

GRAPHICAL ABSTRACTS

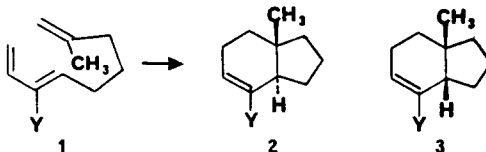
N,N-DIMETHYLANILINE AS A SOLVENT FOR INTRAMOLECULAR
DIELS ALDER REACTIONS. IMPROVED YIELDS AND CHANGES IN STEREOISOMER RATIOS.

Tetrahedron Lett. 27, 6291 (1986)

Kathlyn A. Parker* and Tahir Iqbal

Department of Chemistry, Brown University, Providence, RI 02912

The yields of product mixtures from the cycloaddition of nonatrienes 1 and the ratios of trans:cis hydrindene (2:3) in those mixtures are solvent dependent.



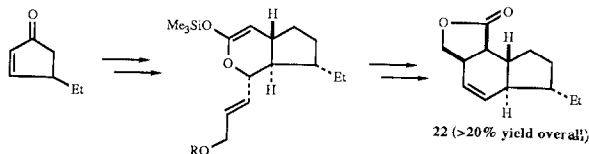
NOT THE ENOLATE CLAISEN REARRANGEMENT. A SURPRISING
ROUTE TO THE "RIGHT-WING" OF INDANOMYCIN (X-14547A)

Tetrahedron Lett. 27, 6295 (1986)

Steven D. Burke,* David M. Armistead, and K. Shankaran

Department of Chemistry, University of South Carolina, Columbia, SC 29208 USA

A tandem cycloreversion/cycloaddition process supersedes an intended Claisen rearrangement route to the ionophore synthon 22.



SYNTHETIC APPROACHES TOWARD MITOMYCINS. I.
STEREOSELECTIVE SYNTHESIS OF A TETRACYCLIC INTERMEDIATE.

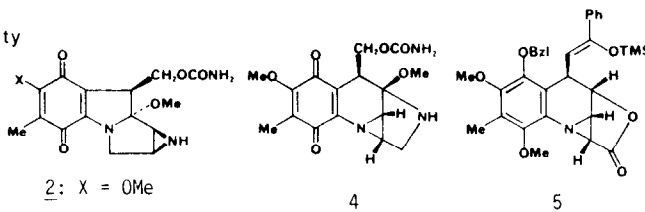
Tetrahedron Lett. 27, 6299 (1986)

Tohru Fukuyama* and Lihu Yang

Department of Chemistry, Rice University

Houston, Texas 77251

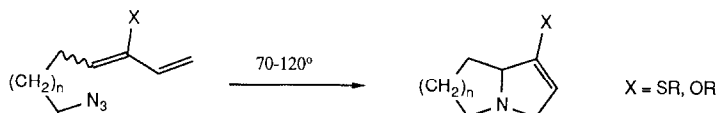
A highly efficient synthesis of a tetracyclic intermediate 5 to the antitumor antibiotic AX-2 4, a mitomycin A 2 equivalent, is described.



INTRAMOLECULAR AZIDE-DIENE CYCLOADDITIONS. AN APPROACH
TO FUSED BICYCLIC 3-PYRROLINES BASED ON A ONE-POT
NITRENE-DIENE CYCLOADDITION EQUIVALENT.

Tetrahedron Lett. 27, 6301 (1986)

William H. Pearson,* Joseph E. Celebuski, Yam-Foo Poon, Brian R. Dixon, Jeffrey H. Glans
Department of Chemistry, University of Michigan, Ann Arbor, MI 48109

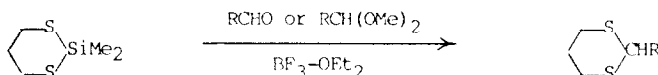


Tetrahedron Lett. 27, 6305 (1986)**A RAPID, EFFICIENT AND SELECTIVE CONVERSION OF ALDEHYDES AND ACETALS TO THEIR 1,3-DITHIANE DERIVATIVES WITH 2,2-DIMETHYL-2-SILA-1,3-DITHIANE**

John A. Soderquist* and Edgar I. Miranda

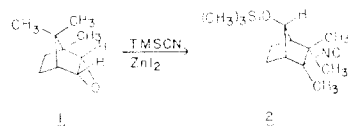
Department of Chemistry, University of Puerto Rico, Rio Piedras, Puerto Rico 00931

Aldehydes and acetals are cleanly and rapidly converted to the corresponding dithianes with 2,2-dimethyl-2-sila-1,3-dithiane and stoichiometric amounts of boron trifluoride etherate.

Tetrahedron Lett. 27, 6307 (1986)**MECHANISTIC INSIGHTS INTO THE OPENING OF EPOXIDES WITH TRIMETHYLSILYL CYANIDE - ZINC IODIDE**

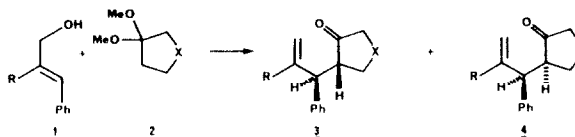
Paul G. Gassman,* Kentaro Okuma, Aline Lindbeck, and Richard Allen

Department of Chemistry, University of Minnesota, Minneapolis, MN 55455 USA

Reaction of **1** with TMSCN - ZnI₂ gave 72% of **2** in addition to 25% of a mixture of eight other products. The formation of **2** and of other rearrangement products required an ionic component for this epoxide ring opening process.Tetrahedron Lett. 27, 6311 (1986)**THE STEREOSELECTIVITY OF KETAL CLAISEN REARRANGEMENTS WITH KETALS OF SIMPLE CYCLIC KETONES**

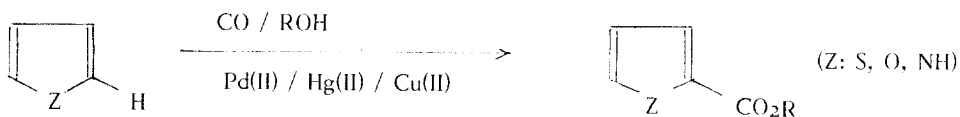
G. William Daub* and David A. Griffith

Department of Chemistry, Harvey Mudd College, Claremont, California 91711 USA

Claisen rearrangements of the ketals of simple cycloalkanones (**2**, X=1-3) give mixtures of *syn* (**3**) and *anti* (**4**) products favoring the *syn* isomer by as much as 19:1. Competing enolization processes reduce the selectivity in some cases.Tetrahedron Lett. 27, 6315 (1986)**PALLADIUM-CATALYZED, ONE-POT CARBONYLATION OF HETEROCYCLIC COMPOUNDS INTO THEIR ESTERS.**

R: Jaouhari, P.H. Dixneuf (Université de Rennes, France)

S: Lecolier (SNPE-Le Bouchet, France)

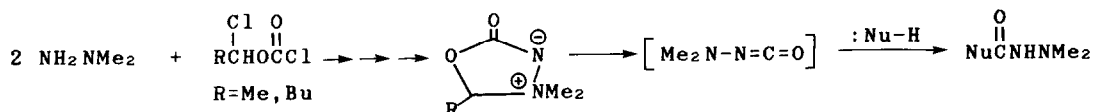


Tetrahedron Lett. 27, 6319 (1986)

CYCLIC CARBALKOXY AMINIMIDES. SYNTHESIS AND THERMAL DECOMPOSITION TO GIVE N,N-DIMETHYLAMINO ISOCYANATE

Jean-Pierre Senet*, Guyselaine Vergne, and Gary P. Wooden
SNPE, Centre de Recherches du Bouchet, 91710 Vert-le-Petit, FRANCE

Five membered ring carbalkoxy aminimides are prepared from dimethylhydrazine and α -chloroalkyl chloroformates. These give high yields of N,N-dimethylamino isocyanate which dimerizes or can be trapped in the presence of a nucleophile.

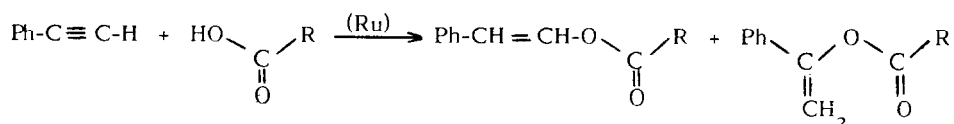


Tetrahedron Lett. 27, 6323 (1986)

SYNTHESIS OF ENOL ESTERS FROM TERMINAL ALKYNES CATALYZED BY RUTHENIUM COMPLEXES.

Christophe Ruppin and Pierre H. Dixneuf

Campus de Beaulieu, Université de Rennes, 35042 Rennes (France)



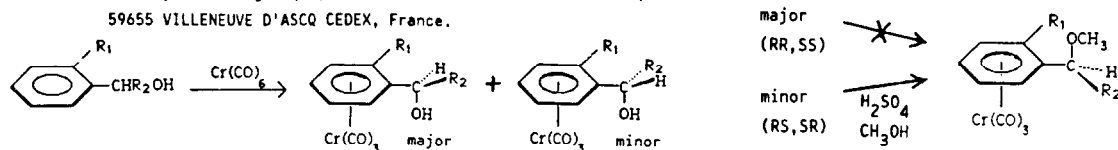
Tetrahedron Lett. 27, 6325 (1986)

COMPLEXATION DIASTERESELECTIVE D'ALCOOLS BENZyliques PAR LE CHROME HEXACARBONYLE. DIFFERENCE DE REACTIVITE DES DIASTEREoisOMERES EN MILIEU ACIDE.

Jacques BROCARD, Jacques LEBIBI, Lydie PELINSKI et Madani MAHMOUDI

Laboratoire de Synthèse Organique, Université des Sciences et Techniques de Lille

59655 VILLENEUVE D'ASCQ CEDEX, France.

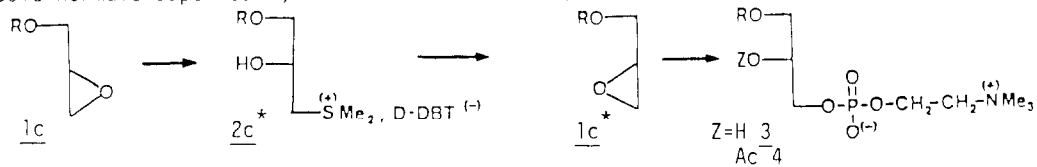


Tetrahedron Lett. 27, 6329 (1986)

RESOLUTION OF OXIRANES, APPLICATION TO THE SYNTHESIS OF THE PLATELET AGGREGATION FACTOR

Bernard Cimetière, Laurent Jacob et Marc Julia

Ecole Normale Supérieure, Laboratoire de Chimie, 24 rue Lhomond, 75231 Paris Cédex 05



**ONE-STEP SYNTHESIS OF VINYL CARBAMATES
CATALYZED BY MONONUCLEAR RUTHENIUM COMPLEXES.**

Tetrahedron Lett., 27, 6333 (1986)

R. Mahé, P.H. Dixneuf (Université de Rennes, France)
S. Lécolier (SNPE, Le Bouchet, France)



**DECARBOXYLATIVE RADICAL ADDITION ONTO PROTONATED
HETEROAROMATIC SYSTEMS INCLUDING PURINE BASES**

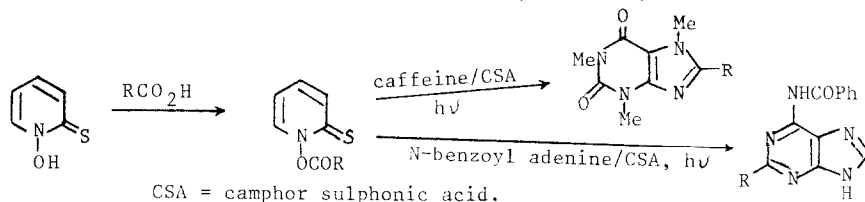
Tetrahedron Lett., 27, 6337 (1986)

Enzo Castagnino and Stefano Corsano

Istituto di Chimica Farmaceutica, Università di Perugia, via Del Liceo, 06100 Perugia, Italy

Derek H.R. Barton and Samir Z. Zard

Institut de Chimie des Substances Naturelles, C.N.R.S., 91190 Gif-sur-Yvette, France



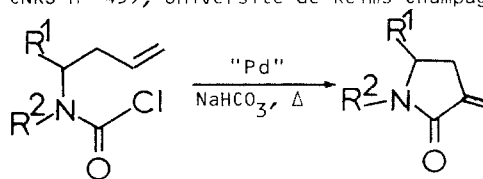
**Palladium-Catalysed Synthesis of α -Methylene γ -Butyrolactams
via Cyclisation of Homoallylic Chloroformamides**

Tetrahedron Lett., 27, 6339 (1986)

F. HENIN, J. MUZART and J.P. PETE

Laboratoire de Photochimie, Unité Associée au CNRS n° 459, Université de Reims Champagne-Ardenne, 51062 Reims Cédex, France

3-Methylene 2-pyrrolidinones were prepared by intramolecular cyclisation of homoallylic chloroformamides catalysed by Pd^{II} or Pd⁰ complexes.



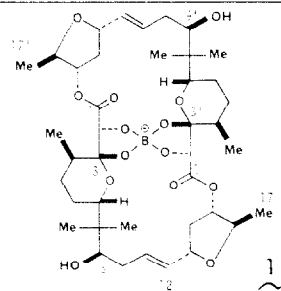
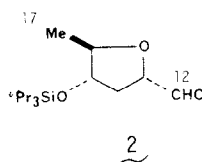
**SYNTHETIC STUDIES ON (+)-APLASMOMYCIN. 1.
STEREOSELECTIVE SYNTHESIS OF THE C-12~C-17 SEGMENT**

Tetrahedron Lett., 27, 6341 (1986)

T. Nakata, * K. Saito, and T. Oishi *

RIKEN, Wako-shi, Saitama 351-01, Japan

The C-12~C-17 segment 2 of (+)-aplasomycin (1) was synthesized.

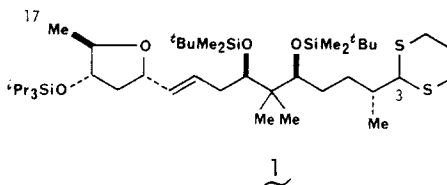


Tetrahedron Lett., 27, 6345 (1986)

SYNTHETIC STUDIES ON (+)-APLASMOMYCIN. 2.
STEREOSELECTIVE SYNTHESIS OF COREY'S KEY INTERMEDIATE, A FOMAL TOTAL SYNTHESIS

T. Nakata,* K. Saito, and T. Oishi*
RIKEN, Wako-shi, Saitama 351-01, Japan

The C-3~C-17 segment 1 of (+)-
aplasomycin was synthesized.

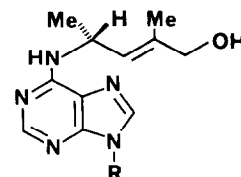


Tetrahedron Lett., 27, 6349 (1986)

SYNTHESES AND ABSOLUTE CONFIGURATIONS OF THE CYTOKININS
1'-METHYLZEATIN AND ITS 9-RIBOSIDE

Taisuke Itaya,† Tozo Fujii,*† Antonio Evidente,‡ Giacomo Randazzo,‡
Giuseppe Surico,§ and Nicola S. Iacobellis§
†Faculty of Pharmaceutical Sciences, Kanazawa University, Kanazawa 920,
Japan, ‡Dipartimento di Chimica Organica e Biologica, Università di
Napoli, 80134 Napoli, Italy, and §Istituto Tossine e Micotossine da
Parassiti Vegetali del C. N. R., 70126 Bari, Italy

The structures of the cytokinins 1'-methylzeatin and its 9-riboside
have been established as shown.



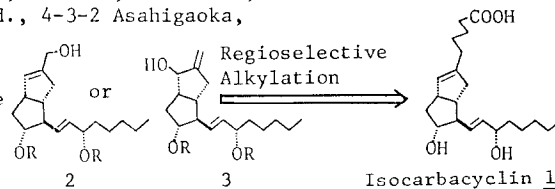
R = H
R = β-D-ribofuranosyl

Tetrahedron Lett., 27, 6353 (1986)

IMPROVED SYNTHESIS OF ISOCARBACYCLIN USING REGIOSELECTIVE ALKYLATION OF ALLYLIC ALCOHOLS

K. Bannai, T. Tanaka, N. Okamura, A. Hazato, S. Sugiura, K. Manabe, K. Tomimori, and S. Kurozumi*
Institute for Bio-Medical Research, Teijin Ltd., 4-3-2 Asahigaoka,
Hino, Tokyo 191, Japan

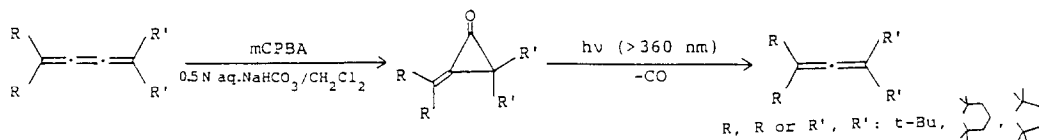
Two efficient syntheses of isocarbacyclin (1)
have been realized using highly regioselective
direct alkylation of both *endo*- and *exo*-
allylic alcohols (2 and 3).



Tetrahedron Lett., 27, 6357 (1986)

OXIDATION OF 1,2,3-BUTADIENES:
A FACILE FORMATION OF METHYLENECYCLOPROPANONES AND
THEIR SUBSEQUENT PHOTODECARBONYLATION

Wataru Ando, Hiroshi Hayakawa, Norihiro Tokitoh
Department of Chemistry, University of Tsukuba, Sakuramura, Niiharigun, Ibaraki 305, Japan

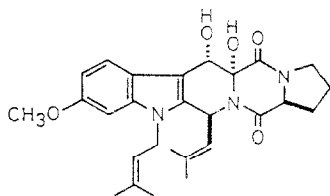


TOTAL SYNTHESIS OF FUMITREMORGIN B.

Shin-ichi Nakatsuka,* Katsunori Terenishi, and Toshio Goto

Laboratory of Organic Chemistry, Faculty of Agriculture, Nagoya University, Nagoya 464, Japan

Tetrahedron Lett. 27, 6361 (1986)



Total synthesis of fumitremogin B was achieved in 7 steps.

Fumitremogin B

NOVEL CHIRAL PORPHYRINS WITH C₂ SYMMETRY

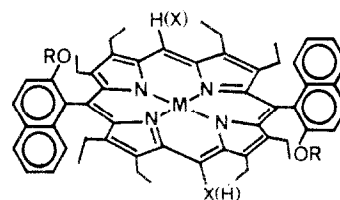
H. Ogoshi,* K. Saita, K. Sakurāi, T. Watanabe,
H. Toi, and Y. Aoyama*

Department of Materials Science and Technology,
Technological University of Nagaoka, Kamitomioka,
Nagaoka, Niigata 940-21, Japan

Yoshio Okamoto
Department of Chemistry, Faculty of Engineering Sci-
ence, Osaka University, Toyonaka, Osaka 560, Japan

Preparation and optical resolution of 5,10,15-tri-
substituted chiral porphyrins.

Tetrahedron Lett. 27, 6365 (1986)

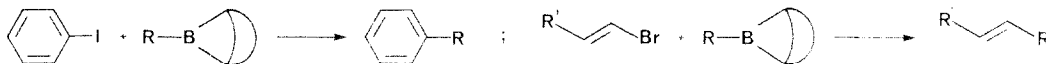


PALLADIUM-CATALYZED CROSS-COUPLING REACTIONS OF B-ALKYL-
9-BBN OR TRIALKYLBORANES WITH ARYL AND 1-ALKENYL HALIDES.

Norio Miyaura, Tatsuo Ishiyama, Masako Ishikawa, and Akira Suzuki*

Department of Applied Chemistry, Faculty of Engineering, Hokkaido University, Sapporo 060,
Japan

Alkylation of 1-alkenyl and aryl halides with organoboranes in the presence of PdCl₂(dppf)
and their synthetic applications are described.



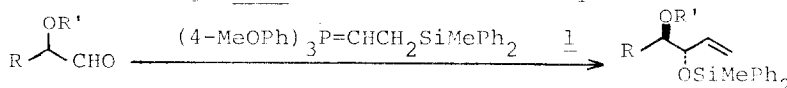
Tetrahedron Lett. 27, 6369 (1986)

CARBONYL ADDITION REACTION BY MEANS OF β-SILYL-
PHOSPHOROUS YLIDE. ANTI-DIASTERESELECTIVE
VINYLLATION OF α-ALKOXY ALDEHYDE.

Hideo Iio,* Tsukasa Mizobuchi, Masamitsu Tsukamoto, and Takashi Tokoroyama*

Faculty of Science, Osaka City University Sumiyoshi-ku, Osaka 558, Japan

β-Silylphosphorous ylide 1 reacts with α-alkoxy aldehydes to give exclusively
vinylation product with high anti-diastereoselectivity.

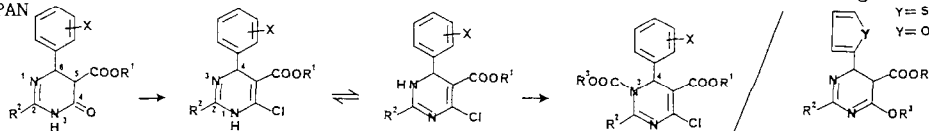


Tetrahedron Lett. 27, 6373 (1986)

Tetrahedron Lett. 27, 6377 (1986)

SYNTHESIS OF NOVEL 1,4-, 3,4- AND 4,5-DIHYDROPYRIMIDINES:
FIRST SUCCESSFUL POCl₃ CHLORINATION AND REGIOSELECTIVE
ALKOXYCARBONYLATION

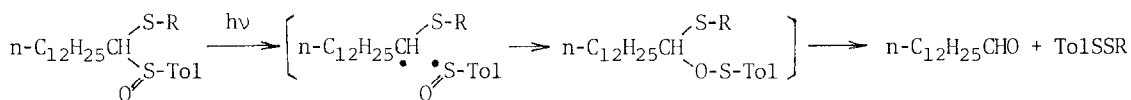
Hidetsura Cho*, Yoshiko Ohnaka, Mariko Hayashimatsu, Masaru Ueda, and Keiyuu Shima
Suntory Institute for Biomedical Research, 1-1-1, Wakayamadai, Shimamoto-cho, Mishima-gun,
Osaka, 618, JAPAN



Tetrahedron Lett. 27, 6381 (1986)

PHOTOCHEMICAL TRANSFORMATION OF A DITHIOACETAL
S-OXIDE INTO THE CORRESPONDING ALDEHYDE

Katsuyuki Ogura*, Shigeyuki Itoh, Kazumasa Takahashi, and Hirotada Iida
Department of Synthetic Chemistry, Faculty of Engineering, Chiba University
Yayoicho 1-33, Chiba 260, Japan



Tetrahedron Lett. 27, 6385 (1986)

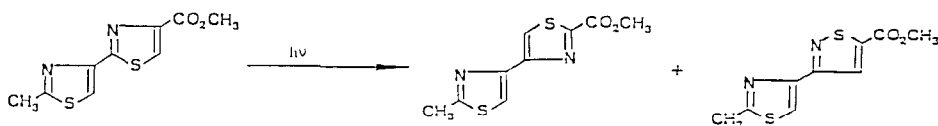
RING-SELECTIVE PHOTOREARRANGEMENT OF BITHIAZOLES

Isao Saito*, Takashi Morii, Yukihiisa Okumura, Satoru Mori,

§ Kizashi Yamaguchi and Teruo Matsuura

Department of Synthetic Chemistry, Faculty of Engineering, Kyoto University, Kyoto 606, Japan

§ Department of Chemistry, Faculty of Engineering Science, Osaka University, Osaka 560, Japan



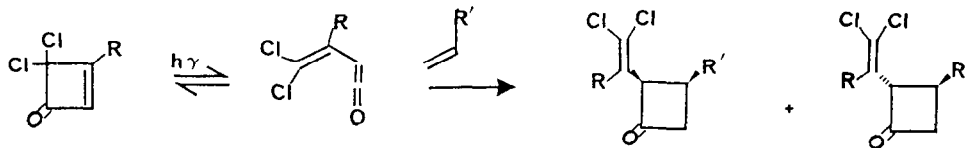
Tetrahedron Lett. 27, 6389 (1986)

PHOTOCHEMICAL GENERATION OF VINYLKETENES BY ELECTROCYCLIC
OPENING OF CYCLOBUTENONES

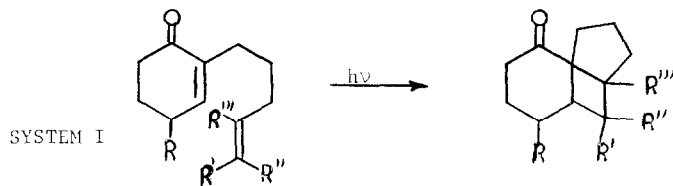
Alfred Hassner*, Simha Naidorf

Department of Chemistry, Bar-Ilan University, Ramat-Gan 52100, Israel

Photolytic generation of vinylketenes as a route for preparation of 2-vinylcyclobutanones.



Tetrahedron Lett. 27, 6393 (1986)



The stereoselectivity of the [2+2] intramolecular photocycloaddition of System I was studied.

Tetrahedron Lett. 27, 6397 (1986)

PALLADIUM-CATALYSED REDUCTIVE ADDITION OF ARYL IODIDES TO ARYL AND ALKYLETHYNYLSILANES: A STEREO AND REGIOSELECTIVE ROUTE TO FUNCTIONALIZED 2,2-DISUBSTITUTED VINYL SILANES

A. Arcadi^a, S. Cacchi^{b*}, F. Marinelli^a

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

b) Istituto di Chimica Organica, Via del Castro Laurenziano 9, 00161 Roma (Italy)

Aryl and alkylethynylsilanes are stereo and regioselectively converted into 2,2-disubstituted vinylsilanes by a Pd-catalysed reaction

