

GRAPHICAL ABSTRACTS

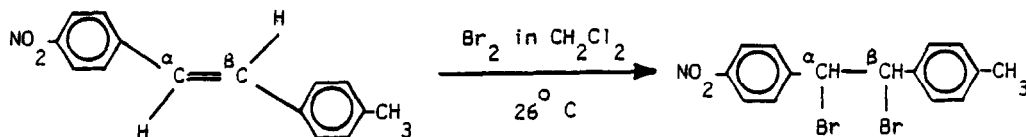
Tetrahedron Lett. 27, 5051 (1986)

ISOTOPE EFFECTS AND MECHANISM IN THE BROMINATION OF ALPHA- AND BETA-CARBON-14 LABELED 4-NITRO-4'-METHYLSTILBENES

Pandurang B. Kokil and Arthur Fry*

Department of Chemistry and Biochemistry, University of Arkansas, Fayetteville, AR 72701, USA

Carbon-14 isotope effects are reported, for the first time, in a simple bromination reaction, $k/\alpha k = 1.013 \pm 0.003$; $k/\beta k = 1.0035 \pm 0.003$.



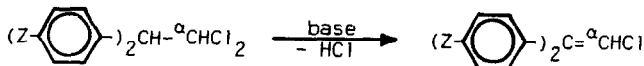
Tetrahedron Lett. 27, 5055 (1986)

ISOTOPE EFFECTS AND MECHANISM IN THE BASE-PROMOTED DEHYDROCHLORINATION OF 1,1-DICHLORO-2,2-DIARYLETHANES-1-¹⁴C

Agnes Pulay and Arthur Fry*

Department of Chemistry and Biochemistry, University of Arkansas, Fayetteville, AR 72701, USA

Carbon-14 isotope effects, $k/\alpha k$, are 1.045 and 1.024 for dehydrochlorinations of $Z = H$ and $Z = NO_2$ DDD-type compounds. Both compounds react by the E2 mechanism.



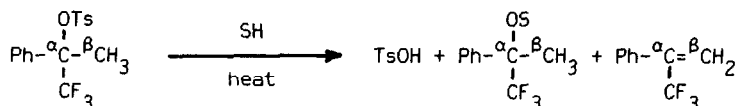
Tetrahedron Lett. 27, 5059 (1986)

CARBON-14 KINETIC ISOTOPE EFFECTS AND MECHANISM IN THE SOLVOLYSIS OF 1,1,1-TRIFLUORO-2-PHENYL-2-PROPYL-3-¹⁴C p-TOLUENESULFONATE

Zili Guo and Arthur Fry

Department of Chemistry and Biochemistry, University of Arkansas, Fayetteville, AR 72701, USA

Solvolysis of 1,1,1-trifluoro-2-phenyl-2-propyl-3-¹⁴C p-toluenesulfonate takes place with only a very small ^βC isotope effect, $k/\beta k = 1.008 \pm 0.002$. The mechanism is S_N1/E1.



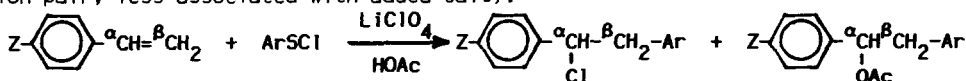
Tetrahedron Lett. 27, 5063 (1986)

CARBON-14 KINETIC ISOTOPE EFFECTS AND MECHANISMS OF ADDITION OF 2,4-DINITROBENZENESULFENYL CHLORIDE TO SUBSTITUTED STYRENES IN THE PRESENCE OF LITHIUM PERCHLORATE

Marianna Kanska and Arthur Fry*

Department of Chemistry and Biochemistry, University of Arkansas, Fayetteville, AR 72701, USA

Different ^αC and ^βC isotope effect behavior in the absence and presence of LiClO₄ demonstrate different mechanisms for $Z = Me$ (open carbenium ion) than for $Z = H$ or Cl (cyclic intermediate ion pair, less associated with added salt).

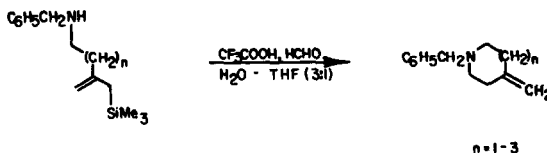


INTRAMOLECULAR VARIANTS OF AMINOMETHANO DESILYLATION:
REACTIONS OF IN SITU GENERATED IMMONIUM IONS WITH
ALLYLSILANES

Paul A. Grieco* and William F. Fobare

Department of Chemistry, Indiana University, Bloomington, IN 47405

Intramolecular condensation of immonium ions with allylsilanes in water at ambient temperature gives rise to five, six, seven, and eight-membered rings containing nitrogen.

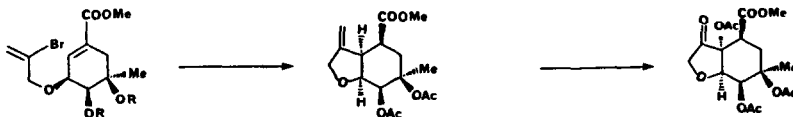


Tetrahedron Lett. 27, 5067 (1986)

A NOVEL SYNTHETIC ROUTE TO THE HEXAHYDROBENZOFURAN SUBUNIT
OF THE AVERMECTINS AND MILBEMYCINS

Stephen Hanessian, Pierre Beaulieu and Daniel Dubé

A regio and stereocontrolled synthesis of the target compound based on radical cyclization and angular acetoxylation as key steps is described.

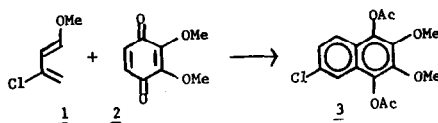


Tetrahedron Lett. 27, 5071 (1986)

A NOVEL DIELS-ALDER REACTION UTILIZING 3-CHLORO-1-METHOXYBUTADIENE: A SHORT AND CONVERGENT SYNTHESIS OF
THE 5-LIPOXYGENASE INHIBITOR RS-43179

Daniel L. Flynn* and Donald E. Nies, Department of Chemistry, Warner-Lambert/Parke-Davis
Pharmaceutical Research, Ann Arbor, Michigan 48105

Diels-Alder reaction of 3-Chloro-1-methoxybutadiene (1) with 2,3-Dimethoxy-2,5-cyclohexadiene-1,4-dione (2) affords a facile entry to the 5-Lipoxygenase inhibitor RS-43179 (3) and related β -halogenated polysubstituted naphthalene derivatives.



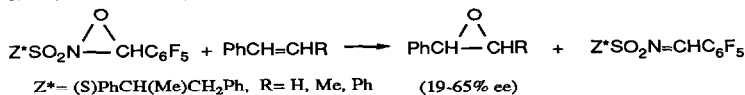
Tetrahedron Lett. 27, 5075 (1986)

ASYMMETRIC EPOXIDATION OF NONFUNCTIONALIZED ALKENES
WITH HIGH ENANTIOSELECTIVITY USING CHIRAL SULFAMYLOXAZIRIDINES

Franklin A. Davis* and Sankar Chattopadhyay

Department of Chemistry, Drexel University, Philadelphia, PA 19104

The asymmetric epoxidation of nonfunctionalized alkenes (19-65% ee) using chiral 2-sulfamyloxaziridines is described.



Tetrahedron Lett. 27, 5079 (1986)

Tetrahedron Lett. 27, 5083 (1986)

CONSTITUTION OF ANTHERIDIUM-INDUCING FACTOR OF *ANEMIA PHYLLITIDIS*

E. J. Corey and Andrew G. Myers

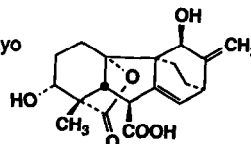
Department of Chemistry, Harvard University, Cambridge, Massachusetts 02138

Nobutaka Takahashi and Hisakazu Yamane

Department of Agricultural Chemistry, University of Tokyo, Bunkyo-ku, Tokyo

Helmut Schraudolf

Abt. Botanik, Universität Ulm, D-7900 Ulm, W. Germany



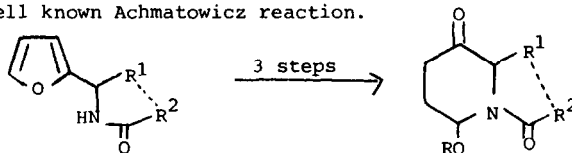
Tetrahedron Lett. 27, 5085 (1986)

THE AZA-ACHMATOWICZ REARRANGEMENT: A ROUTE TO USEFUL BUILDING BLOCKS FOR N-CONTAINING STRUCTURES.

Marco A. Ciufolini and Cynthia Y. Wood

Department of Chemistry, Rice University, Houston, TX 77251, USA

N-acyl furylamines are rearranged to 2-alkyl-6-methoxy-hexahydropyridinones via the aza analog of the well known Achmatowicz reaction.



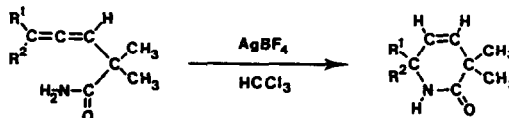
Tetrahedron Lett. 27, 5089 (1986)

CYCLISATION OF β -ALLENIC AMIDES IN 3,6-DIHYDRO-2(1H)-PYRIDONES.

Jacques Grimaldi* and Antoine Cormons

UA 109, Centre de St-Jérôme, Rue H. Poincaré, 13397 Marseille Cedex 13, France.

Cyclisation of β -allenic amides, in the presence of a catalytic amount of silver tetrafluoroborate, leads to 3,6-dihydro-2(1H)-pyridones.



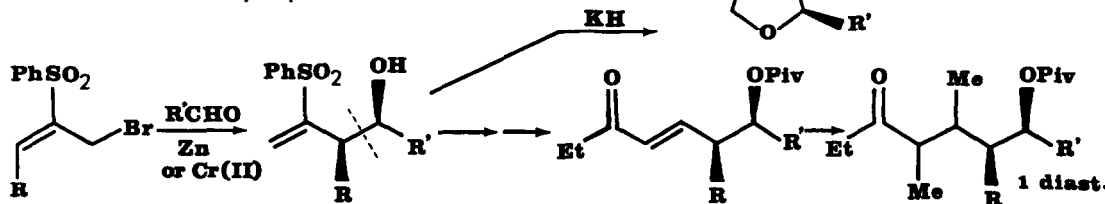
Tetrahedron Lett. 27, 5091 (1986)

DIASTERESELECTIVE ADDITION OF THE 2-PHENYLSULFONYL-SUBSTITUTED ALLYLIC BROMIDES TO ALDEHYDES IN THE PRESENCE OF ZINC OR CHROMIUM (II) CHLORIDE

P. Auvray, P. Knoche* and J.F. Normant

Laboratoire de Chimie des Organo-éléments, tour 44-45

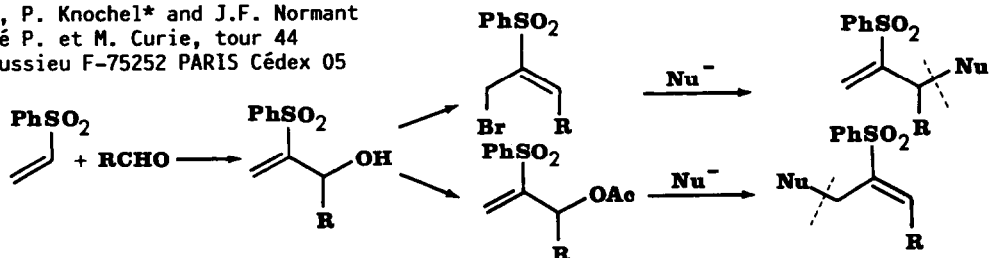
Université P. & M. Curie, 4 place Jussieu F-75252 PARIS Cédex 05



AN EASY SYNTHESIS OF THE 2-PHENYLSULFONYL-SUBSTITUTED
ALLYLIC BROMIDES AND ACETATES AND THEIR REACTIVITY TOWARDS
NUCLEOPHILES

P. Auvray, P. Knochel* and J.F. Normant
Université P. et M. Curie, tour 44
4 place Jussieu F-75252 PARIS Cédex 05

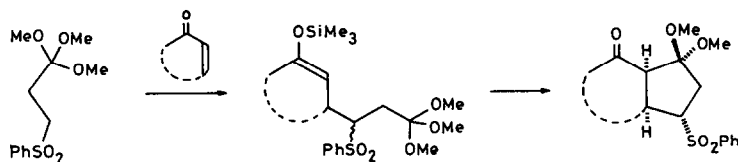
Tetrahedron Lett. 27, 5095 (1986)



METHYL 3-PHENYLSULFONYL ORTHOPROPIONATE :
A NEW REAGENT FOR CYCLOPENTANNULATION

S. De Lombaert, I. Nemery, B. Roekens, J.C. Carretero, T. Kimmel and L. Ghosez*
Laboratoire de Chimie Organique de Synthèse, Université Catholique de Louvain
Place L. Pasteur, 1, 1348 LOUVAIN-LA-NEUVE, Belgium.

Tetrahedron Lett. 27, 5099 (1986)

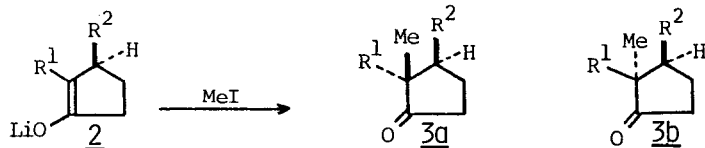


DIASTERESELECTIVE METHYLATION OF 2,3-DIALKYL-CYCLOPENTAN-
ONE ENOLATES

Takashi Takahashi*, Mohammad Nisar, Katsuya Shimizu and Jiro Tsuji
Tokyo Institute of Technology, Meguro, Tokyo 152, Japan.

Diastereoselective methylation of enolate **2** gave the unexpected product **3a** as a major isomer.

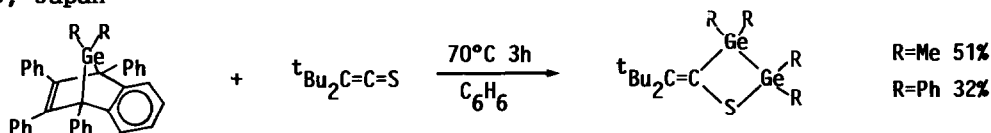
Tetrahedron Lett. 27, 5103 (1986)



REACTION OF GERMYLENE WITH THIOKETENES:
SYNTHESIS OF ALKYLIDENEDIGERMATHIETANES

Wataru Ando* and Takeshi Tsumuraya, Department of Chemistry, University of
Tsukuba, Niihari-gun, Ibaraki 305, Japan
Midori Goto, National Chemical Laboratory for Industry, Tsukubagun, Ibaraki
305, Japan

Tetrahedron Lett. 27, 5105 (1986)



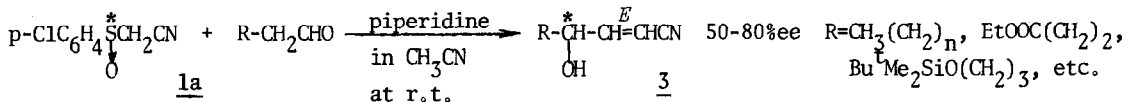
Tetrahedron Lett. 27, 5109 (1986)

SYNTHESIS OF OPTICALLY ACTIVE 4-HYDROXYALK-2-ENENITRILES;
REACTION OF OPTICALLY ACTIVE 2-(p-CHLOROPHENYLSULFINYL)-
ACETONITRILE WITH ALDEHYDES IN THE PRESENCE OF PIPERIDINE IN ACETONITRILE

Junzo Nokami,* Tadakatsu Mandai, Akira Nishimura, Takashi Takeda, and Shoji Wakabayashi
Okayama University of Science, Ridai, Okayama 700, Japan

Norio Kunieda,
Department of Applied Chemistry, Faculty of Engineering, Osaka City University, Sumiyoshi,

Osaka 558, Japan



Reaction of 1a with aldehydes, in the presence of piperidine in CH₃CN at r.t. gave 3 in good optical and chemical yields. Reaction of (R)-1a with propanal afforded (R)-3 (50 %ee).

Tetrahedron Lett. 27, 5113 (1986)

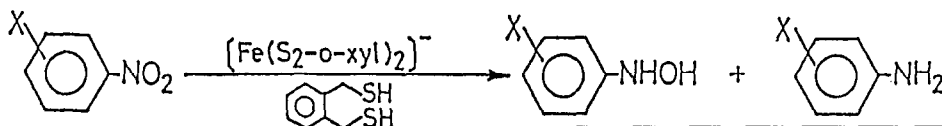
RUBREDOXIN MODEL COMPLEX (Et₄N)[Fe(S₂-o-xyl)₂]

AS A CATALYST IN THE REDUCTION OF AROMATIC NITRO COMPOUNDS TO HYDROXYLAMINES

Kazuo Yanada, Tetsuo Nagano and Masaaki Hirobe*

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

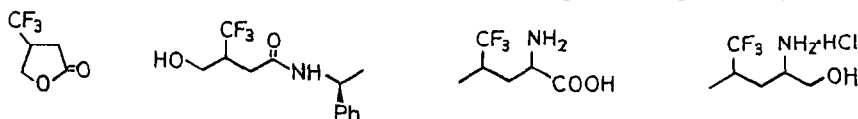
(Et₄N)[Fe(S₂-o-xyl)₂], the analogue of oxidized rubredoxin active sites, can catalyze the reduction of aromatic nitro compounds to N-aryl hydroxylamines by o-xylene-α,α'-dithiol.



Tetrahedron Lett. 27, 5117 (1986)

AN EFFICIENT RESOLUTION OF 3-TRIFLUOROMETHYL-γ-BUTYROLACTONE AND ITS CONVERSION TO 5,5,5-TRIFLUOROLEUCINOL

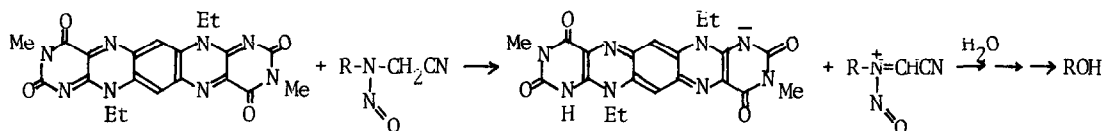
T. Taguchi, A. Kawara, S. Watanabe, Y. Oki, H. Fukushima, Y. Kobayashi,* M. Okada,^a K. Ohta,^a Y. Iitaka,^b Tokyo College of Pharmacy, Tokyo 192-03, ^aTokyo Women's Medical College, Tokyo 162, ^bUniversity of Tokyo, Tokyo 113, Japan.



Tetrahedron Lett. 27, 5121 (1986)

A Model For Metabolic Activation of Dialkyl-nitrosamines. Oxidative Dealkylation of N-Nitroso-2-(Alkylamino)acetonitrile By Flavin Mimic in Aqueous Solution

Yumihiko Yano,* Takeshi Yokoyama, and Kitaro Yoshida[†]
Department of Chemistry, Gunma University, Kiryu, Gunma 376, Japan, [†]Department of Chemistry, Saitama Medical School, Moroyama, Saitama 350-04, Japan

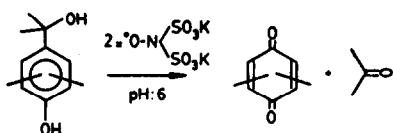


Tetrahedron Lett. 27, 5125 (1986)

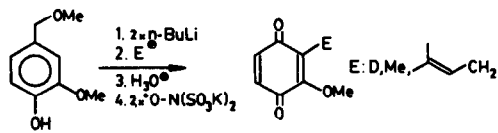
A NOVEL DEGRADATIVE STRATEGY FOR THE SYNTHESIS OF p-QUINONES

José M. Saá, Jerónimo Morey and Antonio Costa

Departamento de Química. Universitat de les Illes Balears. E-07071 Palma de Mallorca. Spain.



Fremy's salt promoted oxidative degradation of p-hydroxy benzylalcohols

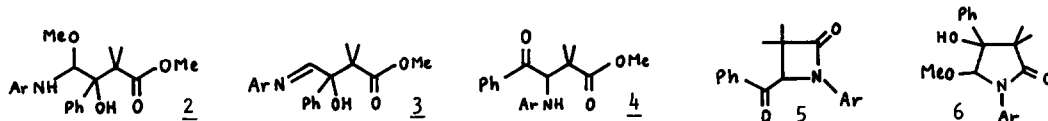


Tetrahedron Lett. 27, 5129 (1986)

REGIOCONTROLLED ADDITION IN THE REACTION OF N-(α -METHOXYPHENACYL)ANILINES WITH METHYL LITHIOISOBUTYRATE

B. Alcaide*, C. López-Mardomingo, R. Pérez-Ossorio, J. Plumet, and J. Rodríguez-López
Dpto. Química Orgánica, Facultad de Química, Universidad Complutense, 28040-Madrid, Spain

Reaction of the title compounds gives compounds 2-6 through a regiocontrolled process.

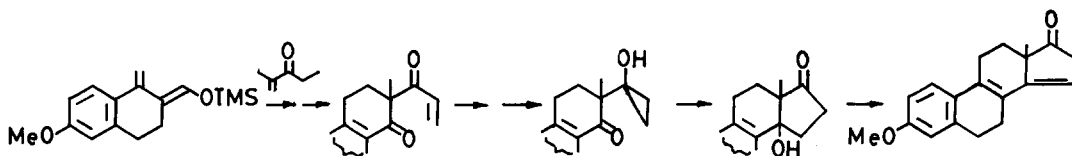


Tetrahedron Lett. 27, 5133 (1986)

A NOVEL CYCLOPENTANE ANNULATION REACTION :
NEW SYNTHESIS OF ESTRONE

Nurani S. Narasimhan* and Prakash A. Patil

Garware Research Centre, Department of Chemistry, University of Poona,
Pune - 411 007, INDIA.



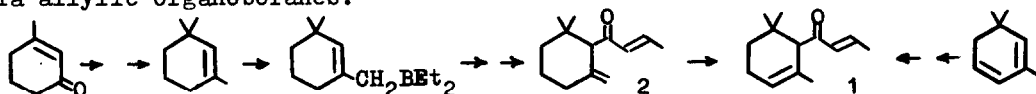
Tetrahedron Lett. 27, 5135 (1986)

SYNTHESIS WITH ORGANOBORANES. 2.
SYNTHESIS OF α -AND β -DAMASCONE

Marek Zaidlewicz

Institute of Chemistry, Nicolas Copernicus University, 87-100 Torun, Poland

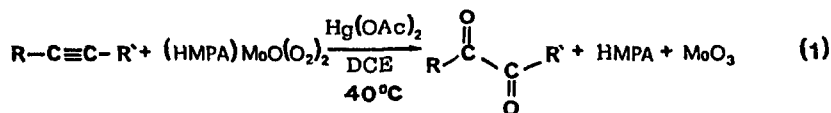
Syntheses of α -damascone /1/ and β -damascone /2/
via allylic organoboranes.



A NEW FACILE SYNTHESIS OF α -DICARBONYL COMPOUNDS
BY OXIDATION OF ALKYNES WITH Mo(VI) PEROXOCOMPLEX
PROMOTED BY MERCURIC ACETATE

Tetrahedron Lett. 27, 5139 (1986)

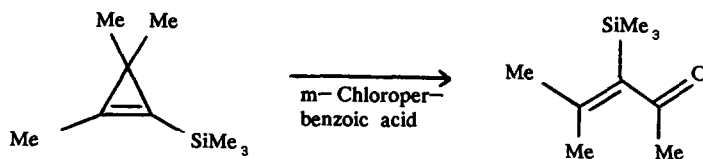
Francesco P. Ballistreri, Salvatore Failla, Gaetano A. Tomaselli* and Ruggero Curci
Dipartimento Scienze Chimiche, University of Catania, Italy 95125
Dipartimento Chimica, University of Bari, Italy 70126



Tetrahedron Lett. 27, 5143 (1986)

THE REGIOSELECTIVE OXIDATION OF 1-TRIMETHYLSILYLCYCLOPROPENES
TO α -TRIMETHYLSILYL- α,β -UNSATURATED KETONES

Mark S. Baird and Helmi H. Hussain, Department of Organic Chemistry,
The University of Newcastle upon Tyne, Newcastle upon Tyne NE1 7RU

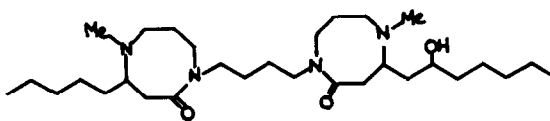


SYNTHESIS OF UNSYMMETRICAL SPERMINE ALKALOIDS
OF THE HOMALIUM GROUP

Tetrahedron Lett. 27, 5147 (1986)

Leslie Crombie, Raymond C.F. Jones and David Haigh
Department of Chemistry, The University, Nottingham, NG7 2RD.

Hoprominol and three related alkaloids
are synthesised via azetidinone ring
expansion methods.



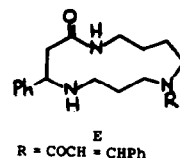
TRANSAMIDATION REACTIONS OF β LACTAMS:
A SYNTHESIS OF (\pm)-DIHYDROPERIPHYLLINE

Tetrahedron Lett. 27, 5151 (1986)

Leslie Crombie, Raymond C.F. Jones and
David Haigh

Department of Chemistry, The University, Nottingham, NG7 2RD.

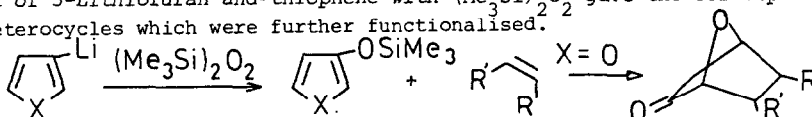
Products from attempted azetidinone ring expansions depend
upon product ring-sizes, (\pm)-Dihydroperiphylline is
synthesised by two successive transamidative ring expansions.



Heterocyclic Silyl Enol Ether Chemistry : Synthesis and Reactivity of 3-Trimethylsiloxyfuran and 3-Trimethylsiloxythiophene.

Lucia Camici, Alfredo Ricci and Maurizio Taddei*
 Centro CNR Composti Eterociclici, Dipartimento Chimica Organica, Firenze, Italy.

Treatment of 3-Lithiofuran and -thiophene with $(\text{Me}_3\text{Si})_2\text{O}_2$ gave the corresponding trimethylsiloxy-heterocycles which were further functionalised.

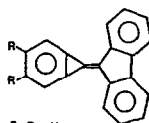


Tetrahedron Lett. 27, 5155 (1986)

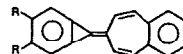
BENZOCALICENES AND BENZOTRIAHEPTAFULVALENES FROM CYCLOPROPANES

B. Halton, S.J. Buckland, Q. Mei, and P.J. Stang,
 Chemistry Departments, Victoria University of Wellington, Private Bag, Wellington, New Zealand,
 and The University of Utah, Salt Lake City, Utah 84112, U.S.A.

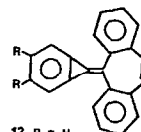
Peterson olefination of cyclopropabenzene and cyclopropa[b]naphthalene gives the fulvalenes (8)/(10)/(12) and (9)/(11)/(13) respectively. The dipole moments of (8) and (12) have been measured.



8 R = H
 9 RR = benzo



10 R = H
 11 RR = benzo



12 R = H
 13 RR = benzo

Tetrahedron Lett. 27, 5159 (1986)