GRAPHICAL ABSTRACTS

Tetrahedron, **1992**, *48*, 8855

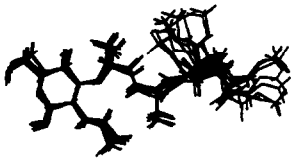
CONFORMATION OF MurNAc-L-Ala-D-iGln (MDP) AND OF A CONSTRAINED ANALOG USING ^{1}H NMR DATA AND MOLECULAR MODELING

Yvan Boulanger, Yongxue Tu, Virginie Ratovelomanana, Enrico Purisima and Stephen Hanessian. Université de Montréal and National Research Council, Montreal, Quebec, Canada.

The structures of these glycopeptides consist of a stable β-turn in the sugar region and a conformational equilibrium between clusters in the peptide portion of the molecule.

MDP

MDP analog

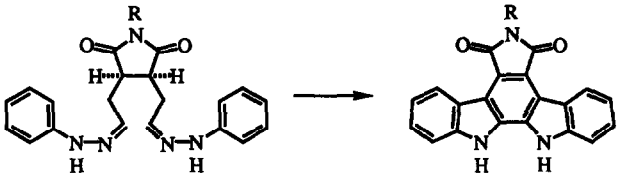


Tetrahedron, **1992**, *48*, 8869

SYNTHETIC APPROACHES TO INDOLO[2,3-*a*]CARBAZOLE ALKALOIDS. SYNTHESES OF ARCYRIAFLAVIN A AND AT2433-B AGLYCONE

Gordon W. Gribble and Steven J. Berthel
Department of Chemistry, Dartmouth College, Hanover, New Hampshire 03755, USA

Two *bis*-Fischer indolization approaches are applied to syntheses of the indolo[2,3-*a*]carbazole alkaloids acyriaflavin (1) and AT2433-B aglycone (2), one of which is the one-step transformation of *bis*-phenylhydrazones shown.



1 R = H
2 R = Me

Tetrahedron, **1992**, *48*, 8881

HYPERVALENT IODINE IN CARBON-CARBON BOND FORMING REACTIONS. A NEW REACTION OF HYPERVALENT IODINE COMPOUNDS AND ORGANOLITHIUM REAGENTS

Derek H. R. Barton , Joseph Cs. Jaszberenyi*, Karsten Leßmann and Tibor Timár
Department of Chemistry, Texas A&M University, College Station, Texas, 77843

Hypervalent iodine compounds react with organolithium reagents resulting in the formation of hydrocarbons by ligand exchange and second displacement on the carbon bonded to iodine.

$$PhIXY + R\text{-}Li \xrightarrow[-5\ ^{\circ}C,\ 5\ min.]{THF/argon} R\text{-}R + PhI + PhH$$

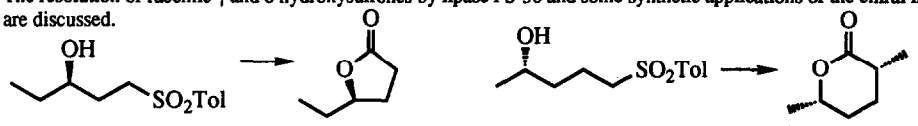
X=Y= Cl, OAc, $OCOCF_3$, OCOPh; X=OH, Y= OTos; R= *n*-Bu, *sec*-Bu, *tert*-Bu.

Tetrahedron, **1992**, *48*, 8891

CHIRAL γ AND δ HYDROXYSULFONES VIA LIPASE CATALYZED RESOLUTIONS - SYNTHESIS OF (*R*)-(+)-4-HEXANOLIDE AND (2*R*,5*S*)-2-METHYL-5-HEXANOLIDE USING INTRAMOLECULAR ACYLATION

Hollie K. Jacobs, Britta H. Mueller, and Aravamudan S. Gopalan*
Department of Chemistry, New Mexico State University, Las Cruces, NM 88003-0001

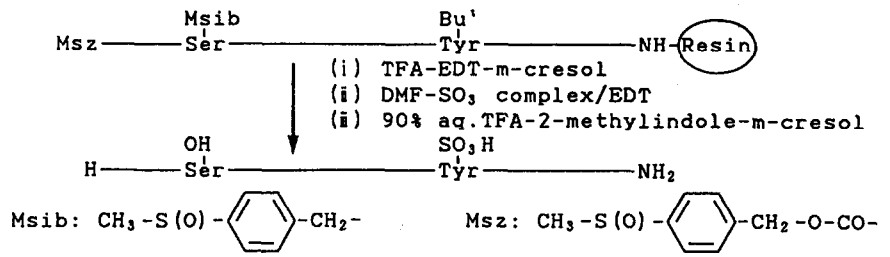
The resolution of racemic γ and δ hydroxysulfones by lipase PS-30 and some synthetic applications of the chiral intermediates are discussed.



Tetrahedron, **1992**, *48*, 8899

SYNTHESES OF TWO TYROSINE-SULPHATE CONTAINING PEPTIDES, LEUCOSULFAKININ (LSK)-II AND CHOLECYSTOKININ (CCK)-12, USING THE O-p-(METHYLSULPHINYL)BENZYL SERINE FOR THE SELECTIVE SULPHATION OF TYROSINE

Shiroh Futaki, Takashi Taike, Tadashi Akita, and Kouki Kitagawa*
Faculty of Pharmaceutical Sciences, The University of Tokushima, Shomachi, Tokushima 770, Japan

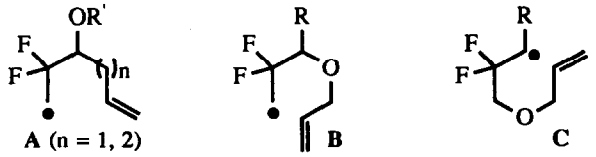


Tetrahedron, **1992**, *48*, 8915

CYCLIZATION REACTIONS OF β,β-DIFLUOROALKYL RADICALS (-CF_2-C•) FOR SYNTHESIZING *gem*-DIFLUOROCYCLIC COMPOUNDS

Tsutomu Morikawa, Yoshitoshi Kodama, Jun Uchida, Masami Takano, Yoshiaki Washio, and Takeo Taguchi*
Tokyo College of Pharmacy, 1432-1 Horinouchi, Hachioji, Tokyo 192-03, Japan

Cyclization reactions of β,β-difluoroalkyl radicals for synthesizing *gem*-difluorocyclic compounds (cyclopentane, cyclohexane, and tetrahydropyran derivatives) were carried out.



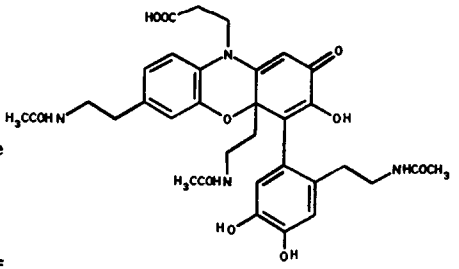
A (n = 1, 2) **B** **C**

Tetrahedron, **1992**, *48*, 8927

CATECHOLAMINE-PROTEIN CONJUGATES: Isolation of 4-Phenylphenoxazin-2-ones from Oxidative Coupling of N-Acetyldopamine with Aliphatic Amino Acids

Martin G. Peter[a]*, Svend Olav Andersen[b]*, Rudolf Hartmann[c], Merle Miessner[a], Peter Roepstorff[d]

[a]Institut für Organische Chemie und Biochemie der Universität Bonn, Germany, [b]Institute of Biological Chemistry A, University of Copenhagen, Denmark, [c]Institut für Physiologische Chemie der Universität Bonn, Germany, [d] Department of Molecular Biology, University of Odense, Denmark



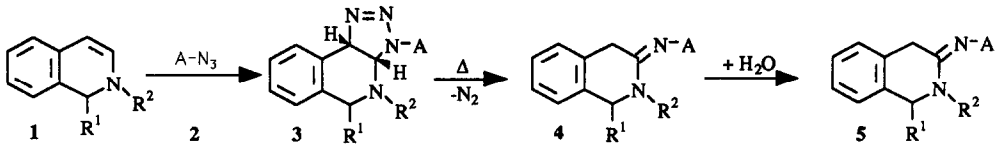
Tetrahedron, **1992**, *48*, 8935

NOUVELLE VOIE DE SYNTHESE DES 1,4-DIHYDROISOQUINOLEIN-3(2H)-ONES

S. Kitane[1], L. Chraibi[2], M. Soufiaoui[3]*

1. E.N.I.M.(Rabat); 2.E.N.S.(Fès); 3. Département de Chimie (Rabat) Maroc.

Synthèse des 1,4-dihydroisoquinolein-3(2H)-ones via la réaction de cycloaddition dipolaire-1,3 des arylazides avec des dérivés du 1,2-dihydroisoquinoleine.



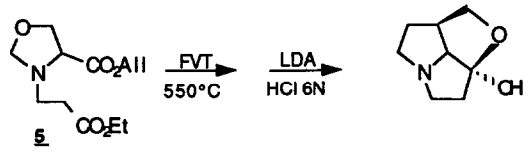
Tetrahedron, **1992**, *48*, 8947

Flash Vacuum Thermolysis of Oxazolidines : a New Way to Reactive Azomethine Ylids. Intramolecular Cycloaddition Reactions towards Pyrrolizidines Synthesis.

Ronan Bureau, Jacques Mortier and Marc Joucla*

Groupe de physicochimie structurale associé au CNRS, Université de Rennes I, Campus de Beaulieu, 35042 Rennes, France.

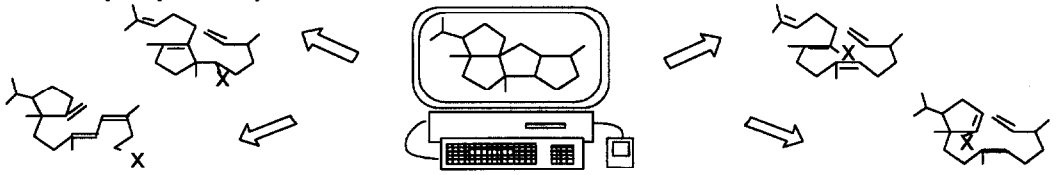
The flash vacuum thermolysis of oxazolidine 5 allowed an access to pyrrolizidines compounds.



Tetrahedron, **1992**, *48*, 8953

New computer-based approach for seeking a key step in the synthesis of complex structures. Application to taxane and crinipellin diterpenoid frameworks.

G. Mehta(1), R. Barone *(2), P. Azario(2), F. Barberis(2), M. Arbelot(2) and M. Chanon(2)
1 - University of Hyderabad. Hyderabad 500 134. India. 2 - Fac. St Jérôme. URA CNRS 1411. 13397 Marseille Cedex 13. France

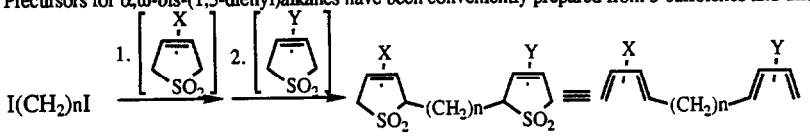


Tetrahedron, **1992**, *48*, 8963

Preparation of α,ω-Alkanediylbis-(3-sulfolenes) as Precursors for α,ω-Bis-(1,3-dienyl)alkanes

Ta-shue Chou[a*], Chung-Wen Ko[a,b], and Teng-Kuei Yang[b]
[a]Institute of Chemistry, Academia Sinica, Taipei, Taiwan,
[b]Department of Chemistry, National Chung-Hsing University, Taichung, Taiwan, China

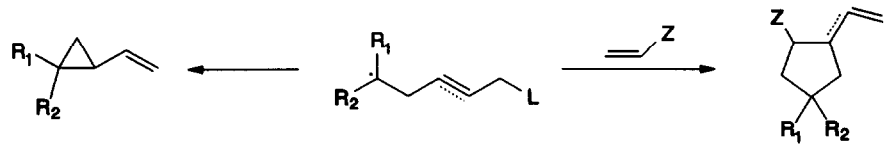
Precursors for α,ω-bis-(1,3-dienyl)alkanes have been conveniently prepared from 3-sulfolenes and diiodoalkanes.



Tetrahedron, **1992**, *48*, 8975

SEQUENTIAL RADICAL ADDITION/CYCLIZATION/ß-ELIMINATION REACTIONS. 3-*exo*- AND 5-*exo*-CYCLOADDITION REACTIONS OF 5-PHENYLTHIO-3-PENTENYL AND 5-PHENYLTHIO-3-PENTYNYL RADICALS

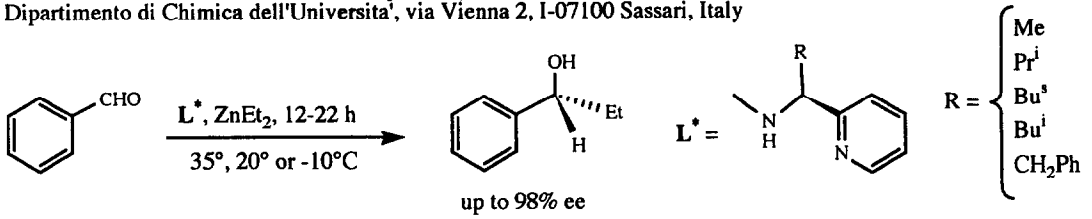
Radomir N. Saičić and Živorad Čeković*, Department of Chemistry, Faculty of Sciences, University of Belgrade, Studentski trg 16, P.O. Box 550, 11001 Belgrade and IHTM Institute for Organic Chemistry and Biochemistry, Belgrade, Yugoslavia



Tetrahedron, **1992**, *48*, 8993

CHIRAL LIGANDS CONTAINING HETEROATOMS. 10. 1-(2-PYRIDYL)ALKYLAMINES AS CHIRAL CATALYSTS IN THE ADDITION OF DIETHYLZINC TO ALDEHYDES: TEMPERATURE DEPENDENCE ON THE ENANTIOSELECTIVITY

Sandra Conti, Massimo Falorni* , Giampaolo Giacomelli and Francesco Soccolini
Dipartimento di Chimica dell'Universita', via Vienna 2, I-07100 Sassari, Italy



up to 98% ee

Tetrahedron, **1992**, *48*, 9001

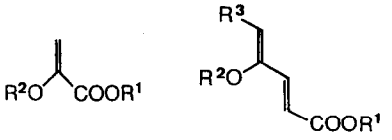
Unsaturated Acid Derivatives in Diels-Alder Cycloadditions: Effect of the Extended or Cross Conjugation.

V. Branchadell[a], A. Oliva,[a]* R. M. Ortuño,[a]* S. Rafel,[b] M. Ventura.[b]

a: Universitat Autònoma de Barcelona, Spain.

b: Universitat de Girona, Spain.

Behaviour of the title compounds in Diels-Alder cycloadditions has been investigated in the light of experimental results and theoretical calculations.

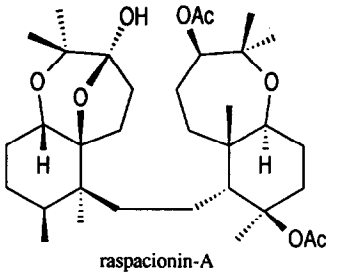


Tetrahedron, **1992**, *48*, 9013

RASPACIONIN-A: A NOVEL REARRANGED TRITERPENOID FROM THE MEDITERRANEAN SPONGE *RASPACIONA ACULEATA*

G. Cimino, A. Crispino, R. de A. Epifanio, A. Madaio*, C.A. Mattia°, L. Mazzarella°, R. Puliti*, E. Trivellone and M. Uriz^

Istituto per la Chimica di Molecole di Interesse Biologico del CNR, Via Toiano 6, 80072 Arco Felice (NA), Italy.
°Dipartimento di Chimica, Università Federico II, via Mezzocannone 4, 80134 Napoli, Italy.
^Centre d'Estudios Avanzados, Camì de Santa Barbara, 17300 Blanes (Gerona), Spain.



raspacionin-A

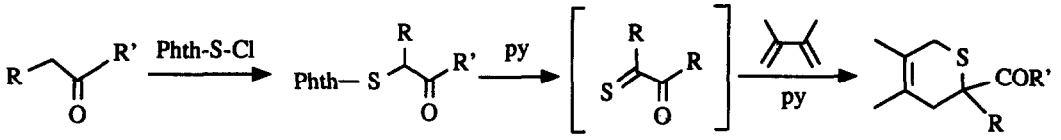
The full structure of an unusual triterpenoid has been assigned by NMR and diffraction studies. The absolute stereochemistry was determined by applying Mosher's method.

Tetrahedron, **1992**, *48*, 9023

PHTHALIMIDOSULFENYL CHLORIDE. PART 5[1]. REACTION WITH ENOLIZABLE CARBONYL COMPOUNDS AND SYNTHESIS OF UNUSUAL FUNCTIONALIZED THIONES.

Giuseppe Capozzi*, Stefano Menichetti, Cristina Nativi, and Alessandro Rosi - *Centro C.N.R. "Chimica Composti Eterociclici", Dipartimento di Chimica Organica, Universita' di Firenze, via G. Capponi 9, I-50121 Firenze, Italy.*
Giovanni Valle - *"Centro di Studio sui Biopolimeri" del C.N.R. Dipartimento di Chimica Organica, Universita' di Padova, via Marzolo 1, I-35100 Padova, Italy.*

Phthalimidosulfenyl chloride (Phth-S-Cl) reacts with 3 to give β-thiocarbonyl compounds 4 which generate thiones 7.



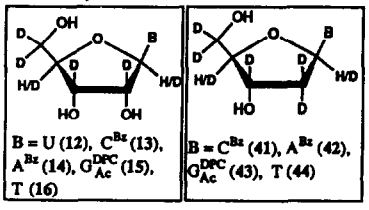
3 4 7 8

Tetrahedron, **1992**, *48*, 9033

SYNTHESIS OF 1'#,2',3',4'#,5',5"-$^{2}H_{6}$-β-D-RIBONUCLEOSIDES AND 1'#,2',2",3',4'#,5',5"-$^{2}H_{7}$-β-D-2'-DEOXYRIBONUCLEOSIDES FOR SELECTIVE SUPPRESSION OF PROTON RESONANCES IN PARTIALLY-DEUTERATED OLIGO-DNA, OLIGO-RNA AND IN 2,5A CORE (*^{1}H-NMR WINDOW*)

A. Földesi, F. P. R. Nilson, C. Glemarec, C. Gioeli & J. Chattopadhyaya*
Department of Bioorganic Chemistry, Box 581, Biomedical Center, University of Uppsala, S-751 23 Uppsala, Sweden

Synthesis of deuterated-ribonucleosides (12-16) and deuterated-2'-deoxyribonucleosides (41-44) and their selective incorporation in RNA or DNA allow easy extraction of structural information from the non-deuterated part in the ^{1}H-NMR, which is shown through the synthesis and 500 MHz ^{1}H-NMR studies of eight partially deuterated ribo- and 2'-deoxyribo-dimers and 2,5A core.

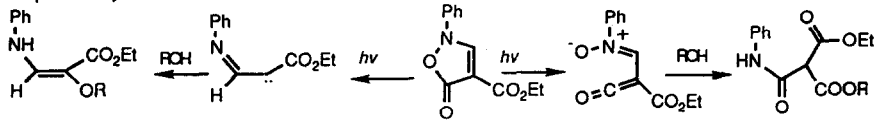


Tetrahedron, **1992**, *48*, 9073

THE PHOTOLYSIS OF 2-PHENYLISOXAZOL-5(2H)-ONE IN ALCOHOLS

Kiah H. Ang and Rolf H. Prager*
School of Physical Sciences, Flinders University, G.P.O. Box 2100, Adelaide, South Australia 5001.

Photolysis of isoxazolones in alcohols occurs by two pathways, involving a ketene and carbene intermediate respectively

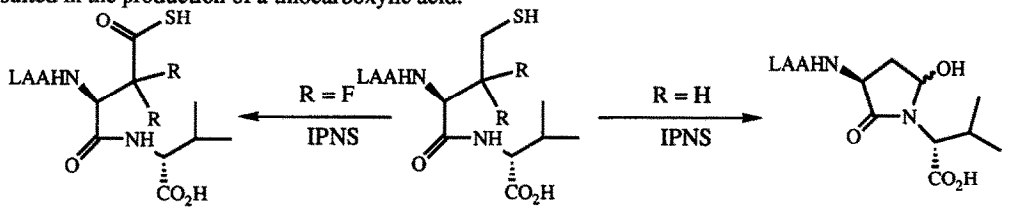


Tetrahedron, **1992**, *48*, 9085

ISOPENICILLIN N SYNTHASE: A NEW MODE OF REACTIVITY

Jack E. Baldwin,* Gregory P. Lynch, and Christopher J. Schofield

Incubation of *L*-δ-(α-aminoadipoyl)-*L*-(3,3-difluorohomocysteinyl)-*D*-valine with isopenicillin N synthase resulted in the production of a thiocarboxylic acid.

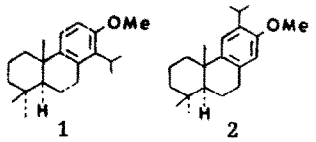


Tetrahedron, **1992**, *48*, 9101

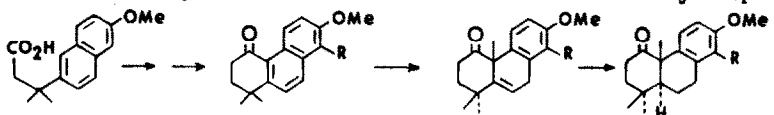
STEREOCONTROLLED TOTAL SYNTHESIS OF (±)-TOTARYL METHYL ETHER AND (±)-SEMPERVIRYL METHYL ETHER

Swati Das, Sukanta Bhattacharyya and Debabrata Mukherjee*
Department of Organic Chemistry, Indian Association for the Cultivation of Science, Jadavpur, Calcutta - 700 032, India.

New total syntheses of (±)-totaryl methyl ether (**1**) and (±)-semperviryl methyl ether (**2**) from **3** are described involving reductive methylation of the ketones **5** and **4** as the key steps.



1 2



3 **4**, R=H; **5**, R=i-Pr **6**, R=H; **7**, R=i-Pr **8**, R=H; **9**, R=i-Pr

9→1 8→→2