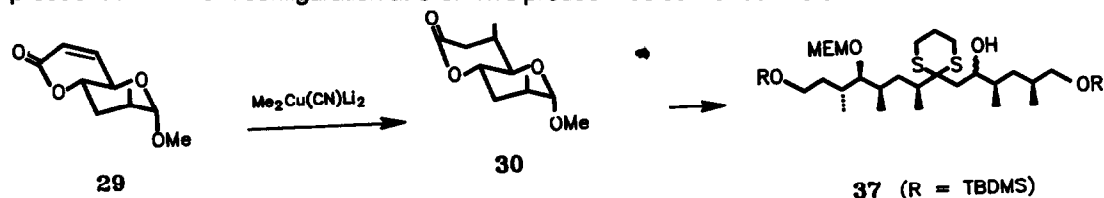


*Tetrahedron*, 1991, 47, 2733

**Introduction of a Chiral Centre on C-6 of a Carbohydrate Unit: Application to the Synthesis of the C-2 to C-15 Fragment of Ionomycin.** Deborah Anne Nicoli-Griffith and Larry Weiler\*, *Department of Chemistry, University of British Columbia, Vancouver, B.C., Canada V6T 1Y6.*

The lactone **29** was synthesized from D-glucose. Cuprate addition to **29** gives the conjugate addition product **30** with the R configuration at C-6. This product was converted into **37**.

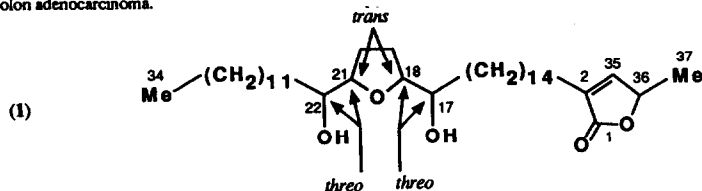


*Tetrahedron*, 1991, 47, 2751

RETICULATACIN: A NEW BIOACTIVE ACETOGENIN FROM *ANNONA RETICULATA* (ANNONACEAE)

Johari M. Saad<sup>1</sup>, Yu-hua Hui, J. Kent Rupprecht, Jon E. Anderson, John F. Kozlowski, Geng-xian Zhao, Karl V. Wood<sup>2</sup>, and Jerry L. McLaughlin\*  
 Department of Medicinal Chemistry and Pharmacognosy, School of Pharmacy and Pharmacal Sciences, and <sup>2</sup>Department of Chemistry, School of Sciences, Purdue University, West Lafayette, Indiana 47906. <sup>1</sup> Visiting Scholar from Department of Biochemistry, University of Malaysia, 59100 Kuala Lumpur, Malaysia

Bullatacin and a novel bioactive monotetrahydrofuran acetogenin, reticulatacin (**1**), have been isolated from the bark of the *Annona reticulata* L. (Annonaceae) by bioactivity-directed fractionation. Reticulatacin showed cytotoxicities on three human tumor cell lines including human lung carcinoma, human breast carcinoma, and human colon adenocarcinoma.

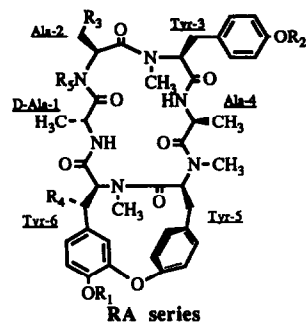


*Tetrahedron*, 1991, 47, 2757

**CONFORMATIONAL ANALYSIS OF ANTITUMOR CYCLIC HEXAPEPTIDE, RA SERIES**

Hiroshi Morita,<sup>a</sup> Kazuyuki Kondo,<sup>a</sup> Yukio Hitotsuyanagi,<sup>a</sup> Koichi Takeya,<sup>a</sup> Hideji Itokawa,<sup>\*a</sup> Nobuo Tomioka,<sup>b</sup> Akiko Itai,<sup>b</sup> and Yoichi Iitaka<sup>c</sup>

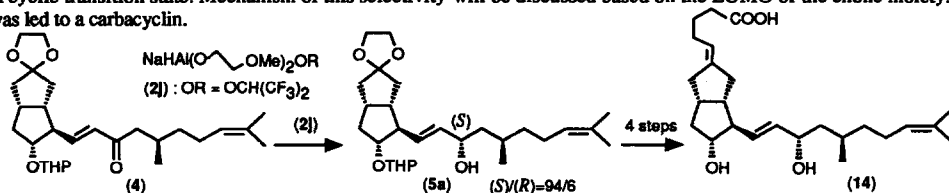
Department of Pharmacognosy, Tokyo College of Pharmacy,<sup>a</sup> Horinouchi 1432-1, Hachioji, Tokyo 192-03, Japan, Faculty of Pharmaceutical Sciences, University of Tokyo,<sup>b</sup> Hongo, Bunkyo-ku, Tokyo 113, Japan and Faculty of Medicine, Teikyo University,<sup>c</sup> Ohtsuka 359, Hachioji, Tokyo 192-03, Japan.



**SODIUM BIS(2-METHOXYETHOXY)(1,1,1,3,3,3-HEXAFLUORO-2-PROPOXY)ALUMINUM HYDRIDE, A NEW STEREOSELECTIVE REDUCING AGENT IN A CARBACYCLIN SYNTHESIS**

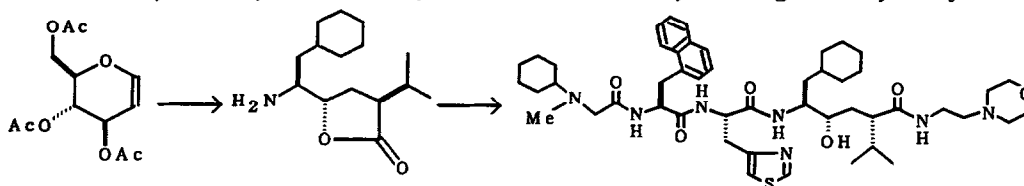
SUSUMU HARASHIMA<sup>a</sup>, OSAMU ODA<sup>a</sup>, SHIGEO AMEMIYA<sup>b</sup> and KOICHI KOJIMA<sup>b</sup> Process Development Laboratories<sup>a</sup> and Medicinal Chemistry Research Laboratories<sup>b</sup> Sankyo Co., Ltd., 2-58, Hiromachi 1-Chome, Sinagawa-ku, Tokyo, 140 Japan.

**ABSTRACT:** A new reducing agent (2j) reduced the enone (4) to give 15(*S*)-allylic alcohol with excellent regio- and stereoselectivity through a cyclic transition state. Mechanism of this selectivity will be discussed based on the LUMO of the enone moiety. The resulting (5a) was led to a carbacyclin.



**SYNTHESIS OF RENIN INHIBITORS POSSESSING HYDROXYETHYLENE ISOSTERE RESIDUE FROM 3,4,6-TRI-O-ACETYL-D-GLUCAL VIA LACTONE PRECURSOR**

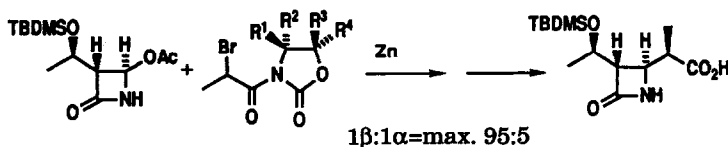
Masao Shiozaki,<sup>a,\*</sup> Yoshiyuki Kobayashi,<sup>a</sup> Tadashi Hata,<sup>b</sup> and Youji Furukawa<sup>b</sup> New Lead Research Laboratories,<sup>a</sup> and Analytical and Metabolic Research Laboratories,<sup>b</sup> Sankyo Co. Ltd., Hiromachi 1-2-58, Shinagawa-ku, Tokyo 140



**HIGHLY STEREOCONTROLLED SYNTHESIS OF THE 1 $\beta$ -METHYLCARBAPENEM KEY INTERMEDIATE BY THE REFORMATSKY REACTION OF 3-(2-BROMOPROPIONYL)-2-OXAZOLIDONE DERIVATIVES WITH A 4-ACETOXY-2-AZETIDINONE**

Yoshio Ito,<sup>a)</sup> Akira Sasaki,<sup>b)</sup> Kastumi Tamoto,<sup>b)</sup> Makoto Sunagawa,<sup>b)</sup> and Shiro Terashima<sup>a)\*</sup>

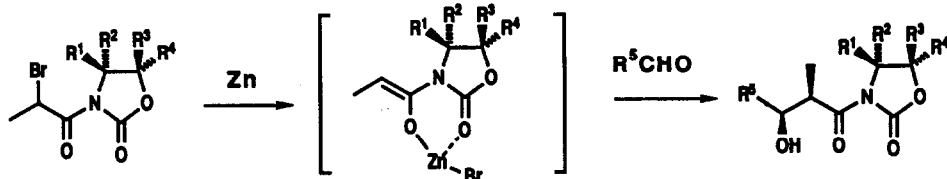
a) Sagami Chemical Research Center. b) Research Laboratories, Sumitomo Pharmaceuticals Co. Ltd.



### HIGHLY STEREOSELECTIVE REFORMATSKY REACTIONS OF 3-(2-BROMOPROPIONYL)-2-OXAZOLIDONE DERIVATIVES WITH VARIOUS ALDEHYDES

Yoshio Ito and Shiro Terashima\*

Sagami Chemical Research Center, Nishi-Onnuma, Sagamihara, Kanagawa 229, Japan

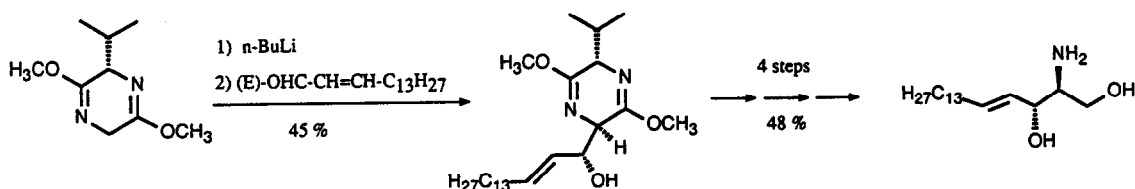


a:  $R^1=R^2=R^3=R^4=H$     b:  $R^1=R^2=Me, R^3=R^4=H$     c:  $R^1=R^2=t-Bu, R^3=R^4=-(CH_2)_5-$

### ASYMMETRIC SYNTHESIS OF D-erythro-SPHINGOSINE

Ulrich Groth, Ulrich Schöllkopf\*, and Thomas Tiller

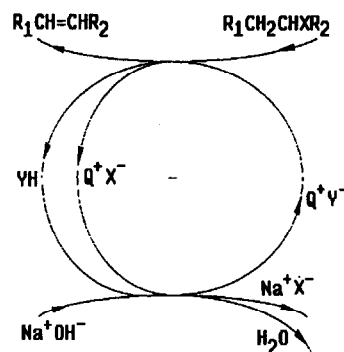
Institut für Organische Chemie der Universität Göttingen, Tammannstr. 2, D-3400 Göttingen



### COCATALYSIS IN PHASE-TRANSFER CATALYZED $\beta$ -ELIMINATION REACTIONS

Mieczyslaw Makosza\* and Wojciech Lasek  
Institute of Organic Chemistry,  
Polish Academy of Sciences,  
Kasprzaka 44/52, 01-224 Warszawa, POLAND

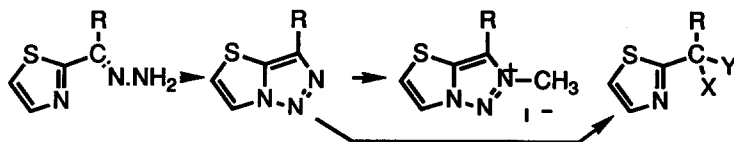
The phase-transfer catalyzed  $\beta$ -elimination of HBr from alkyl bromides with aqueous NaOH in two-phase systems proceeds efficiently when tetraalkylammonium salts and weak HO- or HN-acids are used as the catalysts. The latter produce basic, moderately nucleophilic, lipophilic anions, which in the form of tetraalkylammonium salts afford the elimination in the organic phase.



## 1,2,3-TRIAZOLO[5,1-b]THIAZOLES; SYNTHESIS AND PROPERTIES

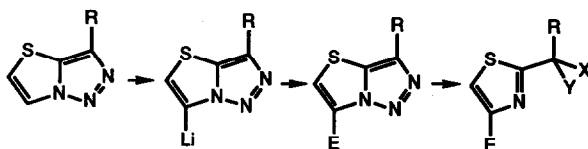
Gurnos Jones and Hermione Ollivierre,

Department of Chemistry, University of Keele, Keele, Staffordshire, ST5 5BG

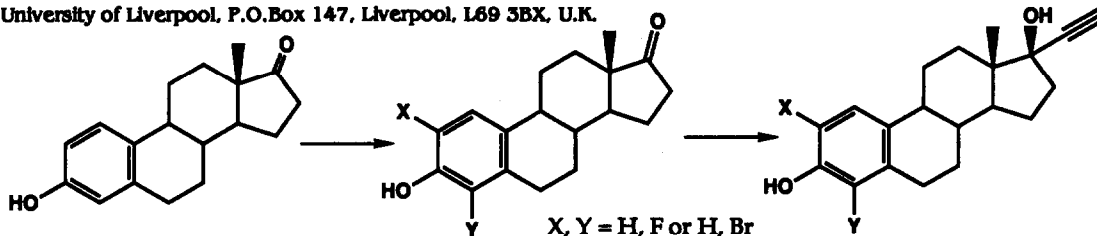
L.S. Fuller and J.H. Young, Shell Synthetic Chemicals Ltd., Four Ashes, Nr. Wolverhampton, WV10 7BP  
Synthesis of 1,2,3-triazolo[5,1-b]thiazoles, quaternization, and reaction with electrophiles.1,2,3-TRIAZOLO[5,1-b]THIAZOLES. PART 2<sup>1</sup>. LITHIATION  
EXPERIMENTS LEADING TO 2,4-DISUBSTITUTED THIAZOLESGurnos Jones<sup>\*</sup> and Hermione Ollivierre,

Department of Chemistry, University of Keele, Keele, Staffordshire

L.S.Fuller and J.H.Young, Shell Synthetic Chemicals Ltd., Four Ashes, Nr. Wolverhampton, WV10 7BF

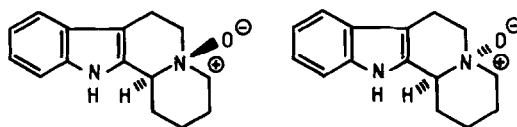
Lithiation, followed by trapping with electrophiles, converts 1,2,3-triazolo-  
[5,1-b]thiazoles into 6-substituted derivatives; ring opening gives thiazoles.REGIOSELECTIVE SYNTHESIS OF A-RING HALOGENATED  
DERIVATIVES OF 17 $\alpha$ -ETHYNYLOESTRADIOLPhilip C. Bulman Page<sup>\*</sup>, Fazal Hussain, Nicholas M. Bonham, Paul Morgan, James L. Maggs<sup>†</sup>, and B. Kevin Park<sup>‡</sup>Robert Robinson Laboratories, Dept. of Chemistry, and <sup>†</sup>Dept. of Pharmacology and Therapeutics,

University of Liverpool, P.O.Box 147, Liverpool, L69 3BX, U.K.



STEREOSELECTIVE PREPARATION OF INDOLOQUINOLIZIDINE  
N-OXIDES: PREDOMINANT CONFORMATIONS

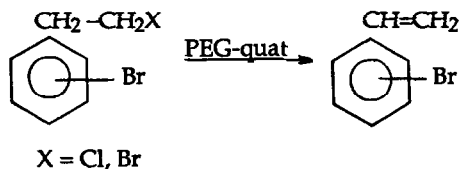
Mauri Lounasmaa\* and Tarja Tamminen  
Laboratory for Organic and Bioorganic Chemistry,  
Technical University of Helsinki,  
SF-02150 Espoo, Finland



CATALYTIC ACTIVITY OF PEG-QUAT PHASE-TRANSFER  
CATALYSTS IN DEHYDROHALOGENATION REACTIONS

Sarina Grinberg and Eleonora Shaubi  
The Institutes for Applied Research, Ben-Gurion University  
of the Negev, P.O. Box 1025, Beer-Sheva 84110, Israel

PEG-quat PTC catalysts containing ether and an ammonium or phosphonium function in the same molecule were synthesized and found to be efficient catalysts for the dehydrohalogenation of bromo(2-haloethyl)benzene to bromostyrene



CORRELATION ANALYSIS OF STABILITY CONSTANTS OF  
COMPLEXES FORMED BETWEEN ALKALI METAL  
CATIONS AND MACROCYCLES

Bo-Long Poh, School of Chemical Sciences,  
Universiti Sains Malaysia, Penang, Malaysia

