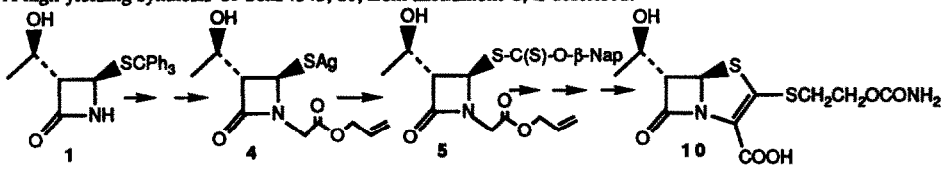
GRAPHICAL ABSTRACTS

Tetrahedron, **1992**, *48*, 1175

A Practical Conversion of an Azetidinone to Penem: Synthesis of Sch 34343.

D. Gala*, J.S.Chiu, A.K.Ganguly, V M.Girijavallabhan, R.S.Jaret, J.K.Jenkins, S.W.McCombie,
P. L.Nyce, S.Rosenhouse, and M.Steinman Schering Plough Research, 60 Orange Street, Bloomfield, NJ 07003, USA

A high yielding synthesis of Sch34343, **10**, from azetidinone **1**, is described.

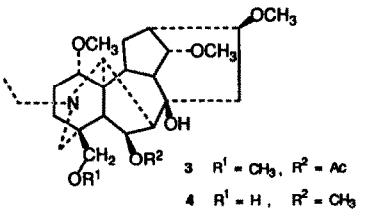


Tetrahedron, **1992**, *48*, 1183

NEW NORDITERPENOID ALKALOIDS FROM *ACONITUM SEPTENTRIONALE*

Samir A. Ross[a] and S. W. Pelletier[a]; Arene Jørgen Aasen[b]
[a]Institute for Natural Products Research & School of Chemical Sciences, The University of Georgia,Athens, GA 30602, U.S.A.; [b]Department of Pharmacy, University of Oslo, P.O. Box 1068, Blindern 0316 Oslo 3, Norway

Four new norditerpenoid alkaloids and seven known alkaloids have been isolated from the roots of *Aconitum septentrionale*.

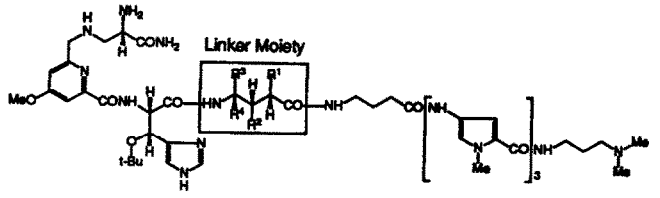


Tetrahedron, **1992**, *48*, 1193

MAN-DESIGNED BLEOMYCINS: SIGNIFICANCE OF THE BINDING SITE AS ENZYME MODEL AND OF THE STEREOCHEMISTRY OF THE LINKER MOIETY

Takashi Owa, Andreas Haupt, Masami Otsuka, Susumu Kobayashi, Nobuo Tomioka, Akiko Itai, and Masaji Ohno*, Faculty of Pharmaceutical Sciences, University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113, Japan; Takashi Shiraki, Motonari Uesugi, and Yukio Sugiura, Institute for Chemical Research, Kyoto University, Uji, Kyoto 611, Japan; Kenji Maeda, Institute of Microbial Chemistry, Kamiosaki, Shinagawa-ku, Tokyo 141, Japan.

The enzyme-like character of man-designed bleomycins is revealed by a model study. Especially, the key role of the distamycin as binding site and the significance of the stereochemistry of the linker moiety are demonstrated. PYML(6)-(AHM)-distamycin shows excellent cytotoxicity against L1210.

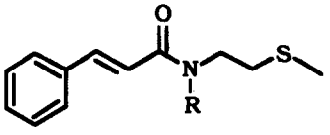


PYML(6)-(AHM)-distamycin
R^1=Me, R^2=OH, R^3=Me, R^4=H
PYML(6)-(4*R*-APA)-distamycin
R^1=R^2=H, R^3=Me, R^4=H
PYML(6)-(4*S*-APA)-distamycin
R^1=R^2=H, R^3=H, R^4=Me

Tetrahedron, **1992**, *48*, 1209

SULFUR CONTAINING CINNAMIDES WITH ANTIFUNGAL ACTIVITY FROM *GLYCOSMIS CYANOCARPA*

H. Greger[a], O. Hofer[b], Hp. Kählig[b], and G. Wurz[b] ; [a] Institute of Botany, University of Vienna, A-1060 Wien, Austria; [b] Institute of Organic Chemistry, University of Vienna, A-1090 Wien, Austria



R = H

R = CH_3

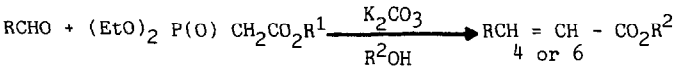
Spectral data: ^1H and ^{13}C NMR, MS, IR, UV. The methyl amide shows two conformers in the proton NMR at room temperature; assignment of resonances to the conformers by temperature dependendent ^1H NMR and lanthanide induced shift (LIS) simulation.

Tetrahedron, **1992**, *48*, 1219

REACTIONS DE WITTIG-HORNER ET DE TRANSESTERIFICATION EN UNE OPERATION PAR ACTIVATION ANIONIQUE DE LIAISONS C-H ET O-H EN MILIEU HETEROGENE CARBONATE DE POTASSIUM/ALCOOL

Z. Mouloungui*, R. Elmestour, M. Delmas et A. Gaset
Laboratoire de Chimie des Agroressources - Ecole Nationale Supérieure de Chimie - I.N.P.T. 118, route de Narbonne - 31077 Toulouse Cédex - FRANCE.

The synthesis of α,β-ethylenic esters 4 or 6 was carried out by the Wittig-Horner and the subsequent transesterification reaction.

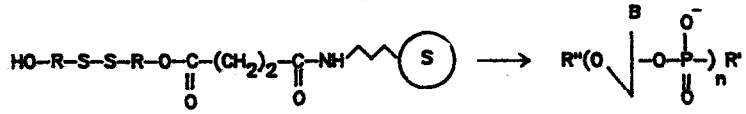


R = 2-furyl, phenyl, aryl, alkyl
R^1 = Me, Et
R^2 = CH_2Ar, alkyl

Tetrahedron, **1992**, *48*, 1233

SOLID-PHASE PREPARATION OF 5',3'-HETEROBIFUNCTIONAL OLIGODEOXYRIBONUCLEOTIDES USING MODIFIED SOLID SUPPORTS

Ulysse ASSELINE, Edwige BONFILS, Robin KURFURST, Marcel CHASSIGNOL, Victoria ROIG and Nguyen Thanh THUONG* Centre de Biophysique Moléculaire, CNRS 1A, Avenue de la Recherche Scientifique 45071 - ORLEANS Cedex 2, France



R=CH_2CH_2 ; R'=$O^{\ominus}$, $S^{\ominus}$, $O(CH_2)_6NH_2$, $S(CH_2)_5C(O)$Daunomycin, $S(CH_2)_5C(O)$Orthophenantroline

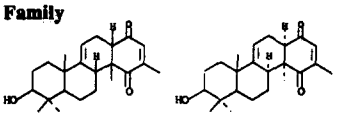
R=$(CH_2\text{-}CH_2O)_2\text{-}CH_2\text{-}CH_2$; R'=O-R-S-S-ROH ; O-R-SH

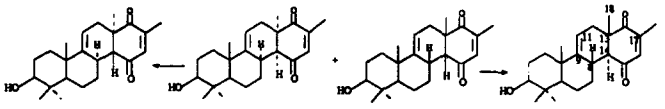
R''=H, PO_2S^{2-}, $AcrNH(CH_2)_5OPO_2^-$, Fluorescein-$C(O)CH_2SPO_2^-$

Tetrahedron, **1992**, *48*, 1255

Synthetic Approaches to Pentacyclic Triterpenes of the Arborane Family
II - Tetracyclic intermediates

S.Arséniyadis, R.Rodriguez, R.Spanevello,
J.Camara, A.Thompson, E.Guittet and G.Ourisson
I.C.S.N., CNRS, 91198 Gif-sur-Yvette (France)

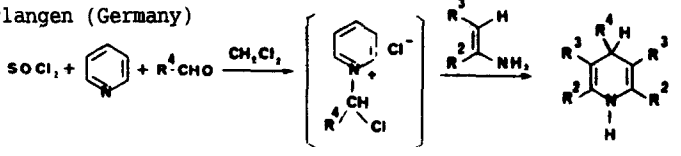




Tetrahedron, **1992**, *48*, 1263

Novel Syntheses of Heterocycles with N-(1-Haloalkyl)azinium Halides. Part 2. Preparation of N-Unsubstituted 1,4-Dihydropyridines

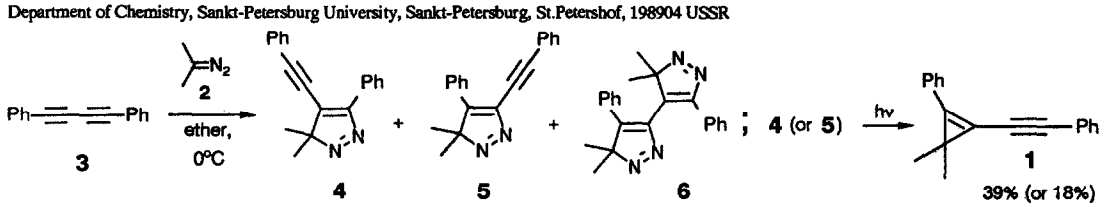
Jean-Jacques Vanden Eynde,* Patrizia D'Orazio, Annie Mayence, André Maquestiau
University of Mons-Hainaut, Organic Chemistry Laboratory, B-7000 Mons (Belgium)
Ernst Anders; Institut für Organische Chemie der Universität Erlangen-Nürnberg,
D-8520 Erlangen (Germany)



Tetrahedron, **1992**, *48*, 1269

SYNTHESIS OF 3,3-DIMETHYL-1-PHENYL-2-PHENYLETHYNYLCYCLO-PROPENE - THE FIRST CONJUGATED ALKYNYLCYCLOPROPENE

M.A.Kuznetsov*, Yu.V.Dorofeeva, V.V.Semenovskii, V.A.Gindin, and A.N.Studenikov
Department of Chemistry, Sankt-Petersburg University, Sankt-Petersburg, St.Petershof, 198904 USSR

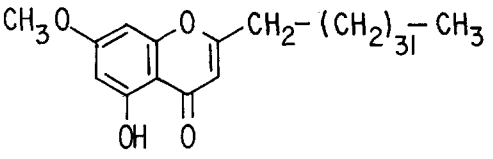


Tetrahedron, **1992**, *48*, 1281

NEW ANTIBACTERIAL TETRATRIACONTANOL DERIVATIVES FROM *AGAVE AMERICANA* L.

Virinder S. Parmar [a,*], Hirday N. Jha [a], Atul K Gupta [a], Ashok K.Prasad [a], Suman Gupta [a], Per M. Boll [b] and Om D. Tyagi [b]

a) Department of Chemistry ,University of Delhi, Delhi-110007,India b)Department of Chemistry,OdenseUniversity,Dk-5230 Odense M, Denmark.

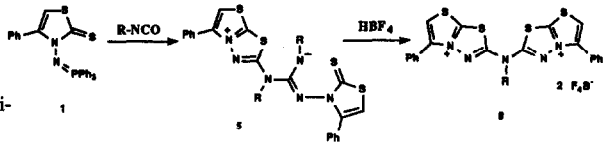


Tetratriacontanol, tetratriacontyl hexadecanoate and a new 2-tritriacontylchromone have been isolated from *Agave americana* L., two of these compounds exhibited significant antibacterial activity.

Tetrahedron, **1992**, *48*, 1285

Aza Wittig-type Reaction between the Iminophosphorane Derived from 3-Amino-4-phenylthiazole-2(3*H*)-thione and Iso(thio)cyanates: Preparation of Mesoionic Thiazolo[2,3-*b*]-1,3,4-thiadiazoles and *N,N*-Bisheteroarylamines.

Pedro Molina, Antonio Arques, Asunción Alías. Departamento de Química Orgánica, Facultad de Química, Universidad de Murcia, Campus de Espinardo, E-30071, Murcia, Spain.



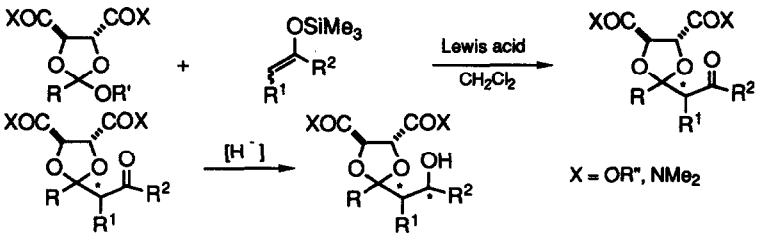
Aza Wittig-type reaction of iminophosphorane **1** with alkyl isocyanates leads to *N,N'*-bisheteroaryl guanidines **5** which by reaction with HBF_4 undergo ring-closure followed by elimination to give **8**.

Tetrahedron, **1992**, *48*, 1299

Chiral Orthoesters in Organic Synthesis: Novel Reagents for the Enantioselective Acylation of Silylenolethers

Luigi Longobardo, Giovanna Mobbili, Emilio Tagliavini*, Claudio Trombini and Achille Umani-Ronchi*
Dipartimento di Chimica "G. Ciamician" Università di Bologna, via Selmi, 2 40126 Bologna ITALY

Dialkyl trans-2-alkoxy-2-alkyl-1,3-dioxolan-4,5-dicarboxylates and the corresponding N,N,N,N-tetramethyl-4,5-diamides react with silylenolethers to give monoprotected 1,3-diketones (up to 90% e.e.). They can be stereoselectively reduced.

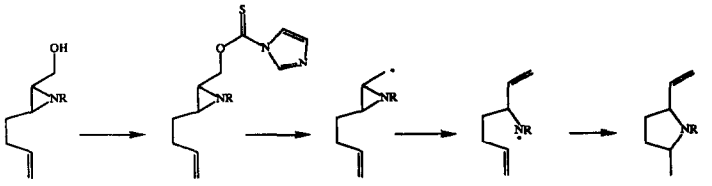


Tetrahedron, **1992**, *48*, 1317

Pyrrolidines and Allylic Amines from Radical-Induced Cleavage of Aziridines.

Julia M. Dickinson and John A. Murphy* ,Department of Chemistry, University of Nottingham, Nottingham NG7 2RD.

Cleavage of α-aziridinylalkyl radicals has been observed giving aminyl radicals which cyclise onto appropriately sited alkenes to give pyrrolidines.

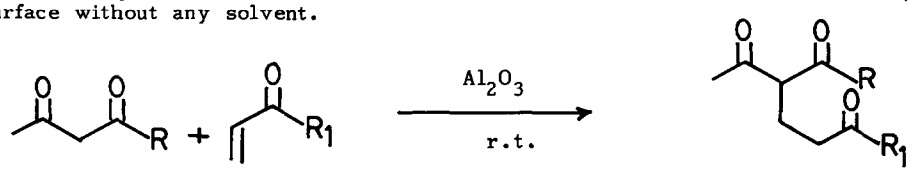


Tetrahedron, **1992**, *48*, 1327

SURFACE-MEDIATED SOLID PHASE REACTION : DRAMATIC IMPROVEMENT OF MICHAEL REACTION ON THE SURFACE OF ALUMINA

Brindaban C. Ranu* and Sanjay Bhar
Department of Organic Chemistry, Indian Association for the Cultivation of Science, Jadavpur, Calcutta - 700 032, INDIA.

Dramatic improvement in the Michael reaction has been observed on alumina (Al_2O_3) surface without any solvent.

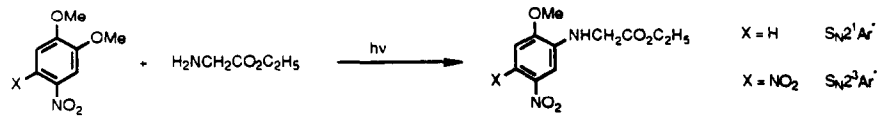


Tetrahedron, **1992**, *48*, 1333

SINGLET-TRIPLET MECHANISTIC DUALITY IN THE PHOTOSUBSTITUTION OF NITROPHENYL ETHERS WITH ETHYL GLYCINATE. THE ROLE OF SINGLE ELECTRON TRANSFER.

J.Marquet,* A.Cantos, M.Moreno-Mañas, E.Cayón and I.Gallardo
Department de Química. Universitat Autònoma de Barcelona. 08193 Bellaterra. Barcelona. Spain

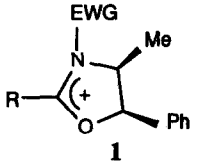
A mechanistic scheme, governed by the rate of single electron transfer in the singlet excited state, is proposed to justify the singlet-triplet mechanistic duality in the title photoreactions.



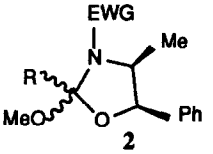
Tetrahedron, **1992**, *48*, 1343

NOREPHEDRINE DERIVED OXAZOLIDINES AS CHIRAL ACYLATING AGENTS: AN NMR STUDY OF THE INTERMEDIATE CATIONS.

A.Bernardi, S.Cardani, G.Poli, D.Potenza*, C.Scolastico*
Dipartimento di Chimica Organica e Industriale, Centro CNR per lo Studio delle Sostanze Organiche Naturali, Università di Milano, via Venezian 21, 20133 Milano, Italy



1



2

NMR studies proved that cationic species 1 are intermediates in the acid catalyzed reaction of norephedrine-derived oxazolidines 2 with nucleophiles.