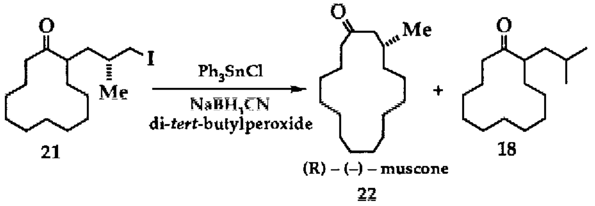
GRAPHICAL ABSTRACTS

Tetrahedron Lett. **1991**, *32*, 565

FREE RADICAL RING EXPANSION AND REARRANGEMENT OF LARGE CARBOCYCLIC RINGS

Paul Dowd* and Soo-Chang Choi
Department of Chemistry
University of Pittsburgh
Pittsburgh, PA 15260

A free radical-based synthesis of large rings including (R)-(–)-muscone is reported.

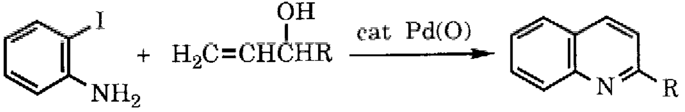


Tetrahedron Lett. **1991**, *32*, 569

PALLADIUM-CATALYZED SYNTHESIS OF QUINOLINES FROM ALLYLIC ALCOHOLS AND *o*-IODOANILINE

Richard C. Larock and Mann-Yan Kuo
Department of Chemistry, Iowa State University, Ames, IA 50011

The palladium-catalyzed coupling of allylic alcohols and *o*-iodoaniline provides a convenient, one-step synthesis of quinolines.

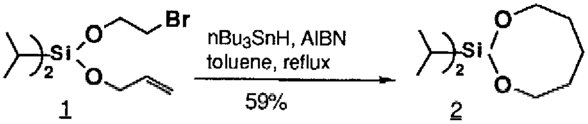


Tetrahedron Lett. **1991**, *32*, 573

Silaketals as Tethers in Intramolecular Radical Cyclisations

J.H Hutchinson*, T.S.Daynard and J W.Gillard
Merck Frosst Centre for Therapeutic Research, P.O. Box 1005, Pointe Claire-Dorval
Quebec, Canada H9R 4P8

Silaketals (eg. 1) are readily prepared and undergo radical cyclisation reactions to give cyclic protected diols which can be deprotected under standard, mild conditions.



Tetrahedron Lett. **1991**, *32*, 577

A NEW SOLID PHASE STRATEGY FOR THE SYNTHESIS OF MAMMELIAN GLUCAGON

N.A.Abraham, G.Fazal, J.M.Ferland, S.Rakhit and J.Gauthier*
Bio -Mega Inc.,2100 Cunard, Laval (Qc), Canada H7S2G5

A solid phase convergent strategy of glucagon using peptide segments 1 and 2 is described using a novel side chain attachment of the peptide to a polystyrene resin support.

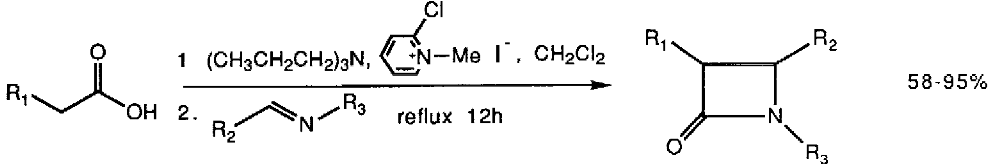
1 Boc-Thr(Bn)-Ser(Bn)-Asp(Chl)-Tyr (Cl_2Bn) Ser(Bn)-Lys(Cl-Z)-Tyr(Cl2 Bn)-Leu-OH

2 Boc-Asp(Chl)-Ser(Bn)-Arg(Tos)-Arg(Tos)-Ala-Gln-Asp(Chl)-Phe-OH

Tetrahedron Lett. **1991**, *32*, 581

An Improved Method for the Stereoselective Synthesis of β-Lactams from Carboxylic Acids and Imines

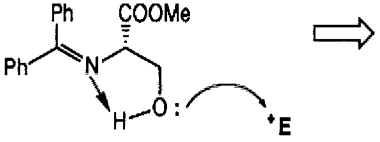
Gunda I. Georg, Peter M. Mashava, and Xiangming Guan,
Department of Medicinal Chemistry, University of Kansas, Lawrence, KS 66045-2506, U.S.A

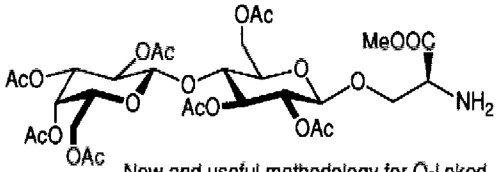


Tetrahedron Lett. **1991**, *32*, 585

O-GLYCOPEPTIDES: A SIMPLE β-STEREOSELECTIVE GLYCOSIDATION OF SERINE AND THREONINE VIA A FAVORABLE HYDROGEN BONDING PATTERN.

Lajos Szabò, Yushun Li, and Robin Polt*
Chemistry Department, University of Arizona, Tucson, Arizona 85721





New and useful methodology for O-linked glycopeptide synthesis is reported

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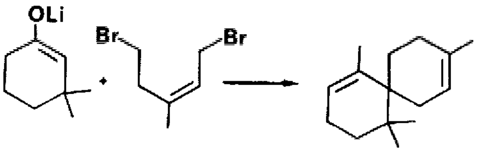
Tetrahedron Lett. **1991**, *32*, 589

SYNTHESIS OF (±)-α-CHAMIGRENE

Josée Plamondon and Perséphone Canonne*.
Département de chimie, Université Laval
Québec (Québec), Canada G1K 7P4

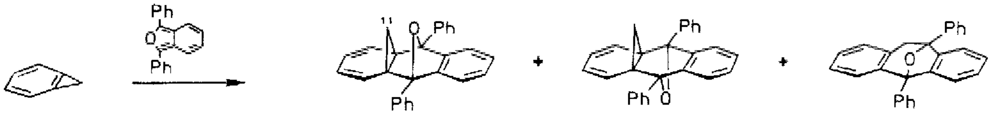
Regiospecific spiroalkylation of the selectively generated enolate arising from the 1,4-addition of lithium dimethylcuprate to 3-methylcyclohex-2-en-1-one allows an efficient preparation of spiroketones, a key intermediate for the synthesis of (±)-α-Chamigrene.



Tetrahedron Lett. **1991**, *32*, 593

THE REACTION OF CYCLOPROPABENZENE WITH 1,3-DIPHENYLISOBENZOFURAN: FORMAL [4π + 2π] AND [4π + 2σ] CYCLOADDITIONS

U.H. Brinker* and H. Wüster
Department of Chemistry, State University of New York, Binghamton, NY 13902-6000, U.S.A.

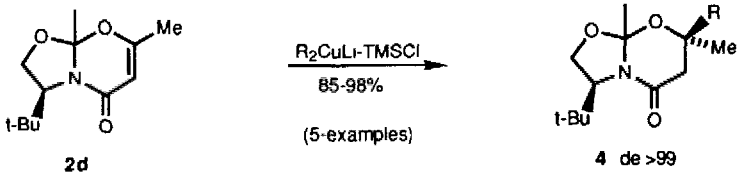


1 2 4 3

Tetrahedron Lett. **1991**, *32*, 597

HIGHLY DIASTEREOSELECTIVE ADDITION TO A NOVEL CHIRAL OXAZINONE. FURTHER APPROACHES TO CHIRAL QUATERNARY CARBON COMPOUNDS.

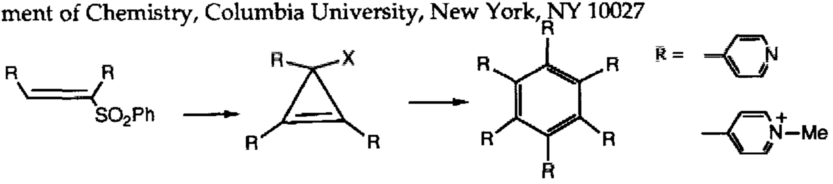
A I Meyers,* William R Leonard, Jr, Jeffrey L Romine
Department of Chemistry, Colorado State University, Fort Collins, CO 80523 USA



Tetrahedron Lett. **1991**, *32*, 601

TRIPYRIDYLCYCLOPROPENE DERIVATIVES AND THEIR CONVERSION TO HEXAPYRIDYLBENZENE

Ronald Breslow and Gerard A. Crispino
Department of Chemistry, Columbia University, New York, NY 10027

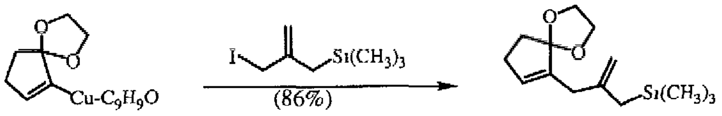


Tetrahedron Lett. **1991**, *32*, 605

Synthetic Applications of Gilman Reagents Derived from 2-Bromo-2-cycloalken-1-one Ethylene Ketals

G. Majetich, A. J. Leigh and S. Condon, The Department of Chemistry,
The University of Georgia, Athens, Georgia 30602

Gilman reagents derived from 2-bromo-2-cycloalken-1-one ethylene ketals react with allylic, propargylic or benzylic halides to produce 1,4-dienes while reaction with Michael acceptors gives 1,4-adducts.

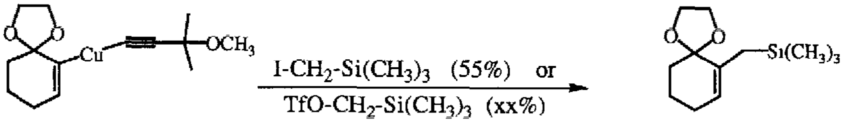


Tetrahedron Lett. **1991**, *32*, 609

The Preparation of Allylsilanes From Vinyl Cuprates

G. Majetich and A. J. Leigh, The Department of Chemistry,
The University of Georgia, Athens, Georgia 30602

Gilman reagents derived from vinylic nucleophiles react with iodomethyltrimethylsilane or trimethylsilyltrifluoromethane sulfonate to afford allylsilanes.

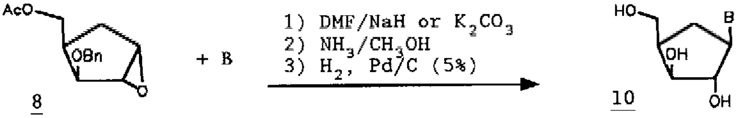


Tetrahedron Lett. **1991**, *32*, 611

GENERAL SYNTHESIS OF CARBANUCLEOSIDES VIA REGIOSPECIFIC EPOXIDE OPENING BY THE AGLYCONE

Harald Baumgartner, Christoph Marschner, Rainer Pucher and Herfried Griengl
Institute of Organic Chemistry, Graz University of Technology
Stremayrgasse 16,A-8010 Graz, Austria

By reaction of 1,2-anhydro-5-O-acetyl-3-O-benzyl-α-D-carba*xylo*furanose **8** with the aglycone in alkaline medium followed by deprotection carbanucleosides **10** can be obtained.



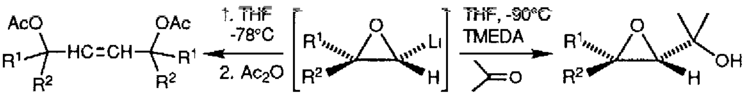
B = Th, Ad^{NBz}

Tetrahedron Lett. **1991**, *32*, 615

OXIRANYLLITHIUM REAGENTS: GENERATION FROM ORGANOTIN PRECURSORS, ADDITION TO ALDEHYDES AND KETONES, AND DIMERIZATION TO α,α'-DIALKOXYOLEFINS

Peter Lohse, Helena Loner, Pierre Acklin, Francine Sternfeld, and AndreasPfaltz*
Laboratorium fur Organische Chemie, ETH-Zentrum, CH-8092 Zurich, Switzerland

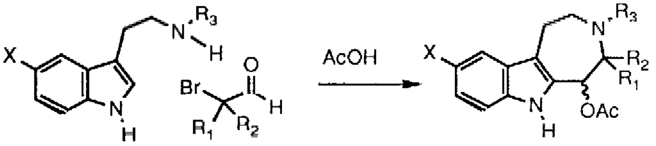
In the presence of TMEDA, oxiranyllithium compounds react with aldehydes and ketones to give epoxy alcohols in good yields. In the absence of TMEDA, they dimerize to α,α'-dialkoxyolefins



Tetrahedron Lett. **1991**, *32*, 619

"HOMO-PICTET-SPENGLER" CYCLIZATION OF TRYPTAMINES AN EASY ACCESS TO THE HEXAHYDROAZEPINO[4,5-b] INDOLE RING SYSTEM

Jean-Yves Laronze*, Christine Gauvin- Hussenet and Jean Levy
Laboratoire de Transformations et Synthèse de Substances Naturelles, associé au CNRS,
Faculté de Pharmacie, Université de Reims Champagne- Ardenne, 51, rue Cognacq- Jay,F 51096 REIMS FRANCE



The title compounds were prepared in one step from tryptamines and α-bromoaldehydes

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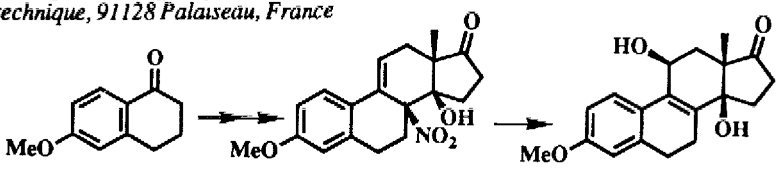
Tetrahedron Lett. **1991**, *32*, 623

AN EXPEDIENT TOTAL SYNTHESIS OF (±)-ESTRONE DERIVATIVES

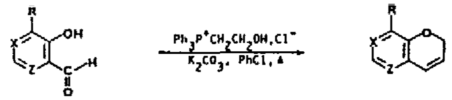
Bernard Barlaam, Jean Boivin, Laurent El Kaim, and Samir Z. Zard*
Laboratoire de Synthèse Organique associé au CNRS,
Ecole Polytechnique, 91128 Palaiseau, France



Tetrahedron Lett. **1991**, *32*, 627

SYNTHESIS OF FUNDAMENTAL HETEROCYCLES C_5O-C_5N : 2H-PYRANO[3,2-b]PYRIDINE AND 2H-PYRANO[2,3-c]PYRIDINE.

D. Billeret, D. Blondeau and H. Sliwa*
Laboratoire de Chimie Organique, Université des Sciences et Techniques
de Lille Flandres Artois, 59655 Villeneuve d'Ascq Cedex, F-France.



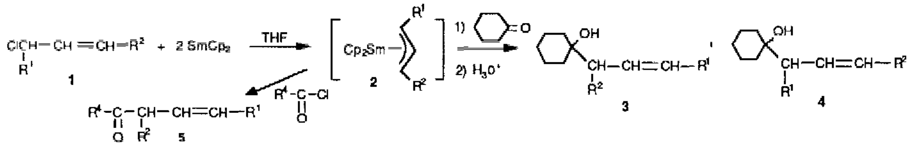
1 R=H, X=Z=CH
2 R=OCH$_3$, X=Z=CH
3 R=H, X=CH, Z=N
4 R=H, X=N, Z=CH

Tetrahedron Lett. **1991**, *32*, 629

SYNTHESIS AND REACTIVITY OF ALLYL SAMARIUM COMPLEXES

J. Collin, C. Bied, H B. Kagan*.
Laboratoire de Synthèse Asymétrique Associé au CNRS, Institut de Chimie Moléculaire d'Orsay, Université Paris-Sud, 91405 Orsay, France

Reaction of allyl chlorides on $SmCp_2$ followed by addition of ketones or acid chlorides leads respectively to alcohols or ketones. The intermediate species is presumably an η^3-allyl samarium complex

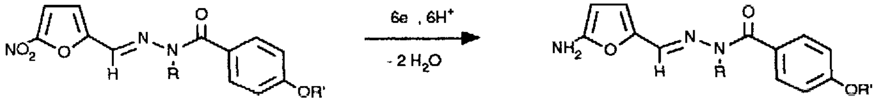


Tetrahedron Lett. **1991**, *32*, 631

ELECTROCHEMICAL SYNTHESIS OF 2-SUBSTITUTED 5-AMINOFURANS.

Martine Largeron and Maurice-Bernard Fleury*, laboratoire de Chimie Analytique et Electrochimie, Centre associé au CNRS, Faculté de Pharmacie, 4, avenue de l'Observatoire, 75270 Paris cedex 06 (France).

Electrochemical reduction of 2-substituted 5-nitrofurans in neutral hydroalcoholic media leads to the corresponding 5-aminofurans which have been isolated as the major products.

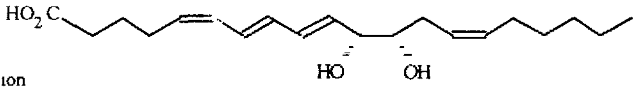


Tetrahedron Lett. **1991**, *32*, 635

TOTAL SYNTHESIS OF (11R,12S)-diHETE

Agnès GIGOU [a], Jean-Pierre BEAUCOURT [a], Jean-Paul LELLOUCHE [a]*, René GRÉE [b]*.

a CEN Saclay, Service des Molécules Marquées, Bât 547, 91191 Gif-sur-Yvette, France.
b Laboratoire de Chimie Organique Biologique, associe au CNRS, ENSCR, Avenue du Géneral Leclerc, 35700 Rennes-Beaulieu, France



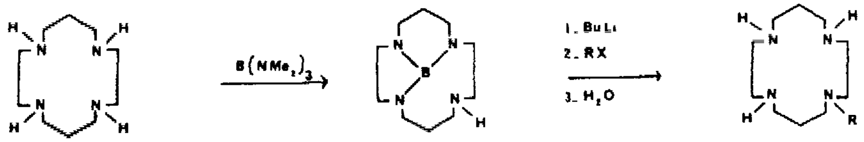
(+)-2

The first total synthesis of (1 R,12S)-diHETE is reported. The key step is the highly chemio- and stereoselective osmylation of a double bond in a trienyne system selectively complexed by an $Fe(CO)_3$ group

Tetrahedron Lett **1991**, *32*, 639

GENERAL ROUTE FOR THE SYNTHESIS OF MONO N-ALKYLATED DERIVATIVES OF TETRAAZAMACROCYCLES

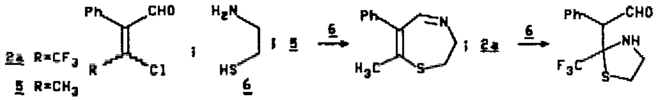
H. Bernard, J.J. Yaouanc, J.C. Clément, H. des Abbayes and H. Handel
Laboratoire de Chimie, Electrochimie et Photochimie Moléculaires, associé au CNRS,
Faculté des Sciences et Techniques, 6, avenue le Gorgeu, 29287 BREST FRANCE.



Tetrahedron Lett. **1991**, *32*, 643

SYNTHESIS OF β-CHLORO(TRIFLUOROMETHYL)ACROLEINS AND A SPECIFIC REACTION TOWARDS β-AMINOTHIOLS

G. ALVERNHE, B LANGLOIS, A. LAURENT, I. LE DREAN and A. SELMI
UCB-LYON I, lab de Chimie Orga. 3, URA CNRS,43, Bd du 11 11 1918 69622 VILLEURBANNE Cedex (France)
M. WEISSENFELS, University of Leipzig, Department of Chemistry, LEIPZIG 7010 (Germany)



5 and 2-aminothiophenol produce a benzothiazepine But **2a** and 2-aminothiophenol give benzothiazole and an unstable benzothiazepine which is transformed into a quinoline

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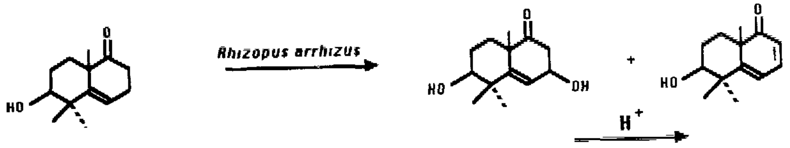
Tetrahedron Lett. **1991**, *32*, 647

Microbial Allylic Hydroxylation of some Octalone Derivatives

J.Ouazzani, S.Arseniyadis*, R Alvarez-Mazaneda,E Cabrera
and G.Ourisson
ICSN, CNRS - 91198 - Gif-sur-Yvette, France.

Rhizopus arrhizus oxidizes unsaturated substrates in the allylic position with high regio- and stereoselectivity and respects ketals or hydroxyl groups.

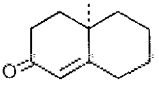


Tetrahedron Lett. **1991**, *32*, 651

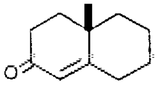
MICROBIAL HYDROXYLATION AND FUNCTIONALIZATION OF SYNTHETIC BICYCLIC ENONES

A Hammoumi [a], G.Revial [b], J.D'Angelo [b] J P Girault [a] and R Azerad [a]*
[a] Laboratoire de Chimie et Biochimie Pharmacologiques et Toxicologiques , URA 400 CNRS, Univ. René Descartes, 45 rue des Saints-Peres, 75270-Paris Cedex 06, France; [b] Laboratoire de Chimie de l'Ecole Supérieure de Physique et Chimie Industrielle , URA 476 CNRS,10 rue Vauquelin, 75005 - Paris, France

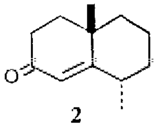
The regio- and stereoselective hydroxylation of substituted octalones **1** or **2** by various fungal strains has been evaluated Several hydroxylated derivatives have been obtained and the potential of this method for the preparation of useful chiral synthons is discussed



R-1



S-1



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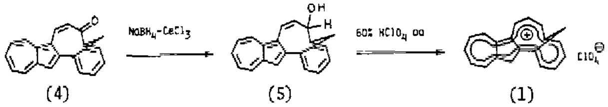
Tetrahedron Lett. **1991**, *32*, 655

AZULENO[2,1-b]-4,9-METHANO[11]ANNULENIUM PERCHLORATE: A PERIPHERAL 18-pi ELECTRON DIATROPIC SYSTEM

Shigeyasu Kuroda,* Kazuo Yamazaki, Sunao Maeda, Takeshi Sakaguchi, Hiroyuki Iwaki,
Masaki Yamada, Ichiro Shimao, and Masafumi Yasunami.†
Department of Materials Science and Engineering, Faculty of Engineering, Toyama University, Gofuku 3190,
Toyama 930, Japan, †Department of Chemistry, Faculty of Science, Tohoku University, Aoba, Sendai 980, Japan.

The synthesis of parent cation of azuleno-[2,1-b]-4,9-methano[11]annulenium perchlorate (1) as a stable peripheral 18-pi electron diatropic compound is described.

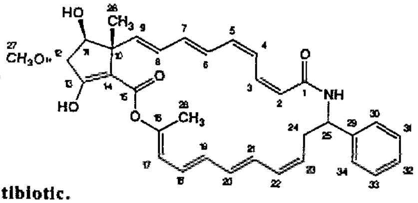


Tetrahedron Lett **1991**, *32*, 659

STRUCTURE OF VIRIDENOMYCIN

MASAYA NAKAGAWA
Pharmaceutical Laboratory, Kirin Brewery Co. Ltd., Miyahara, Takasaki, Gunma 370-12, Japan
KAZUO FURIHATA
Department of Agricultural Chemistry, The University of Tokyo,
YOICHI HAYAKAWA and HARUO SETO
Institute of Applied Microbiology, The University of Tokyo, Bunkyo-ku, Tokyo 113, Japan

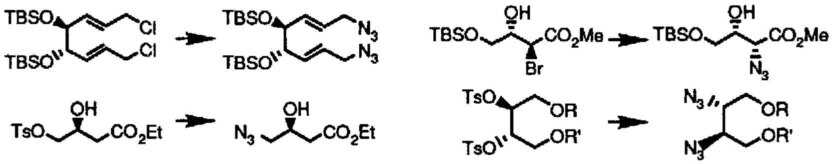
The strucure of viridenomycin was determined by NMR spectral analysis including a variety of two-dimenshional techniques. Viridenomycin is a novel 24-membered macrocyclic polyene antibiotic.



Tetrahedron Lett. **1991**, *32*, 663

HYDROGEN AZIDE-AMINE SYSTEMS AS AN AZIDE NUCLEOPHILE FOR SUBSTITUTIONS OF SULFONATES, HALIDES, AND VICINAL DISULFONATES

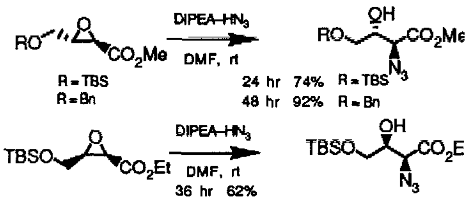
S. Saito,* H. Yokoyama, T. Ishikawa, N. Niwa, and T. Moriwake*
Department of Applied Chemistry, Faculty of Engineering, Okayama University, Tsushima, Okayama, Japan 700



Tetrahedron Lett. **1991**, *32*, 667

SELECTIVE C-2 OPENING OF 2,3-EPOXYESTERS WITH HN3-AMINE SYSTEM: A VIABLE ROUTE TO *β*-HYDROXY-*α*-AMINO ACIDS

S. Saito,* N. Takahashi, T. Ishikawa,
and T. Moriwake*
Department of Applied Chemistry, Faculty of Engineering, Okayama University, Tsushima, Okayama, Japan 700

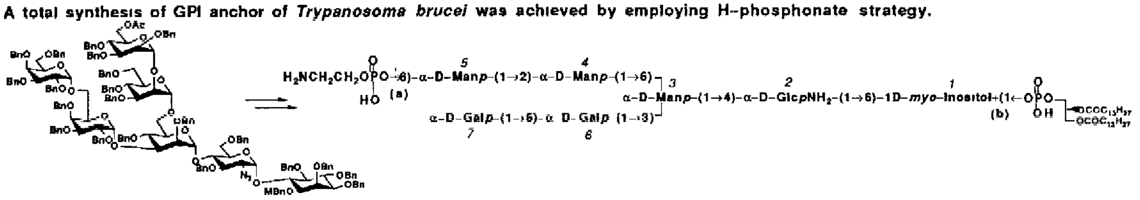


Tetrahedron Lett. **1991**, *32*, 671

A TOTAL SYNTHESIS OF GPI ANCHOR OF *TRYPANOSOMA BRUCEI*

Chikara Murakata and Tomoya Ogawa
RIKEN (The Institute of Physical and Chemical Research), Wako-shi, Saitama, 351-01 Japan

A total synthesis of GPI anchor of *Trypanosoma brucei* was achieved by employing H-phosphonate strategy.

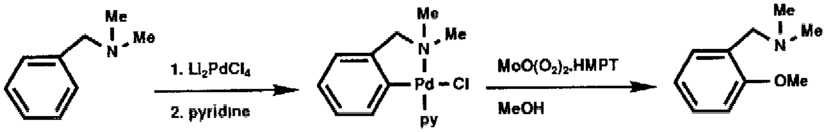


Tetrahedron Lett. **1991**, *32*, 675

DIRECT ALKOXYLATION OF ORGANOPALLADIUM COMPOUNDS BASED ON A NEW TYPE OF C-O COUPLING MEDIATED BY MOLYBDENUM PEROXIDES.

*Paul L Alsters, Jaap Boersma and Gerard van Koten**
Debye Research Institute, Department of Metal-Mediated Synthesis, University of Utrecht, Padualaan 8,
3584 CH Utrecht, The Netherlands

The molybdenum peroxide $MoO(O_2)_2$ HMPT reacts with organopalladium compounds in alcoholic solvents to form alkoxylated products instead of products derived from oxygen insertion in the C-Pd bond



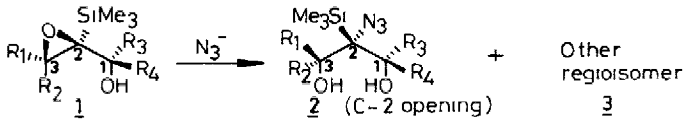
Several examples
of this alkoxylation
for other (cyclopalladated)
aryl- or alkyl-complexes
are given

Tetrahedron Lett **1991**, *32*, 679

STUDIES DIRECTED TOWARDS THE SELECTIVE C-2 OPENING OF 2,3-EPOXY ALCOHOLS WITH AZIDE ION

T K Chakraborty* and G V Reddy
Indian Institute of Chemical Technology, Hyderabad 500 007, India

The generally observed preference for C-3 opening of simple 2,3-epoxyalcohols was reversed when a silyl group was introduced at 2-position.



Only C-2 opening with $R_1, R_3, R_4 = H$ and $R_2 = alkyl$

Tetrahedron Lett **1991**, *32*, 683

A [3+2] NITRILE OXIDE INTERMOLECULAR CYCLOADDITION APPROACH TO 4,5-DIHYDRO-3(2H)-FURANONE AND 3(2H)-FURANONE RING SYSTEMS: APPLICATION TO THE FORMAL SYNTHESIS OF (±)-ASCOFURANONE AND GEIPARVARIN.

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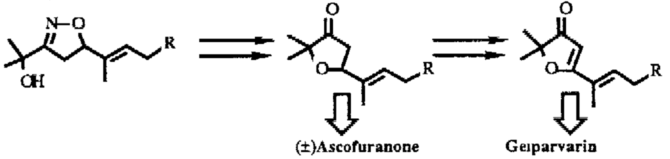

Tetrahedron Lett. **1991**, *32*, 687

SUPPRESSION OF ALKENE ISOMERISATION IN PRODUCTS FROM INTRAMOLECULAR HECK REACTIONS BY ADDITION OF Tl(I) SALTS.

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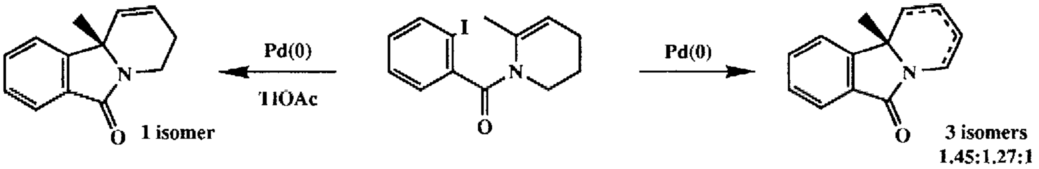

Tetrahedron Lett **1991**, *32*, 691

REGIOSELECTIVE AND ENANTIOSPECIFIC SYNTHESIS OF 6-SUBSTITUTED AND 5,6-DISUBSTITUTED HEXAHYDROPYRIMIDINES.

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