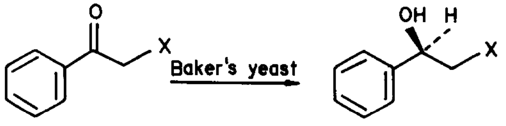
Tetrahedron, **1991**, *47*, 2073

BAKER'S YEAST REDUCTION OF α-HALOACETOPHENONES

Marcia de Carvalho, Marina T. Okamoto, Paulo José Samenho Moran* and J. Augusto R. Rodrigues*
Universidade Estadual de Campinas, Instituto de Química, 13.081 Campinas, SP, Brazil

The fermenting baker's yeast reductions of α-haloacetophenones were carried out by three different procedures.



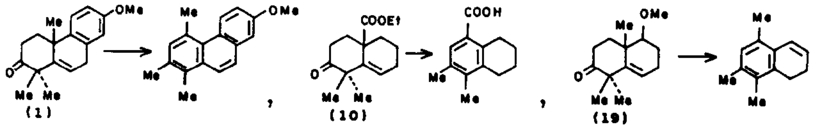
X = F, Cl, Br

With X = I the products were $PhCOCH_3$ and $PhCH(OH)CH_3$

Tetrahedron, **1991**, *47*, 2081

ACID INDUCED REARRANGEMENT OF β,γ-UNSATURATED KETONES

Ajoy K. Banerjee,* Julio C. Acevedo, Rosana Gonzalez, and
Anibal Rojas-Centro de Química,IVIC, Escuela de Química, UCV, Caracas 1020-A, Venezuela



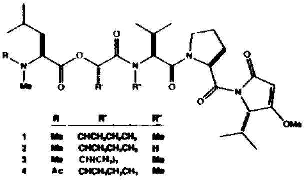
The molecular rearrangement of ketones (1), (10) and (19) is described.

Tetrahedron, **1991**, *47*, 2087

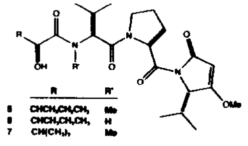
Mirabimides A-D, New N-Acylpyrrolinones from the Blue-Green Alga Scytonema mirabile

Shmuel Carmeli, Richard E. Moore,* and Gregory M. L. Patterson
Department of Chemistry, University of Hawaii at Manoa, Honolulu, Hawaii 96822

Mirabimides A-D (**1**-**4**) are weakly cytotoxic depsipeptides associated with terrestrial *Scytonema mirabile* (strain BY-8-1). The ester bond in mirabimides A-C is readily cleaved under very mild acidic conditions to give compounds **5**-**7**, respectively.



	R	R'	R''
1	Me	$CHCH_3CH_2CH_3$	Me
2	Me	$CHCH_3CH_2CH_3$	H
3	Me	$CH(CH_3)_2$	Me
4	Ac	$CHCH_3CH_2CH_3$	Me



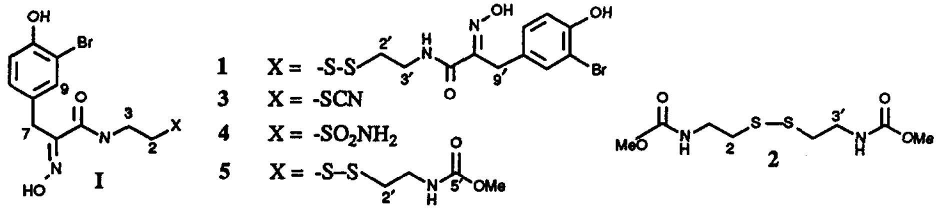
	R	R'
5	$CHCH_3CH_2CH_3$	Me
6	$CHCH_3CH_2CH_3$	H
7	$CH(CH_3)_2$	Me

Tetrahedron, **1991**, *47*, 2097

NOVEL MARINE SPONGE DERIVED AMINO ACIDS 13. ADDITIONAL PSAMMAPLIN DERIVATIVES FROM *PSAMMAPLYSILLA PURPUREA*.

*Carlos Jiménez and Phillip Crews**
Department of Chemistry and Institute for Marine Sciences, University of California, Santa Cruz, CA 95064

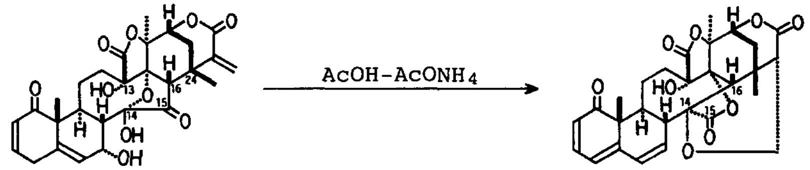
The Indo-Pacific sponge *Psammaplysill purpurea* has yielded a series of psammaplins as shown below:



Tetrahedron, **1991**, *47*, 2103

BENZILIC ACID REARRANGEMENT-TYPE REACTION OF PHYSALINS TO NEOPHYSALINS. STRUCTURAL REVISION OF ONE OF THE DEHYDRATION PRODUCTS OF PHYSALIN A

Masao Kawai,[a] Toichi Ogura,[a] Yasuo Butsugan,[a] Tooru Taga,[b] Mitsuo Hayashi[c]
[a]Department of Applied Chemistry, Nagoya Institute of Technology; [b]Faculty of Pharmaceutical Sciences, Kyoto University; [c]Toyo Jozo Co. Ltd.

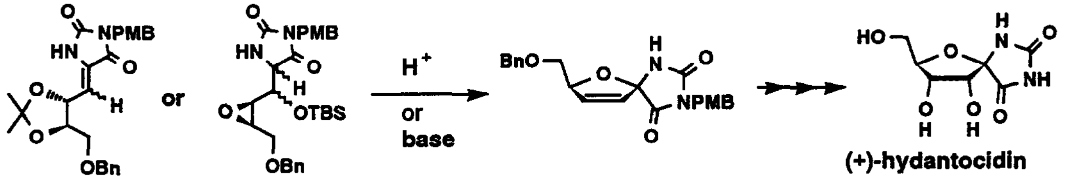


A novel acid-induced benzilic acid rearrangement of 13,14-seco-16,24-cyclosteroids has been disclosed.

Tetrahedron, **1991**, *47*, 2111

SYNTHETIC STUDIES ON (+)-HYDANTOCIDIN (1): A TOTAL SYNTHESIS OF (+)-HYDANTOCIDN, A NEW HERBICIDAL METABOLITE FROM MICROORGANISM

S. Mio,* R.Ichinose, K. Goto, S. Sugai and S. Sato[a]
Agricultural Chemicals Research Laboratories, Sankyo Co. Ltd., 1041 Yasu-cho Yasu-gun Shiga-ken 520-23, Japan; [a]*Analytical and Metabolic Research Laboratories, Sankyo Co. ltd., 1-2-58 Hiromachi, Shinagawa-ku, Tokyo 140, Japan.*

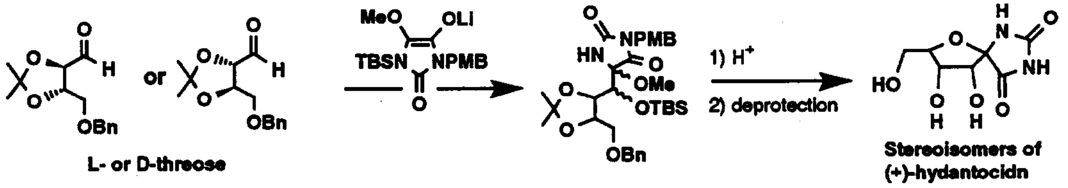


Tetrahedron, **1991**, *47*, 2121

SYNTHETIC STUDIES ON (+)-HYDANTOCIDIN (2):
ALDOL ADDITION APPROACHES TOWARD THE STEREOISOMERS OF (+)-HYDANTOCIDIN

S. Mio,* M. Shiraishi, S. Sugai, H. Haruyama [a] and S. Sato[a]

Agricultural Chemicals Research Laboratories, Sankyo Co. Ltd., 1041 Yasu-cho Yasu-gun Shiga-ken 520-23, Japan; [a]Analytical and Metabolic Research Laboratories, Sankyo Co. ltd., 1-2-58 Hiromachi, Shinagawa-ku, Tokyo 140, Japan.

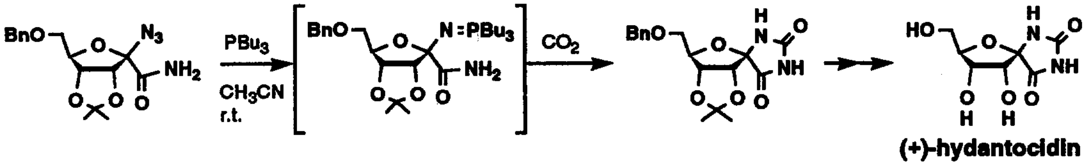


Tetrahedron, **1991**, *47*, 2133

SYNTHETIC STUDIES ON (+)-HYDANTOCIDIN (3):
A NEW SYNTHETIC METHOD FOR CONSTRUCTION OF THE SPIRO-HYDANTOIN RING AT THE ANOMERIC POSITION OF D-RIBOFURANOSE

S. Mio,* Y. Kumagawa and S. Sugai

Agricultural Chemicals Research Laboratories, Sankyo Co. Ltd., 1041 Yasu-cho Yasu-gun Shiga-ken 520-23, Japan.

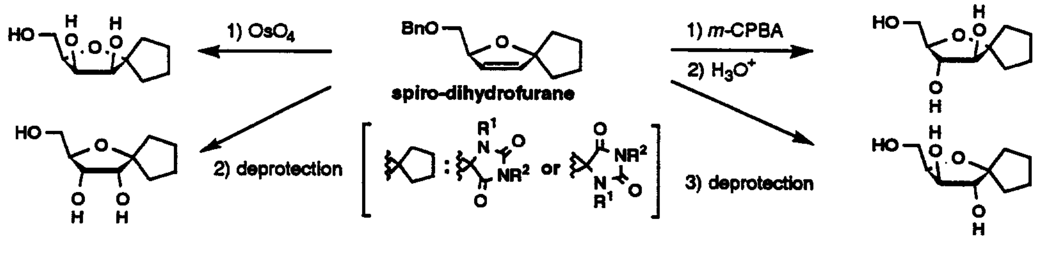


Tetrahedron, **1991**, *47*, 2145

SYNTHETIC STUDIES ON (+)-HYDANTOCIDIN (4):
SYNTHESIS OF STEREOISOMERS OF (+)-HYDANTOCIDIN

S. Mio,* M. Ueda, M. Hamura, J. Kitagawa and S. Sugai

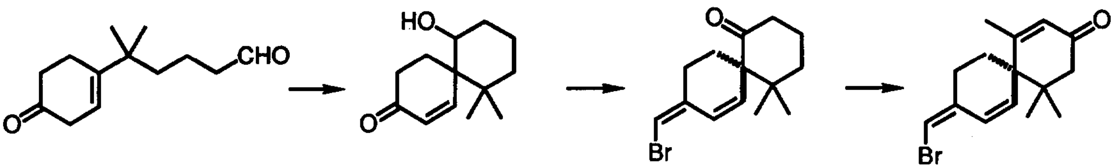
Agricultural Chemicals Research Laboratories, Sankyo Co. Ltd., 1041 Yasu-cho Yasu-gun Shiga-ken 520-23, Japan;



Tetrahedron, **1991**, *47*, 2155

TOTAL SYNTHESIS OF (±)-(Z)-9-(BROMOMETHYLENE)-1,5,5-TRIMETHYLSPIRO[5.5]UNDECA-1,7-DIEN-3-ONE, A BROMINATED SESQUITERPENE OF THE CHAMIGRANE TYPE

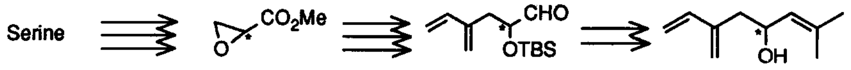
Haruki Niwa,* Yoshifumi Yoshida, Takashi Hasegawa, and Kiyoyuki Yamada*
Department of Chemistry, Faculty of Science, Nagoya University, Chikusa, Nagoya 464, Japan



Tetrahedron, **1991**, *47*, 2163

A NEW SYNTHESIS OF THE ENANTIOMERS OF IPSDIENOL, THE PHEROMONE OF THE *Ips* BARK BEETLE

Kenji Mori* and Hirosato Takikawa, Department of Agricultural Chemistry, The University of Tokyo, Yayoi 1-1-1, Bunkyo-ku, Tokyo 113, Japan

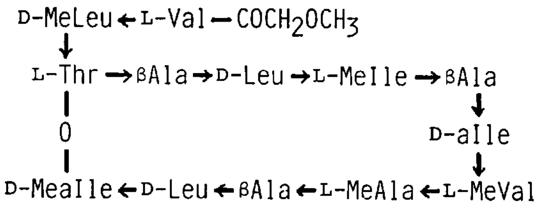


Abstract —— The enantiomers (~96% e.e.) of ipsdienol (2-methyl-6-methylene-2,7-octadien-4-ol) were synthesized from the enantiomers of serine in 16-21% overall yield in 8 steps.

Tetrahedron, **1991**, *47*, 2169

MARINE NATURAL PRODUCTS. XXV. BIOLOGICALLY ACTIVE TRIDECAPEPTIDE LACTONES FROM THE OKINAWAN MARINE SPONGE THEONELLA SWINHOEI (THEONELLIDAE)(1). STRUCTURE OF THEONELLAPEPTOLIDE ID.

Isao Kitagawa,* Nam Kyung Lee,
Motomasa Kobayashi, and Hirotaka Shibuya
Faculty of Pharmaceutical Sciences,
Osaka University, 1-6, Yamada-oka,
Suita, Osaka 565, Japan



theonellapeptolide Id

The structure of theonellapeptolide Id was determined.

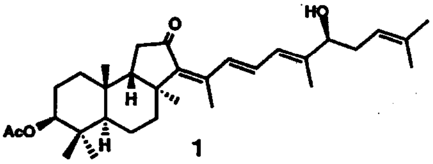
Tetrahedron, **1991**, *47*, 2181

STELLIFERINS A-F, NEW ANTINEOPLASTIC ISOMALABARICANE TRITERPENES FROM THE OKINAWAN MARINE SPONGE *JASPIS STELLIFERA*

Masashi Tsuda, Masami Ishibashi, Kaori Agemi, Takuma Sasaki,[a] and Jun'ichi Kobayashi*

Faculty of Pharmaceutical Sciences, Hokkaido University,
Sapporo 060, Japan, and [a]Cancer Research Institute,
Kanazawa University, Kanazawa 920, Japan

Stelliferin A (1) and other five triterpenes with antineoplastic activity have been isolated from the Okinawan marine sponge *Jaspis stellifera*.

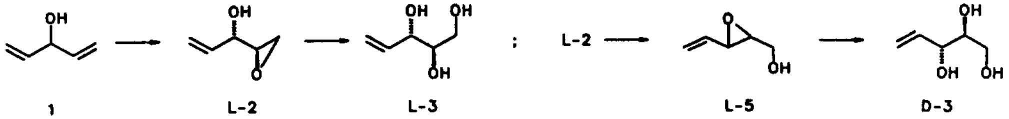


1

Tetrahedron, **1991**, *47*, 2195

ASYMMETRIC SHARPLESS EPOXIDATION OF DIVINYLCARBINOL. *erythro*-D- AND -L-4-PENTENITOLS BY HYDROLYSIS OF REGIOISOMERIC EPOXY-4-PENTENOLS

VOLKER JÄGER,[a]* DETLEF SCHRÖTER, and BERNHARD KOPPENHOEFER[b]
[a]Institut für Organische Chemie der Universität, Am Hubland, D-8700 Würzburg,FRG
[b]Institut für Organische Chemie der Universität, Auf der Morgenstelle 18, D-7400 Tübingen 1, FRG

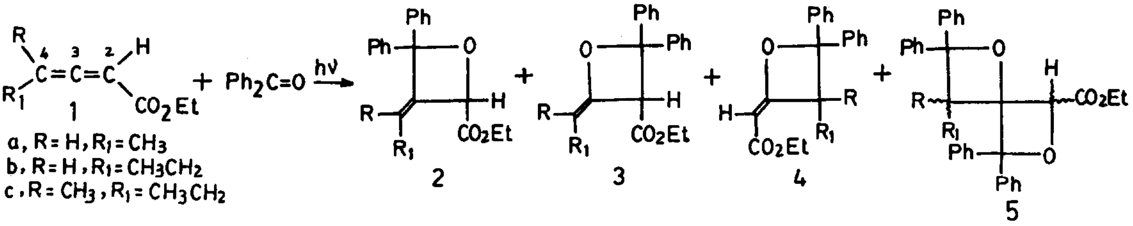


Tetrahedron, **1991**, *47*, 2211

PHOTOADDITION OF BENZOPHENONE TO ALLENIC ESTERS

M.P.S. ISHAR and R.P. GANDHI*
Department of Chemistry, I.I.T. Delhi,Hauz Khas,New Delhi-110016,INDIA.

Photochemical addition of benzophenone to allenic esters(Ia-c) implicates both electron rich(3,4) and electron poor(2,3) olefinic bonds of the esters and furnish monooxetanes (2a,b, 3a-c, 4a-c)and dioxetanes(5a-c).



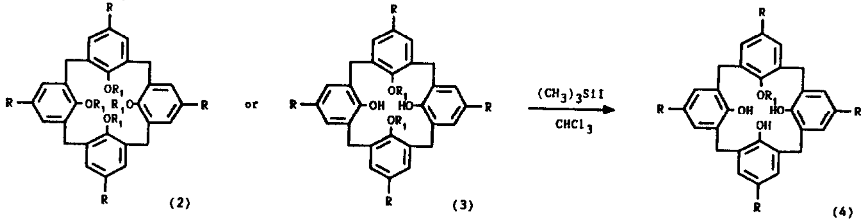
a, R = H, $R_1 = CH_3$
b, R = H, $R_1 = CH_3CH_2$
c, $R = CH_3$, $R_1 = CH_3CH_2$

Tetrahedron, **1991**, *47*, 2221

A GENERAL SYNTHESIS OF CALIX[4]ARENE MONOALKYL ETHERS

Alessandro Casnati, Arturo Arduini, Eleonora Ghidini, Andrea Pochini and Rocco Ungaro*
Istituto di Chimica Organica, Viale delle Scienze, I-43100 Parma, Italy

A method for the first general and high yield synthesis of calix[4]arene monoalkyl ethers (4) has been developed.

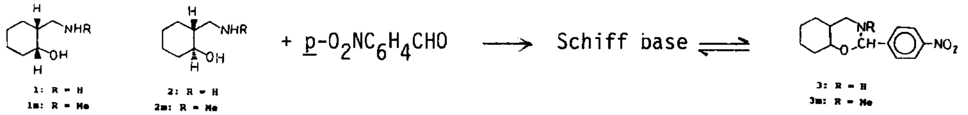


Tetrahedron, **1991**, *47*, 2229

FORMATION OF 1,3-PERHYDROBENZOXAZINES AND THEIR N-METHYL DERIVATIVES. A COMPARATIVE STUDY.

Aija Parkkinen*, Ferenc Fülöp and Kalevi Pihlaja
[a]Department of Chemistry, University of Turku, SF-20500 Turku, Finland

Abstract: Perhydro-1,3-oxazines (3) were formed through the cyclization of p-nitrobenzaldehyde with 1 and 2 or with 1m and 2m. The reactions with 1 and 2 proceeded via the Schiff base type open-chain intermediates. The cyclizations of 1m and 2m were much faster than those of the corresponding hydroxymethylcyclohexylamines studied earlier. The cyclization of 1 was kinetically controlled but in much lesser extent than the corresponding reaction of cis-2-hydroxymethyl-1-cyclohexylamine but the cyclization reactions were not diastereospecific.

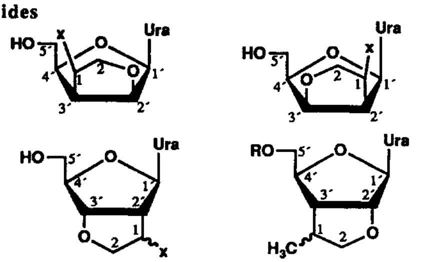


Tetrahedron, **1991**, *47*, 2237

Intramolecular Cyclization-Trapping of Carbon Radicals by Olefins as means to Functionalize 2′- and 3′-carbons in β-D-nucleosides

J.-C. Wu, Z. Xi, C. Gioeli & J. Chattopadhyaya*
Department of Bioorganic Chemistry, Box 581, Biomedical Center,
University of Uppsala, S-751 23 Uppsala, Sweden

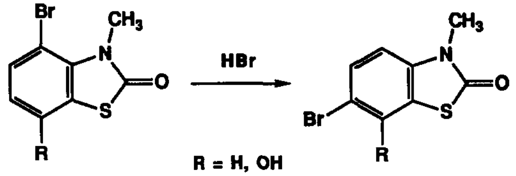
Intramolecular radical addition-cyclization reactions from easily accessible precursors conveniently give access to four isomeric [3.3.0]-fused bis-furan uridines (x = alkyl) in high yields.



Tetrahedron, **1991**, *47*, 2255

AN UNEXPECTED REARRANGEMENT OF 4-BROMO-2(3*H*)-BENZOTHIAZOLONES

Michael Mellor and Susan E Osbourn
Schering Agrochemicals Limited, Chesterford Park Research Station, Saffron Walden, Essex CB10 1XL

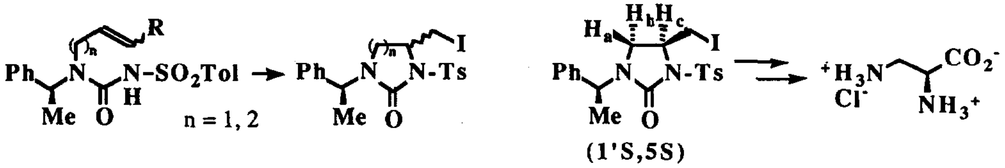


The rearrangement of 4-bromo-2(3*H*)-benzothiazolones to the corresponding 6-bromo-2(3*H*)-benzothiazolones has been shown to occur in high yield in refluxing 48% hydrobromic acid.

Tetrahedron, **1991**, *47*, 2263

A NEW APPROACH TO THE SYNTHESIS OF ENANTIOMERICALLY PURE 2,3-DIAMINOACIDS THROUGH CHIRAL IMIDAZOLIDIN-2-ONES

Giuliana Cardillo, Mario Orena, Maurizio Penna, Sergio Sandri and Claudia Tomasini
Centro per lo Studio della Fisica delle Macromolecole - C.N.R. - Dipartimento di Chimica "G. Ciamician"
Università di Bologna - Via Selmi, 2 - 40126 Bologna - ITALY

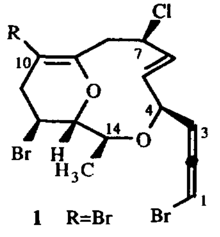


Tetrahedron, **1991**, *47*, 2273

A NEW HALOETHER FROM LAURENCIA POSSESSING A LAUROXACYCLODODECANE RING. STRUCTURAL AND CONFORMATIONAL STUDIES.

Aysel Öztunç*[‡], Sedat Imre[†], Hildebert Wagner
Institute of Pharmaceutical Biology, University of Munich, Karlstrasse 29, 8000 München 2, F.R.G.
[†]Faculty of Pharmacy, University of Istanbul, Turkey
and
Manuel Norte*, José J. Fernández, Rafael González
C.P.N.O. "Antonio González", Inst. Univ. Bio-Orgánica, Universidad de La Laguna, Tenerife, Spain

10-Bromo-obtusallene 1, a new haloether possessing a lauroxacyclododecane ring, has been isolated from the red alga Laurencia obtusa. Its struture has been established by spectroscopical methods. Likewise, its conformation in solution, as well as of the related metabolite obtusallene 2, has been studied by molecular mechanics calculations.



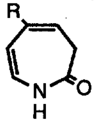
1 R=Br
2 R=H

Tetrahedron, **1991**, *47*, 2277

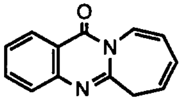
3H-AZEPINES AND RELATED SYSTEMS. PART 4. PREPARATION OF 3H-AZEPIN-2-ONES AND 6H-AZEPINO[2,1-b]QUINAZOLIN-12-ONES BY PHOTO-INDUCED RING EXPANSIONS OF ARYL AZIDES

Kaddour Lamara and Robert K. Smalley*, Department of Chemistry and Applied Chemistry, University of Salford, Salford, M5 4WT

Photolysis of p-substituted aryl azides in THF-water yields 3H-azepin-2-ones (1). Under similar conditions o-azidobenzoic acid yields azepino[2,1-b]quinazolin-12-one (2) as well as the expected 3H-azepin-2-one-3-carboxylic acid. Other azepino[2,1-b]quinazolinones are also prepared.



[1]



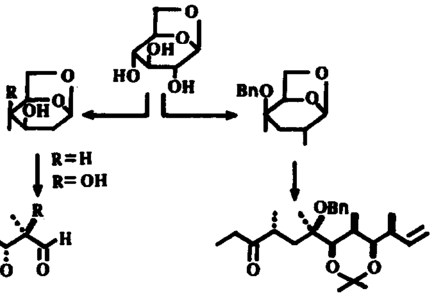
[2]

Tetrahedron, **1991**, *47*, 2291

STEREOCONTROLLED SYNTHESIS OF ERYTHRONOLIDES A AND B IN (C5-C9)+ (C3-C4) + (C1-C2) + (C11-C13) SEQUENCE FROM 1,6-ANHYDRO -β-D-GLUCOPYRANOSE (LEVOGLUCOSAN). Part 1. Synthesis of C1-C10 and C11-C13 segments.

A.F.Sviridov, V.S.Borodkin, M.S.Ermolenko,
D.V.Yashunsky, N.K.Kochetkov*

N.D.Zelinsky Institute of Organic Chemistry,
Academy of Sciences USSR, Moscow, USSR.



Tetrahedron, **1991**, *47*, 2317

STEREOCONTROLLED SYNTHESIS OF ERYTHRONOLIDES A AND B IN (C5-C9) + (C3-C4) + (C1-C2) + (C11-C13) SEQUENCE FROM 1,6-ANHYDRO-β-D-GLUCOPYRANOSE (LEVOGLUCOSAN). Part 2.

A.F.Sviridov, V.S.Borodkin, M.S.Ermolenko,
D.V.Yashunsky, N.K.Kochetkov*

N.D.Zelinsky Institute of Organic Chemistry,
Academy of Sciences USSR, Moscow, USSR.