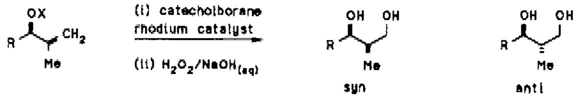
GRAPHICAL ABSTRACTS

Tetrahedron Lett. 30, 395 (1989)

DIASTEREOCONTROL IN RHODIUM CATALYZED HYDROBORATION OF CHIRAL ACYCLIC ALLYLIC ALCOHOL DERIVATIVES

Kevin Burgess* and Michael. J. Ohlmeyer
Department of Chemistry, Rice University, Houston, TX 77251

Factors determining diastereoselection in rhodium catalyzed hydroborations of this kind are discussed.

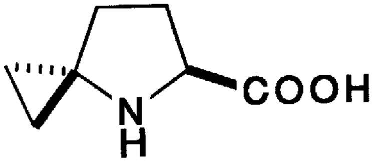


Tetrahedron Lett. 30, 399 (1989)

SYNTHESIS OF A NEW ANALOG OF PROLINE

Russell C. Petter
Department of Chemistry, University of Pittsburgh
Pittsburgh, PA 15260

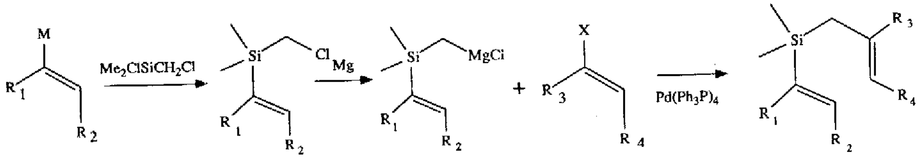
The synthesis of 4-azaspiro[2.4]heptanecarboxylic acid is described. This new amino acid is an analog of proline with potential application as an inhibitor and mechanistic probe of prolyl 4-hydroxylase.



Tetrahedron Lett. 30, 403 (1989)

SYNTHESIS OF ALLYL VINYL SILANES. PREPARATION OF 12-(DIMETHYLSILA)SQUALENE

Glenn D. Prestwich* and Czeslaw Wawrzeńczyk, Dept. of Chemistry, State University of New York, Stony Brook, NY 11794

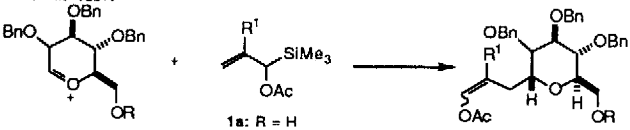


A general method for the preparation of mixed allyl vinyl dimethylsilanes uses the sequential coupling of two different alkenylmetallics to (chloromethyl)dimethylchlorosilane; the 12-dimethylsila analog of squalene was prepared by this route.

Tetrahedron Lett. 30, 407 (1989)

USE OF $^1J_{C1,H1}$ VALUES FOR THE STEREOCHEMICAL DETERMINATION OF C-GLYCOSIDES: A SIMPLE TWO DIMENSIONAL NMR PROTOCOL

Michelle A. Sparks and James S. Panek*; Department of Chemistry, Metcalf Center for Science and Engineering, Boston University, Boston, Massachusetts 02215



1a: R = H
1b: R = CH_3

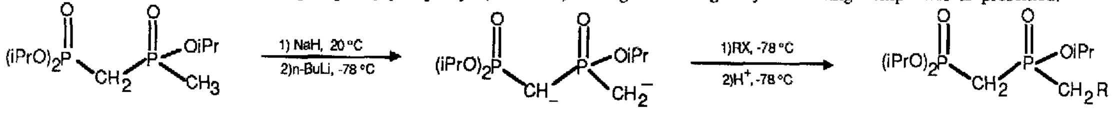
Abstract. A combination of three two-dimensional homo- and heteronuclear correlation methods [COSY, HETCOR, and HETERONUCLEAR-2DJ] have been used to determine the stereochemistry of C-glycosides derived from the reaction of 1-acetyloxy allylic silanes with pyranoside oxonium ions. Of particular significance were the $^1J_{C1,H1}$ values which were used to assign the stereochemistry at the C1 carbon.

Tetrahedron Lett.30,411(1989)

THE PHOSPHONYLPHOSPHINYL DIANION: A CONVENIENT SYNTHON FOR THE PREPARATION OF BIOLOGICALLY INTERESTING PHOSPHONYLPHOSPHINL (P-C-P-C-) COMPOUNDS

Michael H. B. Stowell, John F. Witte, and Ronald W. McClard*
Arthur F. Scott Laboratory of Chemistry
Reed College, Portland, Oregon 97202

The formation of the (((diisopropyloxyphosphinyl)methyl)isopropyloxyphosphinyl)methyl dianion, $(iPrO)_2P(O)CH^-P(O)(iPrO)CH_2^-$, is reported and its application to the synthesis of phosphonylphosphinyl (P-C-P-C-) analogs of biologically interesting compounds is presented.

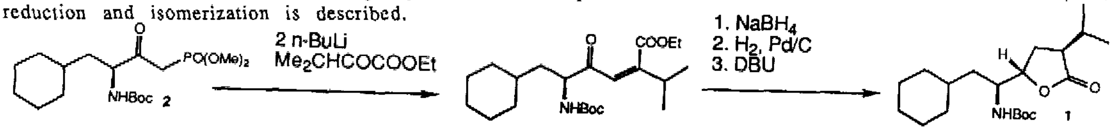


Tetrahedron Lett.30,415(1989)

THE SYNTHESIS OF (2S,4S,5S-5-(N-BOC)-AMINO-6-CYCLOHEXYL-4-HYDROXY-2-ISOPROPYL-HEXANOIC ACID LACTONE, AN HYDROXY-ETHYLENE ISOSTERE PRECURSOR.

Prasun K. Chakravarty, Stephen E. de Laszlo*, Carol S. Sarnella, James P. Springer, Paul F. Schuda
Merck Sharp & Dohme Research Laboratories, Rahway, New Jersey 07065.

The synthesis of lactone 1 from the phenylalanine derived precursor 2 via Wadsworth-Emmons reaction followed by reduction and isomerization is described.

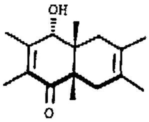


Tetrahedron Lett.30,419(1989)

A COMPARATIVE STUDY OF AN ORGANIC PHOTOREARRANGEMENT IN SOLUTION, IN THE PURE CRYSTALLINE PHASE AND IN A POLYMER FILM

Anna D. Gudmundsdottir and John R. Scheffer
Department of Chemistry, University of British Columbia, Vancouver, Canada, V6T 1Y6

Photolysis of the tetrahydronaphthoquinone derivative 1 in polymer films leads to products characteristic of both the solution and crystalline phases whose temperature-dependent ratio changes slope at the glass transition temperature.

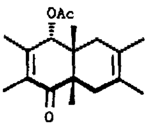

(1)

Tetrahedron Lett.30,423(1989)

OBSERVATION OF A PHOTOREARRANGEMENT UNIQUE TO THE POLYMER MATRIX

Anna D. Gudmundsdottir and John R. Scheffer
Department of Chemistry, University of British Columbia, Vancouver, Canada, V6T 1Y6

For reasons that are well understood, photolysis of keto-acetate 1 leads to a single unique product in each of three different media: in solution, in the solid state and in a polymer film.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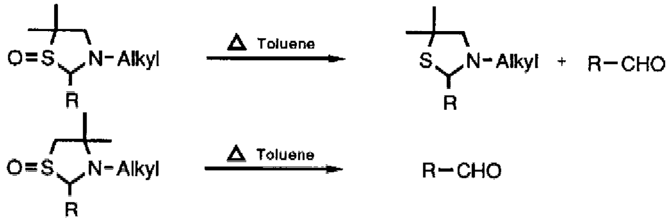
Tetrahedron Lett. 30, 425 (1989)

SYNTHESES AND THERMAL TRANSFORMATIONS OF N-ALKYL THIAZOLIDINE SULFOXIDES

Stephen R. Herchen, Chemical Research, Polaroid Corporation, Cambridge, Ma. 02139

The title compounds have been prepared and their novel thermal chemistry studied for the first time. Aldehydes and thiazolidines can be produced thermally from these derivatives.

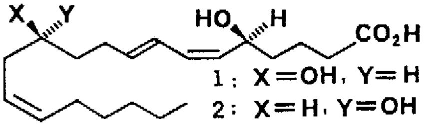


Tetrahedron Lett. 30, 429 (1989)

TOTAL SYNTHESIS OF 5(S),12(S)- and 5(S),12(R)-DIHYDROXYEICOSA-6(Z),8(E),14(Z)-TRIENOIC ACIDS, METABOLITES OF LEUKOTRIENE B_4

Pendri Yadagiri, Sun Lumin, J.R. Falck, Armando Karara, and Jorge Capdevila**
Departments of Molecular Genetics and Pharmacology, University of Texas Southwestern Medical Center, Dallas, TX 75235; Division of Nephrology, Vanderbilt University Medical Center, Nashville, TN 37232 USA

Dihydro LTB_4 metabolites 1 and 2 were synthesized by Wittig coupling of precursors derived from 2-deoxy-D-ribose and L-glutamic acid.

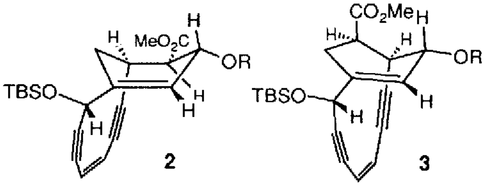


Tetrahedron Lett. 30, 433 (1989)

FURTHER INVESTIGATIONS OF THE TYPE II DIELS-ALDER ROUTE TO THE BICYCLIC CORE OF ESPERAMICIN/CALICHEMICIN REVEAL A REGIOCHEMICAL MISASSIGNMENT: META VS. PARA SELECTIVITY

Stuart L. Schreiber and Laura L. Kiessling; Department of Chemistry, Yale University, New Haven, Connecticut 06511

The product of an IMDA reaction was previously assigned as compound **2**. The actual structure is compound **3**.



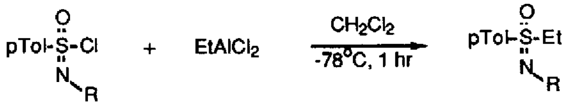
2 **3**

Tetrahedron Lett. 30, 437 (1989)

A NEW SULFOXIMINE SYNTHESIS

Michael Harmata
Department of Chemistry, University of Missouri, Columbia, MO 65211

Selected sulfoximidoyl halides react with ethylaluminum dichloride to give S-ethyl sulfoximines in good yield.

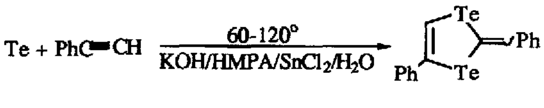


Tetrahedron Lett. 30, 441 (1989)

REACTION OF TELLURIUM WITH PHENYLACETYLENE : A REINVESTIGATION

Harkesh B. Singh* and Fred Wudl
Institute for Polymers and Organic Solids
University of California Santa Barbara, Santa Barbara, CA 93106

The reaction of powdered tellurium with phenylacetylene under strongly basic conditions yields cis and trans-2,6-diphenyl-1,4-ditellurafulvenes.

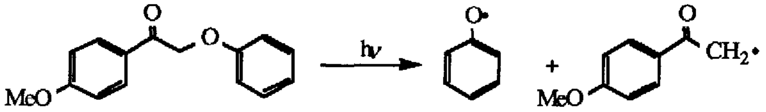


Tetrahedron Lett. 30, 443 (1989)

PHOTOCHEMISTRY OF α–PHENOXY-*p*-METHOXYACETOPHENONE

*J. C. Netto-Ferreira and J. C. Scaiano**
Division of Chemistry, National Research Council Ottawa, Canada K1A 0R6.

The triplet state of the title compound decays by a competition via β-phenyl quenching and β-cleavage leading to $CH_3OC_6H_4COCH_2$• and phenoxyl radicals.

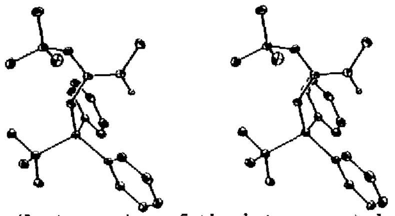


Tetrahedron Lett. 30, 447 (1989)

THE MOLECULAR STRUCTURE OF AN O-SILYL KETENE ACETAL.

Robert E. Babston, Vincent Lynch* and Craig S. Wilcox*
Department of Chemistry - University of Pittsburgh
Pittsburgh, PA 15260

The first example of a crystalline silyl ketene acetal is described. The structure of this molecule, as determined from single crystal x-ray diffraction data, is presented.



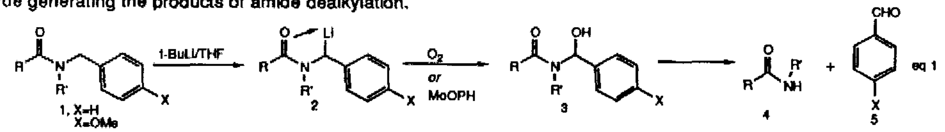
(A stereoview of the ketene acetal.)

Tetrahedron Lett. 30, 451 (1989)

CARBANION-MEDIATED OXIDATIVE DEPROTECTION OF NON-ENOLIZABLE BENZYLATED AMIDES

Robert M. Williams* and Ewa Kwast
Department of Chemistry, Colorado State University, Fort Collins, Colorado 80523

Treatment of non-enolizable N-benzyl or N-para-methoxybenzyl amides with butyllithium generates the corresponding benzylic carbanions that can be oxidized with either molecular oxygen or MoOPH; the resulting hemi-aminals suffer loss of the corresponding aldehyde generating the products of amide dealkylation.

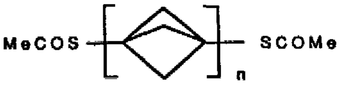


Tetrahedron Lett. 30, 455 (1989)

TOWARDS A MOLECULAR-SIZE CONSTRUCTION SET: $3,3^{(n-1)}$-BISACETYLTHIO[n]STAFFANES

Andrienne C. Friedli, Piotr Kaszynski, and Josef Michl*
Department of Chemistry, The University of Texas at Austin, Austin, Texas 78712-1167

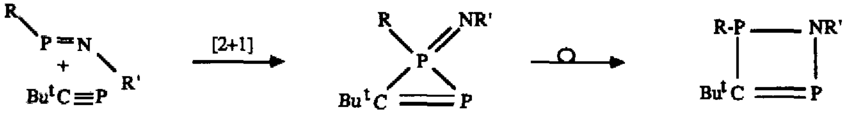
Radical-induced addition of diacetyldisulfide to [1.1.1]propellane yields the title compounds n = 1-5, which are suitable for further transformations and are of potential interest as molecular-size building blocks:



Tetrahedron Lett. 30, 459 (1989)

SYNTHESIS OF DIPHOSPHIRENES BY [2+1]-CYCLOADDITION OF IMINOPHOSPHANES TO A PHOSPHAALKYNE AND ISOMERIZATION TO AZADIPHOSPHETINES

Edgar Niecke* and Detlef Barion
Institut für Anorganische Chemie der Universität Bonn,
Gerhard-Domagk-Str. 1, D-5300 Bonn, BRD

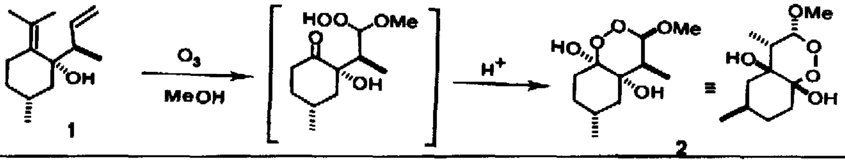


Tetrahedron Lett. 30, 461 (1989)

OZONOLYSIS; INTRAMOLECULAR TRAPPING OF THE "CRIEGEE INTERMEDIATE". X-RAY AND ANOMERIC EFFECT IN A 6-HYDROXY-3-METHOXY-1,2-DIOXANE

Marcel Pierrot, Mostafa El Idrissi and Maurice Santelli*
Centre de St-Jérôme, Av. Esc. Normandie-Niemen 13397 Marseille Cedex 13, Fr.

Endoperoxide 2 presents a "gauche" conformation about the C-O-C-O bonds and reveals an exo *and* endo-*anomeric effect.*

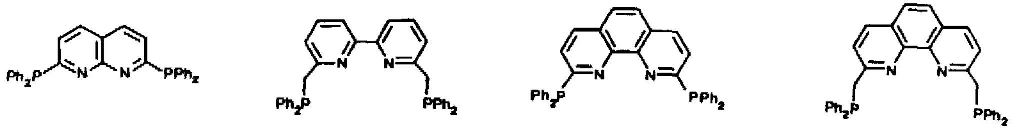


Tetrahedron Lett. 30, 463 (1989)

Synthesis of a new family of aromatic polyimine chelates substituted with two diphenylphosphino groups.

Raymond ZIESSEL
UA 422, Université Louis Pasteur, 4, rue Blaise Pascal, 67000 Strasbourg, France.

Functionalized ligands have been prepared directly from PPh_2Li and the corresponding dihalo polyimines.



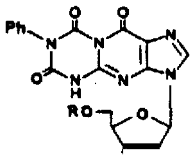
Tetrahedron Lett. 30, 467 (1989)

MODIFICATION OF GUANINE BASES: REACTION OF GUANINE NUCLEOSIDES WITH ARYL AND CHLOROSULFONYL ISOCYANATES

Philippe CAMUS, M-France LHOMME, and Jean LHOMME*

Laboratoire d'Etudes Dynamiques et Structurales de la Sélectivité (UA CNRS 332) Université J. Fourier, BP 53X, 38041 GRENOBLE CEDEX, France

Aryl and chlorosulfonyl isocyanates react with suitably protected guanine nucleosides to afford the corresponding triazinoannelated nucleosides.



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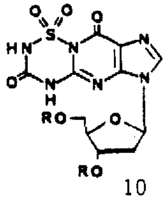

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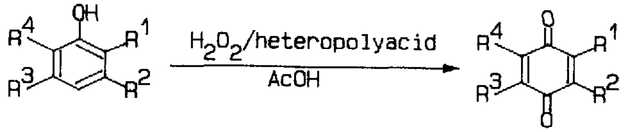
Tetrahedron Lett. 30, 471 (1989)

A CONVENIENT SYNTHESIS OF ALKYL-SUBSTITUTED p-BENZOQUINONES FROM PHENOLS BY A H_2O_2/HETEROPOLYACID SYSTEM

Masao Shimizu,* Hideo Orita, Takashi Hayakawa, and Katsuomi Takehira*
National Chemical Laboratory for Industry,
Tsukuba Research Center, Tsukuba, Ibaraki 305, Japan



Tetrahedron Lett. 30, 475 (1989)

DICHOTOMOUS REACTION PATHWAYS IN THE REACTION OF TRIARYLPHOSPHINE OXIDES WITH MEERWEIN'S SALT.

David Crich* and Hubert Dyker

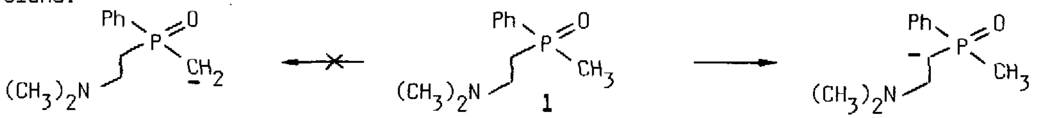
Department of Chemistry, University College London, 20 Gordon Street, London WC1H OAJ.

$$EtO\text{-}\overset{+}{P}Ph_3\ \ BF_4^- \xleftarrow{Et_3\overset{+}{O}\ BF_4^-} O{=}PPh_3 \xrightarrow[\text{inverse addition}]{Et_3\overset{+}{O}\ BF_4^-} Ph_3\overset{+}{P}\text{-}O\text{-}\overset{+}{P}Ph_3\ \ 2BF_4^-$$

Tetrahedron Lett. 30, 477 (1989)

AMINE-DIRECTED LITHIATION IN ALIPHATIC ORGANOPHOSPHORUS SYSTEMS. AN APPROACH TO α-MONOALKYLATION OF α,β-UNSATURATED PHOSPHINE OXIDES.

K.M.Pietrusiewicz* and M.Zabłocka
Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Boczna 5, 90-362 Łódź, Poland.



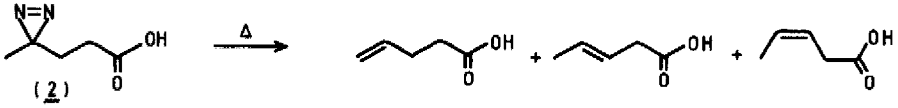
Regioselective deprotonation of homochiral (-)-S-1 enables convenient one-pot synthesis of optically active α-monoalkylated α,β-unsaturated phosphine oxides.

Tetrahedron Lett. 30, 481 (1989)

THE BARRIER TO 1,2 HYDROGEN SHIFT IN DIALKYL CARBENES

I.D.R.Stevens*, M.T.H.Liu*, N.Soundararajan and N.Paike

Departments of Chemistry, University of Southampton, U.K., S09 5NH, and Prince Edward Island, Canada, CP1 4P3



(2)

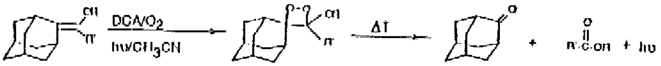
The absence of lactone from (2) leads to an experimental value of $E_a = 1.1 \pm 1$ kcal.mol^{-1} for the barrier height to 1,2 H shift in dialkyl carbenes.

Tetrahedron Lett. 30, 485 (1989)

SYNTHESIS OF 1,2-DIOXETANES VIA 9,10-DICYANOANTHRACENE SENSITIZED CHAIN ELECTRON-TRANSFER PHOTOOXYGENATIONS.

Luigi Lopez[a*], Luigino Troisi[a], S.M.Khaledur Rashid[b] and A.Paul Schaap[b*]
a) Centro di Studio Sulle Metodologie Innovative di Sintesi Organiche.
Dipartimento di Chimica Università di Bari, Via Amendola 173, Bari Italy.
b) Department of Chemistry, Wayne State University, Detroit, MI 48202 USA.

Thermally stable 1,2-dioxetanes have been synthesized by (DCA)-sensitized photooxygenations of alkoxy aryl methylenadamantanes.



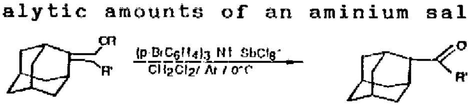
The reactions, likely, proceed via a chain electron-transfer mechanism.

Tetrahedron Lett. 30, 489 (1989)

ELECTRON-TRANSFER INDUCED CONVERSION OF ENOL-ETHERS INTO KETONES

Luigi Lopez*, Luigino Troisi
CNR Centro di Studio sulle Metodologie Innovative di Sintesi Organiche.
Dipartimento di Chimica, Università di Bari, V.Amendola 173, 70126 Bari, Italia

Alkoxy(aryl)-adamantylidenes react with catalytic amounts of an aminium salt, in methylene chloride and under argon atmosphere, to give adamantyl-arylketones.

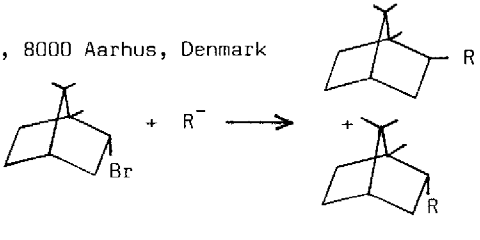


Tetrahedron Lett. 30, 493 (1989)

ON THE STEREOISOMERIZATION OF RADICALS DURING ALIPHATIC NUCLEOPHILIC SUBSTITUTIONS

Kim Daasbjerg, Torben Lund, and Henning Lund
Department of Organic Chemistry, University of Aarhus, 8000 Aarhus, Denmark

Substitution of bornyl bromide and isobornyl bromide with an enolate ion gives the same exo + endo products, SET being the rate-determining step.

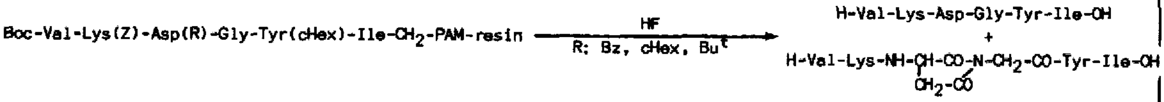


Tetrahedron Lett. 30,497(1989)

FORMATION OF ASPARTIMIDE PEPTIDES IN Asp-Gly SEQUENCES

Ernesto Nicolás, Enrique Pedroso, and Ernest Giralt*
Universitat de Barcelona; Departament de Química Orgànica
Facultat de Química; Martí i Franquès 1, 08028. Barcelona (Spain)

The behaviour of protected H-Val-Lys-Asp-Gly-Tyr-Ile-OH towards imide formation has been evaluated.



Tetrahedron Lett. 30,501(1989)

A REVISED STRUCTURE FOR TAGETITOXIN

Robin E. Mitchell, Jan M. Coddington[a] and Harry Young
Division of Horticulture & Processing, DSIR, Auckland, New Zealand
[a]Department Chemistry, University of Auckland, Auckland, New Zealand

Based on MS and NMR data, the structure of tagetitoxin is revised to 1.