Tetrahedron, **1990**, *47*, 933

HYDROLYSIS PRODUCTS OF HUMULENE DIEPOXIDE A

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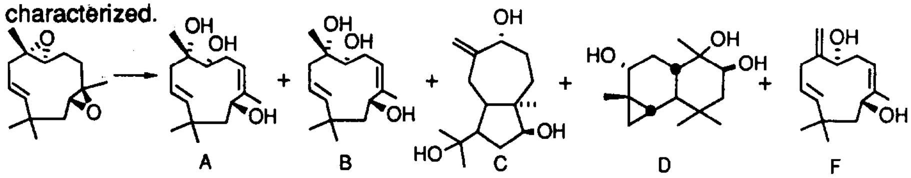
Department of Agricultural Chemistry, Oregon State University, Corvallis, OR 97331-6502

Humulene diepoxide A undergoes hydrolysis upon boiling at pH 4. Five hydrolysis products have been isolated and characterized.



Tetrahedron, **1990**, *47*, 941

STRAIN ENERGY EFFECT ON THE REACTIVITY OF BRIDGEHEAD HALIDES ELECTRON TRANSFER REACTIONS

Adriana B. Pierini*, Ana N.Santiago, and Roberto A. Rossi*
Depto.Q.Orgãnica, Fac.C.Químicas, U.N.C., Suc.16, C.C.61, 5016 Córdoba - Argentina

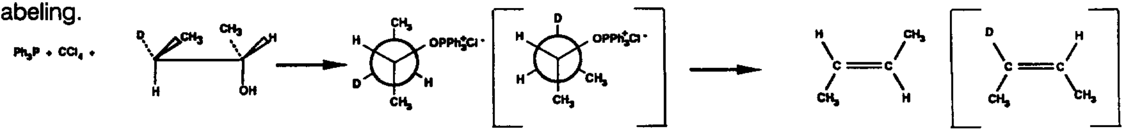
MNDO and AM1 calculations for electron transfer (ET) reactions of halobridgead compounds indicate that an increase in their angular strain is accompanied by more negative reduction potentials as measured through their LUMO energies. The theoretical prediction agrees with that determined experimentally. The ET step for the formation of the radical anions derivates is calculated to be non-dissociative for those radical anions that generate pyramidal radicals while it is dissociative for planar radicals. The presence of an oxo-substituent that lowers the LUMO of the compound increases its reactivity in ET reactions.

Tetrahedron, **1990**, *47*, 949

DEUTERIUM ISOTOPE STUDIES OF THE DEHYDRATION ALCOHOLS BY REACTION WITH TRIPHENYLPHOSPHINE-TETRACHLOROMETHANE

Hossein A. Dabbagh[1], Boris Franzus[2*], Thomas T.-S. Huang[2], and Burtron H. Davis[1]
1. Center for Applied Energy Research, University of Kentucky, 3572 Iron Works Pike, Lexington, KY 40511-8433. 2. Department of Chemistry, East Tennessee State University, Johnson City, TN 37614.

The synthesis of alkenes from 2-alcohols by a stereospecific anti-elimination was identified by deuterium labeling.

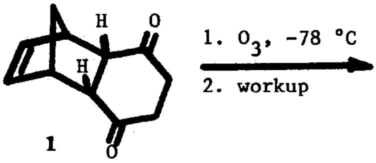


Tetrahedron, **1990**, *47*, 961

ENDO-TRICYCLO[6.2.1.0^{2,7}]UNDEC-9-ENE-3,6-DIONE: A VERSATILE SYNTHETIC INTERMEDIATE

Alan P. Marchand* and Teng-Ko Ngooi
Department of Chemistry, University of North Texas
Denton, Texas 76203-5068

William H. Watson* and Ram P. Kashyap
Department of Chemistry, Texas Christian University
Fort Worth, Texas 76129



1

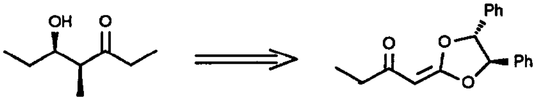
Low-temperature ozonolyses of acetone, methylene chloride, or methylene chloride-methanol solutions of the title compound (1) were studied.

Tetrahedron, **1990**, *47*, 975

ACYLKETENE ACETALS IN ORGANIC SYNTHESIS.

Clark N. Eid, Jr. and Joseph P. Konopelski*
Department of Chemistry and Biochemistry, University of California, Santa Cruz, CA 95064

The preparation and reactivity of achiral and enantiomerically pure acylketene acetals are described. An approach to the insect pheromone sitophilure is presented.



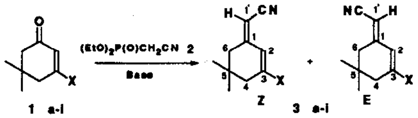
sitophilure

Tetrahedron, **1990**, *47*, 993

WITTIG-HORNER REACTION BETWEEN PHOSPHONATES AND β-SUBSTITUTED CYCLOHEXENONES

Serge Géribaldi* and Michel Rouillard
Laboratoire de Chimie Physique Organique, Université de Nice - Sophia Antipolis, Parc Valrose, 06034 Nice Cedex, France

Synthesis of α,β-γ,δ-unsaturated nitriles 3 *via* the Wittig-Horner reaction of β-substituted cyclohex-2-en-1-ones 1 with diethyl cyanomethyl phosphonate 2 :

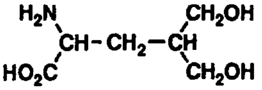


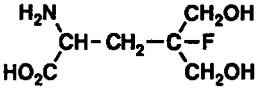
a = OC_2H_5
b = H
c = CH_3
d = C_6H_5
e = Cl
f = Br
g = SC_2H_5
h = $CH_2C_6H_5$
i = p-$NO_2C_6H_4$

Tetrahedron, **1990**, *47*, 1001

SYNTHESIS OF 5,5'-DIHYDROXYLEUCINE AND 4-FLUORO 5,5'-DIHYDROXYLEUCINE, THE REDUCTION PRODUCTS OF 4-CARBOXYGLUTAMIC AND 4-CARBOXY-4-FLUORO GLUTAMIC ACIDS

Joëlle Dubois, Christine Fourès, Sonia Bory, Serge Falcou, Michel Gaudry and Andrée Marquet
Laboratoire de Chimie Organique Biologique - CNRS URA 493 - Université P. et M. Curie -
4, place Jussieu - 75252 Paris Cédex 05 - France



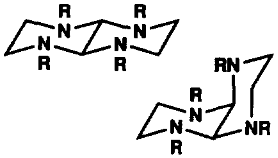


Tetrahedron, **1990**, *47*, 1013

STRUCTURE, CONFORMATION, AND STEREOELECTRONICS OF 1,4,5,8-TETRAAZADECALINS. CHEMICAL, MULTINUCLEAR NMR AND MOLECULAR MECHANICS STUDIES.

Raffaello Müller[a], Wolfgang von Philipsborn[a*],
Leah Schleifer[b], Pinchas Aped[b], and Benzion Fuchs[b*]
a) Organisch-chemisches Institut, Universität Zürich, Winterthurerstr. 190, CH-8057 Zürich, Switzerland
b) School of Chemistry, Tel-Aviv University, Ramat-Aviv, 69978 Tel-Aviv, Israel

A multidisciplinary study (structure, conformation, isomerization pathways, relatives stabilities, ring inversion) of various 1,4,5,8-tetraazadecalin (TAD) derivatives was performed using ^{1}H-, ^{13}C-, and ^{15}N-NMR techniques, as well as molecular mechanics calculations, using the MM2 force field and its modified version for N-C-N containing systems. The peculiar stereoelectronic features of the C-N-C-N-C moieties in the TAD systems are emphasized.



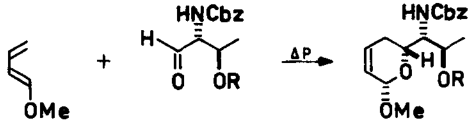
Tetrahedron, **1990**, *47*, 1037

HIGH-PRESSURE [4+2] CYCLOADDITION OF 1-METHOXY-1,3-BUTADIENE TO *N,O*-PROTECTED D-THREONINALS AND D-*ALLO*-THREONINALS

A. Golebiowski and J. Jurczak*

Institute of Organic Chemistry, Polish Academy of Sciences,
01-224 Warszawa, Poland

High-pressure [4+2]cycloaddition of *trans*-1-methoxy-1,3-butadiene (**3**) to *N,O*-protected D-*allo*-threoninals (**4**) and D-threoninals (**8**) was studied. 5,6-*syn*-Product was formed as a major one. The results were explained by α-chelation with Eu(fod)3 or by intramolecular hydrogen bonding.



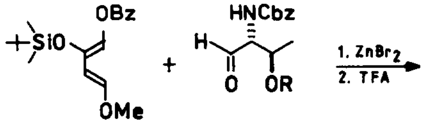
Tetrahedron, **1990**, *47*, 1045

THE CYCLOCONDENSATION REACTION OF 1-BENZOYLOXY-2-*TERT*-BUTYL-DIMETHYLSILYLOXY-4-METHOXY-1,3-BUTADIENE WITH *N,O*-PROTECTED D-THREONINALS AND D-*ALLO*-THREONINALS

A. Golebiowski and J. Jurczak*

Institute of OrganicChemistry, Polish Academy of Sciences,
01-224 Warszawa, Poland

The zinc bromide catalyzed reaction of 1-benzoyloxy-2-*tert*-butyldimethylsililoxy-4-methoxybuta-1,3-diene (**3**) with *N*-carbobenzoxy-*O*-protected-D-*allo*- (**4**) and -D-threoninal (**9**) was studied. Pyrones **7a** and **12a** were transformed into diastereoisomers of lincosamine (**16** and **19**).

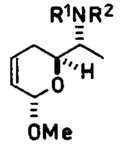


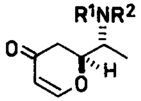
Tetrahedron, **1990**, *47*, 1053

INFLUENCE OF *N*-PROTECTING GROUPS ON THE STEREOCHEMICAL COURSE OF [4+2] CYCLOADDITION OF ACTIVATED DIENES TO α-AMINO ALDEHYDES

A. Gołebiowski[a], J. Raczko[a], U. Jacobsson[b], and J. Jurczak[a,]*; [a]Institute of Organic Chemistry, Polish Academy of Sciences, 01-224 Warszawa, Poland, [b]Department of Organic Chemistry, Royal Institute of Technology, S-100 44 Stockholm, Sweden

Asymmetric synthesis of 6-substituted-5,6-dihydro-2-methoxy-2*H*-pyrans (3) and 2-substituted-2,3-dihydropyran-4-ones (6) *via* [4+2] cycloaddition.



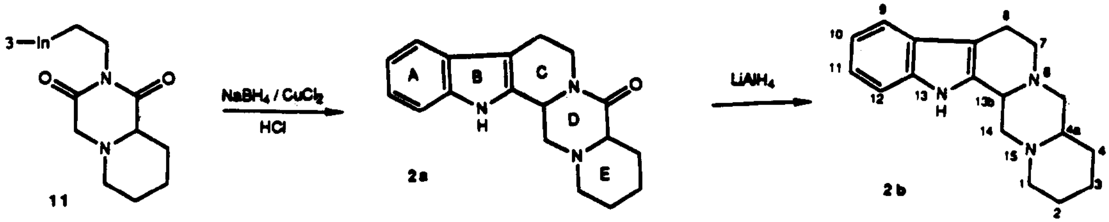


6

Tetrahedron, **1990**, *47*, 1065

SYNTHESIS OF 15-AZAYOHIMBAN, A NEW HETEROCYCLIC RING SYSTEM

N. Valls, V.-M. Segarra, L.-C. Maillo, and J. Bosch; Laboratory of Organic Chemistry, Faculty of Pharmacy, University of Barcelona, 08028-Barcelona, Spain



Tetrahedron, **1990**, *47*, 1075

SPECTROSCOPIC AND ENZYMATIC CHARACTERIZATION OF 2'-5' AND 3'-5' RNA HEXAMERS AACCUU SYNTHESISED BY PHOSPHOTRIESTER APPROACH IN SOLUTION USING 2'-TBDMS PROTECTION

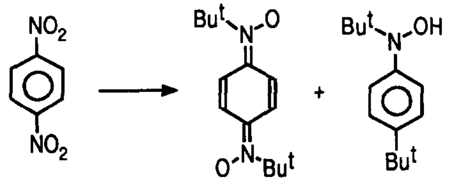
V.Gopalakrishnan, K.N.Ganesh, A.Gunjal, S.M.Likhite
Division of Organic Chemistry-I, National Chemical Laboratory, Pune-8, INDIA

^{1}H, ^{31}P NMR and CD spectroscopic studies of titled RNA compounds and an isomeric covalent hybrid indicates conformational differences among these, arising due to different nature of phosphodiester linkages. The compounds, synthesised by solution phase phosphotriester chemistry and 2'-TBDMS protecting group, were shown to be isomerically pure by their specificities towards digestion with the enzyme pancreatic ribonuclease.

Tetrahedron, **1990**, *47*, 1091

REACTION OF *t*-BUTYLMAGNESIUM CHLORIDE WITH 1,4-DINITROBENZENE

Renato Dalpozzo[a*], Loris Grossi[a], Fabio Ganazzoli[b]
a. Dipartimento di Chimica Organica 'A. Mangini', viale Risorgimento 4, I-40136 Bologna, Italy.
b. Dipartimento di Chimica, Politecnico, piazza L. da Vinci 32, I-20133 Milano, Italy.

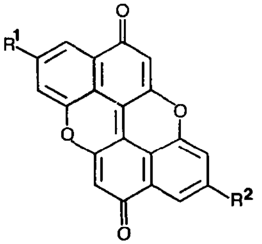


Tetrahedron, **1990**, *47*, 1095

The Quincyte Pigments: Fossil Quinones In An Eocene Clay Mineral

William G. Prowse[1], Katherine I. Arnot[1], Josef A. Rechka[1], Ronald H. Thomson[2], James R. Maxwell*[1]
1 Organic Geochemistry Unit, Cantock's Close, University of Bristol, Bristol. BS8 1TS, England.
2 Department of Chemistry, University of Aberdeen, Meston Walk, Old Aberdeen. AB9 2UE, Scotland.

A pink sepiolite of Eocene age has been shown to contain series of extended quinone pigments with structures **3**-**9**, based on spectral evidence and synthesis of **3**.



	R^1	R^2
3	iPr	iPr
4	CHO	iPr
5	CH_3CO	iPr
6	CH_3CO	CH_3CO
7	CH_3COCH_2	iPr
8	$CH_3CH_2CH(OH)$	iPr
9	$CH_3CH(OH)CH_2$	iPr