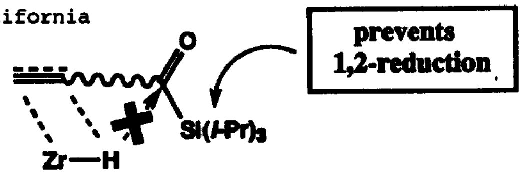
GRAPHICAL ABSTRACTS

Tetrahedron Letters, **1994**, *35*, 4669

EXPANDING THE VERSATILITY OF SCHWARTZ' REAGENT: HYDROZIRCONATION OF VINYLIC AND ACETYLENIC ACYL SILANES

Bruce H. Lipshutz,* Craig Lindsley, and Ashok Bhandari
Department of Chemistry, University of California
Santa Barbara, CA 93106

Use of TIPS acyl silanes as carbonyl equivalents during hydrozirconation reactions of alkenes and alkynes.

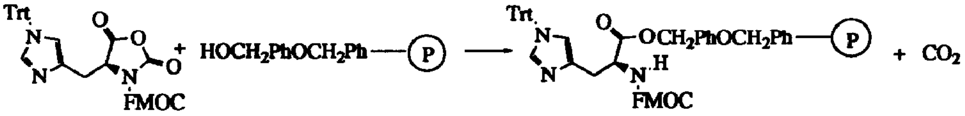


Tetrahedron Letters, **1994**, *35*, 4673

ESTERIFICATION OF 4-ALKOXYBENZYL ALCOHOL RESIN WITH FMOC-HISTIDINE (N^{im}-TRITYL)-N-CARBOXYANHYDRIDE

Yun-Fei Zhu, Robert K. Blair and William D. Fuller*, BioResearch Inc., 11189 Sorrento Valley Road, #4, San Diego, CA 92121, USA

Esterification of 4-alkoxybenzyl alcohol resin is accomplished rapidly in high yield with no detectable racemization when FMOC-histidine (N^{im}-trityl)-NCA is the condensing reagent.

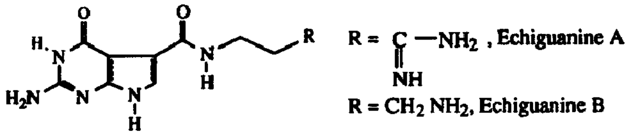


Tetrahedron Letters, **1994**, *35*, 4677

A SHORT AND EFFICIENT SYNTHESIS OF ECHIGUANINES A AND B: POTENT INHIBITORS OF PHOSPHATIDYL-INOSITOL-4-KINASE.

Chuan Shih* and Ying Hu, Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN 46285 USA

An efficient palladium catalyzed carbonylation reaction was developed for the synthesis of Echiguanines.



$R = \underset{NH}{\underset{\|}{C}}-NH_2$, Echiguanine A

$R = CH_2NH_2$, Echiguanine B

Tetrahedron Letters, **1994**, *35*, 4681

Studies on the Oxidation of Alcohols Employing *t*-Butyl Hydroperoxide (TBHP) and Fe(III) Catalysts.

Derek H. R. Barton,* Stephane D. Bévière, Béatrice M. Chabot, Warinthorn Chavasiri, and Dennis K. Taylor.
Department of Chemistry, Texas A&M University, College Station, TX 77843-3255, USA

$$R_2CHOH \xrightarrow{Fe(III)\,/\,TBHP} R_2C{=}O \qquad 79\text{-}92\%$$

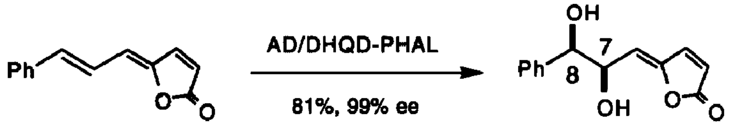
Utilizing Fe(III) salts and TBHP, alcohols can be oxidized to the corresponding ketones in good yield. The mechanistic pathway is considered to involve the generation of a high-valent Fe species.

Tetrahedron Letters, **1994**, *35*, 4685

SYNTHESIS AND STEREOCHEMICAL ASSIGNMENTS FOR GONIOBUTENOLIDES A AND B

Daqiang Xu and K. Barry Sharpless*
Department of Chemistry, The Scripps Research Institute, 10666 N. Torrey Pines Road, La Jolla, CA 92037

Goniobutenolides A and B and their 7-epimers were stereoselectively synthesized with asymmetric dihydroxylation (AD) as the key transformation.

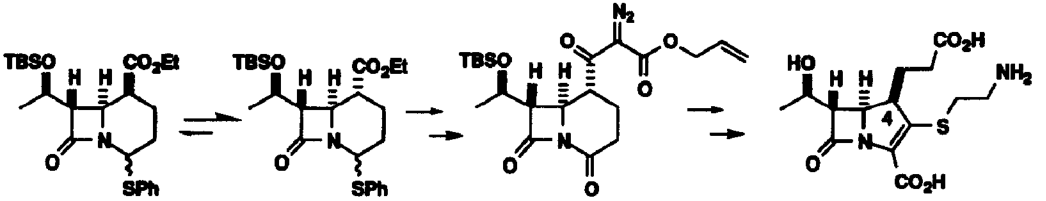


7-*epi*-goniobutenolide A

Tetrahedron Letters, **1994**, *35*, 4689

Synthesis of a 4β-Carboxyethyl Derivative of Thienamycin.

Gilles Bouthillier, Harold Mastalerz* and Marcel Menard,
Bristol-Myers Squibb Pharmaceutical Research Institute, 5 Research Parkway, Wallingford, CT 06492

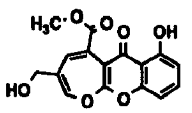


Tetrahedron Letters, **1994**, *35*, 4693

FUSIDIENOL: A NOVEL INHIBITOR OF RAS FARNESYL-PROTEIN TRANSFERASE FROM *FUSIDIUM GRISEUM*

Sheo B Singh*, E. Tracy Jones, Michael A. Goetz, Gerald F. Bills, Mary Nallin-Omstead, Rosalind G. Jenkins, Russell B. Lingham, Keith C. Silverman and Jackson B. Gibbs; Merck Research Laboratories, P. O. Box 2000 Rahway, NJ 07065 and West Point, PA 19486

Ras (p21) protein is frequently found mutated in human cancers and must be farnesylated by farnesyl protein-transferase (FPTase) to achieve cell-transforming activity. Our continued search for inhibitors of FPTase as potential cancer chemotherapeutics led to the isolation of fusidienol from extracts of the fungus *Fusidium griseum*. Fusidienol is a novel and potent oxygen-containing [7/6/6] tricyclic heterocycle.



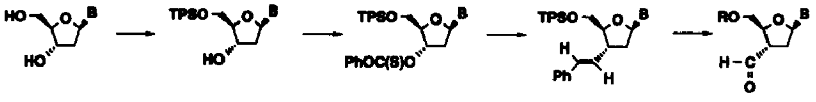
Fusidienol

Tetrahedron Letters, **1994**, *35*, 4697

AN EASY ACCESS OF 2',3'-DIDEOXY-3'-α-*C*-FORMYL -ADENOSINE AND -GUANOSINE ANALOGS VIA STEREOSELECTIVE *C-C* BOND FORMING RADICAL REACTION.

Yogesh S. Sanghvi,* Bruce Ross, Ramesh Bharadwaj and Jean-Jacques Vasseur
Department of Medicinal Chemistry, Isis Pharmaceuticals, 2292 Faraday Avenue, Carlsbad, CA 92008, USA

A large-scale, facile and stereoselective synthesis of 1-[5-*O*-(*tert*-butyldiphenylsilyl)-2,3-dideoxy-3-α-*C*-formyl-β-D-erythro-pentofuranosyl] -adenine (**7b**) and -N^2-isobutyrylguanine (**7c**) using an intermolecular radical *C-C* bond formation reaction is reported. The utility of these nucleosides (**7b** and **7c**) as building blocks for antisense oligonucleosides is discussed.



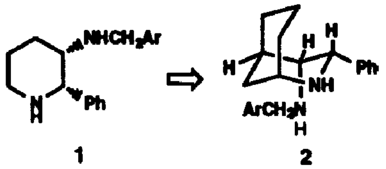
7	R	B
b	TPS	A
c	TPS	G.ibu

Tetrahedron Letters, **1994**, *35*, 4701

APPLICATION OF β-LACTAMS IN THE SYNTHESIS OF SUBSTANCE P ANTAGONISTS: PREPARATION OF 2-AZABICYCLO[3.3.1]NONANE RING SYSTEMS

Manoj C. Desai,*† and Sheri L. Lefkowitz Central Research Division, Pfizer Inc., Groton, CT 06340

Synthesis of the locked-in chair conformer **2** of CP-99,994 (1) is described.



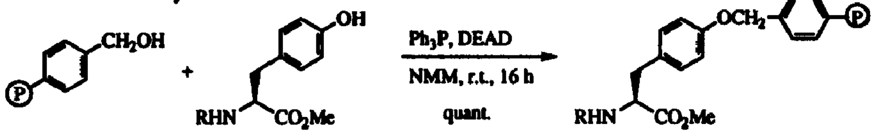
1 2

Tetrahedron Letters, **1994**, *35*, 4705

A Surprising Observation about Mitsunobu Reactions in Solid Phase Synthesis.

Lutz S. Richter* and Thomas R. Gadek,
Dept. of Bioorganic Chemistry, Genentech, Inc., 390 Point San Bruno
Boulevard, South San Francisco, CA 94080

The yield of the Mitsunobu reaction of a phenol with hydroxymethyl polystyrene resin is significantly increased in the presence of a tertiary amine.

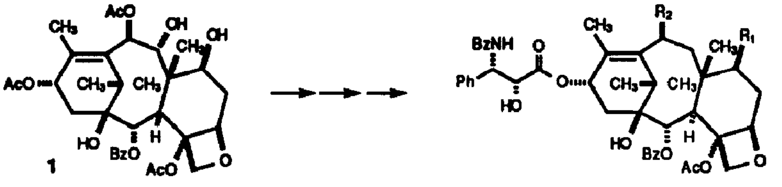


Tetrahedron Letters, **1994**, *35*, 4707

SYNTHESIS OF 9-DEOXOTAXANE ANALOGS

Larry L. Klein, Clinton M. Yeung, Leping Li, Jacob J. Plattner
Anti-Infective Division, D-47M AP9A, 1 Abbott Park Road, Abbott Laboratories, Abbott Park, IL 60064-3500

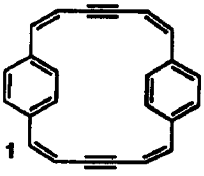
Starting with 13-acetyl-9(R)-dihydrobaccatin III (1), the C-9, C-7, and C-10 oxygens were removed. A modified C-13 sidechain precursor was used to prepare the 9-deoxo analogs. The C-9 carbonyl is not required for the retention of activity.



Tetrahedron Letters, **1994**, *35*, 4711

REVOLVENEYNES: NOVEL ENEYNEPARACYCLOPHANES BY SEQUENTIAL PALLADIUM COUPLING

Miguel A. Romero and Alex G. Fallis*
Ottawa-Carleton Chemistry Institute, Department of Chemistry, University of Ottawa, 10 Marie Curie, Ottawa, Canada, K1N 6N5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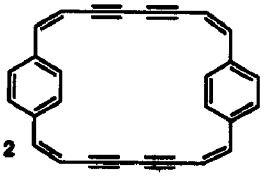
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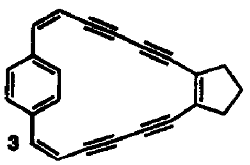

3

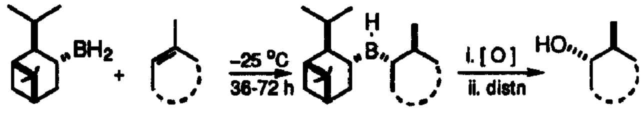
A new family of eneyne-bridged cyclophanes with freely rotating benzene rings has been synthesized.

Tetrahedron Letters, **1994**, *35*, 4715

2-ISOPROPYLAPOISOPINOCAMPHEYLBORANE, AN IMPROVED REAGENT FOR THE ASYMMETRIC HYDROBORATION OF REPRESENTATIVE PROCHIRAL ALKENES.

Ulhas P. Dhokte, and Herbert C. Brown*
H. C. Brown and R. B. Wetherill Laboratories of Chemistry, Purdue University, West Lafayette, IN 47907-1393

A new hydroborating agent, 2-isopropylapoisopinocampheylborane (^{i}PraBH$_2$), achieves the asymmetric hydroboration of representative prochiral alkenes in higher optical purities than that achieved by the borane derivatives, 2-organylapoisopinocampheylboranes (R = Me, IpcBH$_2$; R = Et, EapBH$_2$; and R = Ph, PapBH$_2$) previously examined.

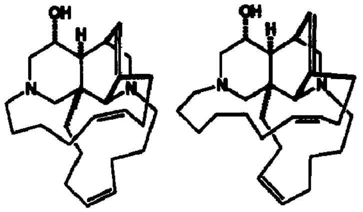


Tetrahedron Letters, **1994**, *35*, 4719

REVISED STRUCTURE OF XESTOCYCLAMINE A AND DESCRIPTION OF A NEW ANALOGUE

Jaime Rodríguez and Phillip Crews*. Department of Chemistry and Biochemistry and Institute for Marine Sciences, University of California, Santa Cruz, Santa Cruz, CA 95064.

The structure of xestocyclamine A from the sponge *Xestospongia* sp. has been revised to 2. The proposed structure of a new two carbon homologue, xestocyclamine B (3), is also presented.



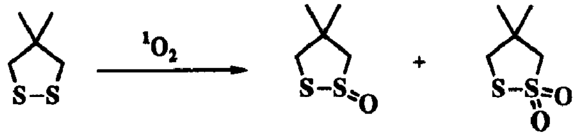
2 3

Tetrahedron Letters, **1994**, *35*, 4723

PHOTOOXIDATIONS OF SULFENIC ACID DERIVATIVES 2. A REMARKABLE SOLVENT EFFECT ON THE REACTIONS OF SINGLET OXYGEN WITH DISULFIDES.

Edward L. Clennan,* Dongyi Wang, Houwen Zhang, Christine H. Clifton, Department of Chemistry, University of Wyoming, Laramie WY 82071 USA

The thiosulfinate/thiosulfonate ratio has been measured for the photooxidations of 9 disulfides and mechanistically interpreted.

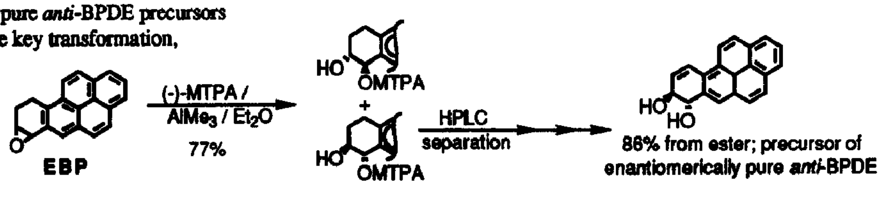


Tetrahedron Letters, **1994**, *35*, 4727

IMPROVED FORMAL PREPARATION OF ENANTIOMERICALLY PURE *anti*-BENZO[*a*]PYRENE DIOL EPOXIDE.

George R. Negrete and Thomas Meehan*
Departments of Pharmacy and Pharmaceutical Chemistry, University of California, San Francisco, CA 94143-0446

The route to enantiomerically pure *anti*-BPDE precursors is shortened by 2 steps. In the key transformation, trimethylaluminum catalysed addition of Mosher's acid (MTPA) to EBP gives benzylic esters exclusively.

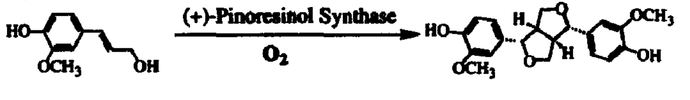


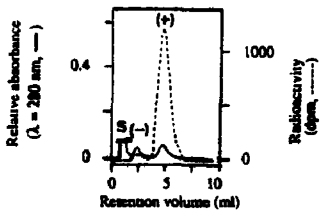
Tetrahedron Letters, **1994**, *35*, 4731

(+)-PINORESINOL SYNTHASE: A STEREOSELECTIVE OXIDASE CATALYSING 8,8'-LIGNAN FORMATION IN *FORSYTHIA INTERMEDIA*.

Paul W. Paré, Huai-Bin Wang, Laurence B. Davin and Norman G. Lewis*, Institute of Biological Chemistry, Washington State University, Pullman, WA 99164-6340, USA.

8,8'-Lignan skeletal formation is engendered by (+)-pinoresinol synthase, an oxidase catalysing the stereoselective coupling of two achiral *E*-coniferyl alcohols to give (+)-pinoresinol in >97% enantiomeric excess.



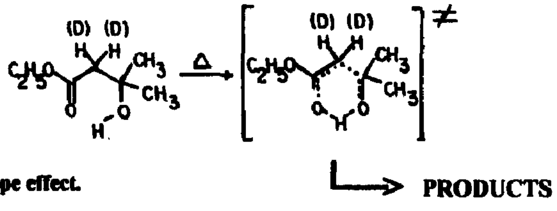


Tetrahedron Letters, **1994**, *35*, 4735

ALPHA-DEUTERIUM ISOTOPE EFFECTS IN THE THERMOLYSIS OF ß-HYDROXY ESTERS

J. Quijano*, I. Restrepo **. L.H. Gallego **and M. del S. Yepes.**
*** Departamento de Química, Universidad Nacional de Colombia, Apartado Aéreo 586, Medellín- Colombia**
**** Departamento de Química, Universidad de Antioquia, Apartado Aéreo 1226, Medellín - Colombia**

A change of hybridization of C-2 (sp^3 —> sp^2) in the transition state is suggested by the α-Deuterium Isotope effect.

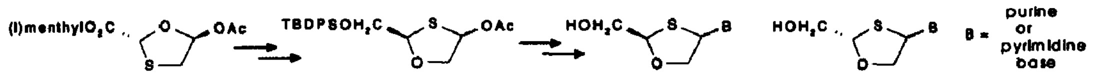


Tetrahedron Letters, **1994**, *35*, 4739

Synthesis of Optically Active 2',3'-Dideoxy-3'-oxa-4'-thio-ribonucleoside Analogues by Transposition of a Leaving Group on Chiral Oxathiolanes via a Reductive-oxidative Process

Wei Wang, Haolun Jin* and Tarek S. Mansour
BioChem Therapeutic Inc., 275 Armand-Frappier Blvd., Laval, Quebec, Canada H7V 4A7

Reductive-Oxidative transformation of chiral oxathiolanes has led to the tranposition of the existing leaving group and provided the access to a series of novel chiral nucleoside analogues.

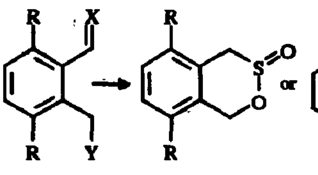


Tetrahedron Letters, **1994**, *35*, 4743

Efficient Synthesis of 5,8-Disubstituted-1,4-Dihydrobenzoxathiin-3-Oxides and Their Isomeric Structures, 4,7-Disubstituted-1,3-Dihydrobenzo[b] Thiophene-2,2-Dioxides

Giorgio Attardo*, Wuyi Wang*, Jean-Louis Kraus† and Bernard Belleau‡, BioChem Therapeutic Inc., 531 Blvd des Prairies, Laval, Québec H7V 1B7, Canada, †Laboratoire de chimie biomoléculaire, Faculté de Sciences de Luminy, 13009 Marseille Cedex 9, France

Functionalized dihydrobenzoxathiin oxides and dihydrobenzothiophene-2,2-dioxides 11-18 have been prepared via trapping of sulfur dioxide under photolytic or ground state conditions

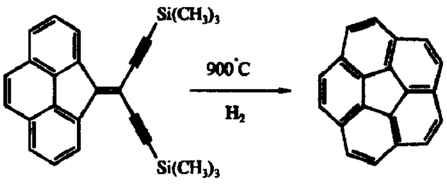


Tetrahedron Letters, **1994**, *35*, 4747

Synthesis and Hydropyrolysis of Bis-trimethylsilyl Substituted 3-(4H-Cyclopenta[def]phenanthrylidene)-1,4-pentadiyne. A New Route to Corannulene.

Gerhard Zimmermann*, Uta Nuechter, Stefan Hagen and Matthias Nuechter, Department of High Temperature Reactions at the Institute of Chemical Technology, University of Leipzig, Permoserstr. 15, D - 04303 Leipzig, Germany

3-(4H-Cyclopenta[def]phenanthrylidene)-1,5-bis-(trimethylsilyl)-1,4-pentadiyne was synthesized and converted by hydropyrolysis into corannulene besides others in reasonable yields.

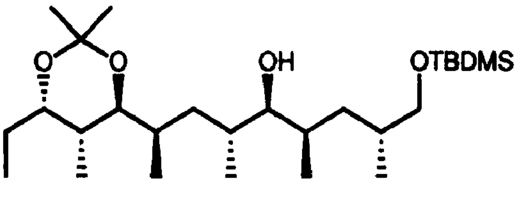


Tetrahedron Letters, **1994**, *35*, 4751

SYNTHESIS OF A C-15/C-27 SEGMENT OF VENTURICIDINE

Reinhard W. Hoffmann and Ulrike Rolle
Fachbereich Chemie der Philipps-Universität,
D-35032, Marburg, Germany

An iterative procedure for the synthesis of 1,3,5,n-poly-methylated alkyl chains has been developed. Key steps are a stereoselective allylboration reaction followed by hydroboration/carbonylation. Every third stereocenter is set up by an epimerisation of a lactol.

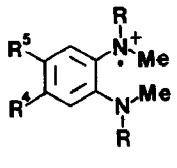


Tetrahedron Letters, **1994**, *35*, 4755

Radical Cations of 1,2-Bis(dialkylamino)benzenes: Restricted Rotation about the C–NMe$_2$ Bond

Franz A. Neugebauer*, Britta Funk , and Heinz A. Staab, Abteilung Organische Chemie,
Max-Planck-Institut für medizinische Forschung, Jahnstr. 29, D-69120 Heidelberg, Germany

ESR of the radical cations **2a–c**$^{\cdot+}$; restricted rotation about the C(aryl)–N bond; *endo/exo* assignment of the N-methyl groups.



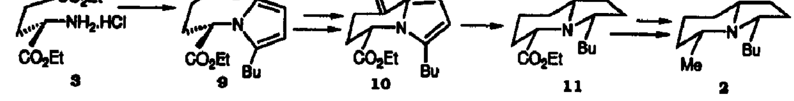
2a–c$^{\cdot+}$

Tetrahedron Letters, **1994**, *35*, 4759

THE ENANTIOSPECIFIC SYNTHESIS OF (-)-MONOMORINE FROM L-GLUTAMIC ESTER

C.W. Jefford, K. Sienkiewicz, and S.R. Thornton
Department of Organic Chemistry, University of Geneva,
1211 Geneva 4, Switzerland

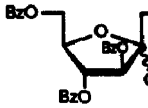
Diethyl L-glutamate hydrochloride (3) was converted to the 2-butylpyrrole derivative 9, which on cyclization to 10, catalytic hydrogenation to 11 and transformation of the ester to the methyl group, afforded (-)-monomorine (2).



Tetrahedron Letters, **1994**, *35*, 4763

UTILITY OF GLYCOSYL PHOSPHITES AS GLYCOSYL DONORS - FRUCTOFURANOSYL AND 2-DEOXYHEXOPYRANOSYL PHOSPHITES IN GLYCOSIDE BOND FORMATION

Thomas Müller, Regine Schneider, R.R. Schmidt
Fakultät Chemie, Universität Konstanz, Postfach 5560 M 725, D-78434 Konstanz



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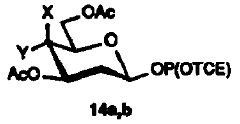


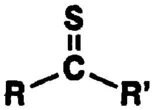
14a,b

X = H, Y = OAc
X = OAc, Y = H
TCE = CCl_3-CH_2

Tetrahedron Letters, **1994**, *35*, 4767

DIE DIENOPHILE REAKTIVITÄT DER C=S-BINDUNG IN (4+2)-CYCLOADDITIONEN: KINETISCHE STUDIE MIT THIOBENZOPHENONEN UND THIOFLUORENON

Jürgen Schatz und Jürgen Sauer
Institut für Organische Chemie der Universität Regensburg,
D-93040 Regensburg, Germany

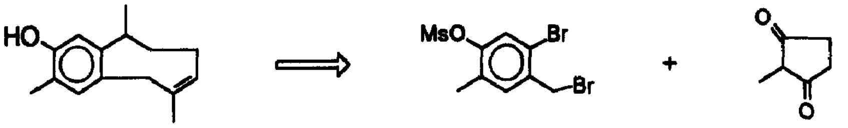


Thioketones R-CS-R´ are superdienophiles in Diels-Alder-cycloaddition reactions.

Tetrahedron Letters, **1994**, *35*, 4771

SYNTHESE TOTALE DE LA (±)-PARVIFOLINE

R. Villagómez-Ibarra et P. Joseph-Nathan, Departamento de Química, CINVESTAV-IPN, México, D.F., 07000.

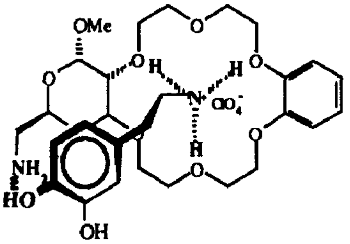


Parvifoline

Tetrahedron Letters, **1994**, *35*, 4773

CROWN ETHERS WITH PENDANT PRIMARY AMINO-GROUP FOR COMPLEXATION OF DOPAMINE

Béatrice Dumont, Marie-Françoise Schmitt, and Jean-Pierre Joly*
Laboratoire de Méthodologie et Synthèse Enantiospécifique de Biomolécules,
associé au *CNRS*, Faculté des Sciences, Université de Nancy I, BP 239,
F-54506 Vandoeuvre-lès-Nancy, France



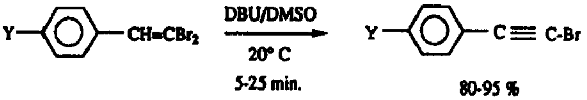
$$6\ (CHCl_3)\ \underset{LiClO_4}{\overset{\text{aq. dopamine}}{\rightleftarrows}}$$

The complexing ability of two novel 18-6 crown ethers (6 and 8) derived from a common 6-amino-6-deoxy-α-D-glucopyranoside framework towards dopamine was demonstrated

Tetrahedron Letters, **1994**, *35*, 4777

DBU/DMSO PROMOTED DEHYDROBROMINATION OF 1,1-DIBROMOOLEFINS. A GENERAL SYNTHESIS OF 1-BROMOAROMATIC ALKYNES UNDER MILD CONDITIONS.

Victorin Ratovelomanana*, Yolande Rollin, Catherine Gebehenne, Corinne Gosmini and Jacques Périchon.
Laboratoire Mixte de Recherche C.N.R.S. Electrochimie, Catalyse et Synthèse Organique (L.E.C.SO.) UMR n° 28, 2, rue Henri-Dunant
94320 Thiais (France)



Y : CH_3, Cl, Br, CH_3O
CH_3S, CO_2Et, CN, NO_2

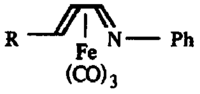
Tetrahedron Letters, **1994**, *35*, 4781

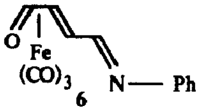
SYNTHESIS OF NEW FUNCTIONALIZED AZADIENE CARBONYL IRON COMPLEXES

Hassan Cherkaoui, Jacques Martelli,* René Grée
Laboratoire de Synthèses et Activations de Biomolécules, associé au CNRS
ENSCR, Avenue du Général Leclerc, 35700 Rennes, France

New carbonyliron complexes of 1-aza-1,3-dienes 3, 4 and 6 bearing an aldehyde function in position 4 are easily prepared from the corresponding fumaraldehyde complexes by aza Wittig reactions.

3 : R = - $CH(OCH_3)_2$;
4 : R = - CHO



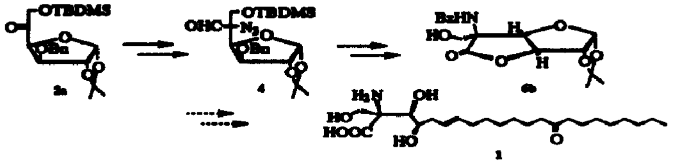


6

Tetrahedron Letters, **1994**, *35*, 4783

Synthesis of α-Azido Aldehydes. Stereoselective Access to the Immunosuppressant Myriocin.

Sandrine Deloisy[a], Ton That Thang[b], Alain Olesker[a]*, and Gabor Lukacs[a]
institut de Chimie des Substances Naturelles du C.N.R.S., 91198 Gif sur Yvette, France[a] and
Laboratoire de Chimie Bio-organique, associé au C.N.R.S., Place E. Bataillon, 34095 Montpellier, France[b].

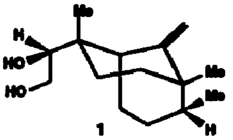


Stereoselective preparation of an acyclic α-azido aldehyde permitted access in a few steps to a key intermediate in a formal synthesis of myriocin.

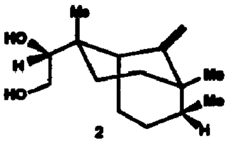
Tetrahedron Letters, **1994**, *35*, 4787

Trifarienols A and B, Isolated from the Liverwort *Cheilolejeunea trifaria*. Sesquiterpenes having a New Carbon Skeleton, Trifarane

Toshihiro Hashimoto, Hiroki Koyama, Shigeru Takaoka, Motoo Tori , and Yoshinori Asakawa*
Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Yamashiro cho, Tokushima 770, Japan



1



2

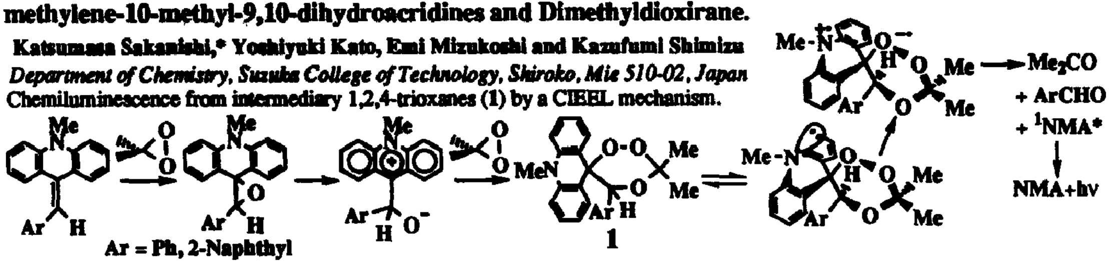
Trifarienols A (1) and B (2), have been isolated from the liverwort *Cheilolejeunea trifaria*, and their stereostructures established mainly by analyses of 2D NMR spectra and X-ray crystallography.

A Novel Chemiluminescence from the Reaction of 9-Arylmethylene-10-methyl-9,10-dihydroacridines and Dimethyldioxirane.

Tetrahedron Letters, **1994**, *35*, 4789

Katsumasa Sakanishi,* Yoshiyuki Kato, Emi Mizukoshi and Kazufumi Shimizu
Department of Chemistry, Suzuka College of Technology, Shiroko, Mie 510-02, Japan

Chemiluminescence from intermediary 1,2,4-trioxanes (1) by a CIEEL mechanism.

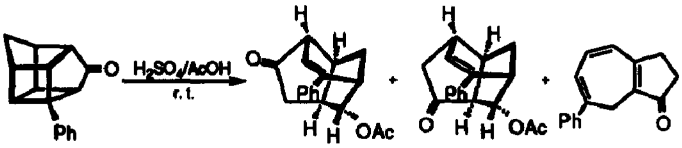


ACID-CATALYZED REARRANGEMENT OF PHENYLSUBSTITUTED 1,3-BISHOMOCUBANONE *VIA* SEVERAL EQUILIBRATING NON-CLASSICAL BICYCLOBUTONIUM IONS.

Tetrahedron Letters, **1994**, *35*, 4793

Toshio Ogino,* Noriko Ohtaki, Satoko Yamai and Fumio Wada, Department of Chemistry, Faculty of Education, Niigata University, Niigata 950-21, JAPAN
Kazuyuki Awano, Department of Industrial Chemistry, Nagaoka College of Technology, Nagaoka 940, JAPAN

4-Phenylpentacyclo[5. 3. 0. $0^{2,5}$. $0^{3,9}$. $0^{4,8}$]decan-6-one in acetic acid undergoes H_2SO_4-catalyzed rearrangement to give two novel tricyclic acetoxyketones and a 2,3-dihydro-1(8*H*)-azulenone *via* equilibrating carbocation intermediates.

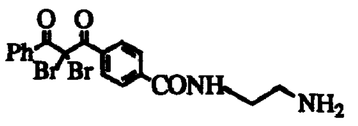


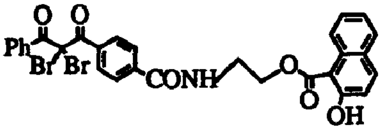
A NOVEL PHOTOCHEMICAL DNA-CLEAVING AGENT, BROMINATED DIBENZOYLMETHANES

Tetrahedron Letters, **1994**, *35*, 4797

Isao Saito*, Tomonori Sakurai, Tomoyuki Kurimoto and Masami Takayama
Department of Synthetic Chemistry and Biological Chemistry, Faculty of Engineering, Kyoto University, Kyoto 606-01, Japan

Novel photochemical DNA-cleaving molecules shown below were synthesized.

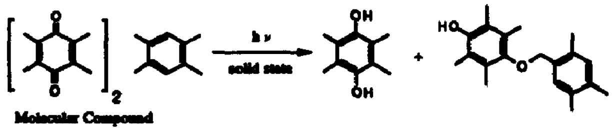




PREPARATION, CRYSTAL STRUCTURE, AND PHOTOCHEMISTRY OF A NOVEL MOLECULAR COMPOUND BETWEEN DUROQUINONE AND DURENE

Tetrahedron Letters, **1994**, *35*, 4801

Hideko Koshima,*[†,††] Xinkan Yao,[§] Honggen Wang,[§] Ruji Wang,[§] and Teruo Matsuura[††] † PRESTO, Research Development Corporation of Japan, Faculty of Science and Technology, Ryukoku University, Seta, Otsu 520-21, Japan. †† Department of Materials Chemistry, Faculty of Science and Technology, Ryukoku University, Seta, Otsu 520-21, Japan. § Central Laboratory, Nankai University, Tianjin, China.



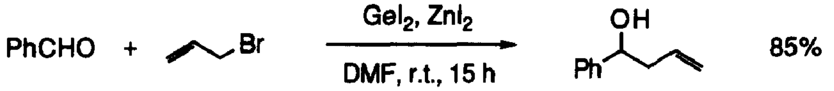
Preparation and X-ray crystallographic analysis of a molecular compound composed of duroquinone and durene and its photoreaction in the solid state are described.

Tetrahedron Letters, **1994**, *35*, 4805

ALLYLATION OF CARBONYL COMPOUNDS MEDIATED BY GERMANIUM(II) IODIDE.

Yukihiko Hashimoto, Hirotaka Kagoshima, and Kazuhiko Saigo, Department of Synthetic Chemistry, Faculty of Engineering, The University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113, Japan

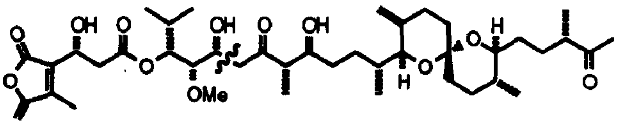
Germanium(II) iodide reacts with allyl bromide in the presence of zinc iodide to afford allylgermanium(IV), which adds to carbonyl compounds to give the corresponding homoallylic alcohols in good yields.



Tetrahedron Letters, **1994**, *35*, 4809

Total Synthesis of Tautomycin: Efficient Aldol Coupling of the Two Large Subunits

Hideaki Oikawa,* Masato Oikawa, Tohru Ueno and Akitami Ichihara*
Department of Bioscience and Chemistry, Faculty of Agriculture, Hokkaido University, Sapporo 060, Japan

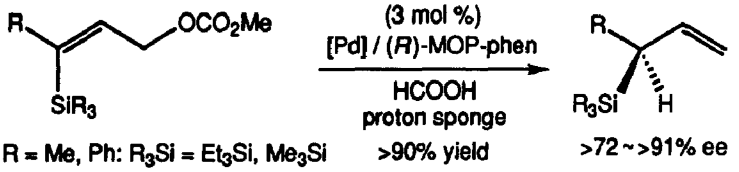


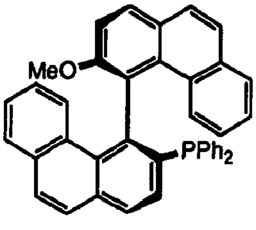
Tautomycin

Tetrahedron Letters, **1994**, *35*, 4813

Asymmetric Synthesis of Allylsilanes by Palladium-Catalyzed Asymmetric Reduction of Allylic Carbonates with Formic Acid

Tamio Hayashi,* Hiroshi Iwamura, and Yasuhiro Uozumi
Catalysis Research Center, Hokkaido University, Sapporo 060, Japan





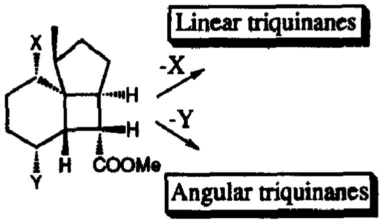
(*R*)-MOP-phen

Tetrahedron Letters, **1994**, *35*, 4817

Facile Syntheses of Both Linear and Angular Triquinanes from The Tricyclo[5.4.0.$0^{1,5}$]undec-9-ene-8,11-dione Efficiently Produced by a Combination of Electro- and Photochemical Reactions

Shojiro Maki, Kunihiro Toyoda, Takeshi Mori, Seiji Kosemura, and Shosuke Yamamura*
Dept. of Chem., Faculty of Science and Technology, Keio University,
Yokohama 223, Japan.

The tricyclo[5.4.0.$0^{1,5}$]undec-9-ene-8,11-dione produced by a combination of electro- and photochemical reactions was readily converted into two different types of triquinane.

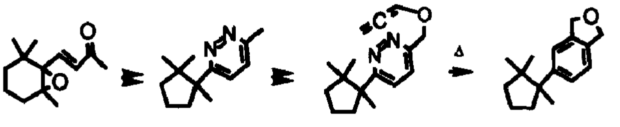


Tetrahedron Letters, **1994**, *35*, 4819

A SYNTHETIC APPROACH TO CUPARANE AND HERBERTANE SESQUITERPENOIDS FROM A COMMON INTERMEDIATE.

Tse-Lok Ho* and May Hua Chang, Department of Applied Chemistry, National Chiao Tung University, Hsinchu, Taiwan.

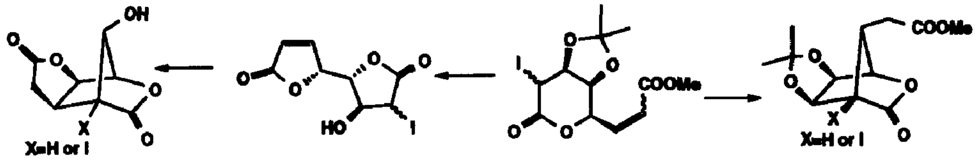
Intramolecular Diels-Alder reaction of a pyridazine derived from β-ionone was used to prepare a common intermediate for cuparane and herbertane sesquiterpenoids.



Tetrahedron Letters, **1994**, *35*, 4823

FORMATION OF HIGHLY SUBSTITUTED CYCLOPENTANES FROM RADICAL AND ANIONIC MICHAEL CYCLISATIONS OF α-IODO-γ- AND -δ-LACTONES

K. Y. Hsia, P. Ward, R. B. Lamont, P. M. de Q. Lilley, D. J. Watkin and G. W. J. Fleet: Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY, UK;Glaxo Research & Development, Greenford Road, Greenford, Middlesex UB6 0HE, UK; Chemical Crystallography Laboratory, Oxford University, 9, Parks Road, Oxford OX1 3PD, UK

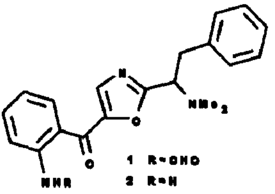


Tetrahedron Letters, **1994**, *35*, 4827

Almazole A and Almazole B, Unusual Marine Alkaloids of an Unidentified Red Seaweed of the Family Delesseriaceae from the Coasts of Senegal

Ibrahima N'Diaye, Graziano Guella, Giuseppe Chiasera, Ines Mancini, Francesco Pietra. Istituto di Chimica, Facoltà di Scienze MFN, Università di Trento, 38050 Povo-Trento, Italy.

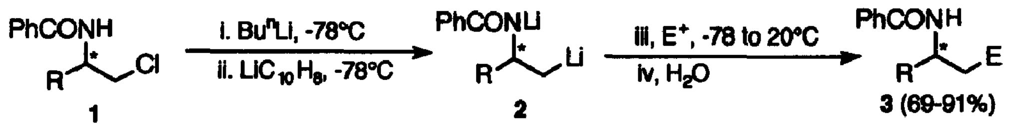
Almazole A 1 and almazole B 2, unusual marine alkaloids for entailing a 2,5-disubstituted oxazole ring, were isolated from an unidentified red seaweed of the family Delesseriaceae from the coasts of Senegal



Tetrahedron Letters, **1994**, *35*, 4831

SYNTHESIS OF ENANTIOMERICALLY PURE FUNCTIONALISED AMIDES (EPC-SYNTHESIS) FROM CHIRAL β-AMINATED ORGANOLITHIUM INTERMEDIATES

F. Foubelo and M. Yus*, Departamento de Química Orgánica, Universidad de Alicante, Apdo. 99, 03080 Alicante, Spain



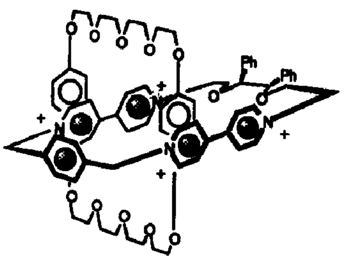
[R=Et, Ph, $PhCH_2$; E^+=H_2O, D_2O, Me_2S_2, $\overline{(CH_2)_5}CO$, Bu^tCHO, PhCHO]

Tetrahedron Letters, **1994**, *35*, 4835

AN OPTICALLY-ACTIVE [2]CATENANE MADE TO ORDER

Peter R. Ashton,[a] Isobel Iriepa,[b] Mark V. Reddington,[b] Neil Spencer,[a] Alexandra M.Z. Slawin,[c] J. Fraser Stoddart,[a] and David J. Williams[c]
[a] School of Chemistry, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK
[b] Department of Chemistry, The University, Sheffield S3 7HF, UK
[c] Department of Chemistry, Imperial College, London SW7 2AY, UK

The self-assembly of an optically-active [2]catenane (*SS*)-10.4PF_6, incorporating a chiral hydrobenzoin unit in one of its component rings, has been achieved.



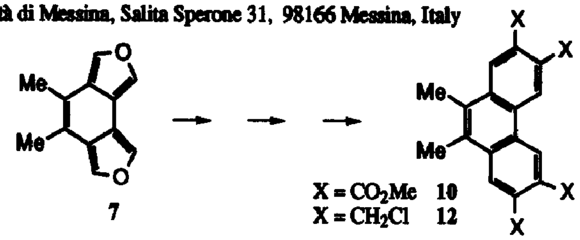
(*SS*)-10.4PF_6

Tetrahedron Letters, **1994**, *35*, 4839

A NEW ROUTE TO PHENANTHRENE DERIVATIVES

Daniele Giuffrida[a], Franz H. Kohnke[a], Melchiorre Parisi[a], Françisco M. Raymo[a] and J. Fraser Stoddart[b]
[a] Dipartimento di Chimica Organica e Biologica, Università di Messina, Salita Sperone 31, 98166 Messina, Italy
[b] School of Chemistry, University of Birmingham,
Edgbaston, Birmingham B15 2TT, UK

A new route to phenanthrene derivatives (10 and 12), involving Diels-Alder reactions of the bisdiene 7 followed by hydrogenation and dehydration, has been developed.



7

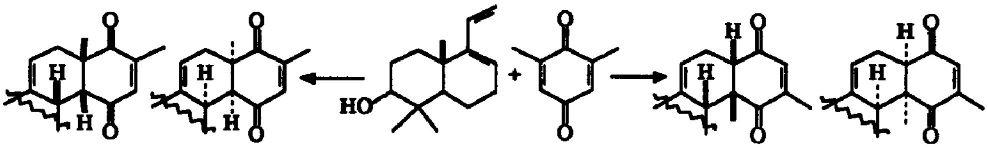
$X = CO_2Me$ 10
$X = CH_2Cl$ 12

Tetrahedron Letters, **1994**, *35*, 4843

REGIO AND STEREOCHEMICAL VARIATIONS IN DIELS-ALDER REACTIONS.

S. Arseniyadis*, R.Rodriguez, D.V.Yashunsky, J.Camara and G.Ourisson§
Institut de Chimie des Substances Naturelles, CNRS, F-91198 Gif-sur-Yvette (France)
§Laboratoire de Chimie des Substances Naturelles, Université Louis Pasteur, F-67084 Strasbourg (France).

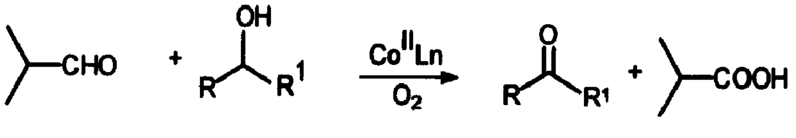
Medium dependent orientation and facial selectivity reversals are reported.



Tetrahedron Letters, **1994**, *35*, 4847

COBALT CATALYSED OXIDATION OF SECONDARY ALCOHOLS WITH DIOXYGEN IN THE PRESENCE OF 2-METHYLPROPANAL

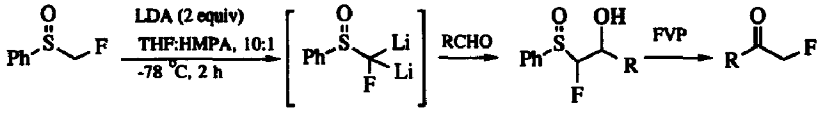
Swinder Jeet Singh Kalra, T. Punniyamurthy and Javed Iqbal*
Department of Chemistry, Indian Institute of Technology, Kanpur 208 016, INDIA.



Tetrahedron Letters, **1994**, *35*, 4851

AN IMPROVED PROCEDURE FOR THE SYNTHESIS OF FLUOROMETHYLKETONES: FLASH VACUUM . PYROLYTIC ELIMINATION

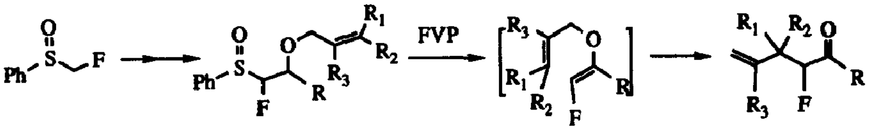
Vichai Reutrakul* Thongchai Kruahong and Manat Pohmakotr, Department of Chemistry, Faculty of Science, Mahidol University, Rama 6 Road, Bangkok 10400, Thailand.



Tetrahedron Letters, **1994**, *35*, 4853

A NOVEL METHOD FOR THE SYNTHESIS OF α-FLUOROKETONES *VIA* CLAISEN REARRANGEMENT

Vichai Reutrakul*, Thongchai Kruahong and Manat Pohmakotr, Department of Chemistry, Faculty of Science, Mahidol University, Rama 6 Road, Bangkok 10400, Thailand.

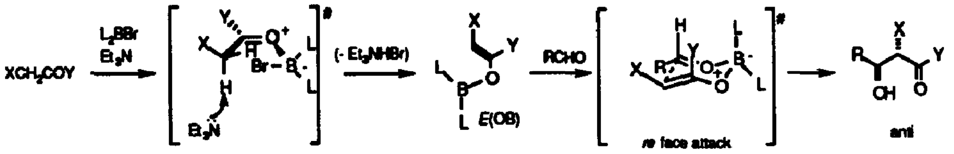


Tetrahedron Letters, **1994**, *35*, 4857

A HIGHLY ENANTIO- AND DIASTEREOSELECTIVE ALDOL REACTION FOR α-HETEROSUBSTITUTED THIOACETATES

Cesare Gennari, Anna Vulpetti, Daniela Moresca
Dip. di Chimica Organica e Industriale, Universita' di Milano, Centro CNR (Sost.Org.Nat.), via Venezian 21, 20133 Milano, Italy

Boron enolates derived from α-heterosubstituted thioacetates and bearing chiral ligands react with aldehydes with excellent stereocontrol.

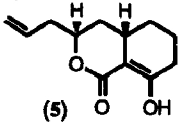


Tetrahedron Letters, **1994**, *35*, 4861

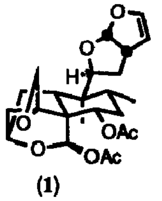
MODEL STUDIES TOWARDS THE INSECT ANTIFEEDANT JODRELLIN A USING AN ORGANOSELENIUM MEDIATED CYCLIZATION REACTION.

Wally M. Blaney,[a] Ana C. Cuñat,[b] Steven V. Ley,*[b] Francis J. Montgomery[b] and Monique S.J. Simmonds[c]
a) Department of Biology, Birkbeck College, WC1E 7HX, UK.
b) Department of Chemistry, University of Cambridge, Lensfield Road, Cambridge, CB2 1EW, UK.
c) Jodrell Laboratory, Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AE, UK.

An organoselenium mediated cyclization of a β-ketolactone (5), was used as the key step in an efficient synthesis of the molecular skeleton of the antifeedant Jodrellin A (1).



(5)

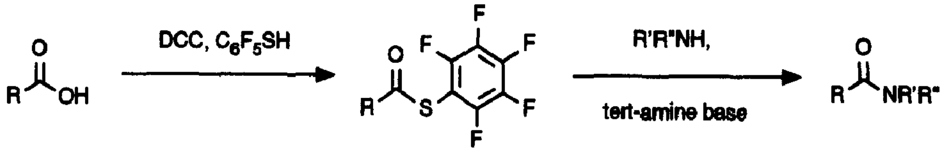


(1)

Tetrahedron Letters, **1994**, *35*, 4865

AMIDE BOND FORMATION VIA PENTAFLUOROTHIOPHENYL ACTIVE ESTERS

Anthony P. Davis* and John J. Walsh, Department of Chemistry, Trinity College, Dublin 2, Ireland.



The intermediate thioesters are similar in properties to pentafluorophenyl esters, but are more active and therefore more useful as donors of relatively unreactive acyl groups.

Tetrahedron Letters, **1994**, *35*, 4869

STEREOSPECIFIC ROUTE FOR THE SYNTHESIS OF 1,5-LACTAMS : SYNTHESIS OF (2S,3S,4R,5R)-METHYL-3,4,5-TRIPHENYLMETHYLENOXY-6-OXO-PIPERIDINE-2 CARBOXYLATE

Sreenivasulu Guntha and Hari Babu Mereyala*
Bio-Organic Laboratory, Indian Institute of Chemical Technology, Hyderabad 500 007, India

Synthesis of the title compound is described.