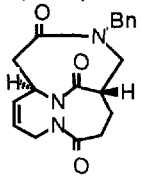
GRAPHICAL ABSTRACTS

Tetrahedron Lett.30,2317(1989)

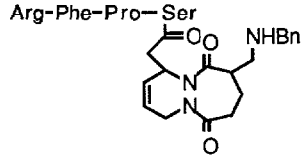
THE INCORPORATION OF β-TURN PROSTHETIC UNITS INTO MERRIFIELD SOLID PHASE PEPTIDE SYNTHESIS

Michael Kahn and Stephen Bertenshaw, Department of Chemistry, Box 4348, M/C 111, University of Illinois at Chicago, Chicago, Illinois 60680 USA.



1) (P)-Arg-Phe-Pro-Ser-NH_2

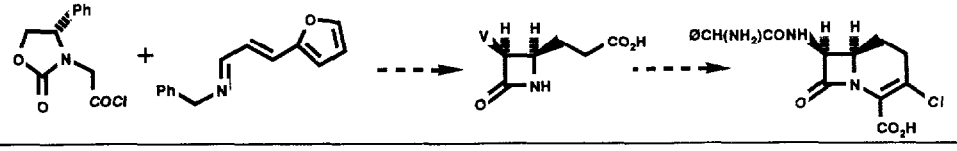
2) Cleave



Tetrahedron Lett.30,2321(1989)

An Enantioselective Synthesis of Loracarbef (LY163892/KT3777)

C. C. Bodurow,* B. D. Boyer, J. Brennan, C. A. Bunnell, J. E. Burks, M. A. Carr, C. W. Doecke,* T. M. Eckrich,* J. W. Fisher, J. P. Gardner, B. J. Graves, P. Hines, R. C. Hoying, B. G. Jackson M. D. Kinnick, C. D. Kochert, J .S. Lewis, W. D. Luke,* L. L. Moore, J. M. Morin, Jr.,* R. L. Nist, D. E. Prather, D. L. Sparks, and W. C. Vladuchick.
Lilly Research Laboratories, Eli Lilly and Co., Lilly Corporate Center, Indianapolis, IN 46285

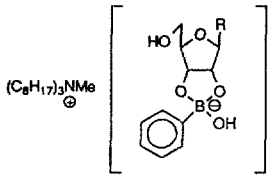


Tetrahedron Lett.30,2325(1989)

SELECTIVE TRANSPORT OF RIBONUCLEOSIDES THROUGH A LIQUID MEMBRANE

Bonnie F. Grotjohn and Anthony W. Czarnik*
Department of Chemistry, The Ohio State University, Columbus, Ohio 43210

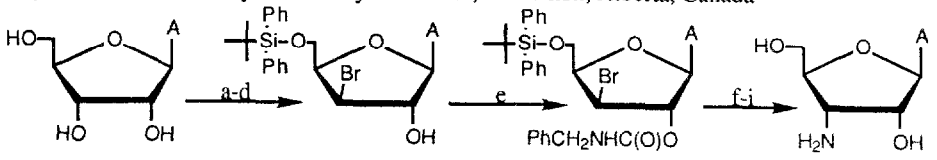
Lipophilic salts of phenylboronic acid facilitate the transport of ribonucleosides across a $ClCH_2CH_2Cl$ liquid membrane; deoxynucleosides, in general, are not transported in this system.



Tetrahedron Lett.30,2329(1989)

HIGH-YIELD SYNTHESIS OF 3'-AMINO-3'-DEOXY-NUCLEOSIDES. CONVERSION OF ADENOSINE TO 3'-AMINO-3'-DEOXYADENOSINE.[1] **Mirna C. Samano and Morris J. Robins***

Department of Chemistry, Brigham Young University, Provo, UT 84602, U.S.A.* and Department of Chemistry, University of Alberta, Edmonton, Alberta, Canada



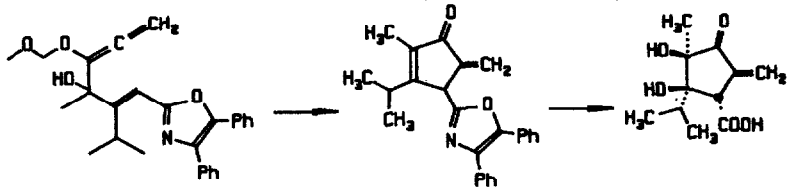
Tetrahedron Lett.30,2333(1989)

CATIONIC CYCLOPENTANNELATION. SYNTHESIS OF (d,l)-XANTHOCIDIN

Marcus A. Tius* and Donald P. Astrab

Department of Chemistry, University of Hawaii, Honolulu, Hawaii 96822, U.S.A.

A cationic cyclopentannelation reaction has been used for the key step ofa concise synthesis of (d,l)-xanthocidin.

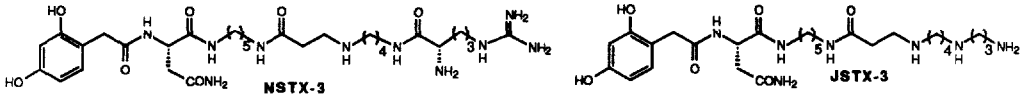


Tetrahedron Lett.30,2337(1989)

SYNTHESIS OF NEUROTOXIC SPIDER VENOMS: NSTX-3 AND JSTX-3

Deane M. Nason, V. John Jasys, Paul R. Kelbaugh, Douglas Phillips Nicholas A. Saccomano*, and Robert A. Volkmann*
Pfizer Central Research, Groton, Conn. 06340

Efficient and practical synthetic routes to the polyamine spider venom principles, NSTX-3 and JSTX-3 are described.

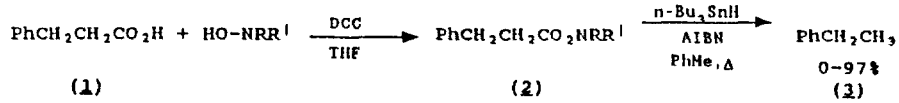


Tetrahedron Lett.30,2341(1989)

ACYL DERIVATIVES OF HYDROXAMIC ACIDS AS A SOURCE OF CARBON RADICALS

D.H.R. Barton, Paul Blundell and J. Cs. Jaszberenyi
Texas A&M University, Dept. of Chemistry, College Station, Texas 77843

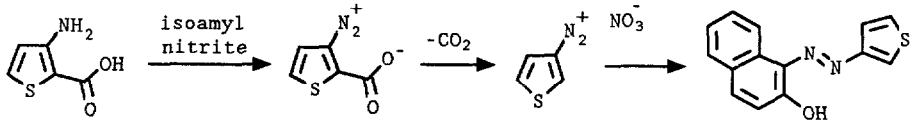
Dihydrocinnamic acid (1) was transformed to the hydroxamic acid derivatives (2), which then gave the corresponding nor-hydrocarbon (ethylbenzene, 3) in a new radical reaction.



Tetrahedron Lett.30,2345(1989)

PREFERENTIAL DECARBOXYLATION OF DIAZONIUM CARBOXYLATES IN THE THIOPHENE SERIES. THE FIRST CONCLUSIVE EVIDENCE FOR THE COUPLING OF UNSUBSTITUTED THIOPHENE DIAZONIUM SALTS WITH β-NAPHTHOL

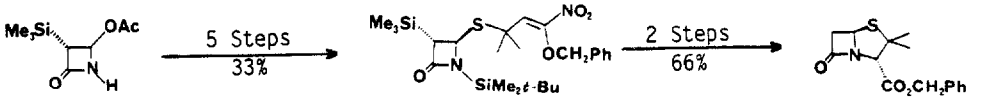
Henry H. Ballard
Department of Chemistry, Prairie View A&M University, Prairie View, TX 77446



Tetrahedron Lett. 30, 2349 (1989)

STEREOCONTROLLED SYNTHESIS OF THE PENICILLANATE ESTER (2S,5R)-BENZYL 3,3-DIMETHYL-7-OXO-4-THIA-1-AZABICYCLO[3.2.0]HEPTANE-2-CARBOXYLATE

Anthony G.M. Barrett*, Minn-Chang Cheng, Santi Sakdarat, Christopher D. Spilling and Sven J. Taylor, Department of Chemistry, Northwestern University, Evanston, IL 60208

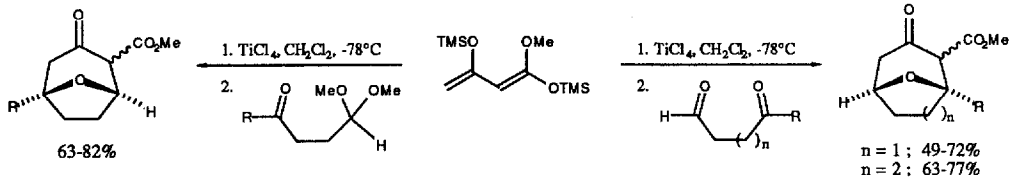


Benzyl penicillanate was prepared in seven steps from (3R)-4-acetoxy-3-trimethylsilyl-2-azetidinone using (benzyloxy)nitromethane for bicyclic ring annulation.

Tetrahedron Lett. 30, 2351 (1989)

BIS(TRIMETHYLSILYL) ENOL ETHERS AS 1,3-DIANION EQUIVALENTS: REGIOCONTROLLED [3 + 4] AND [3 + 5] ANNULATION REACTIONS

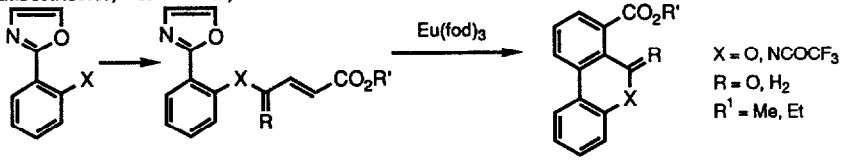
GARY A. MOLANDER AND STEVEN W. ANDREWS*
Department of Chemistry and Biochemistry
University of Colorado, Boulder, Colorado 80309-0215



Tetrahedron Lett. 30, 2355 (1989)

EUROPIUM CATALYZED INTRAMOLECULAR OXAZOLE DIELS-ALDER REACTIONS FOR THE SYNTHESIS OF BENZOPYRANO-[4,3-b]PYRIDINE AND BENZO[h]-1,6-NAPHTHYRIDINES

Jeremy I. Levin, American Cyanamid Company, Medical Research Division, Lederle Laboratories, Pearl River, N.Y. 10965

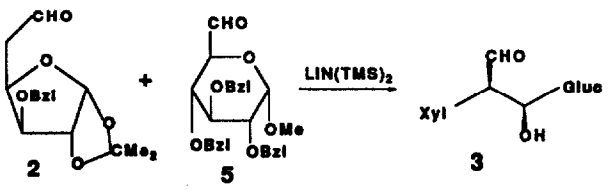


Tetrahedron Lett. 30, 2359 (1989)

SYNTHESIS OF HIGHER CARBON SUGARS *VIA* A DIRECTED ALDOL CONDENSATION

Slawomir Jarosz* and B. Fraser-Reid
P. M. Gross Chem. Laboratory, Duke University, Durham, NC 27706

A simple synthesis of higher carbon sugar 3 *via* an aldol condensation of monosaccharide sub-units is presented.

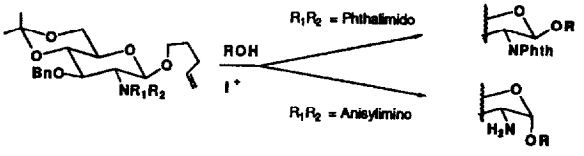


Tetrahedron Lett.30,2363(1989)

n-PENTENYL 2-AMINO-2-DEOXY GLYCOSIDES UNDERGO STEREOSELECTIVE COUPLING UNDER MILD, CHEMOSPECIFIC CONDITIONS

David R. Mootoo, and Bert Fraser-Reid*
P. M. Gross Chem. Laboratory, Duke University, Durham, NC 27706

By changing the protecting group on nitrogen, n-pentenyl 2-amino-2-deoxy glycosides give specifically α or β coupled products.

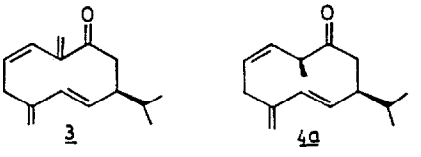


Tetrahedron Lett.30,2367(1989)

PERIPLANON D_1 UND PERIPLANON D_2 - ZWEI NEUE BIOLOGISCH AKTIVE GERMACRANOIDE SESQUITERPENE AUS PERIPLANETA AMERICANA

M. Biendl und H. Hauptmann*, Institut für Organische Chemie der Universität Regensburg
H. Sass*, Institut für Zoologie der Universität Regensburg
Universitätsstr. 31, D-8400 Regensburg, FRG

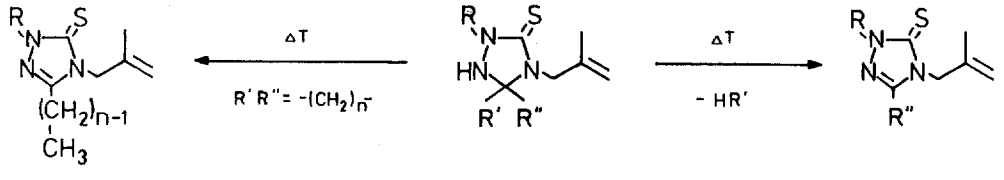
The novel periplanones D_1 and D_2 have been isolated and characterized as 3 and 4a. A synthesis of (±)-4a via the cyclodecatetraenone 3 is described.



Tetrahedron Lett.30,2369(1989)

NEUE TRIAZOLINTHIONE DURCH KOHLENWASSERSTOFF-ELIMINIERUNG AUS TETRASUBSTITUIERTEN TRIAZOLIDINTHIONEN

K. Schulze, C. Richter, R. Ludwig

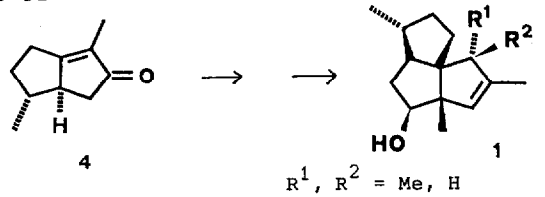


Tetrahedron Lett.30,2371(1989)

TOTAL SYNTHESIS OF (±)-SILPHIPERFOL-5-EN-3-OL

Joachim Brendel and Peter Weyerstahl*
Institut für Organische Chemie, Technische Universität Berlin
Straße des 17. Juni 135, D-1000 Berlin 12

The total synthesis of (±)-silphiperfol-5-en-3-ol (1), a new sesquiterpene alcohol isolated from the essential oil of Artemisia laciniata, is described.



4 1

R^1, R^2 = Me, H

Tetrahedron Lett.30,2375(1989)

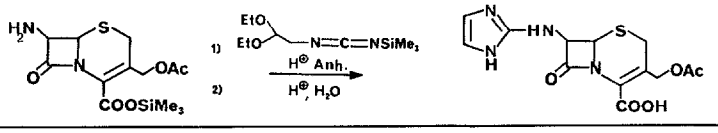
CEPHALOSPORINS WITH C-7-ISOCYANIDE DIHALIDES : USEFUL SYNTHONS FOR THE INTRODUCTION OF AMINO HETEROCYCLES AT C-7 - NEW ROUTES TO THE SYNTHESIS OF AMINO IMIDAZOLES

F. Jung*, C. Delvare, D. Boucherot, A. Hamon
I.C.I. PHARMA, Centre de Recherches, Zone Industrielle La Pompelle,
B.P. 401, 51064 REIMS CEDEX (FRANCE)

Tetrahedron Lett.30,2379(1989)

A NEW APPROACH TO THE SYNTHESIS OF AMINO IMIDAZOLES - APPLICATION TO THE CEPHALOSPORIN SERIES

F. Jung*, A. Olivier, D. Boucherot
I.C.I. PHARMA, Centre de Recherches, Zone Industrielle La Pompelle,
B.P. 401, 51064 REIMS CEDEX (FRANCE)
F. Loftus - I.C.I. Pharmaceuticals Division, Process Development Dpt,
Macclesfield, Cheshire, SK10 2NA (ENGLAND)

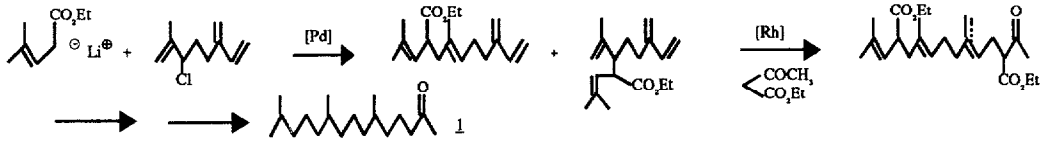


Tetrahedron Lett.30,2383(1989)

SYNTHESIS of New unsaturated esters-catalysed by palladium - Phosphine complexes

G. MIGNANI*, F. GRASS, M. AUFRAND and D. MOREL
Rhône-Poulenc, Centre de Recherches des Carrières - 69190 Saint-Fons - France

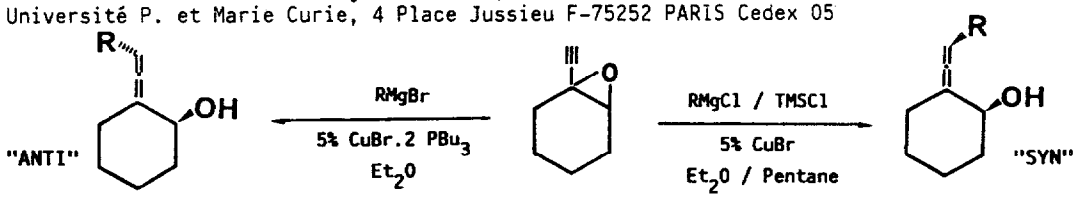
A synthesis of phytone 1
via the addition of allylic chlorides to carbonucleophiles.



Tetrahedron Lett.30,2387(1989)

DIASTEREOSELECTIVE SYNTHESIS OF α-ALLENIC ALCOHOLS FROM PROPARGYLIC EPOXIDES

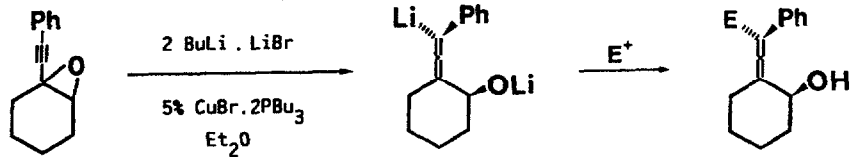
A. Alexakis*, I. Marek, P. Mangeney, J.F. Normant
Laboratoire de Chimie des Organoéléments, Tour 45
Université P. et Marie Curie, 4 Place Jussieu F-75252 PARIS Cedex 05



Tetrahedron Lett.30,2391(1989)

COPPER CATALYZED REDUCTIVE METALLATION OF A PROPARGYLIC EPOXIDE TO AN ALLENYL LITHIUM REAGENT

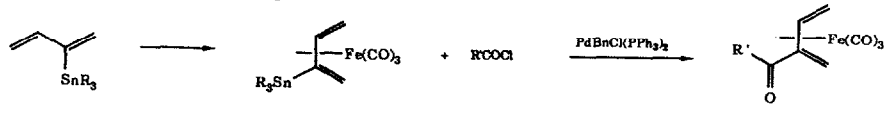
A. Alexakis*, I. Marek, P. Mangeney, J.F. Normant
Laboratoire de Chimie des Organoéléments, Tour 45
Université P. et M. Curie, 4 Place Jussieu F-75252 PARIS Cedex 05



Tetrahedron Lett.30,2393(1989)

(2-STANNYLATED BUTADIENE) TRICARBONYL IRON COMPLEXES : PRACTICAL REAGENTS FOR THE SYNTHESIS OF 2-ACYLDIENES.

P.J. COLSON, M. FRANCK-NEUMANN, M. SEDRATI
URA CNRS n°466, Institut de Chimie,
Université Louis Pasteur, 1, rue Blaise
Pascal 67008 - Strasbourg (France)

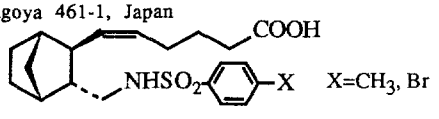


Tetrahedron Lett,30,2399(1989)

THE SYNTHESIS OF POTENT THROMBOXANE A_2 / PROSTAGLANDIN ENDOPEROXIDE RECEPTOR ANTAGONIST

Nobuyuki HAMANAKA,*[a] Takuya SEKO,[a] Tohru MIYAZAKI,[a] Masao NAKA,[a] Kyoji FURUTA,[b] and Hisashi YAMAMOTO[b]
a) Minase Research Institute, ONO Pharmaceutical Co., Ltd. Shimamoto, Mishima, Osaka 618, Japan
b) Department of Applied Chemistry, Nagoya University, Nagoya 461-1, Japan

A design of new and most potent thromboxane A_2 /prostaglandin endoperoxide antagonist is reported.

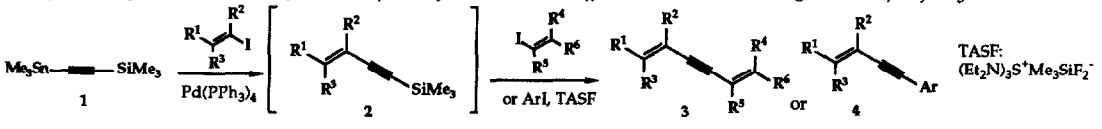


Tetrahedron Lett.30,2403(1989)

A ONE-POT SYNTHESIS OF CONJUGATED DIENYNES BY PALLADIUM-MEDIATED THREE COMPONENT CROSS-COUPLING REACTION

Yasuo Hatanaka, Koji Matsui, and Tamejiro Hiyama*
Sagami Chemical Research Center, 4-4-1 Nishiohnuma, Sagamihara, Kanagawa 229, Japan

Palladium-catalyzed one-pot sequential reaction of 1 first with an alkenyl iodide and secondly with another alkenyl (or aryl) iodide in the presence of newly added TASF affords 3 (or 4) with high stereospecificity.

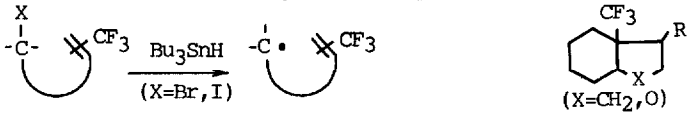


Tetrahedron Lett. 30, 2407 (1989)

RADICAL CYCLIZATION TO THE TRIFLUOROMETHYL-SUBSTITUTED DOUBLE BOND: REGIOSELECTIVITY AND TANDEM CYCLIZATION

Tsutomu Morikawa, Tohru Nishiwaki and Yoshiro Kobayashi*
Tokyo College of Pharmacy, 1432-1 Horinouchi, Hachioji, Tokyo 192-03, Japan

Regioselective radical cyclization to the trifluoromethyl-substituted double bond proceeds in good yield. Extension to tandem cyclization provides access to the angular trifluoromethyl group.

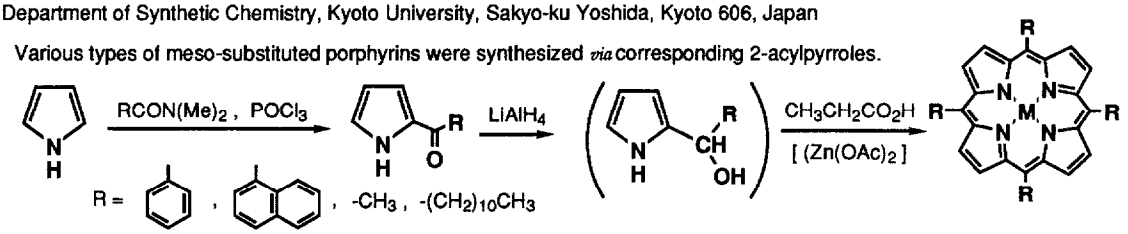


Tetrahedron Lett. 30, 2411 (1989)

A NEW ROUTE FOR MESO-SUBSTITUTED PORPHYRIN

Yasuhisa Kuroda*, Hiroaki Murase, Yasuhiko Suzuki, Hisanobu Ogoshi
Department of Synthetic Chemistry, Kyoto University, Sakyo-ku Yoshida, Kyoto 606, Japan

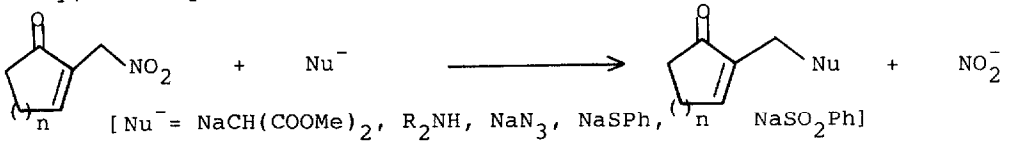
Various types of meso-substituted porphyrins were synthesized *via* corresponding 2-acylpyrroles.



Tetrahedron Lett. 30, 2413 (1989)

NEW SUBSTITUTION REACTION OF ALLYLIC NITRO COMPOUNDS. REGIOSELECTIVE REPLACEMENT OF NITRO GROUP IN CYCLIC α-(NITROALKYL)ENONES BY NUCLEOPHILES

Rui Tamura,*[a] Shinobu Tamai[b] and Hitomi Suzuki[b]
[a]Department of Chemistry, Faculty of General Education, and [b]Department of Chemistry, Faculty of Science, Ehime University, Matsuyama 790, Japan

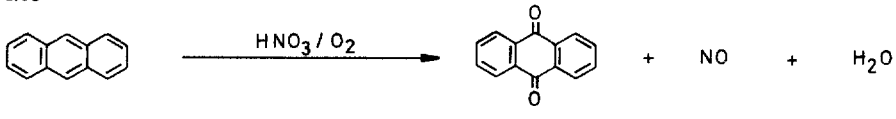


Tetrahedron Lett. 30, 2417 (1989)

SELECTIVE OXIDATION OF ANTHRACENE TO ANTHRAQUINONE IN ACETIC ACID WITH AIR IN PRESENCE OF NITRIC ACID

Francisco Rodriguez*, MªDolores Blanco, Jose C.Burillo, Luis F.Adrados and Julio F.Tijero
Dpto. de Ingenieria Quimica, F. de Quimica, Universidad Complutense, 28040 Madrid, SPAIN

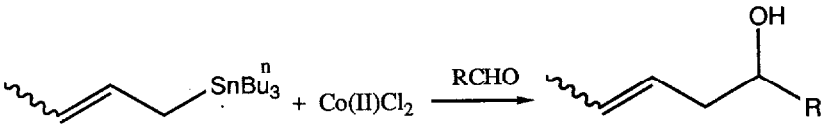
The oxidation of anthracene is favoured by the addition of one mol of nitric acid per mol of substrate



Tetrahedron Lett.30,2421(1989)

Cobalt Mediated Regioreversed Addition of But-2-Enyltributylstannane to Aldehydes

Sajan P. Joseph and Javed Iqbal*
Department of Chemistry, I. I. T. Kanpur, India

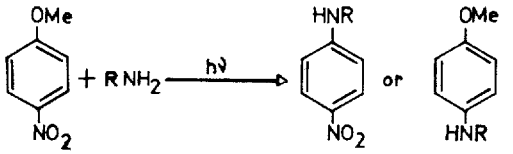


Tetrahedron Lett.30,2423(1989)

ON THE REGIOSELECTIVITY OF THE NUCLEOPHILIC AROMATIC PHOTOSUBSTITUTION OF 4-NITROANISOLE. A DUAL MECHANISTIC PATHWAY.

Albert Cantos, Jorge Marquet,* and Marcial Moreno-Mañas.
Department of Chemistry. Universitat Autònoma of Barcelona. 08193 Bellaterra. Barcelona. Spain.

4-Nitroanisole photoreacts with n-hexylamine and with ethyl glycinate producing regioselective methoxy or nitro group photosubstitution respectively. The later is produced through a $S_N2^3Ar^*$ reaction whereas the first arises via an electron transfer pathway.

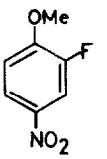


Tetrahedron Lett.30,2427(1989)

THE PHOTOREACTIONS OF 2-FLUORO-4-NITROANISOLE WITH AMINES.THE SEARCH FOR NEW BIOCHEMICAL PHOTOPROBES.

M.Figueredo, J.Marquet,* M.Moreno-Mañas* and R.Pleixats
Department of Chemistry. Universitat Autònoma of Barcelona. 08193 Bellaterra. Barcelona. Spain.

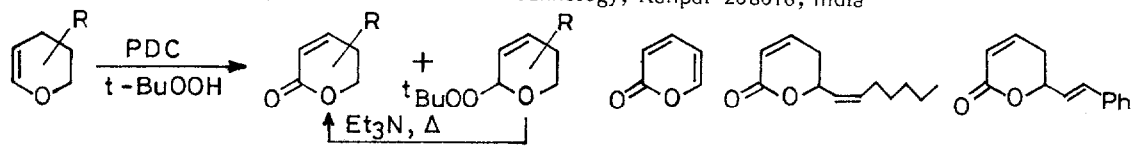
The photosubstitutions of 2-fluoro-4-nitroanisole with several amines are studied from the preparative and the preliminary mechanistic points of view. The possible usefulness of this structure as biochemical photoprobe is discussed.



Tetrahedron Lett.30,2429(1989)

A GENERAL APPROACH TO THE SYNTHESIS OF 5,6-DIHYDRO-2-(2H)PYRANONES : SIMPLE SYNTHESIS OF α-PYRONE, (±)-ARGENTILACTONE AND (±)-GONIOTHALAMIN

N. Chidambaram, K. Satyanarayana and S. Chandrasekaran*
Department of Chemistry, Indian Institute of Technology, Kanpur 208016, India

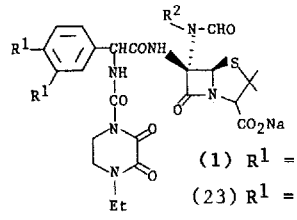


Tetrahedron Lett. 30, 2433 (1989)

6α-(N-SUBSTITUTED FORMAMIDO) PENICILLINS AND DERIVATIVES

Alison C. Brown, Angela W. Guest*, and Peter H. Milner
Beecham Pharmaceuticals, Research Division,
Brockham Park, Betchworth, Surrey, RH3 7AJ, England.

A simple N-substituted formamido penicillin (23) was found to differ in rate and mode of decomposition from its unsubstituted counterpart (1). A series of derivatives were prepared and their antibacterial properties examined.



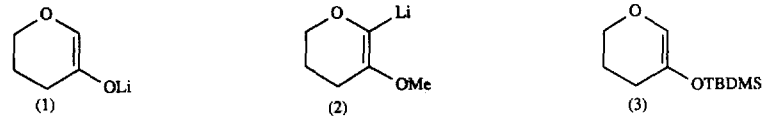
(1) R^1 = OH R^2 = H
(23) R^1 = H R^2 = Me

Tetrahedron Lett. 30, 2437 (1989)

REGIOSPECIFIC TETRAHYDROPYRAN-3-ONE ENOLATES. SILYL ENOL ETHER DERIVATIVES.

P Cox, M Mahon, K Molloy, S Lister and T Gallagher
School of Chemistry, Bath University and Wellcome Research Lab., Beckenham, Kent.

The synthesis and reactivity of the silyl enol ether (3) is reported. This reagent, and the previously reported lithiated enol ether (2), are both synthetically equivalent to the regiospecific enolate (1).

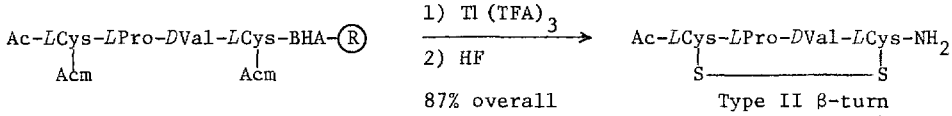


(1) (2) (3)

Tetrahedron Lett. 30, 2441 (1989)

CONVENIENT SYNTHESIS OF A CYCLIC PEPTIDE DISULFIDE: A TYPE II β-TURN STRUCTURAL MODEL

Carlos García-Echeverría, Fernando Albericio, Miquel Pons, George Barany, and Ernest Giralt
Departments of Chemistry, Universities of Barcelona, Spain, and Minnesota, USA



Tetrahedron Lett. 30, 2445 (1989)

HALOGENOTROPY IN PHOSPHORUS CARBON-DIAD

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and Igor E. Boldeskul
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$$(i\text{-}Pr_2N)_2\underset{X}{P} = CHR \longrightarrow (i\text{-}Pr_2N)_2\overset{+}{\underset{X^-}{P}} = CHR \longrightarrow (i\text{-}Pr_2N)_2\underset{X}{P}CHR$$

Phosphorus-carbon diad halogenotropic transformations of P-halogenoylids (X=Cl, Br) and α-halogenoalkylphosphines are described. Kinetic studies reveal the monomolecular mechanism of halogenotropic rearrangement.