BRIDGEHEAD ENONES FROM SULFOXIDES UNDER MILD REACTION CONDITIONS

George A. Kraus* and Jeff Hansen
Department of Chemistry, Iowa State University, Ames, IA 50011

The conversion of sulfoxide **2** into enone **5** proceeds via a regiospecific sulfoxide elimination followed by a bridgehead enone rearrangement.

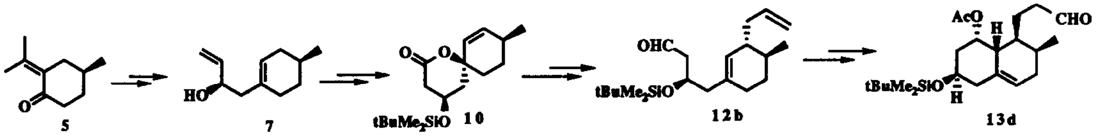


Tetrahedron Lett. **1990**, *31*, 2235

AN APPROACH TO THE SYNTHESIS OF THE HEXAHYDRONAPHTHALENE UNIT OF PRAVASTATIN

Joel C. Barrish*, Peter M. Wovkulich, Pen Cho Tang, Andrew D. Batcho, and Milan R. Uskoković
Roche Research Center, Hoffmann-LaRoche, Inc., Nutley, New Jersey 07110

An advanced intermediate (**13d**) for the synthesis of pravastatin has been stereoselectively prepared from (S)-pulegone (**5**) via **7**, **10** and **12b**.

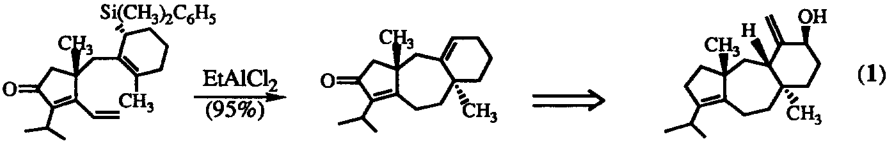


Tetrahedron Lett. **1990**, *31*, 2239

A Direct Stereoselective Synthesis of (±)-14-Deoxyisoamijiol.

G. Majetich, J.-S. Song, C. Ringold and G. A. Nemeth.
Departments of Chemistry,*The Universites of Georgia* and*Toledo*.

A sixteen-step total synthesis of (±)-14-deoxyisoamijiol (**1**) is reported.

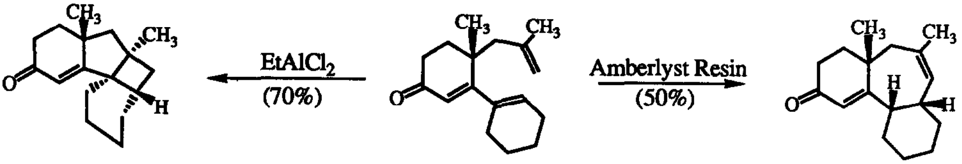


Tetrahedron Lett. **1990**, *31*, 2243

Intramolecular Reactions of Unactivated Alkenes with Conjugated Dienones.

George Majetich and Vikram Khetani
Department of Chemistry, *The University of Georgia*, Athens, Ga.

Lewis acid- or Amberlyst resin-promoted cyclizations of unactivated alkenes with 3-vinylcycloalkenones produce carbocycles having either cyclobutane or cycloheptane rings.

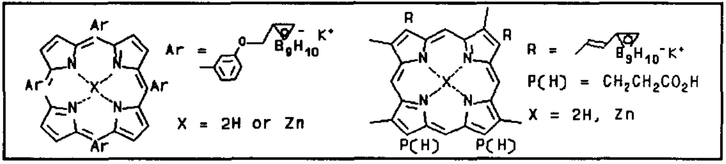


Tetrahedron Lett. **1990**, *31*, 2247

PREPARATION OF CARBORANYL PORPHYRINS FOR BORON NEUTRON CAPTURE THERAPY

Michiko Miura, Detlef Gabel,
Georg Oenbrink and Ralph G. Fairchild.
Brookhaven National Laboratory, Medical Department, Upton, New York U.S.A. and University of Bremen, Department of Chemistry, Bremen, F.R.G.

Two boronated, water-soluble porphyrins have been synthesized for Boron Neutron Capture Therapy.

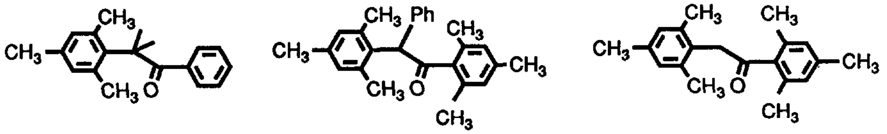


Tetrahedron Lett. **1990**, *31*, 2251

CONFORMATIONAL CONTROL OF PHOTOREACTIVITY: THREE α-MESITYL KETONES THAT UNDERGO EFFICIENT RADICAL CLEAVAGE

Peter J. Wagner* and Boli Zhou, Chemistry Department, Michigan State University, East Lansing, MI 48824

3 triplet ketones cleave to radicals in high quantum efficiency and with rate constants $\geq 10^9$ s^{-1}.

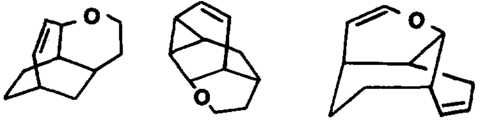


Tetrahedron Lett. **1990**, *31*, 2255

DIELS-ALDER REACTIONS OF TROPYLIUM ION. AN EMPIRICAL FORCE FIELD STUDY.

George B. Clemans, R.G. Jacoby, and M.S. Metzger
Department of Chemistry, Bowling Green State University, Bowling Green, Ohio 43403 USA

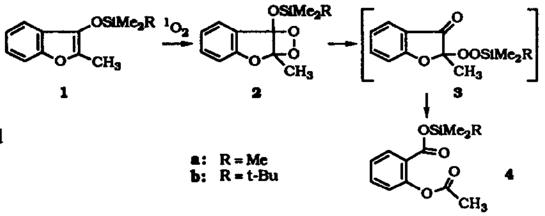
The trapping and rearrangement of products of the Diels-Alder reactions of tropylium ion with 3-butene-1-ol are described.



Tetrahedron Lett. **1990**, *31*, 2259

PHOTOOXYGENATION OF 3- AND 2-SILYLOXYBENZOFURANS: REARRANGEMENT OF DIOXETANES VIA α-SILYLPEROXY KETONES INTO KETOESTER CLEAVAGE PRODUCTS

Waldemar Adam*, Elmar Kades and Xiaoheng Wang
Institute of Organic Chemistry, University of Würzburg,
Am Hubland, D-8700 Würzburg, F.R.G.

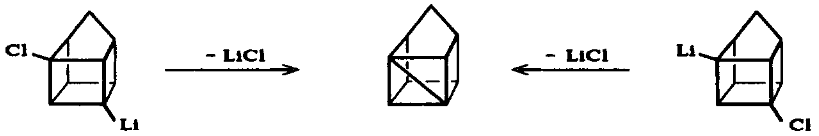


Photooxygenation of 2-methyl-3-silyloxybenzofurans 1 afforded isolable dioxetanes 2, the latter rearranged *via* α-silylperoxy ketones 3 into cleavage products 4; 2-silyloxy-3-methylbenzofuran 6 with $^1O_2$ gave the more stable dioxetane 7.

Tetrahedron Lett. **1990**, *31*, 2263

REACTION OF 1,6-DIHALOPENTACYCLO[5.2.0.0^{2,6}.0^{3,9}.0^{5,8}]-NONANES WITH *tert*-BUTYLLITHIUM: IS 1,6-DEHYDROHOMOCUBANE INVOLVED AS A REACTIVE INTERMEDIATE?

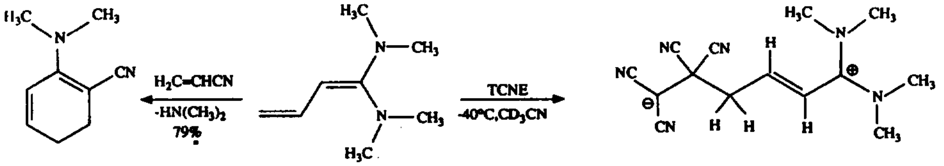
Jörg Schäfer and Günter Szeimies, Institut für Organische Chemie der Universität München,
Karlstaße 23, D-8000 München 2, Germany



Tetrahedron Lett. **1990**, *31*, 2265

Reactions of 1,1-bis(N,N-dimethylamino)-1,3-butadiene with olefins. Zwitterion formation and (4+2) cycloaddition as competing pathways.

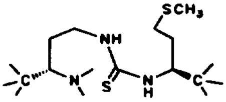
R. Sustmann and M. Rogge Institut für Organische Chemie der Universität Essen, D-4300 Essen 1, F.R.G.

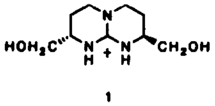


Tetrahedron Lett. **1990**, *31*, 2269

A NOVEL SYNTHESIS OF CHIRAL GUANIDINIUM MOLECULAR HOSTS

F. P. Schmidtchen
Inst. f. Org. Chemie und Biochemie
Techn. Univ. München
D-8046 Garching, FRG





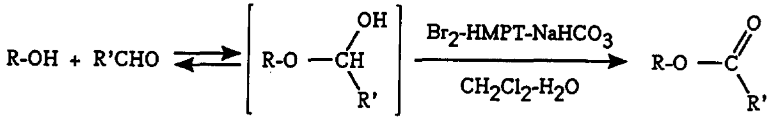
1

A new access route to 1, an abiotic anion receptor group, is described. This starts from chiral amino acids and involves an asymmetrically substituted thiourea as the key intermediate.

Tetrahedron Lett. **1990**, *31*, 2273

NEW OXIDATIVE ESTERIFICATION OF ALCOHOLS WITH ALDEHYDES BY THE Br_2-HMPT-$NaHCO_3$ SYSTEM.

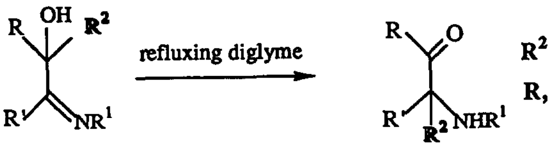
Mamdouh AL NEIRABEYEH [1] and M. Dolors PUJOL [2]
[1] United Arab Emirates University, Faculty of Sciences, BP 15.551, AL-AIN (United Arab Emirates).
[2] Laboratoire de Chimie Bioorganique et Analytique, Université d'Orléans, B.P. 6759, 45067 ORLEANS Cedex 2 (France).



Tetrahedron Lett. **1990**, *31*, 2277

THERMAL REARRANGEMENT OF α-HYDROXY IMINES WITH AN α-ALLYL OR AN α-PROPARGYL SUBSTITUENT

Jean-Michel VATELE, Daniel DUMAS and Jacques GORE, Laboratoire de Chimie Organique 1, associé au CNRS, Université Claude Bernard, ESCIL, 43 Bd du 11 Novembre 1918, 69622 Villeurbanne



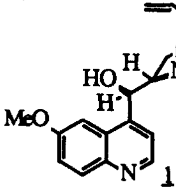
R^2=allyl or propargyl
R,R'=Me , -$(CH_2)_4$-

Tetrahedron Lett. **1990**, *31*, 2281

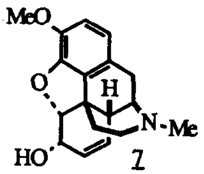
GIF OXIDATION OF SOME ALICYCLIC AMINES.

J. Boivin[a], D. Gaudin[b], D. Labrecque[b], and K. Jankowski[b]. [a]Laboratoire de Synthèse Organique, Ecole Polytechnique, 91128 Palaiseau, France. [b]Université de Moncton, Moncton, N.B., E1A 3E9, Canada.

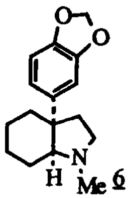
The Gif oxidation of seven alicyclic tertiary amines, especially quinine 1, codeine 7, and mesembrane 6 and some of their derivatives, produces essentially lactams. The structures of the oxidation products were investigated using high performance GC-MS system.



1



7



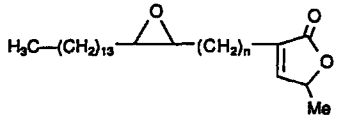
6

Tetrahedron Lett. **1990**, *31*, 2283

STRUCTURAL ELUCIDATION OF TWO NEW ACETOGENINS, EPOXYROLLINS A AND B, BY TANDEM MASS SPECTROMETRY

Olivier Laprévote,[a] François Roblot,[b] Reynald Hocquemiller [b] and André Cavé * [b]
[a] *Institut de Chimie des Substances Naturelles, C.N.R.S., 91190 Gif/Yvette, France*
[b] *Laboratoire de Pharmacognosie, U.A. 496, C.N.R.S., 92296 Châtenay-Malabry, France*

Tandem MS has been used to elucidate the structure of γ-lactonic acetogenins, epoxyrollins A and B, which are the first examples of acetogenins having an epoxide in place of the tetrahydrofuran moiety.



Epoxyrollin A: n = 17

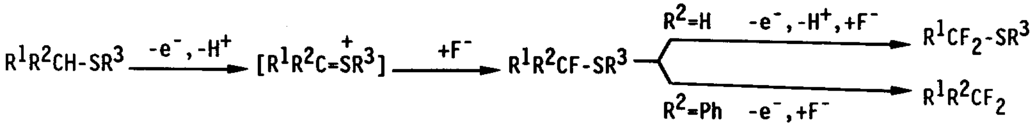
Epoxyrollin B: n = 15

Tetrahedron Lett. **1990**, *31*, 2287

OXIDATIVE FLUORINATION OF SULFIDES IN PRESENCE OF $Et_3N.3HF$

Thierry BRIGAUD and Eliane LAURENT
UCB-Lyon, Chimie Orga. 3 (associé au CNRS) 43, Bd du 11.11.1918 69622 VILLEURBANNE (France)

The synthesis of fluorocompounds by sulfide oxidation (DBH or electrochemical) using $Et_3N.3HF$ as fluorinating agent is described.

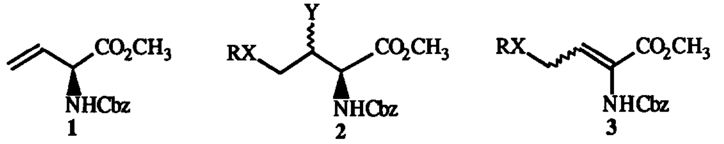


Tetrahedron Lett. **1990**, *31*, 2291

UNUSUAL α-AMINOACIDS FROM VINYLGLYCINE

P. Meffre*, L. Vo-Quang, Y. Vo-Quang, F. Le Goffic
Laboratoire de Bioorganique et Biotechnologies, associé au CNRS
ENSCP, 11, rue P. et M. Curie, F-75231 Paris Cédex 05, FRANCE

The easily available L-vinylglycine derivative 1 is used in the synthesis of unusual multifunctional α-aminoacids such as 2 and 3.

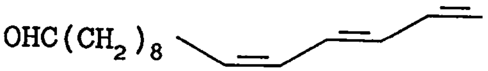


X=N, O, S, Se
Y=Cl, OH
$Cbz=CO_2CH_2C_6H_5$
R=aryl

Tetrahedron Lett. **1990**, *31*, 2295

STEREOSPECIFIC SYNTHESIS OF (Z,E)-9,11,13-TETRADECATRIEN-1-YL ACETATE AND ALDEHYDE SEX PHEROMONE COMPONENTS OF STENOMA CECROPIA AND ECTOMYELOIS CERATONIAE

Frédérique Tellier* and Charles Descoins
Laboratoire des Médiateurs Chimiques
Domaine de Brouessy,
78114 Magny-Les-Hameaux (FRANCE)

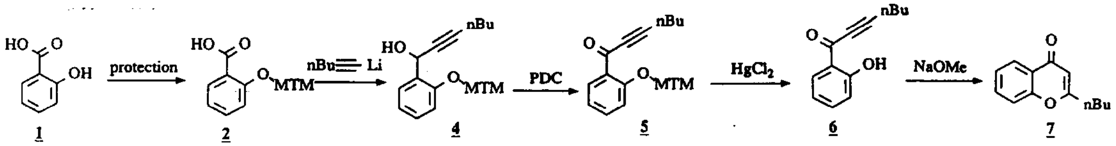


Tetrahedron Lett. **1990**, *31*, 2299

BASE CATALYSED CYCLISATION OF 1-(2'-HYDROXY-PHENYL)-2-YNONES : A NEW PATHWAY TO THE CHROMONE SKELETON.

Dominique Pflieger and Bernard Muckensturm
Laboratoire de Chimie Organique, Université Louis Pasteur, BP 296/R8 Strasbourg, France

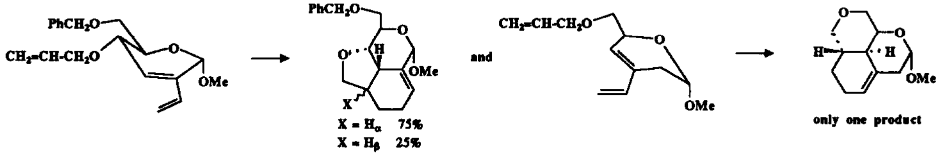
An improved synthesis of chromones via the cyclisation of γ-acetylenic alcools.



Tetrahedron Lett. **1990**, *31*, 2301

INTRAMOLECULAR DIELS-ALDER REACTIONS ON PYRANOSE-TRIENES. STEREOSELECTIVE ACCESS TO BIS-ANNULATED PYRANOSIDES

Alberto A. Ghini, Catherine Burnouf, J. Cristobal Lopez*, Alain Olesker and Gabor Lukacs*.
Institut de Chimie des Substances Naturelles du CNRS, 91198 Gif-sur-Yvette, France.

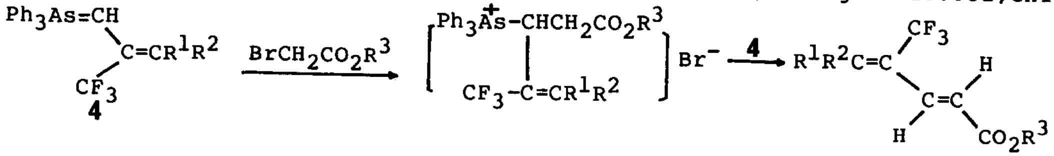


Bis-annulated pyranosides were stereoselectively prepared from readily available pyranose-trienes.

Tetrahedron Lett. **1990**, *31*, 2305

A NOVEL DOUBLE ELIMINATION OF ARSONIUM SALTS. ONE-POT SYNTHESIS OF 4-TRIFLUOROMETHYL-2,4-DIENYL CARBOXYLATES

Yanchang Shen*, Yuejun Xiang
Shanghai Institute of Organic Chemistry,Academia Sinica, Shanghai 200032,China

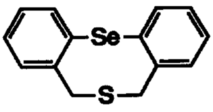


Tetrahedron Lett. **1990**, *31*, 2307

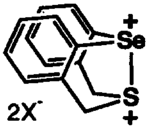
TRANSANNULAR INTERACTION BETWEEN SELENIUM AND SULFUR ATOMS IN 5H,7H-DIBENZO[b,g][1,5]SELENATHIOCIN: FORMATION OF A NEW HETEROATOM DICATION [>Se⁺-⁺S<]

Hisashi Fujihara, Hisatomo Mima, Jer-Jye Chiu, and Naomichi Furukawa*
Department of Chemistry, University of Tsukuba,
Tsukuba, Ibaraki 305, Japan

A new medium-sized heterocycles, 5H,7H-dibenzo[*b*,*g*][1,5]-selenathiocin (**1**) has been prepared. The transannular interaction between selenium and sulfur atoms in **1** and the formation of dication **2** were found in the reaction of **1**, and its oxides with concd H_2SO_4.



1



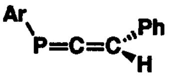
2

Tetrahedron Lett. **1990**, *31*, 2311

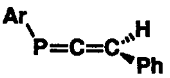
Separation of an Optically Active Phosphaallene of Pseudo Axial Dissymmetry

Masaaki Yoshifuji,[a]* Kozo Toyota,[a] Yoshio Okamoto,[b]* and Toshikage Asakura[b]
[a] *Department of Chemistry, Faculty of Science, Tohoku University, Aoba, Sendai 980, JAPAN*
[b] *Department of Chemistry, Faculty of Engineering Science, Osaka University, Toyonaka, Osaka 560, JAPAN*

Separation of enantiomers of *R*-**2** and *S*-**2** was performed by a chiral HPLC column coated with cellulose **4**.



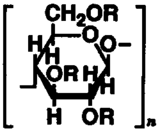
R-**2**



S-**2**

(Ar = 2,4,6-$Bu^t_3C_6H_2$; R = 3,5-$Me_2C_6H_3NHCO$)

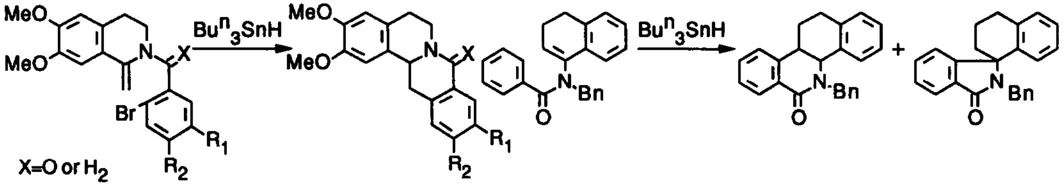
4



Tetrahedron Lett. **1990**, *31*, 2315

ISOQUINOLINE FRAMEWORKS VIA ARYL RADICAL-INITIATED 1,6-CYCLIZATION

Seiichi Takano,* Mahito Suzuki, Atsushi Kijima, and Kunio Ogasawara
Pharmaceutical Institute, Tohoku University, Aobayama, Sendai 980, Japan

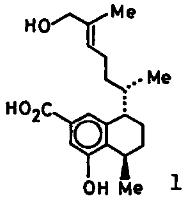


Tetrahedron Lett. **1990**, *31*, 2319

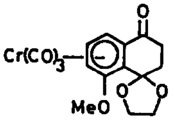
SYNTHESIS OF (±)-DIHYDROXYSERRULATIC ACID VIA (ARENE)CHROMIUM COMPLEXES

Motokazu Uemura,* Hikaru Nishimura, and Yuji Hayashi, Faculty of Science, Osaka City University, Sugimoto 3-3-138, Sumiyoshi-ku, Osaka 558, Japan

The title compound 1 has been synthesized with high selectivity from chromium complex 2



1

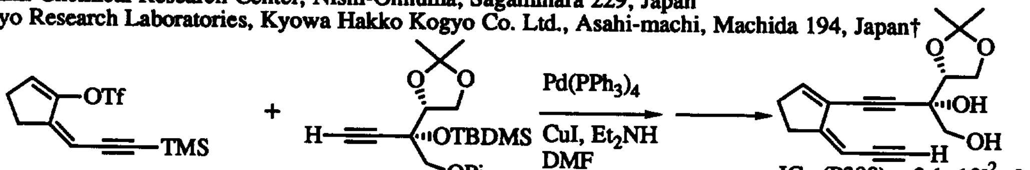


2

Tetrahedron Lett. **1990**, *31*, 2323

SYNTHESIS AND CYTOTOXICITY OF THE ACYCLIC (E)- AND (Z)-DIENEDIYNE SYSTEMS RELATED TO NEOCARZINOSTATINE CHROMOPHORE

Kazuhiko Nakatani, Katsuko Arai, Noriaki Hirayama,† Fuyuhiko Matsuda, and Shiro Terashima*
Sagami Chemical Research Center, Nishi-Ohnuma, Sagamihara 229, Japan
Tokyo Research Laboratories, Kyowa Hakko Kogyo Co. Ltd., Asahi-machi, Machida 194, Japan†



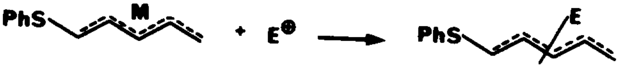
$IC_{50}(P388) = 3.1\times10^{-2}$mM

Tetrahedron Lett. **1990**, *31*, 2327

REGIOCHEMISTRY AND STEREOCHEMISTRY OF THE COUPLING OF PHENYLTHIOPENTADIENYL METALS WITH C-ELECTROPHILES

S. Florio,* L. Ronzini and R. Sgarra
Laboratorio di Chimica Organica, Dip. di Biologia, Univ. Lecce, ITALY

The coupling reaction of phenylthiopentadienyl metals with C-electrophiles is described

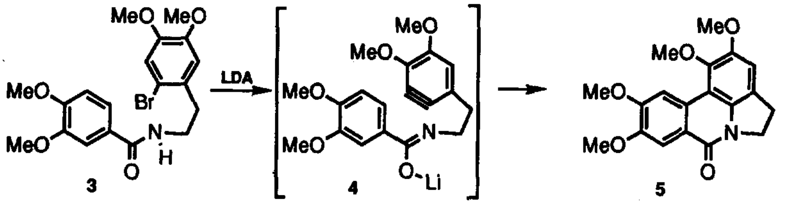


M = Li, MgBr, ZnBr, Cu, R_3BLi E^+ : MeI, carbonyls

Tetrahedron Lett. **1990**, *31*, 2331

INTRAMOLECULAR ARYNE CYCLOADDITION. NEW APPROACH TO AMARYLLIDACEAE ALKALOIDS.

D. Pérez, E. Guitián and L. Castedo.
Dpto. Química Orgánica. Universidad de Santiago. 15706 Santiago de Compostela . Spain.



A new approach to amaryllidaceae alkaloids based on a intramolecular aryne cycloaddition is described

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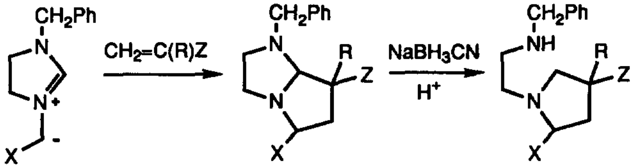
Tetrahedron Lett. **1990**, *31*, 2333

Annulation of Imidazolines: A 1,3-Dipolar Cycloaddition Route to Pyrroloimidazoles, Pyrrolidines and Pyrroles

Raymond C.F. Jones,* John R. Nichols (Chemistry Dept., Nottingham University, Nottingham NG7 2RD, U.K.) and Michael T. Cox (ICI Pharmaceuticals, Mereside, Alderley Park, Macclesfield, Cheshire SK10 4TG, U.K.)

Imidazolinium azomethine ylides undergo 1,3-dipolar cycloaddition with dipolarophiles to produce hexahydropyrrolo[1,2-*a*]imidazoles, which are reduced to pyrrolidines; in appropriate cases, elimination gives pyrroles.



Tetrahedron Lett. **1990**, *31*, 2337

L-RIBULOSE : A NOVEL CHIRAL POOL COMPOUND

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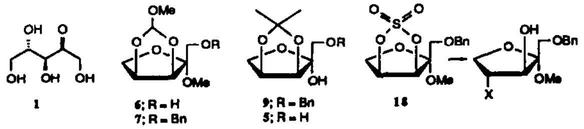
State Univ. Gent, Lab. Organic Synthesis, Krijgslaan, 281 (S.4), B-9000 GENT (Belgium), and
H. Röper, CERESTAR, Research and Development Center,Havenstraat, 84, B-1800 VILVOORDE (Belgium).

Transformation of L-Ribulose (1) - via key-intermediate 6 - into chiral building blocks is described. Cyclic sulfate 18 shows exclusive S_N2 at C-4.

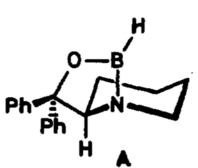


Tetrahedron Lett. **1990**, *31*, 2341

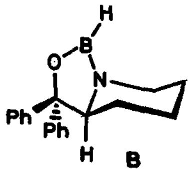
ENANTIOSELECTIVE REDUCTIONS OF KETONES WITH OXAZABOROLIDINES DERIVED FROM (R) AND (S)-α,α-DIPHENYL-2-PIPERIDINE METHANOL

A V Rama Rao, M K Gurjar, P A Sharma and Vijay Kaiwar
Indian Institute of Chemical Technology, Hyderabad, India

Enantioselective reductions of ketones with BH_3 in the presence of new oxazaborolidines (A and B) are described



A

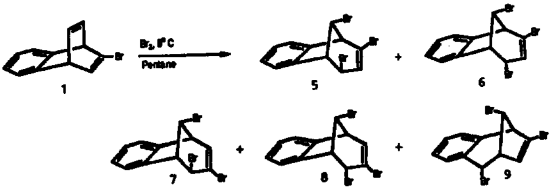


B

Tetrahedron Lett. **1990**, *31*, 2345

Bromination of 2-Bromobenzobarrelene

Osman Çakmak[a], Tuncer Hökelek[b], Orhan Büyükgüngör[c], and Metin Balcı[a]
a) Atatürk University, Faculty of Science, Department of Chemistry, Erzurum/Turkey
b) Hacettepe University, Faculty of Engineering Department of Physics, Ankara/Turkey
c) 19 Mayıs University, Department of Physics, Faculty of Science, Samsun/Turkey



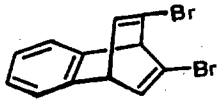
The bromination of 2-bromobenzobarrelene has been studied and 5 products have been isolated.

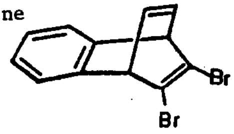
Tetrahedron Lett. **1990**, *31*, 2349

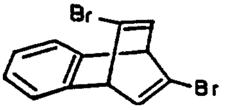
Synthesis of 2,3-, 2,5-, and 2,6-Dibromobenzobarrelenes High Temperature Bromination

Osman Çakmak and Metin Balcı
Atatürk University, Department of Chemistry
Faculty of Science, Erzurum/Turkey

2,3-, 2,5-, and 2,6-Dibromobenzobarrelenes have been synthesized by bromination of 2-bromobenzobarrelene followed by HBr Elimination.



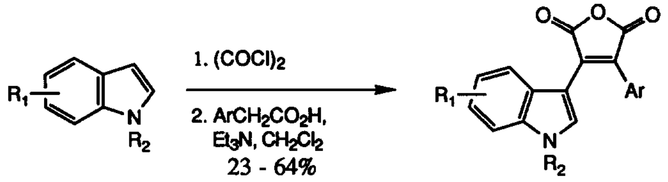




Tetrahedron Lett. **1990**, *31*, 2353

A CONVENIENT SYNTHESIS OF BISINDOLYL- AND INDOLYLARYL-MALEIC ANHYDRIDES

Peter D. Davis*, Rino A. Bit and Stephen A. Hurst
Roche Products Ltd., P.O.Box 8, Welwyn Garden City, Herts., AL7 3AY, U.K.



R_1 = H, 2-methyl, 5-methoxycarbonyl

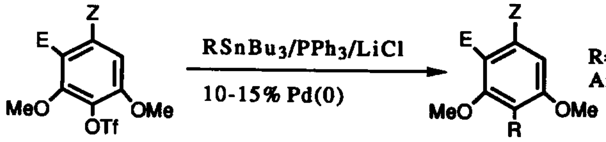
R_2 = methyl, benzyl, 3-cyanophenyl

Ar = 1-p-toluenesulphonyl-3-indolyl, 1-methyl-3-indolyl, phenyl, 4-methoxyphenyl, 1-naphthyl, 3-thienyl.

Tetrahedron Lett. **1990**, *31*, 2357

Palladium catalyzed cross-coupling of phenol triflates with organostannanes. A versatile approach for the synthesis of substituted resorcinols.

*G. Martorell, A. Garcia-Raso and J.M. Saá**
Departament de Química de la Universitat de les Illes Balears. E-07071 Palma de Mallorca Spain.



R= H, Alkyl, Alkenyl, Aryl, Allyl, Alkinyl.