

## GRAPHICAL ABSTRACTS

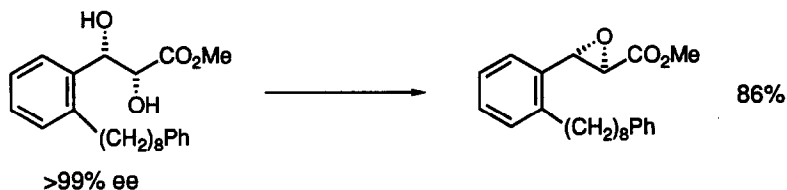
*Tetrahedron*, 1992, 48, 10515

### A Simplified Procedure for the Stereospecific Transformation of 1,2-Diols into Epoxides

Hartmuth C. Kolb and K. Barry Sharpless\*

Department of Chemistry, The Scripps Research Institute, 10666 N. Torrey Pines Road, La Jolla, CA 92037, U.S.A.

A high yielding 2 or 3 step 'one-pot' procedure for the conversion of a wide range of vicinal diols into epoxides via halohydrin ester intermediates has been developed.



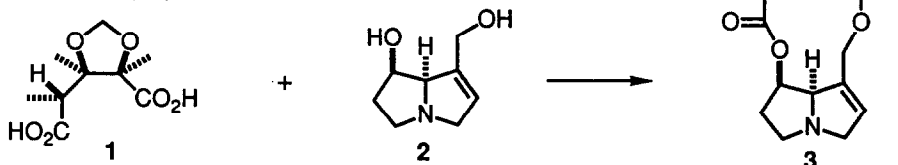
*Tetrahedron*, 1992, 48, 10531

### TOTAL SYNTHESIS OF OPTICALLY ACTIVE MONOCROTALINE, A CARCINOGENIC PYRROLIZIDINE ALKALOID POSSESSING AN ELEVEN-MEMBERED RETRONECINE DILACTONE

Haruki Niwa,\* Takeshi Ogawa, Osamu Okamoto, and Kiyoyuki Yamada\*

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

Total synthesis of monocrotaline (3) via enantioselective synthesis of 1 and regioselective coupling of 1 with 2 is described.



*Tetrahedron*, 1992, 48, 10549

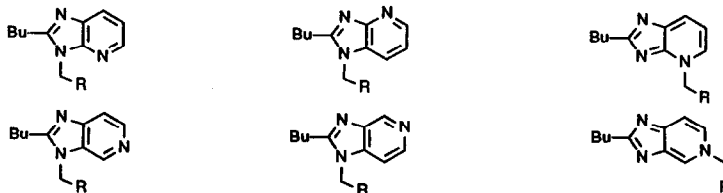
### SYNTHESIS AND STRUCTURAL ASSIGNMENT OF SOME N-SUBSTITUTED IMIDAZOPYRIDINE DERIVATIVES

Werner W.K.R. Mederski\* and Klaus G.R. Pachler\*

\* E. Merck, Pharmaforschung, Pharmazeutische Chemie, Frankfurter Str. 250, D-6100 Darmstadt

+ E. Merck, Analytisches Zentrallaboratorium, Frankfurter Str. 250, D-6100 Darmstadt

The title compounds were synthesized and their structures determined by NMR spectroscopy



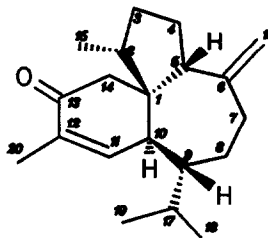
*Tetrahedron*, 1992, 48, 10559

### FUSOXYSPORONE - A NEW TYPE OF DITERPENE FROM FUSARIUM OXYSPORUM

Wolf-Rainer Abraham\* and Hans-Peter Hanssen

\*GBF - Gesellschaft für Biotechnologische Forschung mbH, Mascheroder Weg 1, W-3300 Braunschweig, FRG

The fungus *Fusarium oxysporum* Schlecht.: Fr. IMB FO 1/82 produces a mixture of volatile metabolites. As a major compound a novel tricyclic diterpene was identified and named fusoxysporone. The skeleton of this metabolite is also described for the first time and called fusoxysporane.



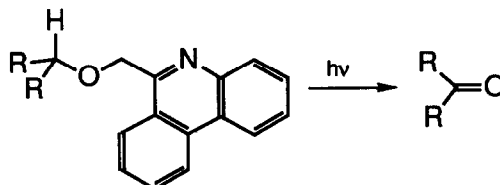
*Tetrahedron*, 1992, 48, 10563

### PHOTOLYTIC GENERATION OF KETONES FROM 6-PHENANTHRIDINYLMETHYL ETHERS OF SECONDARY ALCOHOLS

Vatcharin Rukachaisirikul and Reinhard W. Hoffmann

Fachbereich Chemie der Philipps-Universität, Hans Meerwein Str. W-355 Marburg, GERMANY

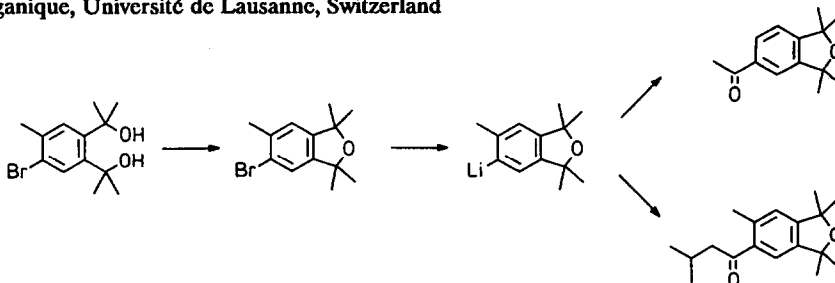
Alcohols may be "protected" as 6-phenanthridinylmethyl ethers. Subsequent photolysis directly generates a ketone functionality



*Tetrahedron*, 1992, 48, 10569

### THE DIELS-ALDER APPROACH TO MUSK ODOR TYPE ARENES

Guo-qiang SHI, Sylvain COTTENS, Sayed Ahmed SHIBA and Manfred SCHLOSSER\*  
Institut de Chimie organique, Université de Lausanne, Switzerland

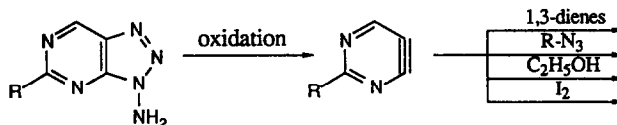


*Tetrahedron*, 1992, 48, 10575

**REACTIVITY OF 2-t-BUTYL-4,5-DIDEHYDROPYRIMIDINE  
AND ELECTRONIC STRUCTURE OF THE PARENT  
HETARYNE**

M. Tielemans, V. Areschka, J. Colomer and R. Promel <sup>a</sup>\*, W. Langenaeker and P. Geerlings <sup>b</sup>

a) Service de Chimie Organique, Faculté des Sciences, U.L.B., av. Roosevelt 50, B - 1050 Bruxelles, Belgium;  
b) Eenheid Algemene Chemie, Faculteit Wetenschappen, V.U.B., Pleinlaan 2, B - 1050 Brussel, Belgium.



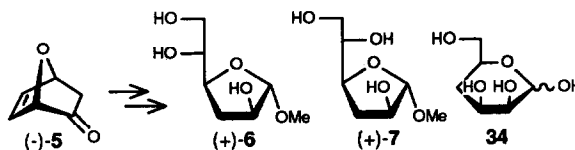
The experimental results (R = C(CH<sub>3</sub>)<sub>3</sub>) are correlated with the electronic structure of 4,5-didehydropyrimidine (R = H) calculated by an ab initio 3-21G quantum chemical method.

*Tetrahedron*, 1992, 48, 10587

**TOTAL, ASYMMETRIC SYNTHESSES OF 3- AND 4-DEOXY-  
HEXOSES AND PARTIALLY PROTECTED DERIVATIVES.**

Daniela Fattori, Pierre Vogel\*, Section de chimie  
de l'Université de Lausanne, Switzerland

The "naked sugars" (-)-5 was converted to  
the 3-deoxy-hexofuranosides (+)-6 and  
(+)-7, to 4-deoxy-D-*lyxo*-hexopyranose (34)  
and partially protected derivatives.

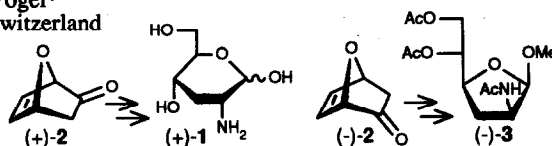


*Tetrahedron*, 1992, 48, 10603

**TOTAL, ASYMMETRIC SYNTHESSES OF D-LIVIDOSAMINE  
AND 2-ACETAMIDO-2,3-DIDEOXY-D-*arabino*-HEXOSE  
DERIVATIVES.**

Etienne de Guchteneere, Daniela Fattori, Pierre Vogel\*  
Section de chimie de l'Université de Lausanne, Switzerland

The "naked sugars" (+)-2 and (-)-2 have been  
converted to D-lividosamine ((+)-1) and its  
2-epimeric derivative (-)-3, respectively, in  
highly stereoselective fashions.

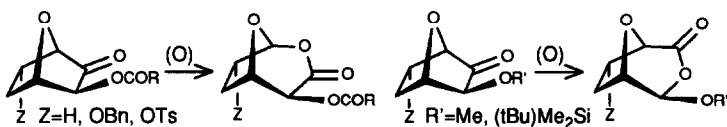


*Tetrahedron*, 1992, 48, 10621

### SUBSTITUENT EFFECTS ON THE REGIOSELECTIVITY OF THE BAEYER-VILLIGER OXIDATION OF 7-OXABICYCLO-[2.2.1]HEPTAN-2-ONES

Daniela Fattori, Geza Arvai, Pierre Vogel\*, Section de chimie de l'Université de Lausanne, 1005 Lausanne Switzerland

The regioselectivity of the Baeyer-Villiger oxidations of 3-oxy substituted 7-oxabicyclo[2.2.1]heptan-2-ones depends on the nature of the oxy substituent (ether, ester), on the relative configuration of C(3) (*exo*, *endo*) and on the presence of oxy substituents at C(6-*endo*), e.g.:

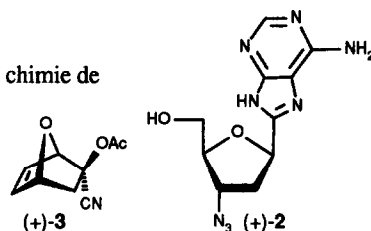


*Tetrahedron*, 1992, 48, 10637

### TOTAL, ASYMMETRIC SYNTHESIS OF (1R)-1-C-(6'-AMINO-7'H-PURIN-8'-YL)-1,4-ANHYDRO-3-AZIDO-2,3-DIDEOXY-D-erythro-PENTITOL.

Vincent Jeanneret, Fabrizio Gasparini, Péter Péchy, Pierre Vogel\*, Section de chimie de l'Université de Lausanne, 2, rue de la Barre, CH 1005 Lausanne, Switzerland.

The "naked sugar" (+)-3 was converted in ten synthetic steps into the new C-nucleoside (+)-2.

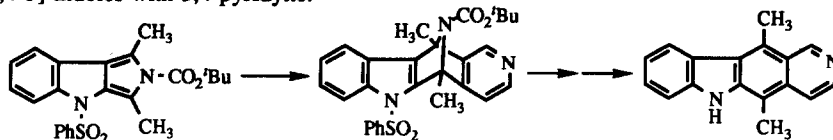


*Tetrahedron*, 1992, 48, 10645

### TOTAL SYNTHESIS OF ELLIPTICINE ALKALOIDS AND THEIR AMINO ANALOGUES

Chin-Kang Sha\* and Jeng-Fenn Yang, Department of Chemistry, National Tsing Hua University, Hsinchu, Taiwan 30043, China

Ellipticine and the amino analogues were synthesized via Diels-Alder reactions of 2,4-dihydropyrrolo-[3,4-*b*]-indoles with 3,4-pyridyne.



### Approaches to Bicyclic Ring Systems via 1,5 Allylic Abstraction, Cyclisation

A. D. Borthwick<sup>a</sup>, S. Caddick<sup>b</sup> and P. J. Parsons<sup>c</sup>,

<sup>a</sup>Department of Chemistry, Glaxo Group Research Ltd., Greenford Road, Greenford, Middlesex UB6 OHE

<sup>b</sup>Department of Chemistry, University of Southampton, Highfield, Southampton, SO9 5NH

<sup>c</sup>Department of Chemistry, University of Reading, Whiteknights, Reading, RG6 2AD

Bicyclic ring systems can be synthesised utilising a 1,5 allylic abstraction strategy.

