

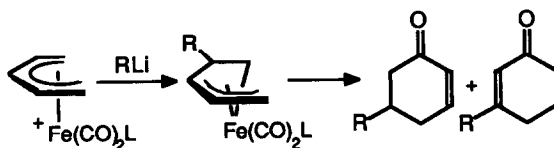
GRAPHICAL ABSTRACTS

Tetrahedron Lett. 1990, 31, 2373

REACTION OF ORGANOLITHIUM REAGENTS WITH η^5 -PENTADIENYL IRON COMPLEXES: FORMATION OF σ,η^3 -IRON COMPLEXES

Keith F. McDaniel*, Larry R. Kracker II, and Parinbam K. Thamburaj, Department of Chemistry, Ohio University, Athens, OH 45701 and the Department of Chemistry, Ohio University Zanesville Campus, Zanesville, OH 43701

Phosphine substituted η^5 -pentadienyl iron complexes react with organolithium reagents at the C2/C4 position to generate σ,η^3 -complexes. Air oxidation of these σ,η^3 -complexes produces cyclohexenones.

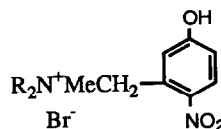


Tetrahedron Lett. 1990, 31, 2377

PROTON/HYDROXIDE PERMEATION ACROSS AMMONIUM ION BILAYER VESICLES DETECTED BY SELF-INDICATING HEAD GROUPS

R.A. Moss and T. Fujita, Department of Chemistry, Rutgers University, New Brunswick, New Jersey 08903

p-Nitrophenol-functionalized vesicular surfactants ($R = \eta\text{-C}_{16}\text{H}_{33}$, $\eta\text{-C}_{18}\text{H}_{37}$, $\eta\text{-C}_{20}\text{H}_{41}$) are continuous and reversible reporters of local pH conditions at exovesicular and endovesicular surfaces.



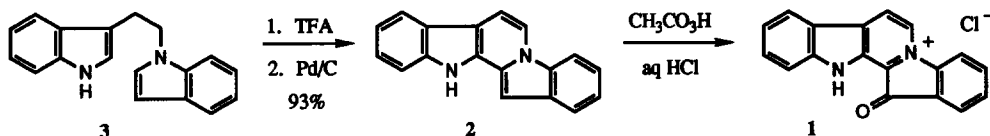
Tetrahedron Lett. 1990, 31, 2381

TOTAL SYNTHESIS OF THE MARINE SPONGE PIGMENT FASCAPLYSIN

Benjamin Pelcman and Gordon W. Gribble*

Department of Chemistry, Dartmouth College, Hanover, New Hampshire 03755

The marine sponge pigment fascaplysin (1) has been synthesized in seven steps from indole (55%), the key step being a trifluoroacetic acid ring closure - Pd/C dehydrogenation step (3 \rightarrow 2). Peracid oxidation furnishes 1.

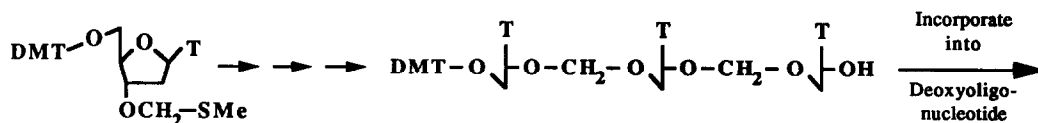


Tetrahedron Lett. 1990, 31, 2385

DEOXYOLIGONUCLEOTIDE ANALOGS BASED ON FORMACETAL LINKAGES

Mark D. Matteucci

Gilead Sciences, 344/346 Lakeside Drive, Foster City, CA 94404

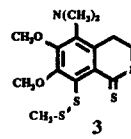
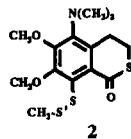
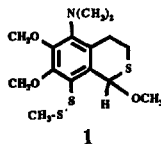


POLYCARPAMINES A-E, ANTIFUNGAL DISULFIDES FROM THE MARINE
ASCIDIAN *POLYCARPA AUZATA*

Niels Lindquist and William Fenical*

Scripps Institution of Oceanography, University of California, San Diego, La Jolla, CA 92093-0228

The structures of polycarpamines A-C (1-3) and related compounds are described on the basis of comprehensive NMR experiments. Polycarpamine B (2) shows potent antifungal activity against *S. cerevisiae* and *C. albicans*.

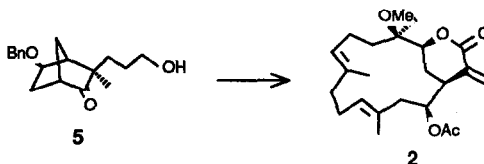


TOTAL SYNTHESIS OF (±)-CRASSIN ACETATE METHYL ETHER

William G. Dauben, Ting-zhong Wang and Randall W. Stephens

Department of Chemistry, University of California, Berkeley, CA 94720

The total synthesis of (±)-crassin acetate methyl ether 2 in a stereocontrolled manner from 5 is presented.

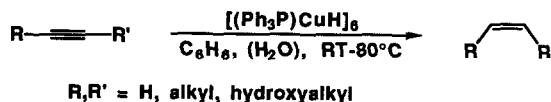


SELECTIVE REDUCTION OF ALKYNES TO
CIS-ALKENES BY HYDROMETALLATION
USING $[(\text{Ph}_3\text{P})\text{CuH}]_6$.

John F. Daeuble, Colleen McGettigan, and Jeffrey M. Stryker*

Department of Chemistry, Indiana University, Bloomington, Indiana 47405

Reduction of alkynes leading stereo-selectivity to the corresponding *cis*-alkene is observed on treatment with $[(\text{Ph}_3\text{P})\text{CuH}]_6$. A tertiary propargyl acetate gave the allene exclusively.

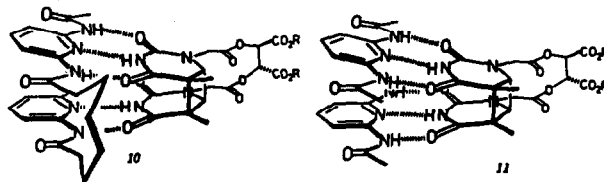


MOLECULAR RECOGNITION: CYCLOBUTANE THYMINE DIMERS AS
RIGID TWO-SITE RECEPTORS

Simon C. Hirst and Andrew D. Hamilton*

(Department of Chemistry, University of Pittsburgh, Pittsburgh, PA 15260, USA)

Cyclobutane photodimers of thymine were synthesized and shown, in organic solvents, to form 2:1 (11) and 1:1 (10) complexes with mono- and bis-diamidopyridine derivatives, respectively.

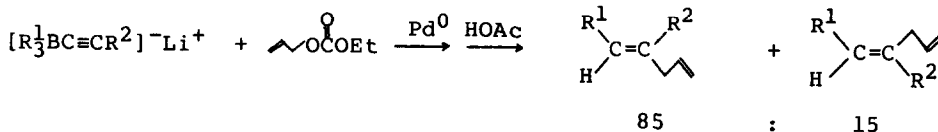


THE STEREOSELECTIVE ALLYLATION OF LITHIUM

TRIALKYLALKYNYLBORATES BY ALLYL CARBONATE IN THE PRESENCE OF Pd(PPh₃)₄

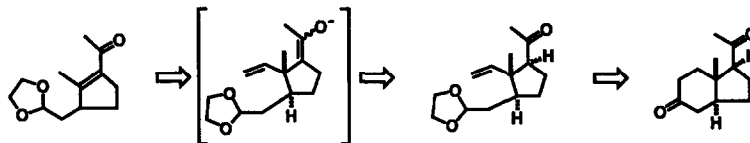
Chen, Yan; Li, Nan-Sheng; Deng, Min-Zhi*

Shanghai Institute of Organic Chemistry, Academia Sinica, Shanghai 200032, China



NEW SYNTHETIC INTERMEDIATE FOR TRANS-8-METHYLHYDRINDANONES

Haruo YAMADA, Katsuya SHIMIZU, Mohammad NISAR, Takashi TAKAHASHI*, and Jiro TSUJI
Tokyo Institute of Technology, Meguro, Tokyo 152, JAPAN



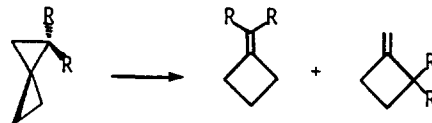
DIVERGENT REARRANGEMENT PATHWAYS

IN THE ELECTRON-TRANSFER INDUCED

SPIROPENTANE-METHYLENOCYCLOBUTANE REARRANGEMENT: ROLE OF CIP AND SSIP

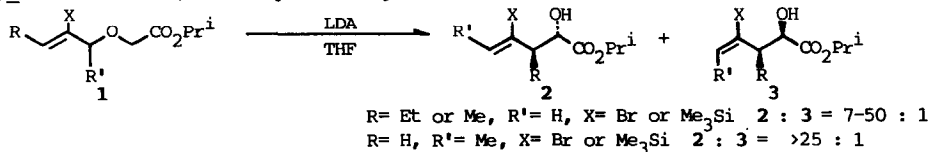
T. Miyashi*, Y. Takahashi, H. Ohaku, K. Yokogawa, S. Morishima, T. Mukai
Department of Chemistry, Faculty of Science, Tohoku University, Sendai 980, Japan

The spiro[3.4]heptane-methylenecyclobutane rearrangement can be induced by electron-transfer.



STEREOELECTRONICALLY CONTROLLED [2,3]WITTIG REARRANGEMENT OF ISOPROPYL 2'-HETEROSUBSTITUTED-2'-ALKENYLOXYACETATES

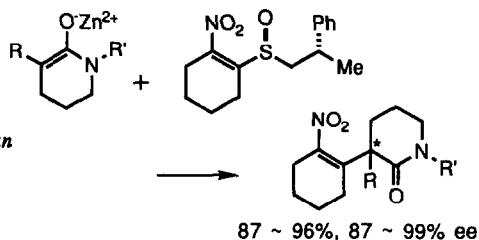
Akira Ishikawa, Harumi Uchiyama, Tsutomu Katsuki*, and Masaru Yamaguchi
Department of Chemistry, Kyushu University 33, Hakozaki, Higashi-ku, Fukuoka 812, Japan
(*anti*, *Z*-selective [2,3]Wittig rearrangement)



Tetrahedron Lett. **1990**, *31*, 2419

ADDITION-ELIMINATION STRATEGY FOR ASYMMETRIC INDUCTION: A CHIRAL SULFOXIDE AS A LEAVING GROUP

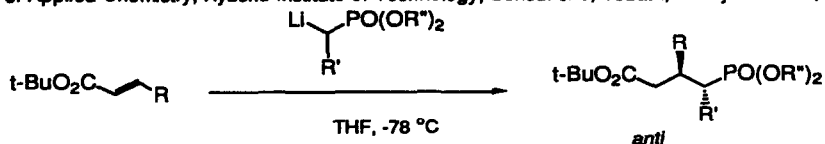
Kaoru Fuji,* Manabu Node, and Hitoshi Abe,
Institute for Chemical Research, Kyoto University
Uji, Kyoto 611, Japan
Akichika Itoh and Yukio Masaki
Gifu Pharmaceutical University, Mitahora, Gifu 502, Japan
Motoo Shiro
Shionogi Research Laboratories Shionogi & Co. Ltd.
Fukushima-ku, Osaka 553, Japan



Tetrahedron Lett. **1990**, *31*, 2423

A STEREOSELECTIVE MICHAEL ADDITION OF α -LITHIATED PHOSPHONATES TO α,β -UNSATURATED ESTERS

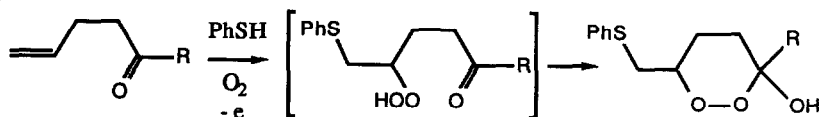
Masahiko YAMAGUCHI, Koji TSUKAMOTO, Akio HAYASHI, and Toru MINAMI
Department of Applied Chemistry, Kyushu Institute of Technology, Sensui-cho, Tobata, Kitakyushu 804, JAPAN



Tetrahedron Lett. **1990**, *31*, 2425

OXYGENATION OF γ,δ -UNSATURATED KETONES IN THE PRESENCE OF THIOPHENOL. EFFICIENT FORMATION OF CYCLIC PEROXIDES.

Jun-ichi Yoshida,* Shogo Nakatani, and Sachihiko Isoe*
Institute of Organic Chemistry, Faculty of Science, Osaka City University, Sugimoto 3-3-138, Sumiyoshi, Osaka 558, Japan

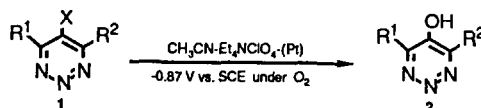


Tetrahedron Lett. **1990**, *31*, 2429

**REACTION OF 5-HALO-1,2,3-TRIAZINES WITH SUPEROXIDE;
SYNTHESIS OF 5-HYDROXY-1,2,3-TRIAZINES**

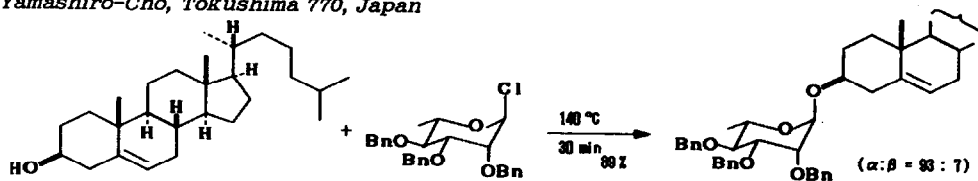
Takashi Itoh, Kazuhiro Nagata, Mamiko Okada, and Akio Ohsawa*
School of Pharmaceutical Sciences, Showa University
Shinagawa-ku, Tokyo 142, Japan

5-Halo-1,2,3-triazines reacted with electrogenerated superoxide to give 5-hydroxytriazines. The reaction was entirely specific for superoxide.



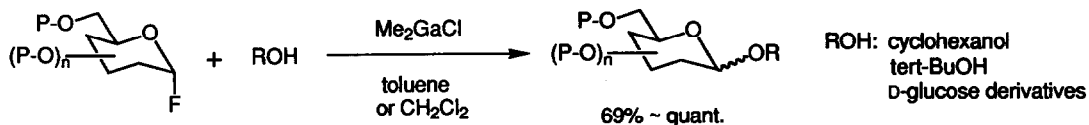
α -SELECTIVE THERMAL GLYCOSIDATION OF RHAMNOSYL AND MANNOSYL CHLORIDES

Mugio NISHIZAWA,* Yukiko KAN, Waka SHIMOMOTO, and Hidetoshi YAMADA
 Faculty of Pharmaceutical Sciences, Tokushima Bunri University
 Yamashiro-Cho, Tokushima 770, Japan

**Gallium Reagents in Organic Synthesis: Dimethylgallium Chloride and Triflate as Activators in Glycosidation using Glycopyranosyl Fluorides**

Susumu Kobayashi*, Kazunori Koide, and Masaji Ohno

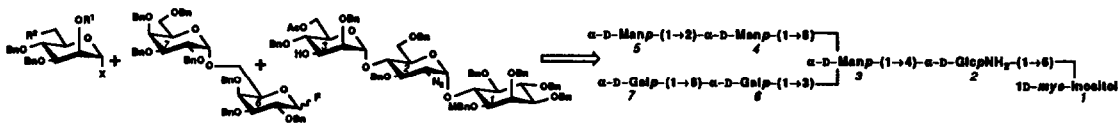
Faculty of Pharmaceutical Sciences, University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113

**SYNTHETIC STUDY ON GLYCOPHOSPHATIDYL INOSITOL (GPI) ANCHOR OF TRYPA NOSOMA BRUCEI: GLYCOHEPTAOSYL CORE**

Chikara Murakata and Tomoya Ogawa

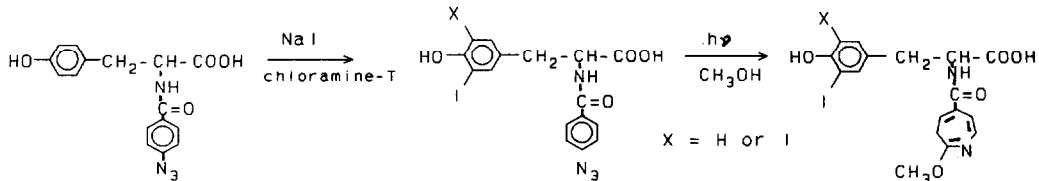
RIKEN (The Institute of Physical and Chemical Research), Wako-shi, Saitama, 351-01 Japan

A stereocontrolled approach to the synthesis of glycoheptaosyl core of GPI anchor is described for the first time.

**ARYL AZIDES AS PHOTOLABELS. RETENTION OF IODINE DURING PHOTOCHEMICAL RING EXPANSION OF AN IODINATED TYROSINE DERIVATIVE.**

Ulla Henriksen and Ole Buchardt*

Center for Medical Biotechnology, The H. C. Ørsted Institute, Universitetsparken 5, DK-2100 Copenhagen, Denmark

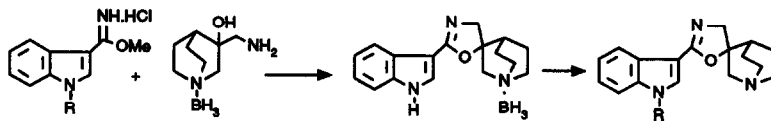


SYNTHESIS OF INDOLE OXAZOLINES

Christopher J. Swain, Clare Kneen and Raymond Baker

MSDRL, Neuroscience Research Centre, Terlings Park, Eastwick Road, Harlow, Essex, CM20 2QR

Borane protection and a stereocontrolled cyanohydrin reaction have been used in synthesis of a series of indole substituted spirooxazolines.

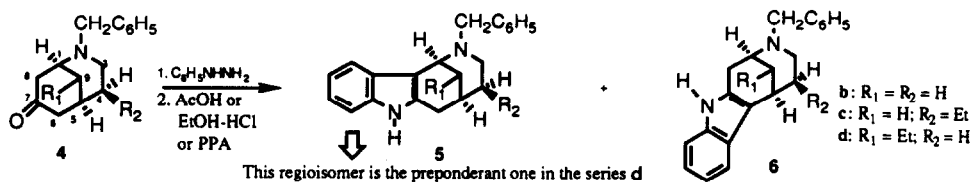


THE FISCHER INDOLIZATION OF 2-AZABICYCLO[3.3.1]NONAN-7-ONES.

A NEW ENTRY TO THE DASYPARPIDAN RING SYSTEM

Josep Bonjoch,* Núria Casamitjana, Jordi Gràcia, M.-C. Ubeda, and Joan Bosch*

Laboratory of Organic Chemistry, Faculty of Pharmacy, University of Barcelona, 08028-Barcelona, Spain



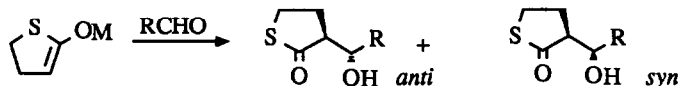
STEREOSELECTIVE ALDOL REACTIONS OF γ-THIOBUTYROLACTONE:

THE BENZALDEHYDE ANOMALY.

Cesare Gennari*, Ambrogio Oliva, Francesco Molinari, Umberto Piarulli

Dipartimento di Chimica Organica e Industriale, Università di Milano, Centro CNR Sost. Org.Nat., via Venezian 21, 20133 Milano, Italy.

Different protocols (lithium enolate reactions, fluoride catalyzed and Lewis acid mediated silyl ketene acetal reactions) were studied to achieve stereoselectivity in the aldol reactions of γ-thiobutyrolactone.



GENERATION OF SULFONYL RADICALS FROM SULFONATE ESTERS

Peter N. Culshaw and John C. Walton*

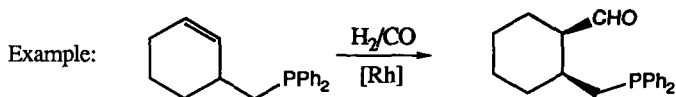
Department of Chemistry, University of St. Andrews, St. Andrews, Fife, KY16 9ST, UK.

Sulfonyl radicals have been generated from alkyl- and aryl-sulphonate esters on treatment with organotin radicals. Their adduct radicals with alkenes have been observed by EPR spectroscopy.



Regio and Stereo-Control in the Rhodium Catalysed Hydroformylation of Some Alkenylphosphines

W. Roy Jackson,* Patrick Perlmutter and E. Elizabeth Tasdelen
Department of Chemistry, Monash University, Clayton, Victoria 3168, Australia.

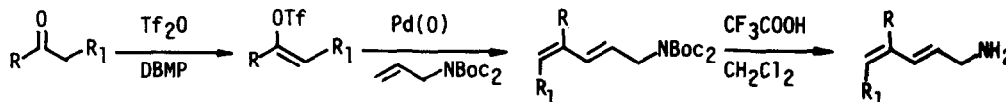


AN EFFICIENT ROUTE FOR THE STEREoselective CONVERSION OF KETONES INTO THREE-CARBON HOMOLOGATED PRIMARY E-ALLYL-AMINES: THE PALLADIUM-CATALYSED REACTION OF VINYL TRIFLATES WITH N,N-DI-TERT-BUTOXYCARBONYL-N-ALLYLAMINE

A. Arcadi,^a E. Bernocchi,^b S. Cacchi,^b L. Caglioti,^b F. Marinelli^a

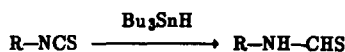
a) Dip. di Chim., Ing. Chim. e Materiali, Via Assergi 4, 67100 L'Aquila (Italy)

b) Dip. Studi di Chim. e Tecnol. delle Sost. Biol. Attive, P.le A. Moro 5, 00185 Roma (Italy)



REDUCTION OF ISOTHIOCYANATES TO THIOFORMAMIDES WITH TRI-n-BUTYL TIN HYDRIDE

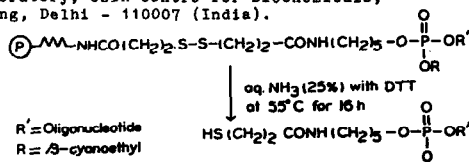
M. Avalos, R. Babiano,* C. Garcia-Verdugo, J. L. Jimenez, and J. C. Palacios, Department of Organic Chemistry, University of Extremadura, 06071 Badajoz, Spain.



A novel synthesis of thioformamides has been achieved through the mild reduction of isothiocyanates with tri-n-butyltin hydride. The first sugar thioformamides are described.

A UNIVERSAL SOLID SUPPORT FOR THE SYNTHESIS OF 3'-THIOL GROUP CONTAINING OLIGONUCLEOTIDES

K.C.Gupta*, P.Sharma, S.Sathyanarayana and P.Kumar
Nucleic Acids Research Laboratory, CSIR Centre for Biochemicals, V.P.Chest Institute Building, Delhi - 110007 (India).



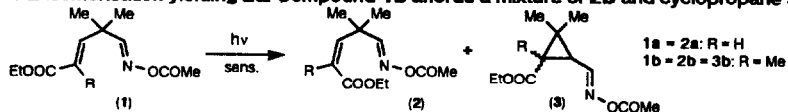
THE PHOTOCHEMICAL SYNTHESIS OF POTENTIAL PYRETHROID COMPONENTS BY THE AZA-DI-W-METHANE REARRANGEMENT OF β,γ -UNSATURATED OXIME ACETATES.

D. Armesto,^a M. G. Gallego,^b and W. M. Horspool^b

a. Departamento de Química Orgánica, Facultad de Química, Universidad Complutense, 28040-Madrid, Spain;

b. Department of Chemistry, The University, Dundee, DD1 4HN, Scotland.

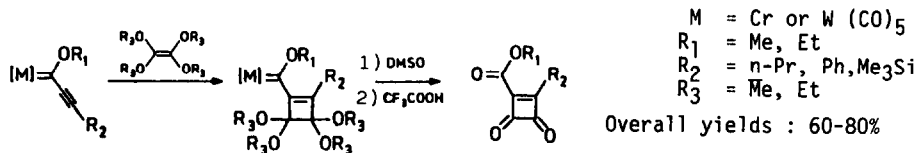
Summary: The syntheses and photochemical reactions of oxime acetates 1a and 1b are described. Compound 1a undergoes *E-Z*-isomerisation yielding 2a. Compound 1b affords a mixture of 2b and cyclopropane 3b.



AN EFFICIENT SYNTHESIS OF 3,4-DIOXOCYCLOBUTENECARBOXYLATE DERIVATIVES.

F. Camps, A. Llebaria, J.M. Moretó, S. Ricart, J.M. Viñas

Departament de Química Orgànica Biològica. C.I.D. (CSIC). J.Girona, 18. 08034-Barcelona, Spain



1,3-Dipolar Cycloadditions of 3-Methylenecephams with Diazoalkanes

Jack E. Baldwin and Janos Pitlik

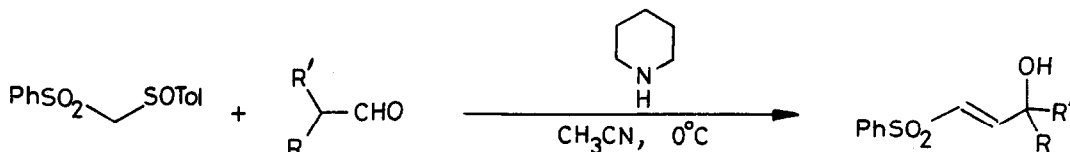
The Dyson Perrins Laboratory and Oxford Centre of Molecular Sciences,
Oxford OX1 3QY



FACILE SYNTHESIS OF *E*- γ -HYDROXY- α,β -UNSATURATED SULFONES FROM ALDEHYDES

Esteban Domínguez and Juan Carlos Carretero*

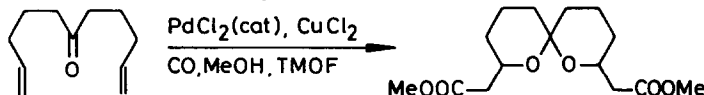
Departamento de Química. Universidad Autónoma. 28049-Madrid. Spain.



A NOVEL PALLADIUM CATALYSED OXYCARBONYLATION OF DIENONES : A CONVENIENT METHOD FOR CONSTRUCTION OF CYCLIC ACETALS

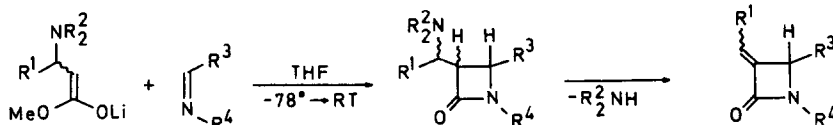
J S Yadav*, E Sreenivasa Rao, V Sreenivasa Rao and B M Choudary*
Indian Institute of Chemical Technology, Hyderabad 500 007, India

An efficient preparation of bifunctional spiroketals is described.



A NOVEL SYNTHETIC APPROACH TO α -ALKYLIDENE- β -LACTAMS

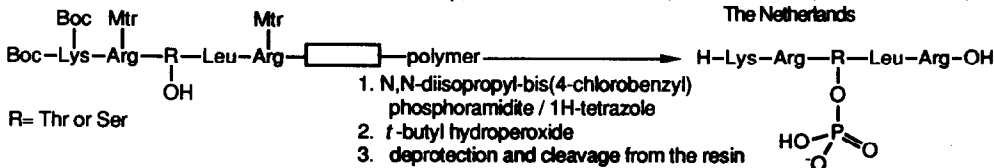
Benito Alcaide*, Joaquín Plumet, Julián Rodríguez-López,
and Yolanda M. Sánchez-Cantalejo. Departamento de Química Orgánica, Facultad de Química,
Universidad Complutense, Ciudad Universitaria, 28040-MADRID, Spain.



$R^1 = \text{H, Me}$ $R^2 = \text{Me, } i\text{-Pr}$ $R^3 = p\text{-Anisyl-N=CH-, 2-Furyl, Ph, PhCH=CH-}$ $R^4 = p\text{-Anisyl}$

AUTOMATIC SYNTHESIS OF PHOSPHOPEPTIDES BY PHOSPHORYLATION ON THE SOLID PHASE

H.B.A. de Bort, J.H. van Boom and R.M.J. Liskamp, Gorlaeus Laboratories, P.O. Box 9502, 2300 RA Leiden,
The Netherlands



Proof of a Radical Transannular Hydrogen Migration in the Longifolene Series.

J. Boivin, E. da Silva, G. Ourisson, and S. Z. Zard.

Laboratoire de Synthèse Organique, Ecole Polytechnique,
91128 Palaiseau, France.
Institut de Chimie des Substances Naturelles, C.N.R.S.,
91198 Gif-sur-Yvette, France.

Radical decarboxylation of isolongifolic acid affords in good yield (96 %) the thioether through a reaction involving a clean 1,5 transannular hydrogen shift.

