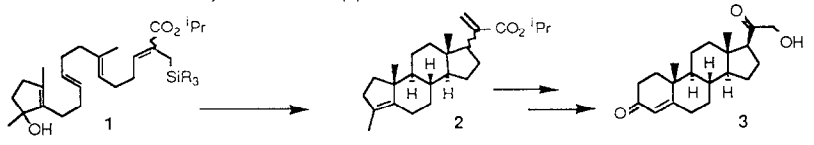
GRAPHICAL ABSTRACTS

Tetrahedron Lett.27,6027(1986)

THE CARBOALKOXYALLYLSILANE TERMINATOR FOR BIOMIMETIC POLYENE CYCLIZATIONS. A ROUTE TO 21-HYDROXYPROGESTERONE TYPES

W. S. Johnson, C. Newton and S. D. Lindell
Department of Chemistry, Stanford University, Stanford, CA 94305 USA

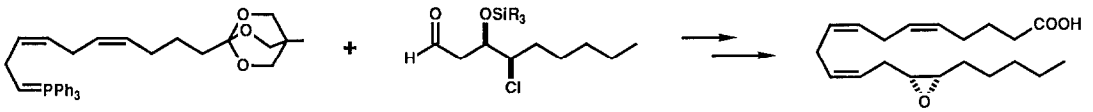
The synthesis and cyclization of polyene 1 to give pro-steroid 2 is described as well as the conversion to dl-17-desoxycorticosterone (3).



Tetrahedron Lett.27,6031(1986)

ASYMMETRIC TOTAL SYNTHESIS OF 14(R),15(S)-, 14(S),15(R)-, 14(R),15(R)-, AND 14(S),15(S)-EPOXYEICOSATRIENOIC ACIDS

Michael D. Ennis* and Mark E. Baze
Lipids Research, The Upjohn Company, Kalamazoo, MI 49001



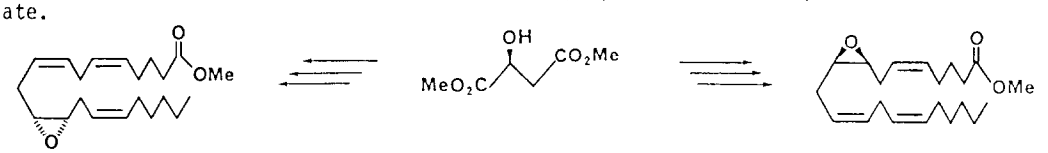
14(R), 15(S) - EET

Tetrahedron Lett.27,6035(1986)

ARACHIDONATE EPOXYGENASE: TOTAL SYNTHESIS OF BOTH ENANTIOMERS OF 8,9- AND 11,12-EPOXYEICOSATRIENOIC ACID

Paul Mosset, Pendri Yadagiri, Sun Lumin, Jorge Capdevila, and J.R. Falck*,
Departments of Molecular Genetics and Biochemistry, University Texas Health Science Center, Dallas, Texas 75235 USA

The epoxygenase metabolites 8,9- and 11,12-EET were prepared from dimethyl D- or L-malate.

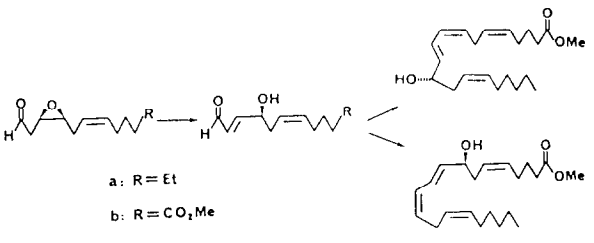


Tetrahedron Lett.27,6039(1986)

ENANTIOSPECIFIC TOTAL SYNTHESIS OF 8- AND 12-HYDROXYEICOSATETRAENOIC ACID

Pendri Yadagiri, Sun Lumin, Paul Mosset, Jorge Capdevila, and J.R. Falck*,
Dept. Molecular Genetics and Biochemistry, Univ. Texas Health Sci. Ctr., Dallas, Texas 75235 USA

Both enantiomers of the title arachidonate metabolites were synthesized from dimethyl malate derived precursors.

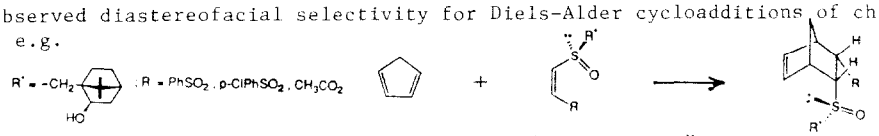


Tetrahedron Lett.27,6041(1986)

DIASTEREOFACIAL SELECTIVITY IN DIELS-ALDER CYCLOADDITIONS INVOLVING VINYL SULFOXIDES

S.D. Kahn and W.J. Hehre*
Department of Chemistry, University of California, Irvine, California 92717

The observed diastereofacial selectivity for Diels-Alder cycloadditions of chiral vinyl sulfoxides, e.g.



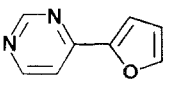
follows from electrostatic considerations. The "nucleophilic" diene adds to the electron-poor face of the "electrophilic" dienophile.

Tetrahedron Lett.27,6045(1986)

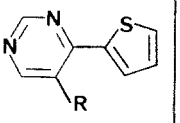
NEW APPROACH TO CONFORMATIONAL ANALYSIS OF HETEROBIARYLS IN SOLUTION

Lucjan Strekowski, Farial A. Tanious, Subramanian Chandrasekaran, Rebecca A. Watson, and W. David Wilson
Department of Chemistry, Georgia State University, Atlanta, GA 30303 USA

Native DNA is used in conformational studies of heterobiaryls. Systems **1** and **2** (R = H) exist in solution in an essentially planar s-trans and s-cis conformation, respectively. Methyl derivative **2** (R = Me) is also s-cis.



1



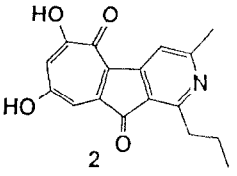
2

Tetrahedron Lett.27,6049(1986)

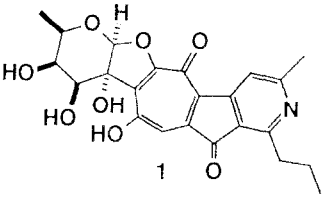
SYNTHESIS OF THE CHROMOPHORE OF RUBROLONE

T. Ross Kelly*, Antonio Echavarren, Andrew Whiting, Franz R. Weibel and Yasuyoshi Miki

A synthesis of 2, the chromophore of rubrolone (1), is described.



2



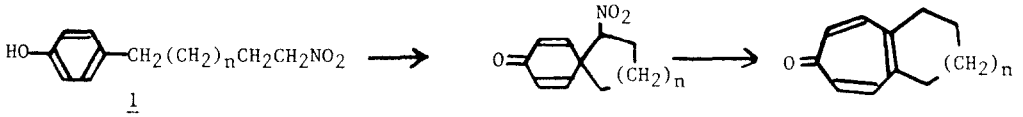
1

Tetrahedron Lett.27,6051(1986)

INTRAMOLECULAR RADICAL CYCLIZATION OF PHENOLIC NITRONATES: FACILE SYNTHESIS OF ANNELATED TROPONE AND TROPOLONE DERIVATIVES

Andrew S. Kende* and Kevin Koch
Department of Chemistry, University of Rochester, Rochester, NY 14627

Phenolic nitroalkanes (1) in dilute base undergo oxidative cyclization to spirocyclic nitro dienones, some of which undergo facile rearrangement to tropone derivatives.



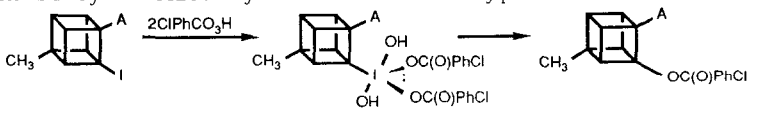
1

Tetrahedron Lett.27,6055(1986)

OXIDATIVE DEIODINATION OF CUBYL IODIDES: A TACTIC FOR THE NUCLEOPHILIC INTRODUCTION OF SUBSTITUENTS ONTO THE CUBANE FRAMEWORK

Philip E. Eaton* and Glen T. Cunkle, Department of Chemistry,
The University of Chicago, Chicago, Illinois 60637

New cubanes can be synthesized by substitution on hypervalent iodocubanes.

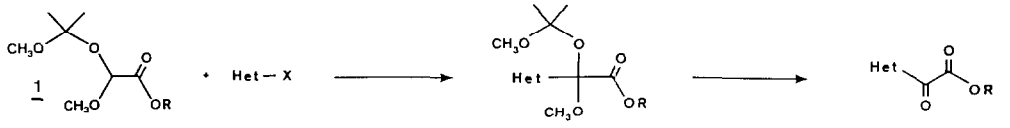


Tetrahedron Lett.27,6059(1986)

SYNTHESIS OF α-OXO-ACETIC ACID ESTERS WITH A NOVEL ACYLANION EQUIVALENT

Adrian Waldner, Central Research Laboratories, Ciba-Geigy AG, CH-4002 Basel, Switzerland

The novel acylanion equivalent 1 bears an easily hydrolizable α-ketoester function.



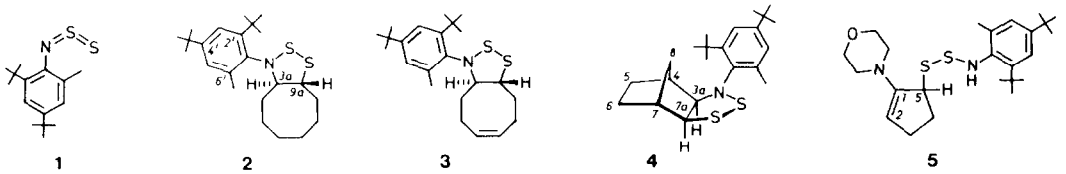
Tetrahedron Lett.27,6063(1986)

1,3-DIPOLAR CYCLOADDITIONS OF A THIONITROSO *S*-SULFIDE

Rolf Huisgen* and Xia Peng

Institut für Organische Chemie der Universität München, FRG

1:1 products of 1 with (*E*)-cyclooctene (2), (*E,Z*)-1,5-cyclooctadiene (3), norbornene (4), and 1-morpholinocyclopentene (5) were structurally elucidated.

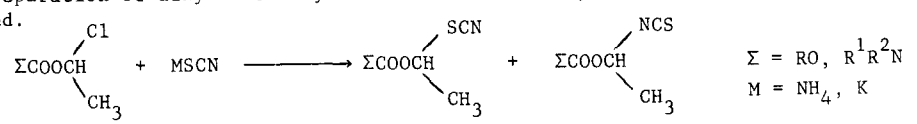


Tetrahedron Lett.27,6067(1986)

CHEMISTRY OF α-CHLOROETHYL CARBONATES AND CARBAMATES. NUCLEOPHILIC SUBSTITUTION.

Alain RIONDEL and Paul CAUBERE*
Laboratoire de Chimie Organique I, UA CNRS 457, Université Nancy I, BP 239, 54506 VANDOEUVRE LES NANCY (France)
Jean-Pierre SENET and Serge LECOLIER
SNPE, Centre de Recherches du Bouchet, 91710 VERT LE PETIT (France)

The preparation of alkyl-α-thiocyano- and/or -α-isothiocyano-ethyl carbonates and carbamates is described.

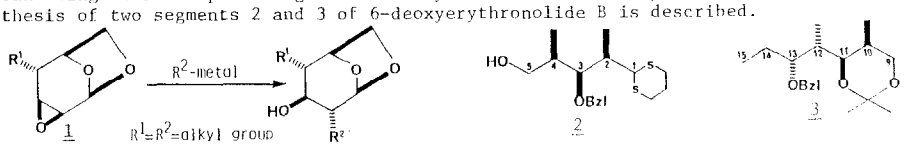


THE OXIRANE RING OPENINGS OF THE DIANHYDRO SUGAR WITH HIGH REGIOSELECTIVITY AND ITS USE IN PREPARATION OF TWO CHIRAL SEGMENTS OF 6-DEOXYERYTHRONOLIDE B

Tetrahedron Lett. 27, 6071 (1986)

Takeshi Wakamatsu,* Hideo Nakamura, Yuji Nishikimi, Kaoru Yoshida, Tomoko Noda, and Masato Taniguchi
Faculty of Pharmaceutical Sciences, Hokkaido University, Sapporo 060, Japan
Yoshio Ban
School of Pharmaceutical Science, Toho University, Miyama 2-2-1, Funabashi, Chiba 274, Japan

The oxirane ring of 1 is opened regioselectively with carbon nucleophiles and its application to the synthesis of two segments 2 and 3 of 6-deoxyerythronolide B is described.



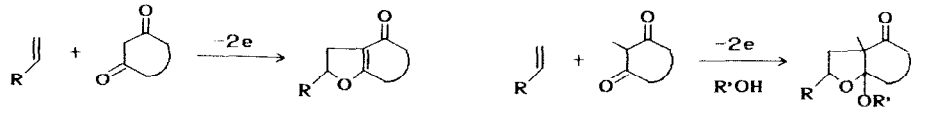
1 2 3

OXIDATIVE [3+2] CYCLOADDITION OF 1,3-DIKETONE AND OLEFIN USING ELECTROORGANIC CHEMISTRY

Tetrahedron Lett. 27, 6075 (1986)

Jun-ichi Yoshida, Kazuhiko Sakaguchi, Sachihiko Isoe, Institute of Organic Chemistry, Faculty of Science, Osaka City University, Sugimoto, Sumiyoshi, Osaka, 558, JAPAN

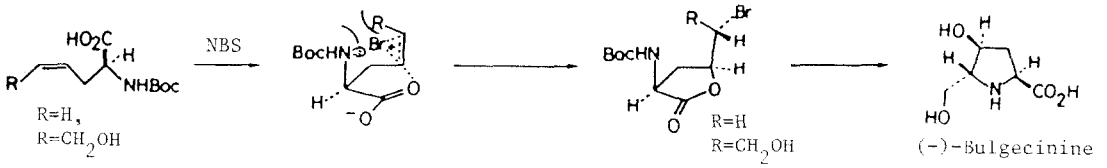
Electrochemical oxidation of 1,3-diketones in the presence of olefins afforded the formal [3+2] cycloaddition product, dihydrofuran derivatives or tetrahydrofuran derivatives.



AN EFFICIENT ROUTE TO 1,3-AMINO HYDROXYL SYSTEM VIA ELECTROPHILIC LACTONIZATION OF 2-AMINO-4-PENTENOIC ACID DERIVATIVES. STEREOSELECTIVE SYNTHESIS OF (-)-BULGECININE

Tetrahedron Lett. 27, 6079 (1986)

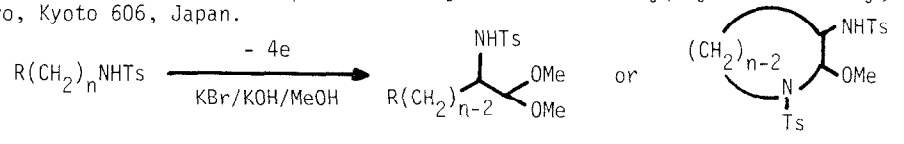
Yasufumi Ohfune,* Keiko Hori, and Masahiro Sakaitani
Suntory Institute for Bioorganic Research, Shimamoto-cho, Mishima-gun, Osaka 618, Japan



ELECTROOXIDATIVE REARRANGEMENT OF TOSYLAMINO GROUP: FACILE SYNTHESIS OF α-AMINO ALDEHYDES FROM PRIMIRY AMINES

Tetrahedron Lett. 27, 6083 (1986)

Tatsuya Shono,* Yoshihiro Matsumura, Susumu Katoh, Kenji Inoue, and Yonetarsu Matsumoto, Department of Synthetic Chemistry, Kyoto University, Yoshida, Sakyo, Kyoto 606, Japan.



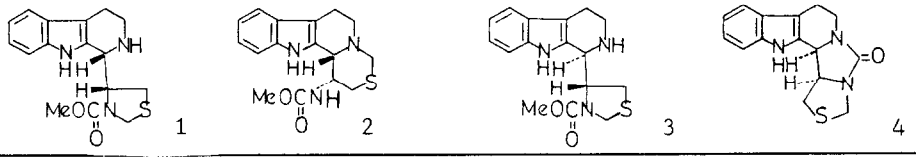
when R=H or alkyl when R=NHTs, n=4,5

Tetrahedron Lett.27,6087(1986)

SYNTHETIC APPROACHES TO EUDISTOMINS. PART I
SYNTHESIS OF 1-AMINO-3-THIAINDOLO[2,3-a]QUINOLIZIDINE.

M. Nakagawa, J.J.Liu, K.Ogata, & T.Hino Faculty of Pharmaceutical Sciences, Chiba University, Yayoi-cho, Chiba-shi, 260, Japan

Optically active thiaindoloquinolizidine 2 was synthesized by rearrangement of ß-carboline 1, whereas 3 gave 4.

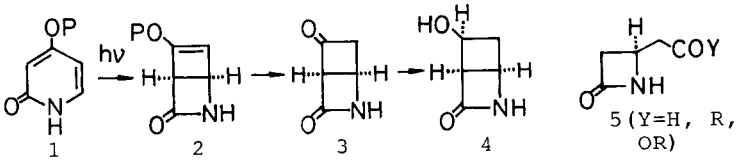


Tetrahedron Lett.27,6091(1986)

PRACTICABLE SYNTHESIS OF (1R,4R)-5-(ℓ-MENTHOXY)-2-AZABICYCLO[2.2.0]HEX-5-EN-3-ONE AND ITS DERIVATIVES: NEW BUILDING BLOCKS FOR CARBAPENEM NUCLEI

Masayuki Sato,* Nobuya Katagiri, Makoto Muto, Toru Haneda, and Chikara Kaneko*
Pharmaceutical Institute, Tohoku University, Aobayama, Sendai 980, Japan

Enantioselective synthesis of fused ß-lactams (3 and 4), equivalents of 5, from 1 (P=ℓ-menthyl) via photopyridone (2).

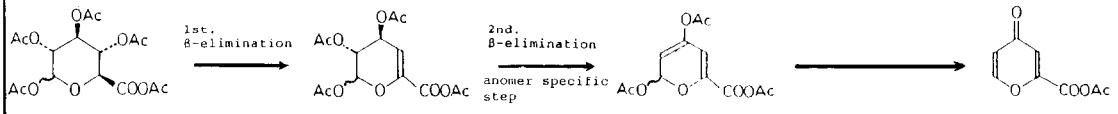


Tetrahedron Lett.27,6095(1986)

ANOMER-SPECIFICITY IN THE DEGRADATION REACTION OF D-GLUCOPYRANURONIC ACID TETRAACETATE LEADING TO COMANIC ACID IN THE ACETIC ANHYDRIDE-BASE SYSTEM

Kiyohiko Tajima, The Noguchi Institute, Kaga 1-8-1, Itabashi-ku, Tokyo 173

Anomer-specific ß-elimination was found in the second step of the degradation reaction of 1,2,3,4-tetra-*O*-acetyl-D-glucopyranuronic acid leading to comanic acid in the acetic anhydride-base system.



Tetrahedron Lett.27,6099(1986)

NOVEL OXIDIZING PROPERTIES OF p-METHOXYBENZENETELLURINIC ACID ANHYDRIDE

Nan Xing Hu, Yoshio Aso, Tetsuo Otsubo, and Fumio Ogura*
Department of Applied Chemistry, Faculty of Engineering, Hiroshima University, Saijo, Higashi-Hiroshima 724, Japan

The title compound serves not only as a mild oxidizing agent but also as a selective catalyst for the hydration of terminal alkynes.

$$n\text{-}C_4H_9C{\equiv}C(CH_2)_3C{\equiv}CH \xrightarrow[CH_3COOH]{(p\text{-}CH_3OC_6H_4TeO)_2O} n\text{-}C_4H_9C{\equiv}C(CH_2)_3COCH_3$$

Tetrahedron Lett.27,6103(1986)

SYNTHESIS OF 2,2-DIFLUOROESTERS BY IODODIFLUORO-ACETATE-COPPER WITH ORGANIC HALIDES

Takeo Taguchi, Osamu Kitagawa, Tsutomu Morikawa, Tohru Nishiwaki, Hideya Uehara, Hatsumi Endo, and Yoshiro Kobayashi, Tokyo College of Pharmacy, 1432-1 Horinouchi, Hachioji, Tokyo 192-03, Japan.

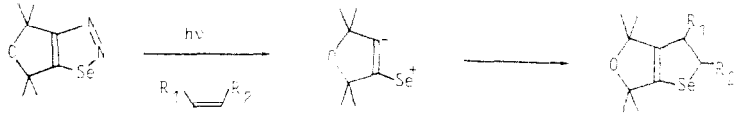
2,2-Difluoroesters were effectively snthesized through reactions of iododi-fluoroacetate-copper with various organic halides. With alkenyl iodides, these reactions are stereospecific.

$$ICF_2COOMe + Cu + RX \longrightarrow RCF_2COOMe$$

Tetrahedron Lett.27,6107(1986)

PHOTOLYSIS OF STERICALLY PROTECTED BICYCLIC 1,2,3-SELENADIAZOLE

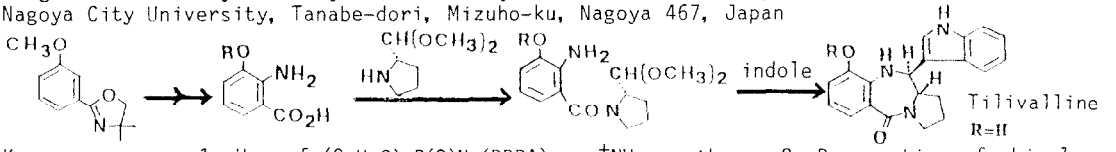
Wataru Ando*, Yorio Kumamoto, and Norihiro Tokitoh
Department of Chemistry, University of Tsukuba
Sakuramura, Niiharigun, Ibaraki 305, Japan



Tetrahedron Lett.27,6111(1986)

New Methods and Reagents in Organic Synthesis. 65. A Stereoselective Synthesis of Tilivalline

Shigehiro Mori, Toyohiko Aoyama, and Takayuki Shioiri,* Faculty of Pharmaceutical Sciences, Nagoya City University, Tanabe-dori, Mizuho-ku, Nagoya 467, Japan



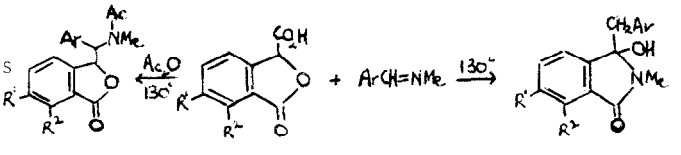
Key processes 1. Use of $(C_6H_5O)_2P(O)N_3$(DPPA) as $^+NH_2$ synthon 2. Preparation of chiral α-amino aldehydes and their acetals 3. A new Mannich type condensation

Tetrahedron Lett.27,6119(1986)

DECARBOXYLATION OF PHTHALIDECARBOXYLIC ACIDS IN THE PRESENCE OF IMINES : A FACILE ROUTE TO ISOINDOLO[1,2b][3] BENZAZEPIN-5-ONES AND PHTHALIDEISOQUINOLINES

John Chiefari, Wit Janowski and Rolf Prager*
School of Physical Sciences, Flinders University, Bedford Park, South Australia, 5042.

Phthalidecarboxylic acids decarboxylate readily in imines to form either 3-alkyl-3-hydrolyisoindolenes or 3-aminoalkylphthalides, both of which have application in natural product synthesis.

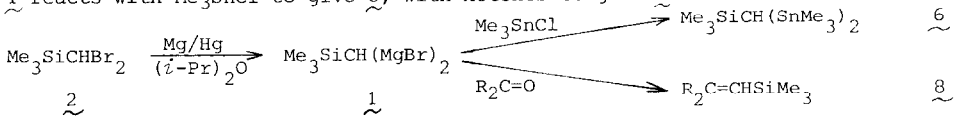


Tetrahedron Lett.27,6123(1986)

BIS(BROMOMAGNESIO)TRIMETHYLSILYLMETHANE

B.J.J. van de Heisteeg, G. Schat, M.A.G.M. Tinga,
O.S. Akkerman and F. Bickelhaupt*
Scheikundig Laboratorium, Vrije Universiteit, Amsterdam, The Netherlands

The title compound (1) is obtained from 2 in 70% yield by using diisopropyl ether as solvent; 1 reacts with Me_3SnCl to give 6, with ketones to give 8.

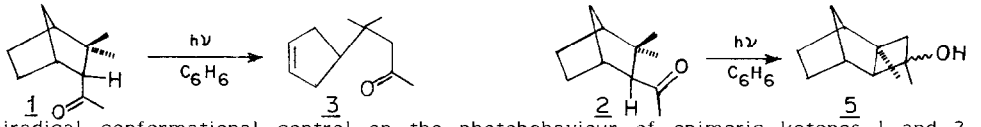


2 1 6 8

Tetrahedron Lett.27,6125(1986)

CONFORMATION-SPECIFIC PHOTOCHEMISTRY IN ISOTROPIC LIQUID MEDIA : NORRISH TYPE II REACTIONS OF EPIMERIC 2-ACETYL-3,3-DIMETHYLNORBORNANES

H R Sonawane*, B S Nanjundiah, S I Rajput and M Udayakumar
National Chemical Laboratory, Pune 411 008, India



1 3 2 5

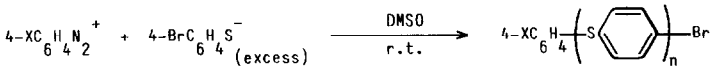
1,4-Biradical conformational control on the photobehaviour of epimeric ketones 1 and 2.

Tetrahedroh Lett.27,6129(1986)

ARENEDIAZONIUM TETRAFLUOROBORATES AS INITIATORS IN THE POLYMERISATION OF HALOARENETHIOLATES. A SIMPLE AND MILD ACCESS TO POLY(ARYLENE SULFIDE)S.

Marino Novi,[a,*] Giovanni Petrillo,[a] and Maria Luisa Sartirana.[b]
[a]Istituto di Chimica Organica dell'Università, C.N.R. Centro di Studio sui Diariloidi e loro Applicazioni, Corso Europa 26, 16132 Genova, Italy. [b]Istituto di Chimica Industriale dell'Università, Corso Europa 30, 16132 Genova, Italy.

Diazonium cations in catalytic amounts act as initiators of a radical, radical-anion chain process.



X = H, Br

Tetrahedron Lett.27,6133(1986)

STUDIES ON THE SYNTHESIS OF GLOEOSPORONE - SYNTHESIS OF THE PROPOSED 2,8-DISUBSTITUTED OXOCANE STRUCTURE

Robert W. Carling and Andrew B. Holmes*

University Chemical Laboratory, Lensfield Road, CAMBRIDGE CB2 1EW, U.K.