

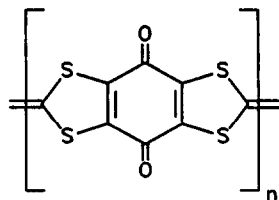
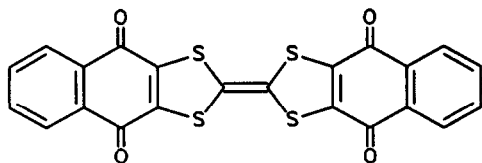
GRAPHICAL ABSTRACTS

*Tetrahedron*, 1993, 49, 3035

**TETRATHIAFULVALENE QUINONES, HYDROQUINONES AND ESTERS**

William H. Watson, Etim E. Eduok, Ram P. Kashyap and Mariusz Krawiec

Department of Chemistry, Texas Christian University, Fort Worth, TX 76129 U.S.A.1



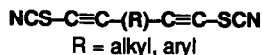
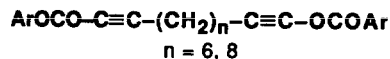
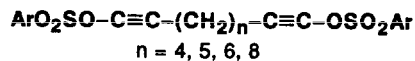
*Tetrahedron*, 1993, 49, 3043

**FUNCTIONALIZATION OF DIYNES. PREPARATION OF BIS(ALKYNYL) DITOSYLATE AND DIBENZOATE ESTERS AND BIS(ALKYNYL) DITHIOCYANATES VIA ALKYNYL IODONIUM CHEMISTRY.**

Rik Tykwinski and Peter J. Stang\*

Department of Chemistry, University of Utah, Salt Lake City, Utah 84112

The synthesis and characterization of the title compounds from the corresponding bis[(phenyl) iodonium] diyne salts is described



*Tetrahedron*, 1993, 49, 3053

**Further Evidence for the Triplet Mechanism**

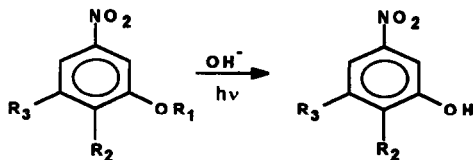
**in the Photosubstitution of Nitroaryl Ethers in Alkaline Medium.**

João Baptista Sargi Bonilha,\* Antonio Claudio Tedesco, Lázaro Cicero Nogueira,

Maria Teresa Ribeiro Silva Diamantino and Júlio Cesar Carreiro

*Departamento de Química, Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto,*

*Universidade de São Paulo- 14040-910- SP- Brasil*



$\text{R}_1 = \text{Me, Et, n Bu}$

$\text{R}_2 = \text{H, Cl, Br}$

$\text{R}_3 = \text{H, NO}_2$

### UNIQUE TEMPLATE EFFECTS OF DISTANNOXANE CATALYSTS IN TRANSESTERIFICATION OF DIOL ESTERS

Junzo Otera,\* Nobuhisa Dan-oh, and Hitosi Nozaki

Department of Applied Chemistry, Okayama University of Science, Ridai-cho, Okayama 700, Japan

Template effects of 1,3-disubstituted tetraalkyldistannoxane catalysts in selective transesterification of diol diacetates into the monoacetates are discussed

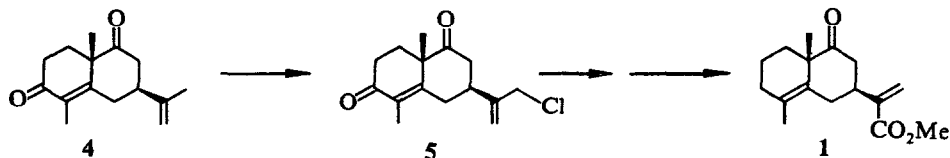


### SYNTHESIS OF (±)-9-OXOEUCDESMA-4,11(13)-DIENE-7αH-12-OIC ACID METHYL ESTER

Xin Chen, Tongshuang Li, Fajun Nan, Sichang Shao<sup>1</sup> and Yulin Li\*

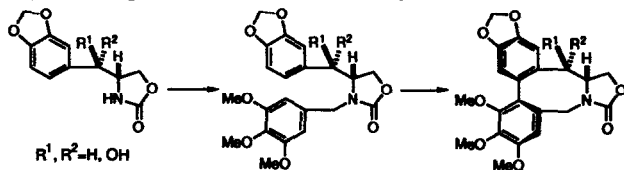
State Key Laboratory of Applied Organic Chemistry and Institute of Organic Chemistry, Lanzhou University, Lanzhou 730000, P R China

The first total synthesis of (±)-9-oxocudesma-4,11(13)-dicene-7αH-12-oic acid methyl ester 1 has been described



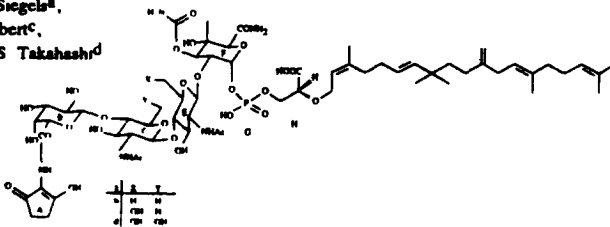
### DESIGN, SYNTHESIS, AND STRUCTURE-CYTOTOXICITY RELATIONSHIPS OF AZA-STEKANES

Y Kubota, H Kawasaki, K. Tomioka,<sup>1</sup> and K. Koga, Faculty of Pharmaceutical Sciences, University of Tokyo, Bunkyo-ku, Tokyo 113, Japan, <sup>1</sup>ISIR, Osaka University, Ibaraki, Osaka 567, Japan



STRUCTURES OF SOME MOENOMYCIN-ANTIBIOTICS -  
INHIBITORS OF PEPTIDOGLYCAN BIOSYNTHESIS

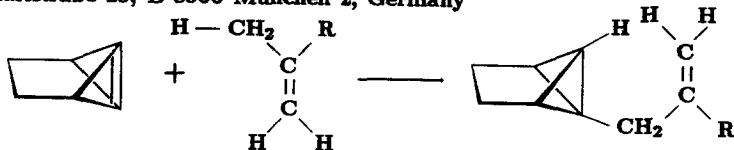
J Scherkenbeck<sup>a</sup>, A Hiltmann<sup>a</sup>, K Hobert<sup>a</sup>, W Bankova<sup>a</sup>, T Siegel<sup>a</sup>,  
M Kaiser<sup>a</sup>, D Müller<sup>a</sup>, H J Veith<sup>b</sup>, H-W Fehlhaber<sup>c</sup>, G Seibert<sup>c</sup>,  
A Markus<sup>c</sup>, M Lambert<sup>c</sup>, G Huber<sup>c</sup>, D Böttger<sup>c</sup>, A Stärk<sup>c</sup>, S Takahashi<sup>d</sup>,  
Y van Heijenoort<sup>e</sup>, J van Heijenoort<sup>e</sup>, and P Welzel<sup>a\*</sup>,  
<sup>a</sup>Fakultät für Chemie der Ruhr-Universität, Postfach 102148,  
D-4630 Bochum (Germany), <sup>b</sup>Institut für Org. Chemie der  
Technischen Hochschule Darmstadt Petersenstr. 22,  
D-6100 Darmstadt (Germany), <sup>c</sup>Hoechst AG, Postfach 800320,  
D-6230 Frankfurt 80 (Germany), <sup>d</sup>Sankyo Co, Ltd,  
Fermentation Research Laboratories, 2-58, Hiromachi 1-chome,  
Shinagawa-ku, Tokyo (Japan), <sup>e</sup>Biochimie Moléculaire et cellulaire, Université Paris-Sud, Orsay (France)



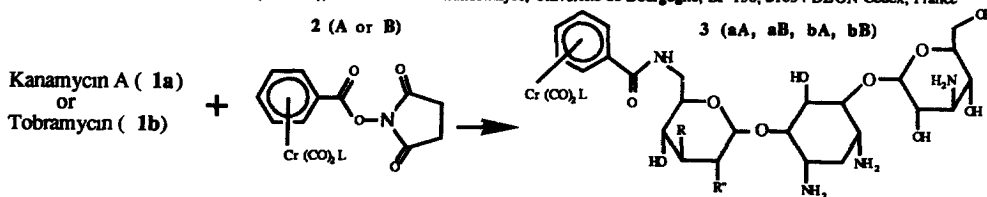
Isolation, structural assignment, and antibiotic efficiency of the new moenomycin antibiotics C<sub>3</sub> (1b) and C<sub>4</sub> (1c) is described. The previously published structure of pholipomycin (1d) is modified.

Ene Reactions of Tricyclo[3.1.0.0<sup>2,5</sup>]hex-1(6)-ene

Stefan Graf, Günter Szeimies, Institut für Organische Chemie der Universität München  
Karlstraße 23, D-8000 München 2, Germany

Organochromium Complexes - Labelled Aminoglycoside Antibiotics  
Derived from Kanamycin A and Tobramycin. Synthesis, Structural  
Characterization and Use as Metallotracers for Immunoassays.

Jan Szymoniak<sup>a\*</sup>, Bouchra El Moustassim<sup>a</sup>, Jack Besançon<sup>a</sup>, Claude Moïse<sup>a</sup> and Pierre Brossier<sup>b</sup>, <sup>a</sup>Laboratoire de Synthèse et d'Electrosynthèse  
Organométalliques associé au CNRS (URA 33), and <sup>b</sup>Unité d'Immunanalyse, Université de Bourgogne, BP 138, 21034 DIJON Cedex, France

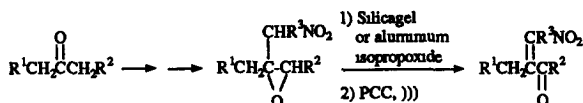


A L = CO, B L = P(OMe)<sub>3</sub>, a R' = R'' = OH, b R' = H, R'' = NH<sub>2</sub>

The metallolabelling of kanamycin A and tobramycin proceeded selectively at the 6'-N position.  
An example of a competitive immunoassay has been presented.

**NOUVELLE VOIE D'ACCES AUX  $\beta$ -NITROENONES**  
**PREMIERE PREPARATION DE  $\beta$ -NITROENONES ACYCLIQUES**

Raphaël SCHNEIDER, Philippe GERARDIN, Bernard LOUBINOX  
 Laboratoire de Chimie Organique 4, Université de Nancy I, Faculté des Sciences,  
 BP 239, 54506 Vandœuvre-les-Nancy Cédex (France)



First preparation of acyclic  $\beta$ -nitroenones based on regioselective cleavage of  $\gamma$ -nitroepoxides

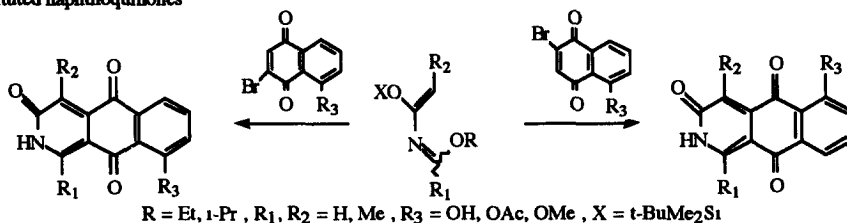
**A REGIOSPECIFIC SYNTHESIS OF 2-AZAANTHRAQUINON-3-ONES VIA A HETERO DIELS-ALDER REACTION WITH BROMONAPHTHOQUINONES**

Boufelja Bouammali,<sup>a</sup> Félix Pautet,<sup>a</sup> Houda Fillon<sup>\*a</sup> and Mohamed Soufiaoui<sup>b</sup>

<sup>a</sup>Laboratoire de Chimie Organique, Institut des Sciences Pharmaceutiques et Biologiques 8, avenue Rockefeller, F-69373 Lyon Cedex 08, France

<sup>b</sup>Laboratoire de Chimie des Plantes et de Synthèse Organique et Bioorganique, Département de Chimie, avenue Ibn-Batouta, Rabat, Maroc

A regioselective synthesis of 2-azaanthraquinon-3-ones was performed through a Diels-Alder reaction between 2-azadienes and 2- or 3-bromo-5-substituted naphthoquinones

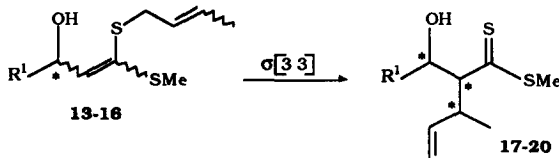


**Stereospecific Thio-Claisen Rearrangement of S-Crotylic  $\alpha$ -Hydroxy Ketene Dithioacetals. Creation of three Contiguous Stereogenic Centres.**

Pierre Beslin<sup>\*</sup> and Stéphane Perron

Laboratoire de Chimie des Composés Thio-organiques (Associé au CNRS), ISMRA, 14050 Caen, France

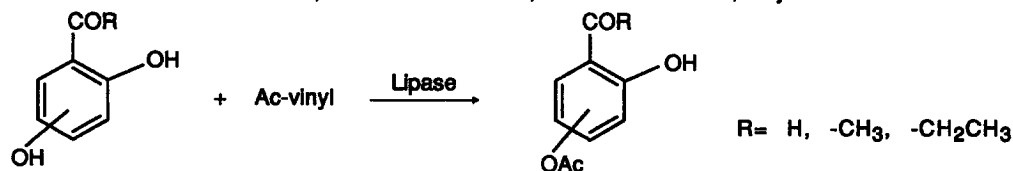
Each of the four available isomeric ketene dithioacetals **13-16** were rearranged stereospecifically into one of the four possible diastereoisomeric  $\alpha$ -allylic  $\beta$ -dithioesters **17-20**.



## LIPASE-CATALYZED REGIOSELECTIVE PROTECTION OF HYDROXYL GROUPS IN AROMATIC DIHYDROXYALDEHYDES AND KETONES

G Nicolosi, M Piattelli and C. Sanfilippo

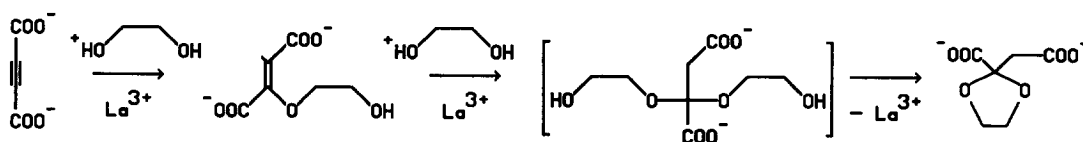
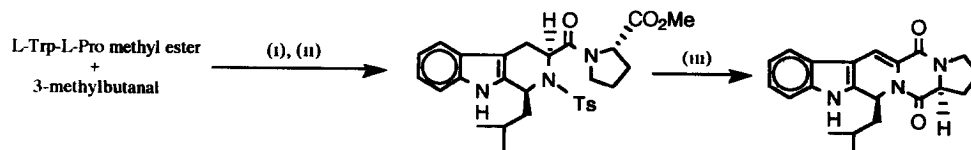
Istituto CNR Studio Sostanze Naturali, Via del Santuario 110, 95028 Valverde CT, Italy

*Pseudomonas cepacia* lipase catalyzes the regio-acetylation in organic solvents of dihydroxyaldehydes and ketones.

## THE ADDITION OF HYDROXYL COMPOUNDS TO UNSATURATED CARBOXYLIC ACIDS HOMOGENEOUSLY CATALYSED BY LANTHANIDE(III)

Jurriaan Huskens, Joop A Peters, and Herman van Bekkum, Laboratory of Organic Chemistry and Catalysis, Delft University of Technology, Julianalaan 136, 2628 BL Delft, The Netherlands

Lanthanide(III) ions effectively promote the synthesis of etherpolycarboxylates from hydroxyl compounds and unsaturated carboxylic acids, in the case of acetylene derivatives cyclic ketals are obtained

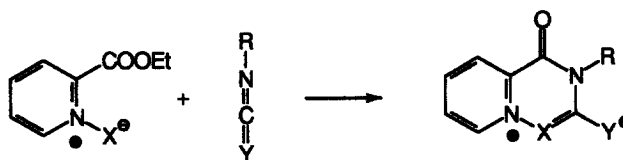
Model Studies Related to the Total Synthesis of the Fumitremorgins; the Pictet-Spengler Cyclisation and the Formation and Intramolecular Acylation of a 1,2-Dihydro- $\beta$ -Carboline DerivativeDavid M Harrison<sup>a</sup> and Ram Bilas Sharma<sup>b</sup> <sup>a</sup>Department of Chemistry, The University of Warwick, Coventry CV4 7AL, U K, <sup>b</sup>Department of Chemistry, The University of Ulster, Coleraine, Northern Ireland BT52 1SA, U K.Reagents (i) 4Å m sieves, CH<sub>2</sub>Cl<sub>2</sub>, CF<sub>3</sub>CO<sub>2</sub>H (1 equiv), (ii) TsCl/pyridine, benzene, 70°C, (iii) EtONa/EtOH reflux

**2-ALKOXYCARBONYLCYCLOIMMONIUM YLIDES, EFFICIENT 1,4-DIPOLE EQUIVALENTS IN THE SYNTHESIS OF NEW CONJUGATED BETAINES.**

A. M. Cuadro, J. Valenciano, J. J. Vaquero, J. L. García Navío and J. Alvarez-Builla\*

Departamento de Química Orgánica,  
Universidad de Alcalá, 28871 Alcalá de  
Henares, Madrid, Spain

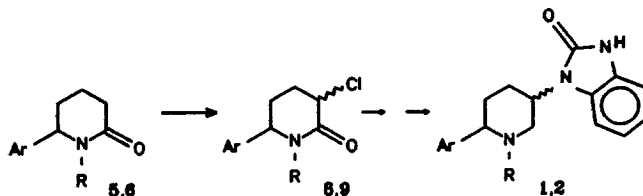
Several heterocyclic mesomeric betaines containing the bicyclic systems pyrido[1,2-a]pyrazine and pyrido[2,1-f][1,2,4]triazine have been prepared by reaction of 2-alkoxycarbonylpyridinium N-ylides with phenyl isocyanate and isothiocyanate



**SYNTHESIS OF 2,5-SUBSTITUTED PIPERIDINES: TRANSPOSITION OF 1,4-SUBSTITUTION PATTERN FOR THE ANALGESIC DRUG R6582.**

Nicole P. Baens, Frans Compennolle\*, Suzanne M. Toppet and Georges J. Hoornaert  
Laboratorium voor Organische Synthese, K.U. Leuven, Celestijnenlaan 200F, B-3001 Leuven (Belgium)

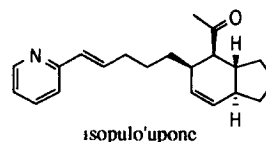
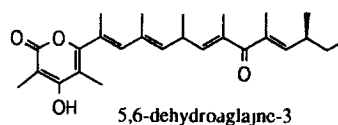
*Cis* and *trans* 2,5-substituted piperidines **1** and **2** are prepared from the lactams **5** and **6** via the *cis* and *trans*  $\alpha$ -chloro lactams **8** and **9**



**Predator - Prey Relationship between *Navanax inermis* and *Bulla gouldiana* - a Chemical Approach**

Aldo Spinella, Luis A. Alvarez and Guido Cimino  
Istituto per la Chimica di Molecole di Interesse Biologico, C. N. R.  
Via Toliano, 6 - 80072 Arco Felice (NA) - Italy

The same pattern of secondary metabolites, including the new 5,6-dehydroaglaïne-3 and isopulo'upone, from *N inermis* and from *B gouldiana* supports a predator-prey relationship between the two Pacific cephalaspidean molluscs

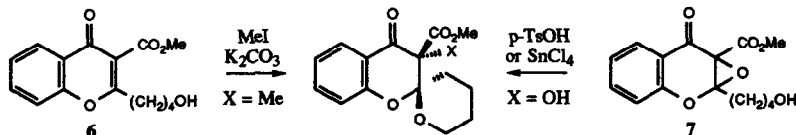


**PREPARATIVE ROUTES TO SPIROACETALS DERIVED FROM CHROMAN-4-ONE  
(2,3-DIHYDRO-4H-1-BENZOPYRAN-4-ONE)**

Peter J Cremms, Roy Hayes, and Timothy W Wallace\*

*Department of Chemistry and Applied Chemistry, University of Salford, Salford M5 4WT, U K*

The chromone **6** is transformed into two spiroacetals on treatment with iodomethane/base, the process involving sequential intramolecular conjugate addition and enolate alkylation. The corresponding 2,3-epoxide **7** undergoes spirocyclisation to two hydroxyesters when treated with acids.



**EXCHANGE OF THE VALINE 2-H IN THE BIOSYNTHESIS  
OF L- $\delta$ -( $\alpha$ -AMINOADIPOYL)-L-CYSTEINYL-D-VALINE**

Jack E Baldwin\*, Michael F Byford, Robert A Field, Chia-Yang Shau, Wendy J Sobey and Christopher J Schofield, *The Dyson Perrins Laboratory and the Oxford Centre for Molecular Science, South Parks Road, Oxford OX1 3QY, U K*

Epimerisation of the valine  $\alpha$ -carbon by ACV synthetase was demonstrated by loss of deuterium from [2- $^2$ H]-valine and incorporation from D $_2$ O into the valinyl residue

