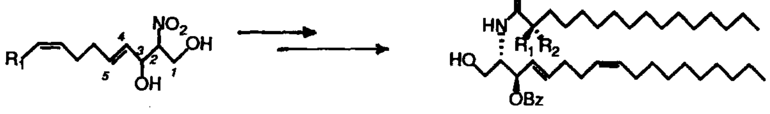
GRAPHICAL ABSTRACTS

Tetrahedron, 45, 7247 (1989)

SYNTHESIS OF CEREBROSIDE B1b WITH ANTIULCEROGENIC ACTIVITY I. SYNTHESIS OF CERAMIDES WITH OPTICALLY ACTIVE α-HYDROXYPALMITIC ACIDS

S. Kodato, M. Nakagawa,* K. Nakayama, T. Hino*
Faculty of Pharmaceutical Sciences, Chiba University,
Chiba, 260, Japan



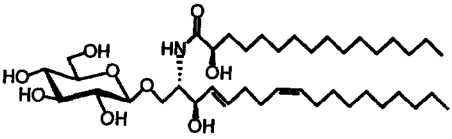
a $R_1 = OAc, R_2 = H$
b $R_1 = H, R_2 = OAc$

Tetrahedron, 45, 7263 (1989)

SYNTHESIS OF CEREBROSIDE B1b WITH ANTIULCEROGENIC ACTIVITY II. TOTAL SYNTHESIS AND DETERMINATION OF ABSOLUTE CONFIGURATION OF CEREBROSIDE B1b AND ITS STEREOISOMERS

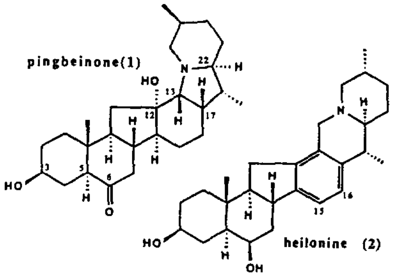
S. Kodato, M. Nakagawa,* and T. Hino*.
Faculty of Pharmaceutical Sciences,
Chiba University, Chiba, 260, Japan

A total synthesis of cerebroside B1b, 1, is described.



1

Tetrahedron, 45, 7281 (1989)



pingbeinone(1)

heilonine (2)

NEW STEROIDAL ALKALOIDS FROM FRITILLARIA USSURIENSIS MAXIM. PINGBEINONE AND HEILONINE

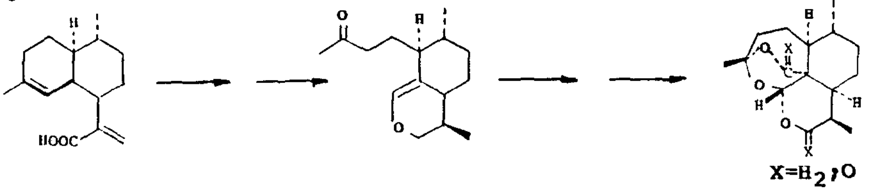
Yukie Kitamura, Makoto Nishizawa, Koh Kaneko*, Motoo Shiro, Yuh-Pan Chen and Hong-Yen Hsu, Faculty of Pharmaceutical Sciences, Hokkaido University, Sapporo 060, Japan

Two novel alkaloids, pingbeinone (1) and heilonine (2) were isolated from *Fritillaria ussuriensis*. Pingbeinone is a novel C_{26} steroidal alkaloid having a skeleton lacking C-18 of C-nor D-homo steroidal alkaloid.

Tetrahedron, 45, 7287 (1989)

Syntheses of Carba-Analogues of Qinghaosu

Bin Ye and Yu-Lin Wu*
Shanghai Institute of Organic Chemistry Academia Sinica, Shanghai 200032, CHINA

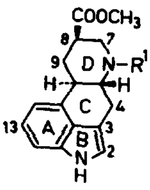


Tetrahedron, 45, 7291 (1989)

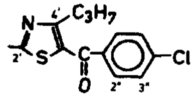
NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY OF SOME DIHYDRO LYSERGIC ACID DERIVATIVES

K. Seifert, H. Meyer, S. Härtling, S. Johne
Institute of Plant Biochemistry, Academy of Sciences of the GDR, GDR-4050 Halle/Saale and
Department of Chemistry of the University,
GDR-4050 Halle/Saale

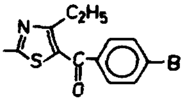
Interpretation of the NMR spectra of the compounds 1, 2 and 3 leads to the following results: In contrast to the normal ring D chair conformation of the 9,10-dihydrolysergic acid derivatives 1 shows a twist-boat (75%) and a chair form (25%) in solution. The preferred conformation of 3 is the twist-boat form.



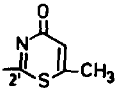
1 $R^1=$



2 $R^1=$



3 $R^1=$

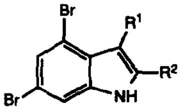


Tetrahedron, 45, 7301 (1989)

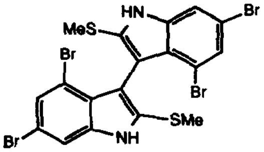
SULFUR-CONTAINING POLYBROMOINDOLES FROM THE RED ALGA *Laurencia brongniartii*

Jun'ichi Tanaka and Tatsuo Higa, Department of Marine Sciences, University of the Ryukyus, Nishihara, Okinawa 903-01, Japan, Gérald Bernardinelli and Charles W. Jefford, Laboratory of Crystallography and Department of Organic Chemistry, University of Geneva, 1211 Geneva 4, Switzerland

Indoles 9-14 were isolated from *Laurencia brongniartii*. Structures of 12 and 14 were elucidated by X-ray.



9 $R^1 = H, R^2 = Br,$
10 $R^1 = R^2 = Br,$
11 $R^1 = H, R^2 = SMe$
12 $R^1 = SMe, R^2 = SO(Me)$
13 $R^1 = SO(Me), R^2 = SMe$



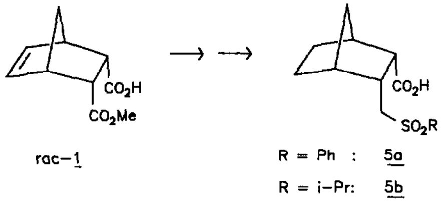
14

Tetrahedron, 45, 7311 (1989)

PREPARATION OF ENANTIOMERICALLY PURE 3-ENDO-SULFONYLMETHYL SUBSTITUTED BICYCLO[2.2.1]HEPTANE-2-ENDO-CARBOXYLIC ACIDS

P. Metz
Organisch-Chemisches Institut, Universität Münster,
D-4400 Münster

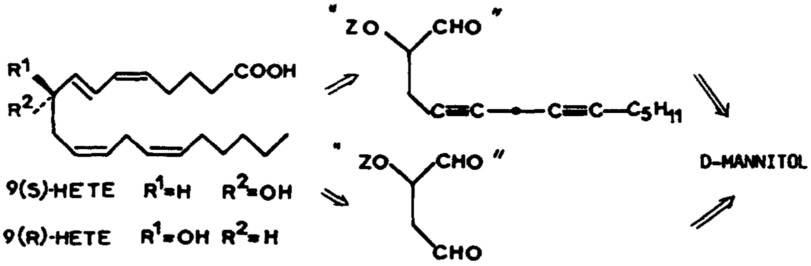
Both enantiomers of title acids 5 were synthesized from monoester rac-1. An alternative approach via PLE catalyzed hydrolysis of a meso diester is described too.



Tetrahedron, 45, 7317 (1989)

SYNTHESES OF ENANTIOMERICALLY PURE 9(S)- AND 9(R)-HETE FROM D-MANNITOL. USE OF A MALIC DIALDEHYDE EQUIVALENT.

M. SANIERE, Y. LE MERRER, B. BARBE,
T. KOSCIELNIAK, J.C. DEPEZAY
Université René Descartes, Laboratoire
de Chimie et Biochimie Pharmacologiques
et Toxicologiques. (UA 400 CNRS). 45
Rue des Saints Pères 75270 Paris Cedex
06 France

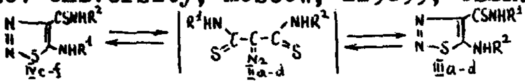


Tetrahedron, 45, 7329 (1989)

TWO DIRECTIONS OF CYCLIZATION OF α-DIAZO-β-DITHIOAMIDES. NEW REARRANGEMENTS OF I,2,3-TRIAZOLE-4-CARBOTHIOAMIDES.

Bakulev V.A.[a], Lebedev A.T.[b], Dankova E.F.[a], Mokrushin V.S.[a], Petrosyan*V.S.[b]
[a] Department of Technology of Organic Compounds, Polytechnic Institute, Sverdlovsk, USSR.
[b] Department of Chemistry, M.V.Lomonosov University, Moscow, II9899, USSR.

The cyclization processes of 2-diazomalondithioamides, generated by 5 different methods, have been studied.

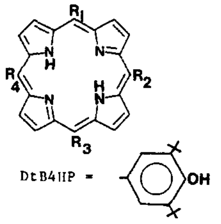


Tetrahedron, 45, 7341 (1989)

FACILE AERIAL OXIDATION OF UNSYMMETRICAL MESO-TETRA-ARYL PORPHYRINS WITH 3,5-DI-t-BUTYL-4-HYDROXYPHENYL AND 4-NITROPHENYL SUBSTITUENTS.

Lionel R. Milgrom, Nasrin Mofidi
School of Applied Chemistry, Kingston Polytechnic,
Penrhyn Road, Kingston-upon-Thames, KT1 2EE.
Anthony Harriman
Davy Faraday Laboratory, Royal Institution,
21, Albemarle St. London W1X 4BS.

Synthesis of porphyrins (2)-(5), via a mixed Rothemund reaction, and study of their oxidation in basified solutions using u.v.-visible spectroscopy and cyclic voltammetry.



1). $R_1=R_2=R_3=R_4=$DtB4HP
2). $R_1=R_2=R_3=$P; $R_4=$DtB4HP
3). $R_1=R_2=$P; $R_3=R_4=$DtB4HP
4). $R_1=R_3=$P; $R_2=R_4=$DtB4HP
5). $R_1=$P; $R_2=R_3=R_4=$DtB4HP
6). $R_1=R_2=R_3=R_4=$P

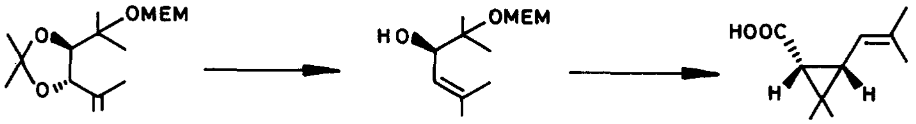
P = 4-HP in (**2a-5a**)
P = 3-HP in (**2b-5b**)
P = 4-NP in (**2c-5c**)

Tetrahedron, 45, 7353 (1989)

SYNTHESIS OF (1R)-(+)-CIS-CHRYSANTHEMIC ACID

J.S. Yadav, Sudha V. Mysorekar and A.V. Rama Rao
Indian Institute of Chemical Technology, Hyderabad 500 007, India

A synthesis of the title compound from (+)-tartaric acid is described.

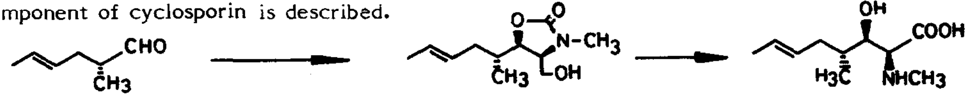


Tetrahedron, 45, 7361 (1989)

A VERSATILE PROTOCOL FOR β-HYDROXY-α-AMINO ACIDS : AN APPLICATION TO (4R)-4-[(E)-2-BUTENYL]-4,N-DIMETHYL-L-THREONINE (MeBmt)

A.V. Rama Rao, T.G. Murali Dhar, D. Subhas Bose, T.K. Chakraborty and M.K. Gurjar
Indian Institute of Chemical Technology, Hyderabad 500 007, India

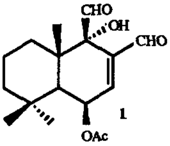
An asymmetric synthesis of (4R)-4-[(E)-2-butenyl]-4,N-dimethyl-L-threonine, an unusual amino acid component of cyclosporin is described.



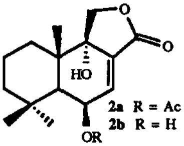
Tetrahedron, 45, 7371 (1989)

SYNTHETIC STUDIES ON BIOLOGICALLY ACTIVE NATURAL COMPOUNDS. PART I :STEREOSPECIFIC TRANSFORMATION OF UVIDIN A INTO (--)-CINNAMODIAL

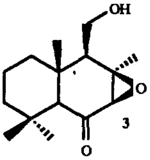
L. Garlaschelli and G. Vidari
Dipartimento di Chimica Organica - Viale Taramelli 10 - 27100 PAVIA (Italy)



1



2a R = Ac
2b R = H



3

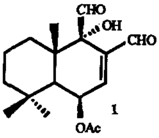
A partial synthesis of (--) - cinnamodial (1) has been achieved using (+) - uvidin A (3) as starting material; this also represents a formal synthesis of (--) - cinnamosmolide (2a) and pereniporin B (2b).

Tetrahedron, 45, 7379 (1989)

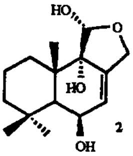
SYNTHETIC STUDIES ON BIOLOGICALLY ACTIVE NATURAL COMPOUNDS. PART II: CORRELATION OF CINNAMODIAL WITH UVIDIN A AND STEREOSPECIFIC TRANSFORMATION INTO (--)-PERENIPORIN A.

L. Garlaschelli,G. Mellerio [a] and G. Vidari *
Dipartimento di Chimica Organica and [a] Centro di Spettrometria di Massa
Viale Taramelli 10 – 27100 PAVIA (Italy)

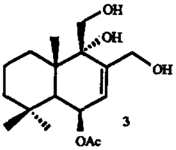
The selective reduction of the aldehyde groups of (-) - cinnamodial (1) was investigated. In this way a partial synthesis of (-) - pereniporin A (2) was achieved, as well as that of the triol 3, previously obtained from (+) - uvidin A (4).



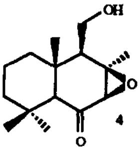
1



2



3



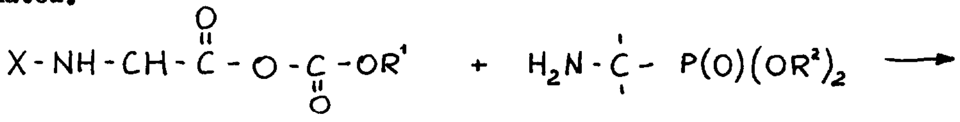
4

Tetrahedron, 45, 7387 (1989)

MIXED CARBOXYLIC - CARBONIC ANHYDRIDE METHOD IN PHOSPHONO PEPTIDE SYNTHESIS

Paweł Kafarski and Barbara Lejczak
Institute of Organic and Physical Chemistry,Technical University of Wrocław
50-370 Wrocław, Poland

Factors influencing the reaction yields and formation of the side products during mixed anhydride coupling in phosphono peptide synthesis were evaluated.



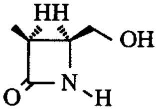
$$X\text{-}NH\text{-}CH\text{-}\overset{O}{\overset{\|}{C}}\text{-}O\text{-}\underset{O}{\underset{\|}{C}}\text{-}OR^{1} + H_2N\text{-}\underset{|}{\overset{|}{C}}\text{-}\ P(O)(OR^{2})_2 \longrightarrow$$

Tetrahedron, 45, 7397 (1989)

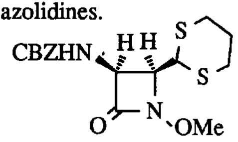
ASYMMETRIC SYNTHESIS OF 3,4-CIS -SUBSTITUTED β-LACTAMS VIA CHIRAL NOREPHEDRINE-DERIVED OXAZOLIDINES.

S.Cardani, C.Gennari*, C.Scolastico*, R.Villa. Dip.Chimica Org. e Ind., Centro CNR Sost.Org.Nat.
Università di Milano, Via Venezian 21, 20133 Milano, Italy.

A diastereo- and enantioselective approach to functionalized 3,4-cis-β-lactams **9** and **16** was developed based on the use of chiral norephedrine-derived oxazolidines.



9



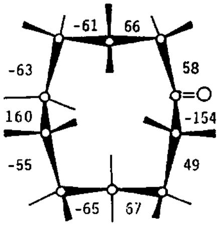
16

Tetrahedron, 45, 7405 (1989)

ITERATIVE FORCE-FIELD CALCULATIONS OF CYCLODECANONE

Tarik N. Rawdah
Department of Chemistry, King Fahd University of Petroleum & Minerals,
Dhahran 31261, Saudi Arabia.

The lowest-energy conformation of Cyclodecanone has been found to be the [3232]-2-one. Possible pseudorotation paths of this conformation have been investigated.



Tetrahedron, 45, 7411 (1989)

THE REACTION BETWEEN ARENEDIAZONIUM TETRAFLUOROBORATES AND ALKALINE THIOCARBOXYLATES IN DMSO: A CONVENIENT ACCESS TO ARYL THIOLESTERS AND OTHER AROMATIC SULFUR DERIVATIVES.

Giovanni Petrillo, Marino Novi, Giacomo Garbarino, and Marcos Filiberti.
Istituto di Chimica Organica dell'Università, C.N.R. Centro di Studio sui Diariloidi e loro Applicazioni, Corso Europa 26, I-16132 Genova, Italy.

The title reaction effectively leads to aryl thiolesters 1 which can be isolated or further reacted to provide a one-pot access to other aromatic sulfur derivatives such as thiols, thioethers and thiocyanates.

$$\mathrm{ArN_2^+} \xrightarrow[\mathrm{DMSO}]{\mathrm{RCOS^-}} \underset{\mathbf{1}}{\mathrm{ArSCOR}} \xrightarrow[\mathrm{or\ MeO^-/MeOH}]{\mathrm{OH^-/H_2O}} \mathrm{ArS^-} \xrightarrow{\mathrm{EHal}} \mathrm{ArSE} \qquad (\mathrm{E = H, R, Ar, CN})$$

Tetrahedron, 45, 7421 (1989)

NEW ENZYMATIC APPROACH TO THE SYNTHESIS OF CONVENIENT ASPARTIC ACID INTERMEDIATES IN PEPTIDE CHEMISTRY. SYNTHESIS OF N-BENZYLOXYCARBONYL-L-ASPARTIC ACID β-ALLYL ESTER.

N. Xaus*, P. Clapés, E. Bardají, J.L. Torres, X. Jorba, J. Mata and G. Valencia.
Unit for Peptide Chemistry and Biochemistry. Centre d'Investigació i Desenvolupament (C.S.I.C.). Jordi Girona, 18-26. 08034 Barcelona. Spain.

By the use of papain, side chain protected aspartic acid derivatives can be easily obtained in bulk.

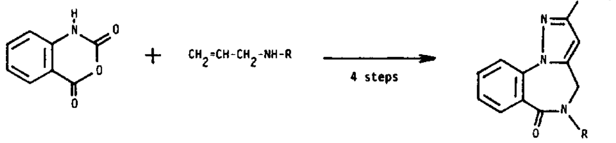
$$\text{Z-Asp(OAll)-OAll} \xrightarrow[\text{DTT, DMF, McIlvine, pH:5}]{\text{papain}} \text{Z-Asp(OAll)-OH}$$

Tetrahedron, 45, 7427 (1989)

THE INTRAMOLECULAR NITRILE IMINE CYCLOADDITION ROUTE TO PYRAZOLO[1,5-a][1,4]BENZODIAZEPINES.

Luca Bruché and Gaetano Zecchi*
Dipartimento di Chimica Organica e Industriale, Università di Milano, Via Golgi 19, 20133 Milano, Italy

The title ring system has been prepared through a synthetic sequence involving an intramolecular nitrile imine cycloaddition as the key step.

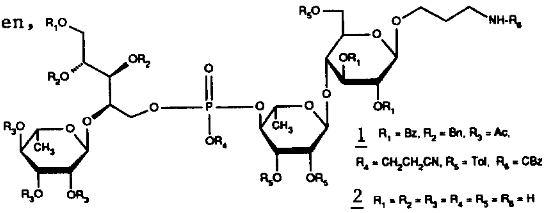


Tetrahedron, 45, 7433 (1989)

SYNTHESIS OF FRAGMENTS OF A *STREPTOCOCCUS PNEUMONIAE* TYPE SPECIFIC CAPSULAR POLYSACCHARIDE

G.H. Veeneman, L.J.F. Gomes and J.H. van Boom
Gorlaeus Laboratory, P.O. Box 9502, 2300 RA Leiden, The Netherlands

Assemblage of properly protected sugar units afforded *inter alia* the fully protected fragment 1 which, after removal of all protecting groups, was converted into the spacer containing tetramer 2.



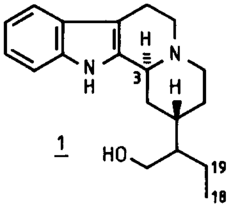
1 $R_1 = Bz, R_2 = Bn, R_3 = Ac,$
$R_4 = CH_2CH_2CN, R_5 = Tol, R_6 = CBz$

2 $R_1 = R_2 = R_3 = R_4 = R_5 = R_6 = H$

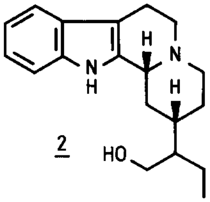
Tetrahedron, 45,7449 (1989)

STEREOSELECTIVE SYNTHESIS OF dl-18,19-DIHYDROANTIRHINE AND dl-3-EPI-18,19-DIHYDROANTIRHINE

Mauri Lounasmaa* and Reija Jokela,
Laboratory for Organic and Bioorganic Chemistry,
Technical University of Helsinki,
SF-02150 Espoo, Finland



1



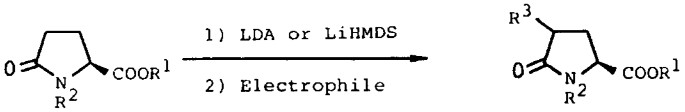
2

Tetrahedron, 45, 7459 (1989)

AMINO ACID SYNTHESIS USING (L)-PYROGLUTAMATE AS A CHIRAL STARTING MATERIAL

J.E. Baldwin, T. Miranda, M.G. Moloney and T. Hokelek
Dyson Perrins Laboratory, Oxford University, Oxford OX1 3QY U.K.

Deprotonation of suitably protected pyroglutamic acid with lithium bases, followed by reaction with electrophiles, leads to the formation of 4-substituted pyroglutamates.

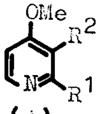


Tetrahedron, 45, 7469 (1989)

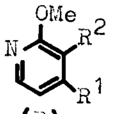
APPLICATION OF ORGANOLITHIUM AND RELATED REAGENTS IN SYNTHESIS. PART 7. SYNTHESIS AND METALLATION OF METHOXY-PICOLIN- AND METHOXYISONICOTIN-ANILIDES. A USEFUL METHOD FOR PREPARATION OF 2,3,4-TRISUBSTITUTED PYRIDINES

Jan Epsztajn*, Adam Bieniek*, Mieczysław W. Płotka and Krzysztof Suwald
Department of Organic Chemistry, University, 90-136 Łódź, Narutowicza 68, Poland

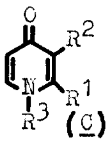
A synthesis of the 2,3,4-trisubstituted pyridines (A), (B) and the corresponding pyridones (C), (D) via total conversion of picolinic and isonicotinic acids was developed.



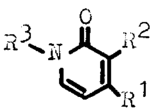
(A)



(B)



(C)

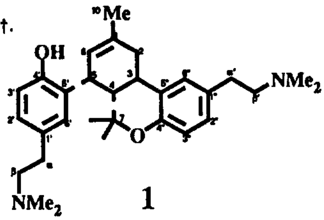


(D)

Tetrahedron, 45, 7477 (1989)

THE SOLUTION STRUCTURE OF ALFILERAMINE. NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY AND MOLECULAR MECHANICS STUDY

Manuel Marcos, Mary Carmen Villaverde, Ricardo Riguera, Luis Castedo* and Frank Stermitz†.
Departamento de Química Orgánica, Facultad de Química, Santiago de Compostela, Spain.
†Department of Chemistry, Colorado State University, Fort Collins, CO 80523, U.S.A.



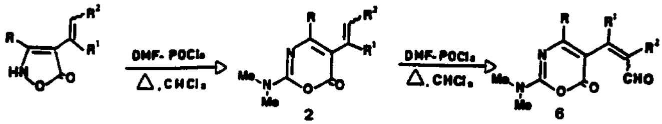
1

Alfileramine (**1**) exists in solution as an equilibrium mixture of two rotamers around the bond between C-5 and C-5'.

Tetrahedron, 45, 7485 (1989)

SYNTHESIS AND REACTIVITY OF 2-DIMETHYLAMINO-4-ALKENYL-1,3-OXAZIN-6-ONES

Egle M. Beccalli, Alessandro Marchesini and Tullio Pilati.
Dipartimento di Chimica Organica e Industriale, Università degli Studi di Milano, Via C. Golgi 19, 20133 Milano, Italy.



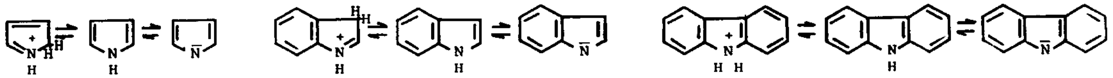
From oxazinones 2 and 6, depending on substitution pattern, α-pyrones, 2-pyridones and pyridines may be obtained. The results confirm the thermal equilibrium between 2-dialkylamino-1,3-oxazin-6-ones, iminoketenes and vinylisocyanates.

Tetrahedron, 45, 7501 (1989)

THE ACID-BASE PROPERTIES OF PYRROLE AND ITS BENZOLOGS INDOLE AND CARBAZOLE. A REEXAMINATION FROM THE EXCESS ACIDITY METHOD.

M. Balón Almeida, M.C. Carmona Guzmán, M.A. Muñoz Perez and J. Hidalgo Toledo
Departamento Química Física, Facultad Farmacia, Universidad Sevilla, 41012 Sevilla, Spain.

Thermodynamic pK$_a$ values and m* solvation parameters for the following equilibria have been obtained using the Excess Acidity Method.

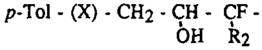


Tetrahedron, 45, 7505 (1989)

BIOTRANSFORMATIONS OF FLUORINATED SULPHENYL AND SULPHONYL COMPOUNDS

M. Bucciarelli,[a] A. Forni,[a] I. Moretti,[a*] F. Prati,[a] G. Torre,[a] G. Resnati[b*] and P. Bravo.[b]
a) Dipartimento di Chimica, via Campi 183, 41100 Modena; b) Dipartimento di Chimica del Politecnico, Piazza Leonardo da Vinci 32, Milano, ITALY.

Optically active sulphenyl and sulphonyl fluorohydrins **1(a-e)** and **2(a-d)** were obtained by baker's yeast reduction of ketones or by enantioselective hydrolysis of ester derivatives with lipase.



$$p\text{-Tol} - (X) - CH_2 - \underset{OH}{CH} - \underset{R_2}{CF} - R_1$$

1 (X= S); 2 (X= SO_2)

a)R_1= H, R_2= H; **b)**R_1= CH_3, R_2= H; **c)**R_1= $CH_2CH{=}CH_2$, R_2= H; **d)**R_1= Ph, R_2= H; **e)**R_1= CH_3, R_2= Ph

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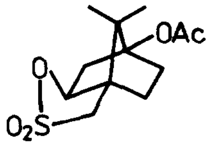
Tetrahedron, 45, 7515 (1989)

THE STRUCTURE OF SULTONE FORMED IN REYCHLER'S REACTION

Róża ANTKOWIAK[§], Wiesław Z. ANTKOWIAK[§*] and Karol BRUZIK[#]
§ Faculty of Chemistry, A. Mickiewicz University,
Grunwaldzka 6, 60-780 Poznań, Poland
CMMS, Polish Academy of Sciences,
Sienkiewicza 113, 90-363 Łódź, Poland



4

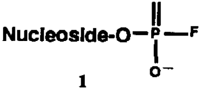
The structure of 4-acetoxy-2-exo-hydroxybornane-10-sulfonic acid sultone was elucidated by two dimensional NMR spectroscopy.

Tetrahedron, 45, 7523 (1989)

INTRA- AND INTERMOLECULAR NUCLEOPHILIC PHOSPHORUS-SULFUR BOND CLEAVAGE. THE REACTION OF FLUORIDE ION WITH O-ARYL-O,S-DIALKYLPHOSPHOROTHIOATES, & THE DEGRADATION OF PHOSPHOROTHIOATE LINKAGE IN *di*-RIBONUCLEOTIDES BY THE VICINAL 2′-HYDROXYL FUNCTION.

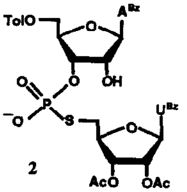
C. Sund and J. Chattopadhyaya*, *Dept. of Bioorganic Chemistry, Box 581, Biomedical Center, University of Uppsala, S-751 23 Uppsala, Sweden*

Preparation of Nucleoside 3′- and 5′-O-phosphorofluoridates **1** and the instability of phosphorothioate linkage in *di*-ribonucleoside(3′-5′) phosphorothioate **2** are described.



$$\text{Nucleoside-O}-\overset{\overset{\displaystyle O}{\|}}{\underset{\underset{\displaystyle O^-}{|}}{P}}-F$$

1



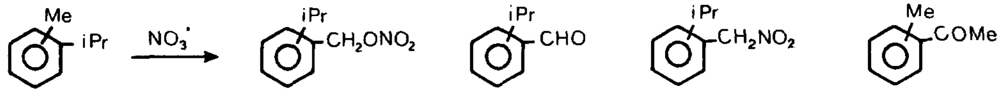
2

Tetrahedron, 45, 7545 (1989)

HYDROGEN ABSTRACTION FROM THE ISOMERIC CYMENES

A. Sulpizio, M. Mella and A. Albini
Dipartimento di Chimica Organica, Università, I-27100 Pavia, Italy

The NO_3 radical forms a charge transfer face-to-face complex with aromatics, similarly to $\pi\pi^*$ excited states, and different from the perpendicular complex formed by alkoxy radicals and $n\pi^*$ excited states.

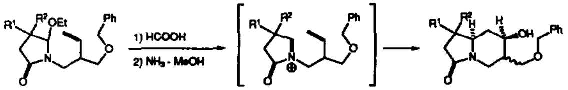


Tetrahedron, 45, 7553 (1989)

DIASTEREOSELECTIVITY IN THE CYCLIZATION OF 1-[2-(BENZYLOXYMETHYL)-3-BUTENYL]-5-ETHOXY-2-PYRROLIDINONES

Johannes N. Zonjee, Henk de Koning, and W. Nico Speckamp,* *Laboratory of Organic Chemistry, University of Amsterdam , Nieuwe Achtergracht 129, 1018 WS Amsterdam, The Netherlands.*

The effect of certain substituents R^1 and/or R^2 on the diastereoselectivity of the N-acyliminium cyclization depicted below is discussed.



Tetrahedron, 45, 7565 (1989)

PREPARATION OF β-KETOMACROLACTONES AND β-KETODIOLIDES USING *S*-t-BUTYL 3-OXOBUTANETHIOTE AND *S*-t-BUTYL 4-DIETHYLPHOSPHONO-3-OXOBUTANETHIOATE

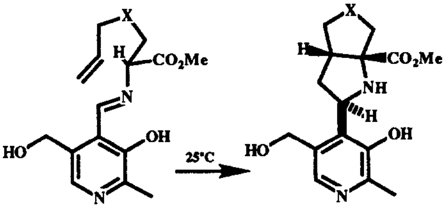
Paul M.Booth, Howard B.Broughton, Mark J.Ford, Christina M.J.Fox, Steven V.Ley*, Alexandra M.Z.Slawin, David J.Williams and Peter R.Woodward.
Department of Chemistry, Imperial College of Science, Technology and Medicine, London SW7 2AY, U.K.

Using *S*-t-butyl 3-oxobutanethioate and *S*-t-butyl 4-diethylphosphono-3-oxobutanethioate various homologation reactions with t-butyldimethylsilyl protected hydroxy-iodides and aldehydes are reported. The products of these reactions after deprotection may be treated with copper (I) trifluoroacetate to afford β-ketomacrolide or β-ketomacrodiolides ranging in ring size from 13 to 32 depending upon the linking carbon atom chains and the reaction conditions. Several of the macrocyclic structures have been studied by X-ray crystallographic methods to determine their solid state conformations.

Tetrahedron, 45, 7581 (1989)

X=Y-ZH SYSTEMS AS POTENTIAL 1,3- DIPOLES. PART 25. INTRAMOLECULAR CYCLOADDITION REACTIONS OF PYRIDOXAL IMINES OF ε-ALKENYL α-AMINO ESTERS. A POSSIBLE NEW APPROACH TO PYRIDOXAL ENZYME INHIBITION.

Ronald Grigg[a*] **and Paul Armstrong**[b]
a. School of Chemistry, University of Leeds, Leeds LS2 9JT.
b. Department of Chemistry, Queen's University, Belfast BT9 5AG, Northern Ireland.

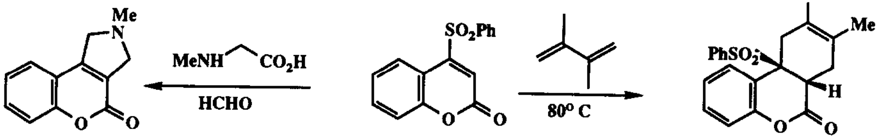


X = CH_2, S 90 - 100 %

Tetrahedron, 45, 7587 (1989)

4-PHENYLSULPHINYL- AND 4-PHENYLSULPHONYL-COUMARIN AS 2π- COMPONENTS IN CYCLOADDITION REACTIONS.

Ronald Grigg[a,*] **and David Vipond**[b].
(a. School of Chemistry, University of Leeds, Leeds LS2 9JT.
b. Department of Chemistry, Queen's University, Belfast BT9 5AG, Northern Ireland.)

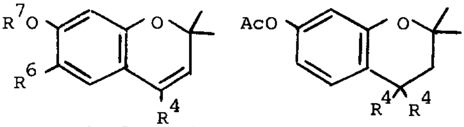


Tetrahedron, 45, 7593 (1989)

PHOTOCHEMISTRY OF 7-ACETOXYBENZOPYRAN DERIVATIVES. SYNTHESIS OF EUPATORIOCHROMENE AND ENCECALIN

Miguel A. Miranda*, Jaime Primo and Rosa Tormos

The photolysis of **1a**-**5a** has been carried out, looking for acetylation at C-5 or C-7. This has been applied to the synthesis of eupatoriochromene (**1b**) and encecalin (**1e**).



1a $R^4=R^6=H$, $R^7=Ac$
1b $R^4=R^7=H$, $R^6=Ac$
1e $R^4=H$, $R^6=Ac$, $R^7=Me$
3a $R^6=H$, $R^4=R^7=Ac$

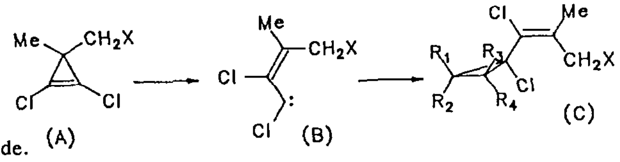
2a $R^4,R^4=O$
4a $R^4,R^4=H,OAc$
5a $R^4,R^4=H,H$

Tetrahedron, 45, 7601 (1989)

GENERATION AND TRAPPING OF VINYLCARBENES AT AMBIENT TEMPERATURE: A ROUTE TO FUNCTIONALISED VINYL- AND ALLYLIDENE-CYCLOPROPANES

Juma'a R.Al Dulayymi and Mark S.Baird, Department of Chemistry,
University of Newcastle upon Tyne, GB NE1 7RU

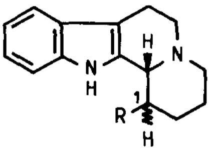
Cyclopropenes (A, X = Cl, OMe) react with alkenes to give products (C) apparently by trapping of carbenes (B); compounds (C) give allylidenecyclopropanes by reaction with potassium t-butoxide and, when X = Cl, give cyclopropyl ethyl ketones with potassium hydroxide.



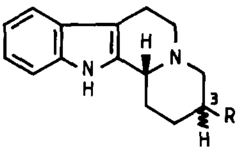
Tetrahedron, 45, 7615 (1989)

STEREOREGULATION IN THE PREPARATION OF 1- AND 3-MONOSUBSTITUTED 1,2,3,4,6,7,12,12b-OCTAHYDRO-INDOLO[2,3-a]QUINOLIZINES.

Mauri Lounasmaa*, Reija Jokela,
Birgit Tirkkonen and Tarja Tamminen
Laboratory for Organic and Bioorganic Chemistry,
Technical University of Helsinki,
SF-02150 Espoo, Finland



C(1)H α
C(1)H β



C(3)H α
C(3)H β

Tetrahedron, 45, 7631 (1989)

DARZEN'S REACTION ON OXOKETENE DITHIOACETALS: A NEW VERSATILE SYNTHESIS OF SUBSTITUTED AND ANNELATED FURAN-2-CARBOXYLATES

Apurba Datta, Dinah Pooranchand, Hiriyakkanavar Ila* and Hiriyakkanavar Junjappa*
Department of Chemistry, North-Eastern Hill University, Shillong 793 003, INDIA

Darzen's condensation of lithiobromoacetate with α-oxoketene dithioacetals 1 affords the title furans 2 in good yields. The reaction was also extended to the corresponding α-enoyl, dienoyl and trienoyl ketene dithioacetals.