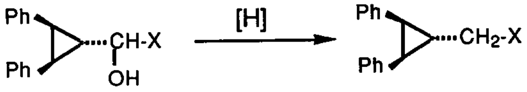
GRAPHICAL ABSTRACTS

Tetrahedron, **1992**, *48*, 3275

STABILIZATION OF CARBINYLCARBOCATION BY AND NUCLEOPHILIC ATTACK UPON CYCLOPROPYL AND *trans*-2, *trans*-3-DIPHENYLCYCLOPROPYL RINGS. REDUCTION OF (*trans*-2, *trans*-3-DIPHENYLCYCLOPROPYL)METHANOL AND (*trans*-2, *trans*-3-DIPHENYLCYCLOPROPYL)CYCLOPROPYLMETHANOL

Gong-Xin He, Örn Almarsson and Thomas C. Bruice*
Department of Chemistry, University of California at Santa Barbara, Santa Barbara, CA 93106

(*trans*-2, *trans*-3-Diphenylcyclopropyl)methanol and (*trans*-2, *trans*-3-diphenylcyclopropyl)cyclopropylmethanol can be reduced directly to their hydrocarbons with $(PhO)_3PMeI$-$NaBH_3CN$ and BH_3-BF_3, respectively, without opening of the cyclopropyl ring.

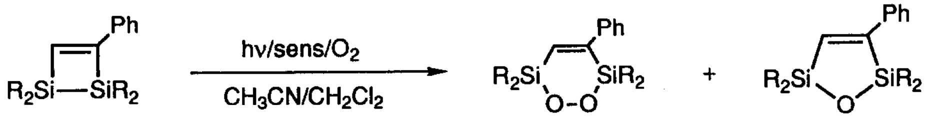


X = H, cyclopropyl

Tetrahedron, **1992**, *48*, 3283

Photo-induced Electron Transfer Oxygenation of 1,2-Disiletene

Takeshi Akasaka, Kazuma Sato, Masahiro Kako, and Wataru Ando*
Department of Chemistry, University of Tsukuba, Tsukuba, Ibaraki 305, Japan



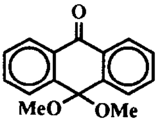
Tetrahedron, **1992**, *48*, 3293

Anodic Oxidation as a Synthetic Expedient to Naphthoquinone and Anthraquinone Ketals

Zhen Yang, Yu Xin Cui, Henry N.C. Wong*, Ru Ji Wang, Thomas C.W. Mak, Hson Mou Chang and Chi Ming Lee

Department of Chemistry, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong,
The Chinese Medicinal Material Research Centre, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong,
and
Department of Biochemistry, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong

The monoketal **3** has been synthesized by anodic oxidation

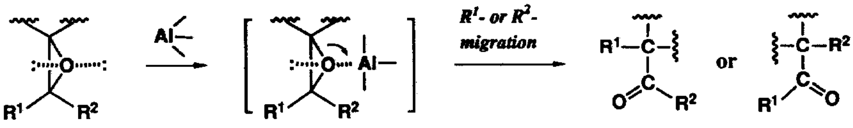


3

Migratory Aptitude of Alkyl Substituents in the MABR-Promoted Epoxide Rearrangement

Tetrahedron, **1992**, *48*, 3303

Keiji Maruoka, Takashi Ooi, and Hisashi Yamamoto*
Department of Applied Chemistry, Nagoya University Chikusa, Nagoya 464-01, Japan

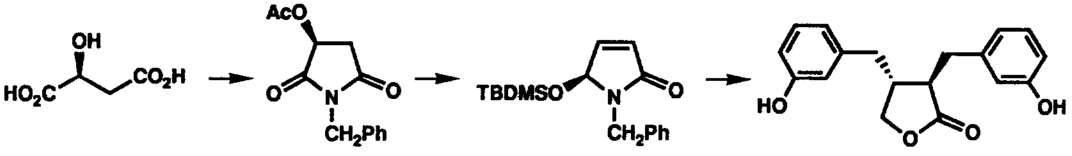


NOVEL STEREOSELECTIVE SYNTHESIS OF (-)-ENTEROLACTONE EMPLOYING CHIRAL UNSATURATED LACTAM

Tetrahedron, **1992**, *48*, 3313

Hidemi Yoda,* Hidekazu Kitayama, Takao Katagiri, and Kunihiko Takabe*
Department of Applied Chemistry, Faculty of Engineering, Shizuoka University, Hamamatsu 432, Japan

Asymmetric synthesis of (-)-enterolactone has been accomplished in short and simple steps by using chiral *N*-alkylated lactam derived from L-malic acid.



THE REGIOSELECTIVITY OF NITRONE AND NITRILE OXIDE CYCLOADDITIONS TO ALKYLIDENECYCLOPROPANES.

Tetrahedron, **1992**, *48*, 3323

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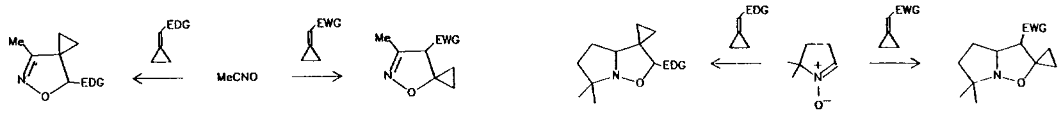
a. Dipartimento di Chimica organica "U. Schiff", Università di Firenze, Via G. Capponi 9, I-50121 Firenze, Italy ; b. Dipartimento di Chimica organica dell'Università, Via Taramelli 10, I-27100 Pavia, Italy; c. Dipartimento di Chimica dell'Università, Via G. Campi 183, I-41100 Modena, Italy.

The nitrone and nitrile oxide 1,3-dipolar cycloaddition to alkylidenecyclopropanes bearing an aryl or an electron-donating group gives prevalently or exclusively adducts bearing the cyclopropane ring spirofused on the C4 position of isoxazolines and isoxazolidines. The opposite regiochemistry is obtained with a methoxycarbonyl substituent. A FMO study employing semiempirical and *ab initio* calculations is carried out.

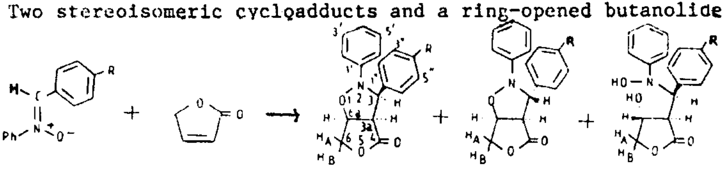


Tetrahedron, **1992**, *48*, 3335

CYCLOADDITION OF C,N-DIARYLNITRONES TO 2-BUTENOLIDE : SYNTHESIS OF 2,3,6,6a-TETRAHYDROFURO[3,4-d]ISOXAZOL-4-(3aH)-ONE

AVIJIT BANERJI* and SEBANTI BASU (nee SINHA), Centre of Advanced Studies on Natural Products, Department of Chemistry, Calcutta University, University College of Science, 92, Acharya Prafulla Chandra Road, Calcutta 700 009, India.

The regioselective cycloaddition of C,N-diaryl-nitrones to 2-butenolide were investigated. Two stereoisomeric cycloadducts and a ring-opened butanolide were obtained in each case.



R = NO_2, Cl, OCH_3, H

Tetrahedron, **1992**, *48*, 3345

STUDY OF PHOTOCHEMICAL ADDITION OF ACYL RADICAL TO ELECTRON-DEFICIENT OLEFINS

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Departamento de Química Orgánica, Facultad de Ciencias, Universidad de Cádiz, Apdo. 40, 11510 Puerto Real, Cádiz, Spain.

The scope of the reaction, the mechanism, the influence of steric effects, and the side reactions that take place are discussed.

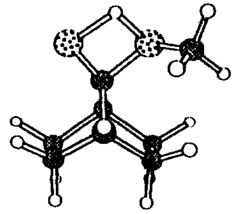
X= $COCH_2CH_3$, COOBu, $CONH_2$, $COCH_3$, $COOCH_3$, $COCH_3$, CN; R, R',R" = H, CH_3, Phenyl, γ-lactone.

Tetrahedron, **1992**, *48*, 3353

THE "CIEPLAK EFFECT": HYPERCONJUGATIVE INTERACTIONS AT FACIALLY DISSYMMETRIC π-SYSTEMS

James M. Coxon and D. Quentin McDonald
Department of Chemistry, University of Canterbury, Christchurch, New Zealand.

AM1 molecular orbital calculations for hemiacetal formation of 2,3-*endo*-disubstituted norbornanones with methanol show the methanol oxygen-C7 bond is substantially formed, the norbornane bonds antiperiplanar to the approach of the methanol are little changed and those antiperiplanar to the carbonyl oxygen are shortened at the transition state. The *anti* C7-OMe bond is shortened by electron withdrawing substituents but does not change in the presence of electron donating groups. Semi-empirical calculations provide little support for Cieplak postulate in hemiacetal formation.



Tetrahedron, **1992**, *48*, 3365

Synthesis of and Lack of Inhibition of a Rhamnosidase by Both Enantiomers of Deoxyrhamnojirimycin and Rhamnonolactam: β-Mannosidase Inhibition by δ-lactams

A. J. Fairbanks, N. C. Carpenter, G. W. J. Fleet, N. G. Ramsden,
I. Cenci di Bello, B. G. Winchester, S. S. Al-Daher and G. Nagahashi

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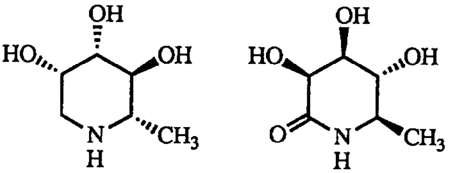
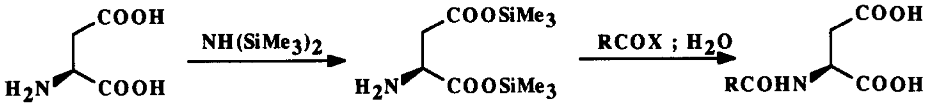


Tetrahedron, **1992**, *48*, 3377

L-ASPARTIC ACID BIS(TRIMETHYLSILYL) ESTER: A CONVENIENT STARTING MATERIAL FOR THE ACYLATION OF *L*-ASPARTIC ACID.

Ana M. Castaño and Antonio M. Echavarren.*

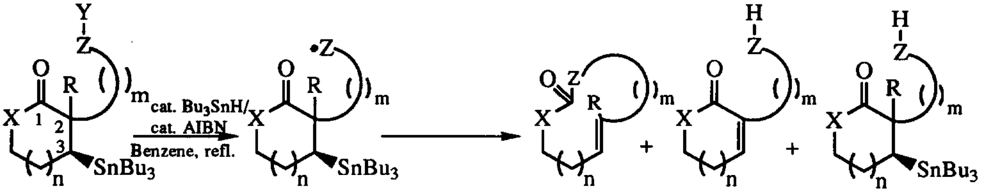
Instituto de Química Orgánica, CSIC, Juan de la Cierva 3, 28006 Madrid, Spain.



Tetrahedron, **1992**, *48*, 3385

CARBOCYCLIC RING EXPANSION REACTIONS *VIA* FREE RADICAL PATHWAYS-PART III

Jack E. Baldwin, Robert M. Adlington and Rajinder Singh
The Dyson Perrins Laboratory, University of Oxford, South Parks Road, Oxford, OX1 3QY.



(Only for R=H)

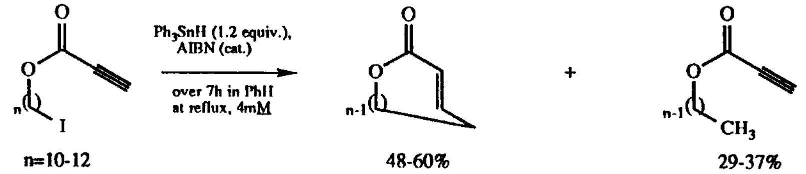
Example: $X=CH_2$, n=1, m=3 or 4
R=H or alkyl
Y=Br $\dot{Z}$=2° or vinyl radical

Tetrahedron, **1992**, *48*, 3413

FREE RADICAL MACROCYCLISATION *via* PROPIOLATE ESTERS.

Jack E. Baldwin, Robert M. Adlington and Steve H. Ramcharitar.
The Dyson Perrins Laboratory, University of Oxford, South Parks Road, Oxford, OX1 3QY.

Intramolecular free-radical addition to propiolate esters has provided a new and a stereoselective route to 14-16 membered trans- α,β-unsaturated macrocyclic lactones from their corresponding ω-iodoalkyl-propiolate esters under radical conditions. Attempts to synthesise analogous 10-13 membered lactones proved unsuccessful, resulting in acyclic products derived from direct reduction at the radical centre.



Tetrahedron, **1992**, *48*, 3429

TOTAL SYNTHESES OF (±)–CYCLOLAURENE, (±)–EPICYCLOLAURENE AND (±)–β–CUPARENONES

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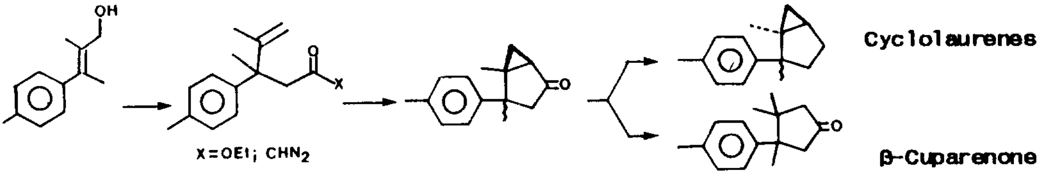
Department of Organic Chemistry, Indian Institute of Science, Bangalore - 560 012, INDIA.



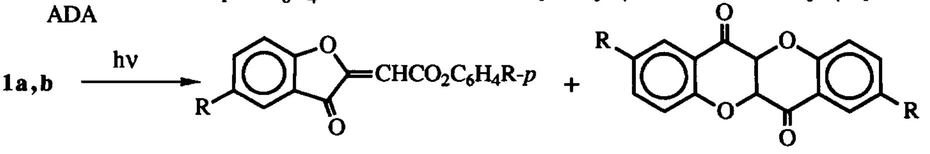
Tetrahedron, **1992**, *48*, 3437

PREPARATION AND PHOTOLYSIS OF DIARYL ESTERS OF ACETYLENEDICARBOXYLIC ACID

Mercedes Alvaro, Hermenegildo García, Miguel A. Miranda, and Jaime Primo
Instituto de Tecnología Química y Departamento de Química, Universidad Politécnica de Valencia, Spain

Esterification of ADA with two phenols following four esterification procedures is reported. Photolysis of aryl esters of ADA led to the five-membered heterocycle as the major product.

$$\underset{\text{ADA}}{HOOCC{\equiv}CCOOH} + p\text{-}RC_6H_4OH \longrightarrow p\text{-}RC_6H_4OOCC{\equiv}CCOOC_6H_4R\text{-}p \quad \mathbf{1a,b}$$



Tetrahedron, **1992**, *48*, 3445

INTERMOLECULAR REACTIONS OF *N*-ALKOXYCARBONYLIMINIUM IONS WITH PROPARGYLTRIMETHYLSILANE; OXAZINONE VERSUS ALLENE FORMATION

Peter M. Esch, Henk Hiemstra,* and W. Nico Speckamp*
Department of Organic Chemistry, University of Amsterdam, Nieuwe Achtergracht 129, 1018 WS Amsterdam, The Netherlands

Reaction of the *N*-alkoxycarbonyliminium ion derived from precursor **1** with propargyltrimethylsilane mainly leads to the formation of oxazinone **2**.