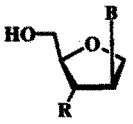
## GRAPHICAL ABSTRACTS

*Tetrahedron*, **1994**, *50*, 10167

**Nucleosides and Nucleotides. 132. Synthesis and Biological Evaluations of Ring-Expanded Oxetanocin Anologues: Purine and Pyrimidine Analogues of 1,4-Anhydro-2-deoxy-D-arabitol and 1,4-Anhydro-2-deoxy-3-hydroxymethyl-D-arabitol**

A. Kakefuda,[a] S. Shuto,[a] T. Nagahata,[b] J. Seki,[b] T. Sasaki,[c] and A. Matsuda*,[a]

*Faculty of Pharmaceutical Sciences, Hokkaido University,[a] Kita-12, Nishi-6, Kita-ku, Sapporo 060, Japan, Research Laboratories, Nippon Kayaku Co., Ltd.,[b] Shimo, Tokyo 115, Japan, and Cancer Institute, Kanazawa University,[c] Kanazawa 920, Japan*



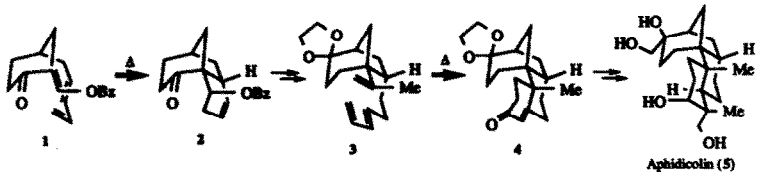
**2 ; B = adenine, R = OH**
**3 ; B = adenine, R = $CH_2OH$**
**4 ; B = 2,6-diaminopurine, R = OH**
**5 ; B = 2,6-diaminopurine, R = $CH_2OH$**
**6 ; B = guanine, R = OH**
**7 ; B = guanine, R = $CH_2OH$**
**8 ; B = cytosine, R = OH**
**9 ; B = cytosine, R = $CH_2OH$**

*Tetrahedron*, **1994**, *50*, 10183

**Aphidicolin Synthesis (I)——Formal Synthesis of (±)-Aphidicolin By the Successive Intramolecular Diels-Alder Reactions**

**Masahiro Toyota, Youichi Nishikawa, Takashi Seishi, and Keiichiro Fukumoto* Pharmaceutical Institute, Tohoku University, Aobayama, Sendai 980-77, Japan**

**Formal synthesis of antitumor and antiviral diterpene aphidicolin (5) has been developed. The key steps, 1 → 2 and 3 → 4, involve intramolecular Diels-Alder reaction.**

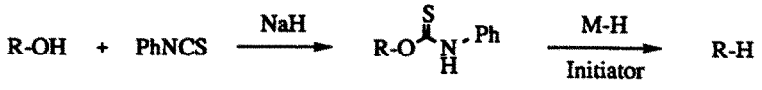



*Tetrahedron*, **1994**, *50*, 10193

**RADICAL-BASED DEOXYGENATION OF ALIPHATIC ALCOHOLS VIA THIOXOCARBAMATE DERIVATIVES**

Makoto Oba and Kozaburo Nishiyama*
Department of Material Science and Technology, Tokai University, 317, Nishino, Numazu, Shizuoka 410-03, Japan

Aliphatic hydroxy compounds containing sugars and nucleosides were deoxygenated with silanes or tributylstannane under radical conditions via *N*-phenylthioxocarbamate derivatives.

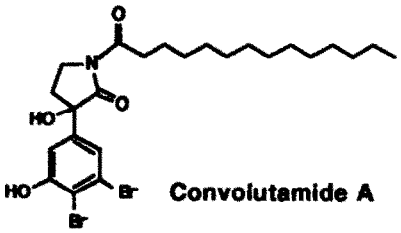



*Tetrahedron*, **1994**, *50*, 10201

**Convolutamides A ~ F, Novel γ-Lactam Alkaloids from the Marine Bryozoan *Amathia convoluta***

Hui-ping Zhang, Hideyuki Shigemori†, Masami Ishibashi†, Toshiyuki Kosaka‡, George R. Pettit§, Yoshiaki Kamano*, and Jun'ichi Kobayashi*†

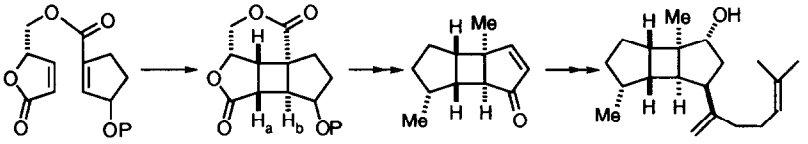
**Faculty of Science, Kanagawa University, Hiratsuka 259-12, Japan, †Faculty of Pharmaceutical Sciences, Hokkaido University, Sapporo 060, Japan, ‡Analytical and Metabolic Research Laboratories, Sankyo Co., Ltd., Shinagawa, Tokyo 140, Japan, and §Cancer Research Institute and Department of Chemistry, Arizona State University, Tempe, Arizona 85287-1604, USA**



**Enantioselective Total Synthesis of (+)-Stoechospermol *Via* Stereoselective Intramolecular (2+2) Photocycloaddition of the Chiral Butenolide**

*Tetrahedron*, **1994**, *50*, 12829

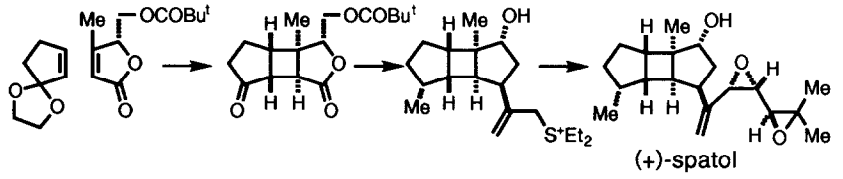
**Masahide Tanaka, Kiyoshi Tomioka,† and Kenji Koga***
*Faculty of Pharmaceutical Sciences, University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113,*
*†Institute of Scientific and Industrial Research, Osaka University, Ibaraki, Osaka 567, Japan*



**Total Synthesis of Natural (+)-Spatol. Confirmation of The Absolute Stereostructure**

*Tetrahedron*, **1994**, *50*, 12843

**Masahide Tanaka, Kiyoshi Tomioka,† and Kenji Koga***
*Faculty of Pharmaceutical Sciences, University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113,*
*†Institute of Scientific and Industrial Research, Osaka University, Ibaraki, Osaka 567, Japan*



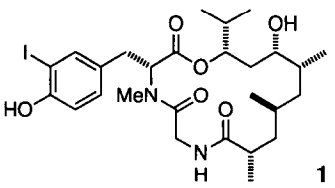

**Enantioselective Total Synthesis of Doliculide, a Potent Cytotoxic Cyclodepsipeptide of Marine Origin and Structure-Cytotoxicity Relationships of Synthetic Doliculide Congeners**

*Tetrahedron*, **1994**, *50*, 12853

Hiroyuki Ishiwata, Hiroki Sone, Hideo Kigoshi, and Kiyoyuki Yamada*

Department of Chemistry, Faculty of Science, Nagoya University, Chikusa, Nagoya, 464, Japan

The enantioselective total synthesis of doliculide (**1**) has been accomplished efficiently and the structure-cytotoxicity relationships of **1** and its artificial congeners were examined.

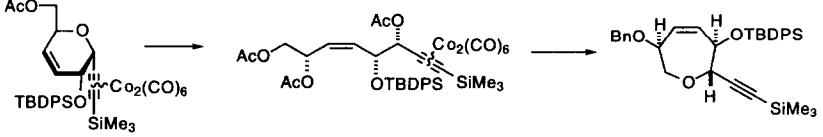



**Ring Opening of Alkynyl Sugars by Nicholas Reaction-----Application to Enantioselective Synthesis of Oxepane Subunits of Marine trans-fused Polyether Toxins**

*Tetrahedron*, **1994**, *50*, 12883

S. Tanaka, N. Tatsuta, O. Yamashita, M. Isobe, Nagoya Univ. Chikusa, Nagoya 464-01; Kao Co. 1334 Minato, Wakayama 640, Japan

Pyranose ring of cobalt-complexed alkynyl sugars was diasteroselectively cleaved by Nicholas reaction. The resulting linear cobalt complex was modified and converted into dehydrooxepane unit of ciguatoxin.

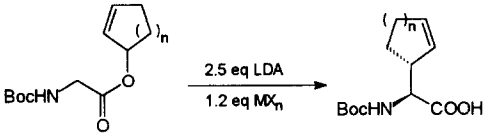


*Tetrahedron*, **1994**, *50*, 12895

## Stereoselective Synthesis of 2-(2'-Cycloalkenyl) Glycinates via [3,3] Sigmatropic Rearrangement of Chelated Ester-Enolates

Uli Kazmaier
Organisch-Chemisches Institut der Universität, Im Neuenheimer Feld 270, 69120 Heidelberg, Germany

Ester-enolate Claisen rearrangement of chelated *N*-protected cycloalkenyl glycinates results in the formation of cyclic γ,δ-unsaturated amino acids in good yields and in a highly diastereoselective fashion.

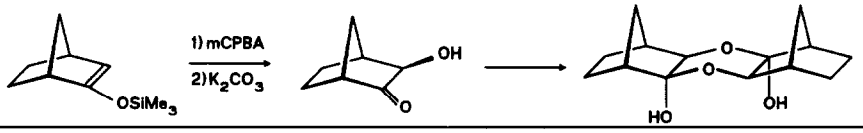



*Tetrahedron*, **1994**, *50*, 12903

## Stereochemistry of the Rubottom Oxidation with Bicyclic Silyl Enol Ethers; Synthesis and Dimerization Reactions of Bicyclic α-Hydroxy Ketones

Johann Jauch, Institut für Organische Chemie der Universität Tübingen, Auf der Morgenstelle 18, D-72076 Tübingen, Germany

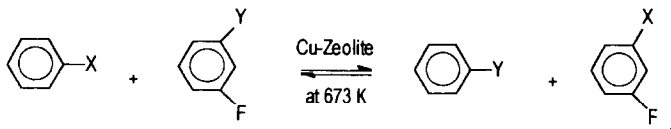
A modified and improved procedure for the Rubottom oxidation of bicyclic silyl enol ethers is described. The stereochemical outcome of this reaction is studied.




*Tetrahedron*, **1994**, *50*, 12913

## Exchange of Halogens Between Aromatic Compounds in the Presence of Cu-HZSM-5 Zeolite

S. Imhaoulène, L. Vivier, M. Guisnet and G. Pérot, URA CNRS 350, Catalyse en Chimie Organique 40, avenue du Recteur Pineau 86022 Poitiers Cedex, France.
M. Gubelmann, Rhône-Poulenc Recherches, Centre d'Aubervilliers 93308 Aubervilliers Cedex, France.




(X, Y = Cl, Br)

Halogen exchange reaction between aromatics was carried out in the presence of Cu-HZSM-5 zeolite at 673 K.

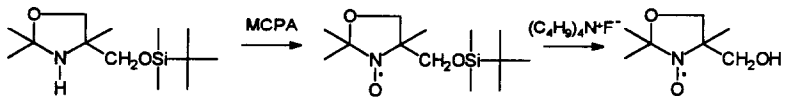
*Tetrahedron*, **1994**, *50*, 12923

## NITROXIDES: SYNTHESIS AND PARAMAGNETIC PROPERTIES OF AN α-HYDROXYMETHYL DERIVATIVE OF DOXYL

Aziz Chaouni-Benabdallah, Guy Subra, Pierre A. Bonnet*, Jean P. Fernandez, Jean P. Chapat, Patrick Vallet, Robert N. Muller

URA CNRS 1111, Fac. Pharmacie, 34060 Montpellier, France
Département de Chimie Organique et Laboratoire de RMN, Université de Mons, B-7000 Mons, Belgique

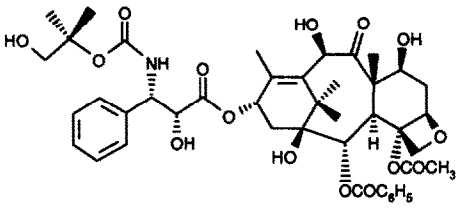
The synthesis of new α-(hydroxymethyl)oxazolidin-3-oxyls was achieved after protection by silylation of the hydroxyl groups. Relaxivity studies of (*R,S*)-4-(hydroxymethyl)-2,2,4-trimethyloxazolidin-3-oxyl show no beneficial effect of the presence of an hydroxymethyl in α of the N-O group.

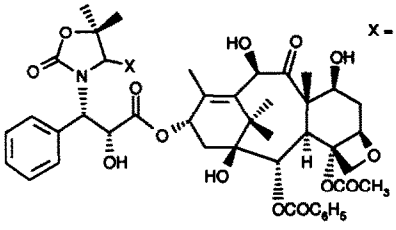


*Tetrahedron*, **1994**, *50*, 10289

## Partial Synthesis of Major Human Metabolites of Docetaxel

A. Commerçon*, J.D. Bourzat, D. Bézard, M. Vuilhorgne
Rhône-Poulenc Rorer S.A.- Centre de Recherches de Vitry-Alfortville, 13 Quai Jules Guesde - BP14 - 94403 Vitry-sur-Seine





X = =O , ▬OH , ┈OH

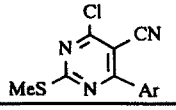
The efficient partial synthesis of four major metabolites of docetaxel is described.

*Tetrahedron*, **1994**, *50*, 10299

## METALATION OF DIAZINES X. FIRST HALOGEN MIGRATION DURING METALATION OF PYRIMIDINES. UNUSUAL HALOGEN-LITHIUM EXCHANGE WITH LTMP. NEW SYNTHESIS OF LESHMANIACIDES.

**Nelly Plé, Alain Turck, Karine Couture, G. Queguiner***.
Laboratoire de Chimie Organique fine et Hétérocyclique; URA CNRS 1429. INSA-IRCOF, B.P. 08,76131 Mont-Saint-Aignan Cedex. France

An halogen migration of iodine during the metalation of pyrimidines and an unusual halogen-lithium exchange with LTMP have been observed. New synthesic route to Lesmaniacides using metalation and cross coupling reaction is described.

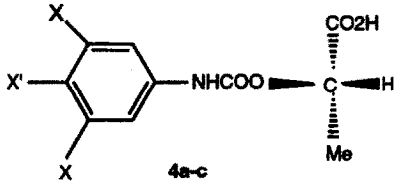


Ar : $C_6H_5$ , 3-$OMeC_6H_4$

*Tetrahedron*, **1994**, *50*, 10309

## Resolving Agents. 2. Syntheses of Arylurethanes of (S)-Lactic Acid and their use in the Resolution of racemic Bases.

Eric Brown and Mansourou Moudachirou
Laboratoire de Synthèse Organique, Université du Maine,
Avenue Olivier Messiaen, BP 535, 72017 Le Mans Cedex - France



4a-c

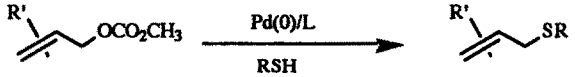
| | X | X' |
|---|---|---|
| a | MeO | MeO |
| b | H | NO2 |
| c | H | Cl |

*Tetrahedron*, **1994**, *50*, 10321

## PALLADIUM(0)-CATALYZED ALKYLATION OF THIOLS

C. Goux, P. Lhoste and D. Sinou*
Laboratoire de Synthèse Asymétrique, associé au CNRS, ESCIL, Université Claude Bernard Lyon I, 43, bd du 11 Novembre 1918, 69622 Villeurbane Cédex, France.

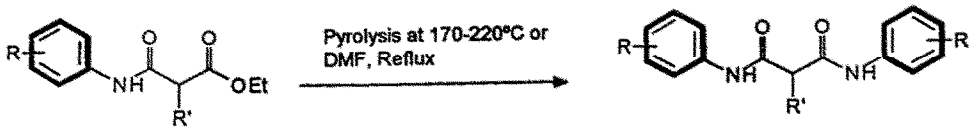
Allylic aryl sulphides are obtained regio- and stereoselectively by alkylation of various allylic carbonates by aromatic thiols in the presence of palladium(0) catalyst.



**Ethyl Esters of Malonanilic Acids. Synthesis and Pyrolysis**

*Tetrahedron*, **1994**, *50*, 10331

I.V.Ukrainets*, P.A.Bezugly, V.I.Treskach, S.G.Taran and O.V.Gorokhova;
Ukrainian Academy of Pharmacy, (Kharkov, Ukraine)

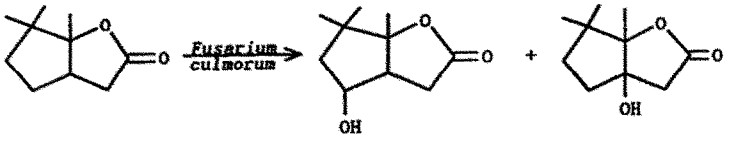



**Lactones 1. Hydroxylation of Dihydro-β-campholenolactone by *Fusarium culmorum***

*Tetrahedron*, **1994**, *50*, 10339

Ewa Nobilec, Miroslaw Aniol and Czeslaw Wawrzeńczyk
Institute of Fundamental Chemistry, Agricultural University, Norwida 25, 50-375 Wroclaw, Poland

The 6-hydroxy derivative as a major product and 5-hydroxy as a minor one were isolated from transformation of racemic dihydro--β-campholenolactone with *Fusarium culmorum*.

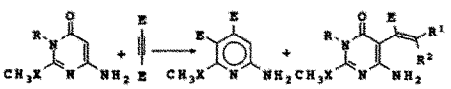



**REACTIVITY OF 6-AMINOPYRIMIDIN-4-(3H)-ONES TOWARDS DIMETHYL ACETYLENEDICARBOXYLATE (DMAD). TANDEM DIELS-ALDER/RETRO DIELS ALDER (DA/RDA) REACTION IN THE SYNTHESIS OF 2-AMINOPYRIDINES**

*Tetrahedron*, **1994**, *50*, 10345

Justo Cobo, Celeste García, Manuel Melguizo, Adolfo Sánchez*, Manuel Nogueras.
Química Orgánica, Universidad de Jaén, E-23071 Jaén. SPAIN

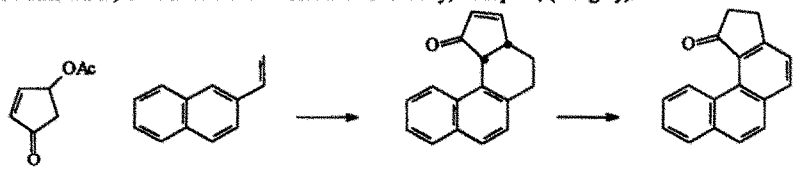
**The reactions of 6-aminopyrimidi-4-(3H)-one derivatives with DMAD are discussed in this paper. 2-aminopyridines and 6-amino-5-vinylpyrimidin-4-(3H)-ones have been obatained as main products, which can be explained on the basis of DA/RDA reactions, or Michael Addition on pyrimidine derivatives.**



**A NEW SHORT SYNTHETIC APPROACH TO CYCLOPENTAPHENANTHRENONES**

*Tetrahedron*, **1994**, *50*, 10359

L. Minuti, A. Taticchi*; Dipartimento di Chimica, Università di Perugia, 06100 Perugia, (Italy).
E. Gacs-Baitz; Central Research Institute of Chemistry, Budapest , (Hungary).




A new two-step synthesis of cyclopentaphenanthrenones based on the high pressure Lewis acid catalyzed Diels-Alder reaction of 4-acetoxy-2-cyclopenten-1-one with vinylnaphthalenes is described.

*Tetrahedron*, **1994**, *50*, 10367

## TRANSESTERIFICATION OF ALKYL CARBAMATE TO ARYL CARBAMATE : EFFECT OF VARYING THE ALKYL GROUP

Sunita R.Deshpande, Anjali P.Likhite and S. Rajappa*
Division of Organic Chemistry (Synthesis), National Chemical Laboratory, Pune 411 008, India.

*Abstract: Benzylcarbamate gives the best yields in the transesterification to aryl carbamates.*

$$MeNH-CO_2R + ArOH \xrightarrow{POCl_3} MeNH-CO_2Ar$$

(R = Bz, allyl, i-Pr, Me)

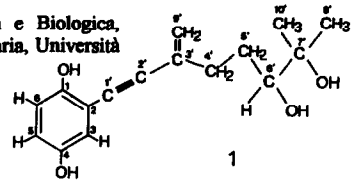
*Tetrahedron*, **1994**, *50*, 10371

## FOENICULOXIN, A NEW PHYTOTOXIC GERANYL-HYDROQUINONE FROM PHOMOPSIS FOENICULI

A. Evidente[a*], R. Lanzetta[b], Mohamed A. Abouzeid[a], M.M. Corsaro[b], L. Mugnai[c] and G. Surico[c]

[a]Dipartimento di Scienze Chimico-Agrarie and [b]Dipartimento di Chimica Organica e Biologica, Università di Napoli "Federico II" Italy; [c]Istituto di Patologia e Zoologia Forestale ed Agraria, Università di Firenze, Italy

A new phytotoxic geranylhydroquinone, characterized as 2-(6,7-dihydroxy-7-methyl-3-methylen-1-ynyl)-hydroquinone (**1**), was isolated from Phomopsis foeniculi, a pathogenic fungus of fennel.



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