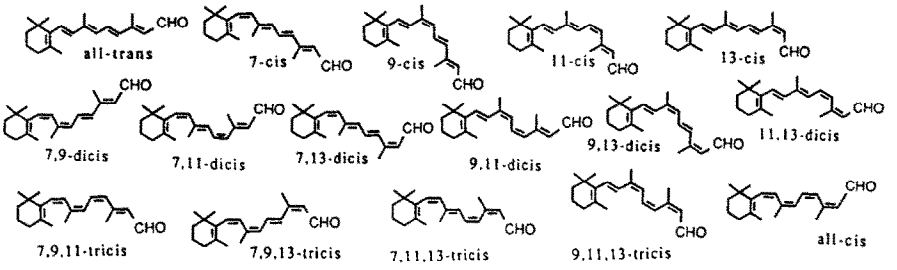
GRAPHICAL ABSTRACTS

Tetrahedron, **1992**, *48*, 10061

FT-IR Spectra of All Sixteen Isomers of Retinal, Their Isolation, and Other Spectroscopic Properties

Y. Zhu, S. Ganapathy, A. Trehan, A. E. Asato & R. S. H. Liu, Department of Chemistry, University of Hawaii, 2545 The Mall, Honolulu, HI 96822. U. S. A.

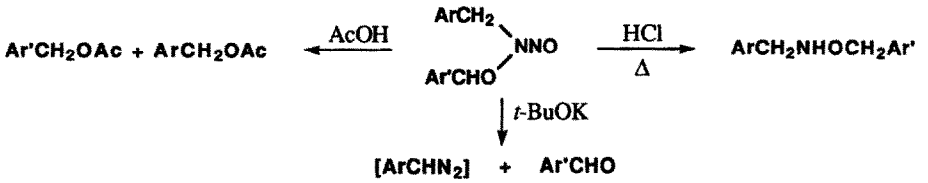


Tetrahedron, **1992**, *48*, 10075

N-NITROSOHYDROXYLAMINES I. ACETOLYSIS AND ACID-CATALYZED HYDROLYSIS OF N,O-DIBENZYL-N-NITROSOHYDROXYLAMINES. REACTION WITH POTASSIUM *t*-BUTOXIDE

Kunio Kano and Jean-Pierre Anselme*
Department of Chemistry, University of Massachusetts at Boston, Harbor Campus, Boston, MA 02125

N,O-Dibenzyl-N-nitrosohydroxylamines are denitrosated by conc. HCl and give the corresponding benzyl acetates with acetic acid. Potassium *t*-butoxide promoted fragmentation to aldehydes and diazoalkanes.

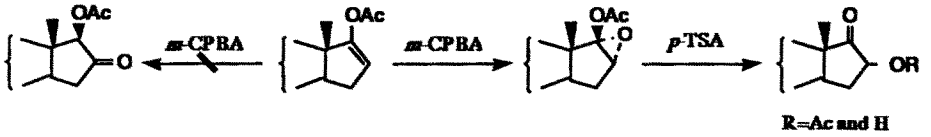


Tetrahedron, **1992**, *48*, 10087

REARRANGEMENT OF ACYLOXYOXIRANES : A REVISED STRUCTURE FOR THE OXIDATION PRODUCT OF 5 α-ANDROST-16-ENE-3 α,17-DIOL 3 BENZOATE 17-ACETATE

Gottumukkala V. Subbaraju, Zofia Urbanczyk-Lipkowska, Sarder N. Newaz, Maghar S. Manas and Ajay K. Bose*, Department of Chemistry and Chemical Engineering, Stevens Institute of Technology, Hoboken, New Jersey 07030.

Peracid oxidation of conjugated enones and enol acetates is described.

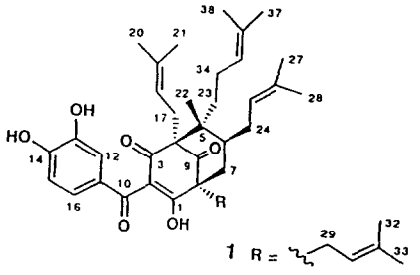


Tetrahedron, **1992**, *48*, 10093

THE GUTTIFERONES, HIV-INHIBITORY BENZOPHENONES FROM *Symphonia globulifera*, *Garcinia livingstonei*, *Garcinia ovalifolia* and *Clusia rosea*

K.R. Gustafson, J.W. Blunt, M.H.G. Munro, R.W. Fuller, T.C. McKee, J.H. Cardellina II, J.B. McMahon, G.M. Cragg, M.R. Boyd
Laboratory of Drug Discovery Research & Development, National Cancer Institute-FCRDC, Frederick, MD 21702-1201

Extracts from species of the tropical plant genera *Symphonia*, *Garcinia* and *Clusia* (Guttiferae) have yielded a series of new polyisoprenylated benzophenone derivatives named guttiferones A-E (**1-5**). Structural assignments were based on detailed spectral analyses. These compounds inhibit the cytopathic effects of *in vitro* HIV infection.

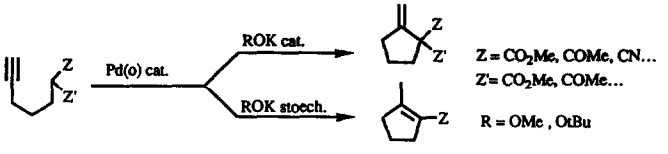


Tetrahedron, **1992**, *48*, 10103

SYNTHESIS OF CYCLOPENTANIC COMPOUNDS ASSISTED BY A PALLADIUM HYDRIDE SPECIES. SYNTHETIC ASPECTS AND MECHANISM

Nuno MONTEIRO, Jacques GORE and Geneviève BALME,
Laboratoire de Chimie Organique 1, associé au CNRS, Université Claude Bernard, ESCIL
43 Bd du 11 Novembre 1918, 69622 Villeurbanne Cédex, France.

A mechanistic study showed that the active catalytic species is a σ-ethynyl palladium hydride formed by the metal insertion in the acetylenic carbon-hydrogen bond.

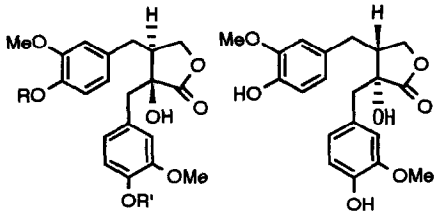


Tetrahedron, **1992**, *48*, 10115

LIGNANS. 16. FIRST TOTAL SYNTHESES OF (+)-WIKSTROMOL, (-)-TRACHELOGENIN, (-)-NORTRACHELOGENIN AND RELATED LIGNOIDS.

Miss Kenza KHAMLACH, Robert DHAL and Eric BROWN
URA CNRS 482, Faculté des Sciences, avenue Olivier Messiaen, BP 535, 72017 Le Mans Cedex, France

The natural lignans (-)-trachelogenin **1**, (-)-nortrachelogenin **2** and (+)-wikstromol **4** were obtained by total synthesis, and were correlated to (±)-methyltrachelogenin **3** whose relative structure was established by X-ray cristallography.



1 R = Me ; R′ = H
2 R = R′ = H
3 R = R′ = Me

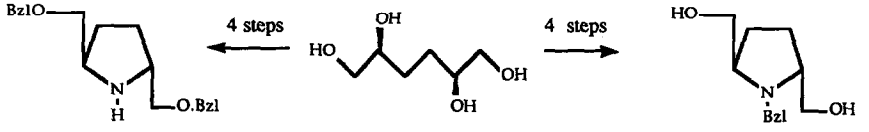
4

Tetrahedron, **1992**, *48*, 10127

SYNTHESIS OF ENANTIOMERICALLY PURE (2R, 5R) DISUBSTITUTED PYRROLIDINES FROM D-MANNITOL

M. Marzi*[a], P. Minetti [a], D. Misiti [b]
a. Sigma Tau SpA, Via Pontina km 30.400 , 00040 Pomezia (Italy)
b. Dip. Studi di Chimica e Tecnologia delle Sostanze Biologicamente Attive, P.zza A.Moro 5, 00185 Rome (Italy)

Pyrrolidines 1 and 2 are obtained from D-Mannitol derivative 3 giving good total yields and in an enantiomerically pure form. Some comments and studies regarding pyrrolidine ring closure (key step) are also reported.



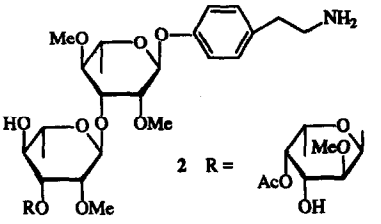
1 **3** **2**

Tetrahedron, **1992**, *48*, 10133

IODONIUM ION ASSISTED SYNTHESIS OF A COMMON INNER CORE TRISACCHARIDE FRAGMENT CORRESPONDING TO THE CELL-WALL PHENOLIC GLYCOLIPID OF *MYCOBACTERIUM KANSASII*

Korien Zegelaar-Jaarsveld, Gijs A. van der Marel, Jacques H. van Boom
Gorlaeus Laboratories, Department of chemistry, Leiden University,
P.O. Box 9502, 2300 RA Leiden, the Netherlands.

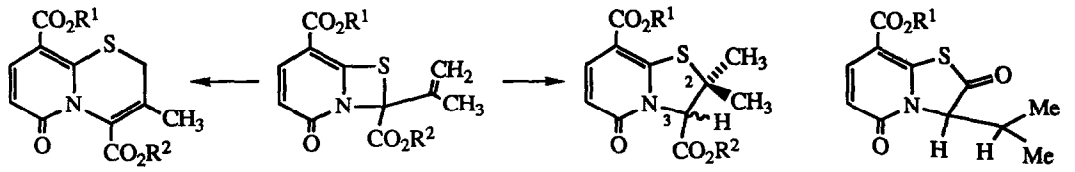
The target trisaccharide **2** containing an α-(*O*)-linked tyramine spacer has been assembled in two different ways starting from appropriately ethyl(phenyl) 1-thioglycoside units and a *N*-protected tyramine derivate.



Tetrahedron, **1992**, *48*, 10149

Reductive and Catalytic Rearrangements of 2-Vinyl-1,3-Thiazetidines

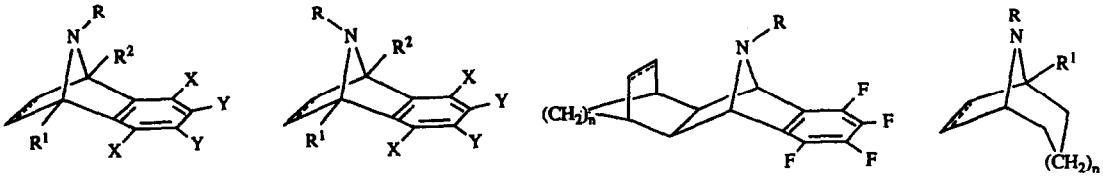
Nigel K. Capps[a], Gareth M. Davies[b], David Loakes[a] and Douglas W. Young[a]*
[a] School of Chemistry and Molecular Sciences, University of Sussex, Falmer, Brighton BN1 9QJ, UK
[b] ICI Pharmaceuticals, Mereside, Alderley Park, Macclesfield, SK10 4TG, UK



Tetrahedron, **1992**, *48*, 10161

^{15}N NUCLEAR MAGNETIC RESONANCE STUDIES OF AZABICYCLES; UNUSUAL DESHIELDING OF NITROGEN IN THE 7-AZABICYCLO[2.2.1]HEPTYL RING SYSTEM

Djaballah Belkacemi, John W. Davies, John R. Malpass,* Antoinette Naylor (née Bathgate) and Craig R. Smith
Department of Chemistry, University of Leicester, Leicester LE1 7RH, UK.

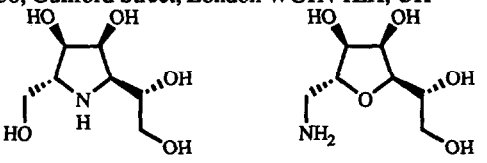


Tetrahedron, **1992**, *48*, 10177

Inhibition of α-Mannosidases by Seven Carbon Sugars: Synthesis of Some Seven Carbon Analogues of Mannofuranose

P. M. Myerscough,[a] A. J. Fairbanks,[a] A. H. Jones,[a] I. Bruce,[a] S. S. Choi,[a] G. W. J. Fleet, [a*]
S. S. Al-Daher,[b] I. Cenci di Bello[b] and B. Winchester[b]
[a]Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY, UK [b]Division of Biochemistry and Metabolism, Institute of Child Health , 30, Guilford Street, London WC1N 1EH, UK

The synthesis of some seven carbon mannofuranose analogues from a sugar lactone is reported. The inhibition of human liver glycosidases by a number of pyrrolidine and piperidine mannoheptose analogues is discussed

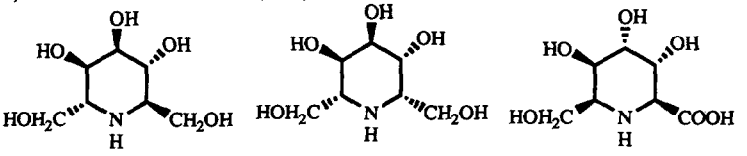


Tetrahedron, **1992**, *48*, 10191

Iminoheptitols as Glycosidase Inhibitors: Synthesis of α-Homomannojirimycin,6-*epi*-α-Homomannojirimycin and of a Highly Substituted Pipecolic Acid

I. Bruce,[a] S. S. Choi,[a] G. W. J. Fleet, [a*] I. Cenci di Bello[b] and B. Winchester[b]
[a]Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY, UK [b]Division of Biochemistry and Metabolism, Institute of Child Health , 30, Guilford Street, London WC1N 1EH, UK

Convenient syntheses of some highly substituted piperidines from a sugar lactone are described.

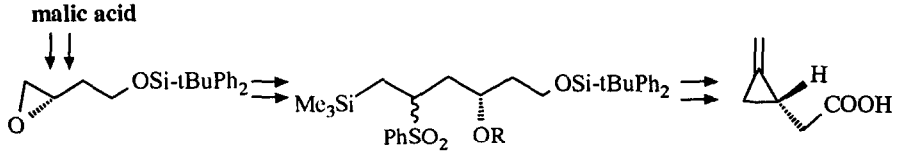


Tetrahedron, **1992**, *48*, 10201

ENANTIOSELECTIVE SYNTHESIS OF THE METHYLENECYCLOPROPANE DERIVATIVE RELATED TO HYPOGLYCINE, FROM MALIC ACID

B. Achmatowicz, M. M. Kabat, J. Krajewski and J. Wicha*
Institute of Organic Chemistry, Polish Academy of Sciences, ul. Kasprzaka 44, 01-224 Warsaw, Poland

The synthesis of (S)-methylenecyclopropaneacetic acid from L-(-)-malic acid utilizing the four-carbon epoxide as the key intermediate and 2-(trimethylsilyl)ethyl phenyl sulfone as two-carbon building block, is described.



Tetrahedron, **1992**, *48*, 10211

NEW SYNTHESES OF (±)-LAMPROLOBINE AND (±)-EPILAMPROLOBINE

Joseph P. Michael* and Christa M. Jungmann
Centre for Molecular Design, Department of Chemistry, University of the Witwatersrand, Wits 2050, South Africa

Key intermediates in the synthesis of lamprolobine **1** and epilamprolobine **4** are shown below.