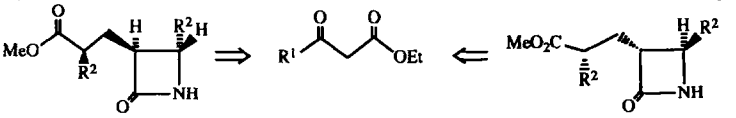
Tetrahedron, **1991**, *47*, 1137

ENANTIOSPECIFIC ROUTES TO 3,4 DISUBSTITUTED AZETIDINONES

Michael Kahn* and Kagan Fujita

Department of Chemistry, University of Illinois at Chicago, Chicago, Illinois 60680

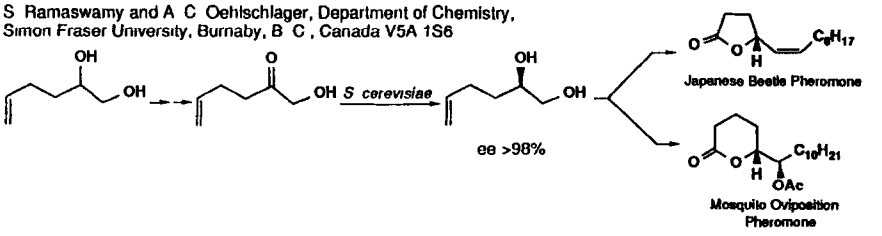
Enantiospecific routes to 3,4 disubstituted azetidinones are outlined which commence with readily available β-ketoester precursors



Tetrahedron, **1991**, *47*, 1145

CHEMICO-MICROBIAL SYNTHESIS OF JAPANESE BEETLE AND MOSQUITO OVIPOSITION PHEROMONES

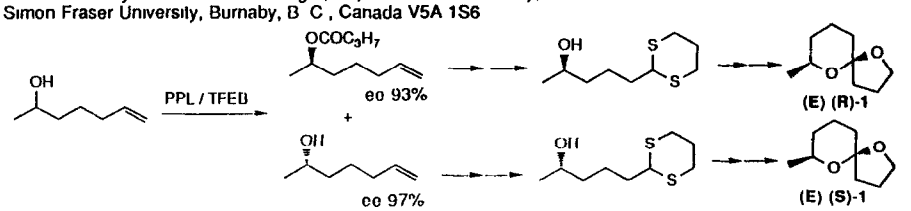
S Ramaswamy and A C Oehlschlager, Department of Chemistry, Simon Fraser University, Burnaby, B C , Canada V5A 1S6



Tetrahedron, **1991**, *47*, 1157

CHEMICO-ENZYMATIC SYNTHESIS OF RACEMIC AND CHIRAL ISOMERS OF 7-METHYL-1,6-DIOXASPIRO[4 5]DECANE

S Ramaswamy and A C Oehlschlager, Department of Chemistry, Simon Fraser University, Burnaby, B C , Canada V5A 1S6

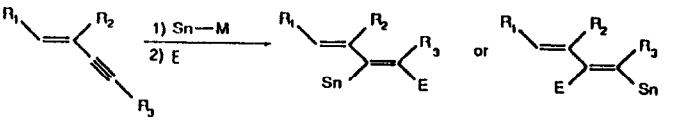


Tetrahedron, **1991**, *47*, 1163

STANNYLMETALLATION OF CONJUGATED ENYNES

Reijo Aksela and Allan C Oehlschlager*, Department of Chemistry, Simon Fraser University, Burnaby, B C, Canada V5A 1S6

Additions of LO and HO stannylcuprates and Cu^{I} catalyzed additions of Sn-B, Sn Al and Sn-Mg reagents to conjugated 1,3 enynes were investigated The more reactive C M bond was protonated or reacted with allyl bromide *in situ*



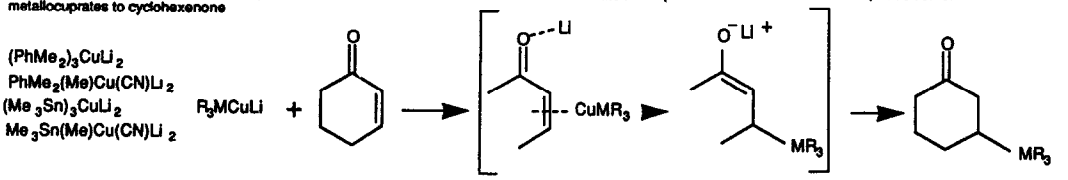
1) R_1 = H, R_2 = CH_3, R_3 = H, 2) R_1 = CH_2OH, R_2 = H, R_3 = H
3) R_1 = H, R_2 = CH_3, R_3 = CH_2OH

Tetrahedron, **1991**, *47*, 1177

EVIDENCE FOR INTERMEDIATE Π-COMPLEXES IN THE ADDITION OF TRIALKYLSILYL AND TRIALKYLSTANNYLCUPRATES TO α,β-UNSATURATED ENONES

S Sharma and A C Oehlschlager, Department of Chemistry, Simon Fraser univrsity, Burnaby, B C, Canada V5A 1S6

Low temperature ^{13}C NMR spectroscopy has revealed evidence for formation of an intermediate π-complex and lithium enolate in the 1,4-addition of metallocuprates to cyclohexenone



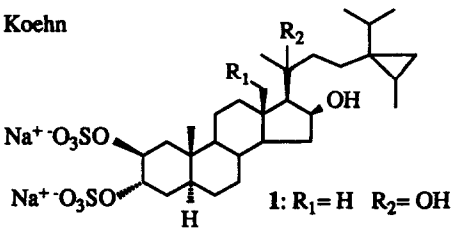
Tetrahedron, **1991**, *47*, 1185

WEINBERSTEROL DISULFATES A AND B, ANTIVIRAL STEROID SULFATES FROM THE SPONGE *PETROSIA WEINBERGI.*

Hao H. Sun, Sue S. Cross, Malika Gunasekera and Frank E. Koehn

Harbor Branch Oceanographic Institution, Inc., 5600 Old Dixie Highway, Fort Pierce, Florida 34946

Two antiviral steroid sulfates, weinbersterol disulfates A(1) and B(2), with an unprecedented cyclopropane-containing side chain, were isolated from the sponge *Petrosia weinbergi*



1: R_1= H R_2= OH

2: R_1= OH R_2= H

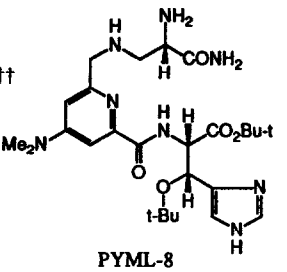
Tetrahedron, **1991**, *47*, 1191

OXIDATION OF ALKENES BY A CHIRAL NON-PORPHYRINIC OXIDIZING CATALYST BASED ON THE BLEOMYCIN-Fe(II) COMPLEX

Akira Suga, Toru Sugiyama, Masami Otsuka, Masaji Ohno,* Yukio Sugiura,† and Kenji Maeda††

Faculty of Pharmaceutical Sciences, University of Tokyo, Japan,
†Institute for Chemical Research, Kyoto University, Japan,
and ††Institute of Microbial Chemistry, Japan

A synthetic model of bleomycin, PYML-8, shows oxygen activation up to 125% of that of bleomycin β-Methylstyrene is oxidized with the iron complex systems of PYML-8 to give a set of products including optically active epoxide



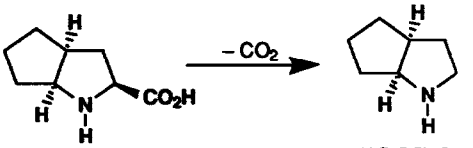
PYML-8

Tetrahedron, **1991**, *47*, 1205

NEW STERICALLY UNIFORM CHIRAL BICYCLIC PYRROLIDINES AND THEIR APPLICATION IN ASYMMETRIC SYNTHESIS

Jurgen MARTENS* and Stefan LÜBBEN
Fachbereich Chemie der Universität Oldenburg,
Ammerländer Heerstraße 114-118, D-2900 Oldenburg 1 O , Germany

The bicyclic pyrrolidine (1*S*,5*S*)-2 was synthesized from (1*S*,3*S*,5*S*)-1 by decarboxylation. The novel enantiomerically pure amine (1*S*,5*S*)-2 was used as an efficient chiral auxiliary in Michael-type reactions *via* enamines



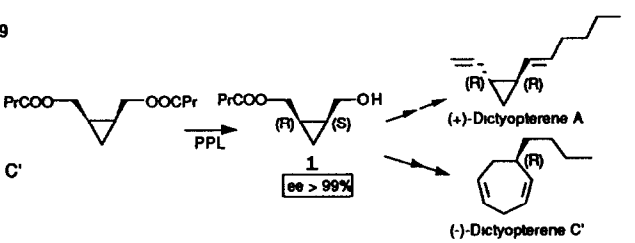
(1*S*,3*S*,5*S*)-1 (1*S*,5*S*)-2

Tetrahedron, **1991**, *47*, 1215

ENZYMATIC HYDROLYSIS OF CYCLOPROPANES. TOTAL SYNTHESIS OF OPTICALLY PURE DICTYOPTERENES A AND C'.

D Grandjean, P Pale, J Chuche
Laboratoire de chimie organique physique, URA CNRS 459
Université de Reims-Champagne-Ardenne
51100 Reims, France

Enzymatic hydrolysis gives in quantitative yield optically pure 1 which is a versatile cyclopropane synthon as exemplified by the total synthesis of optically pure seaweed pheromones Dictyopterenes A and C'



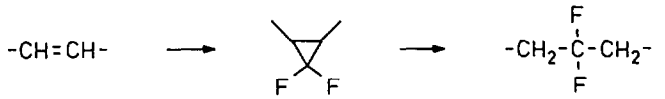
(+)-Dictyopterene A

(-)-Dictyopterene C'

Tetrahedron, **1991**, *47*, 1231

CATALYTIC HYDROGENOLYSIS OF CYCLOPROPANES : METAL INSERTION INTO A SATURATED CARBON-CARBON BOND AS THE KEY STEP

Yves BESSARD and Manfred SCHLOSSER*
Institut de Chimie organique, Université de Lausanne, Switzerland

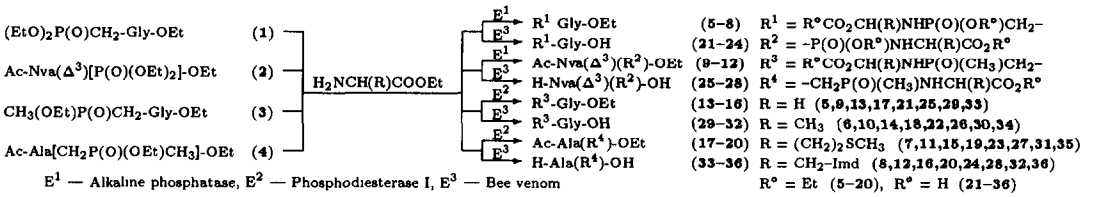


Tetrahedron, **1991**, *47*, 1239

ORGANOPHOSPORUS ANALOGUES AND DERIVATIVES OF THE NATURAL L-AMINOCARBOXYLIC ACID AND PEPTIDES VII* ENZYME SYNTHESIS OF PHOSPHA-C PEPTIDES

Ivan A Natchev
Research Centre "Konstrukcionni Polimeri", 5-003 Gara Iskar, 1528 Sofia, BULGARIA

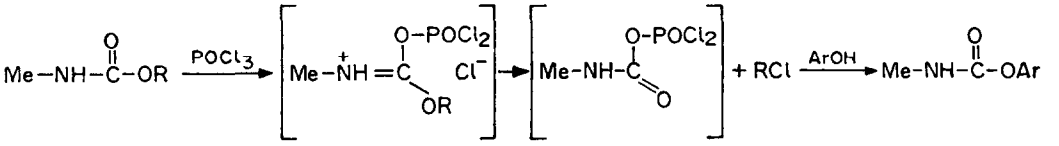
It is proved that the phospha-C peptides (with PO-NH instead of CO-NH bond) can be obtained by enzyme-catalyzed condensation of esters



Tetrahedron, **1991**, *47*, 1249

CONTRA-THERMODYNAMIC TRANS-ESTERIFICATION OF CARBAMATES BY COUNTER-ATTACK STRATEGY A VIABLE NON-PHOSGENE, NON-MIC ROUTE TO CARBAMATE PESTICIDES

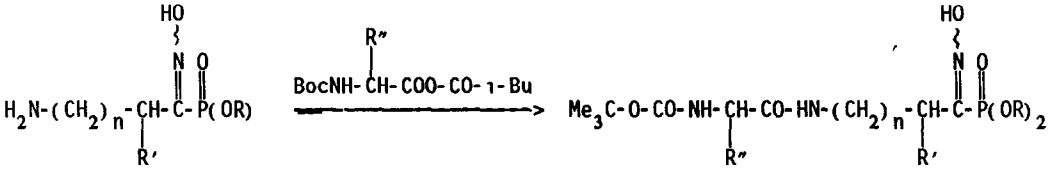
G H KULKARNI, R H NAIK, S K TANDEL AND S RAJAPPA*
National Chemical Laboratory, Pune-411 008, India



Tetrahedron, **1991**, *47*, 1257

SYNTHESIS AND CHARACTERIZATION AMINO PROTECTED PEPTIDES DERIVED FROM AMINO-α-HYDROXYIMINOPHOSPHONATES.

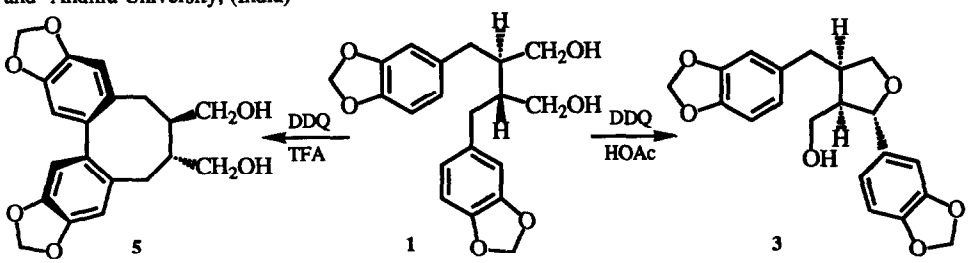
E. Breuer[+*], M. Safadi[+], M. Chorev[+], A. Vincze[#] and P. Bel[#] [+]The Hebrew University of Jerusalem (Israel) [#]The Israel Institute for Biological Research, Ness Ziona (Israel)



Tetrahedron, **1991**, *47*, 1275

OXIDATIVE TRANSFORMATIONS OF LIGNANS - REACTIONS OF DIHYDROCUBEBIN AND A DERIVATIVE WITH DDQ

A Pelter[a], R S Ward[a], R Venkateswarlu[b] and C Kamakshi[b], [a]University College of Swansea, (UK), and [b]Andhra University, (India)



Tetrahedron, **1991**, *47*, 1285

EFFECT OF THE ANION HYDRATION STATE ON THE SELECTIVITY COEFFICIENTS ($K_{Y/X}^{SEL}$) OF QUATERNARY ONIUM SALTS UNDER PHASE-TRANSFER CATALYSIS CONDITIONS. D. Landini,* and A. Maia* - Centro C.N.R and Dipartimento di Chimica Organica e Industriale, Università, Via Golgi 19, 20133 Milano,Italy.

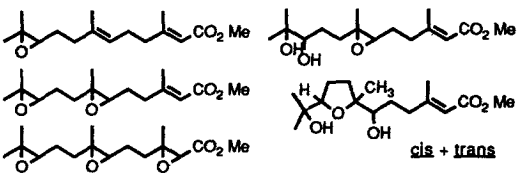
A study of how specific hydration affects anion selectivity coefficients for a series of tetrahexylammonium salts under PTC conditions is reported.

Tetrahedron, **1991**, *47*, 1291

USE OF DIMETHYLDIOXIRANE IN THE PREPARATION OF EPOXY DERIVATIVES RELATED TO INSECT JUVENILE HORMONES

Angel Messeguer [*a], Francisco Sánchez-Baeza [a], Josefina Casas [a b] and Bruce D Hammock [b]
[a] Dpt of Biological Organic Chemistry, CID (CSIC) J Girona, 18 08034 Barcelona, Spain
[b] Dpts of Entomology and Environmental Toxicology University of California Davis, CA 95616, USA

Reactions involving the title reagent gave good yields of expected epoxides and can be conveniently used for preparation of radiolabelled derivatives

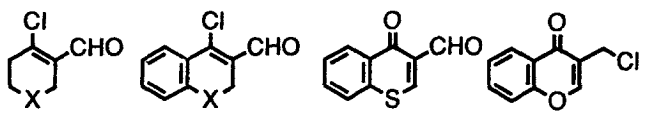


Tetrahedron, **1991**, *47*, 1303

OXIDATIVE FORMYLATION AND CHLOROMETHYLATION IN VILSMEIER REACTIONS OF *O*- AND *S*-HETEROCYCLIC KETONES

Paul R. Giles and Charles M. Marson*, Department of Chemistry, The University, Sheffield, S3 7HF, U K.

Depending on the *O*- or *S*-heterocyclic ketone and the temperature of reaction with DMF-$POCl_3$, either the corresponding β-chlorovinylaldehydes (*e g* **1** and **2**) or functionalised ketones (*e g* **3** and **4**) can be obtained



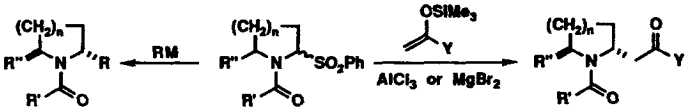
1 X=O, S **2** **3** **4**

Tetrahedron, **1991**, *47*, 1311

Substitution reactions of 2-Phenylsulphonyl-Piperidines and -Pyrrolidines with Carbon Nucleophiles Synthesis of the Pyrrolidine Alkaloids Norruspoline and Ruspolinone.

Dearg S Brown, Philippe Charreau, Thomas Hansson, and Steven V Ley*
Department of Chemistry, Imperial College of Science, Technology and Medicine, South Kensington, London, SW7 2AY, UK

Several 2-phenylsulphonyl-piperidines and -pyrrolidines were prepared from the corresponding *N*-acyl aminals by treatment with $PhSO_2H$ On reaction with various carbon nucleophiles these sulphones gave good yields of substitution products. These methods were employed in the synthesis of two natural product alkaloids, Norruspoline and Ruspolinone



Tetrahedron, **1991**, *47*, 1329

Use of 2-Phenylsulphonyl Cyclic Ethers in the Preparation of Tetrahydropyran and Tetrahydrofuran Acetals, and in Some Glycosidation Reactions.

D S Brown, S V Ley*, S Vile and M. Thompson†
Department of Chemistry, Imperial College of Science, Technology and Medicine, South Kensington, London, SW7 2AY, U K
and †SmithKline Beecham Pharmaceuticals, Coldharbour Road, The Pinnacles, Harlow, Essex, CM19 5AD, U K

2-Phenylsulphonyl cyclic ethers undergo facile displacement of the sulphone group by alcohols, in the presence of magnesium bromide etherate and sodium bicarbonate in THF, to give good yields of the corresponding acetals