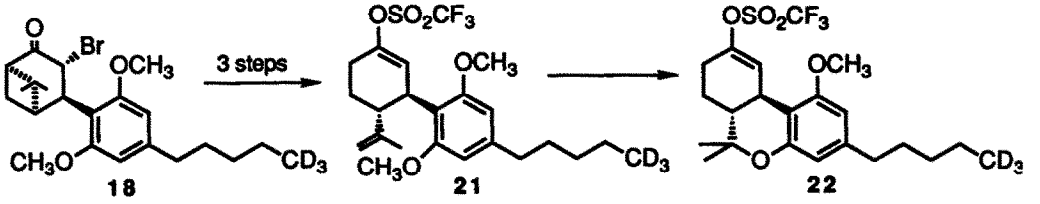
GRAPHICAL ABSTRACTS

Tetrahedron, **1992**, *48*, 9173

SYNTHESIS OF 5'-($^2H_3$)-(−)-11-NOR-9-CARBOXY-Δ^9-TETRAHYDROCANNABINOL METHYL ESTER METHYL ETHER

Marcus A. Tius and G. S. Kamali Kannangara
Department of Chemistry, University of Hawaii, 2545 The Mall, Honolulu, Hawaii 96822, U.S.A.

The synthesis of the title compound was accomplished from Δ^9-cyclohexenyl triflate **22**. The key steps are the stereocontrolled cyclobutane ring opening of **18** and the cyclization of **21** with excess iodotrimethylsilane to produce **22**.

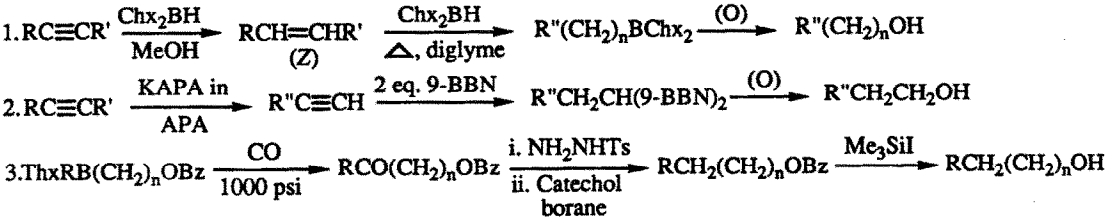


Tetrahedron, **1992**, *48*, 9187

ORGANOBORANES FOR SYNTHESIS. 13. SIMPLE, EFFICIENT SYNTHESES OF LONG-CHAIN ALCOHOLS AND CARBOXYLIC ACIDS.

Herbert C. Brown*, Ramakrishnan R. Iyer, Narayan G. Bhat, Uday S. Racherla and Charles A. Brown
H. C. Brown and R. B. Wetherill Laboratories of Chemistry, Purdue University, West Lafayette, Indiana 47907, USA.

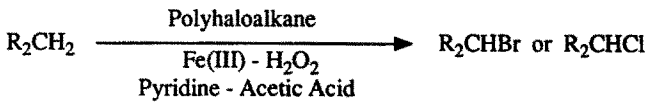
Simple, efficient syntheses of long-chain compounds have been developed based on organoborane chemistry.



Tetrahedron, **1992**, *48*, 9195

The Functionalization of Saturated Hydrocarbons. Part 23.
Gif-type Bromination and Chlorination of Saturated Hydrocarbons:
A Non-radical Reaction

Barton, D. H. R.,* Csuhai, E., and Doller, D.
Department of Chemistry, Texas A&M University. College Station, Texas 77843-3255, USA.

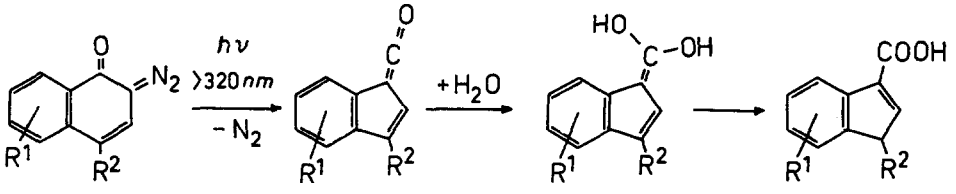


Comparison of the order of kinetic reactivity for a series of polyhaloalkanes under chain radical conditions and under $GoAgg^{III}$ conditions is in agreement with a non-radical reaction pathway for the Gif-type bromination and chlorination reactions.

Tetrahedron, **1992**, *48*, 9207

SYNTHESIS AND PHOTOCHEMISTRY OF
1,2-NAPHTHOQUINONEDIAZIDE-(2)-n-SULFONIC ACID DERIVATIVES

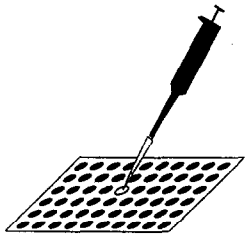
J. Bendig, E. Sauer, K. Polz, G. Schopf, A. Koch[a]; Humboldt University, Institute of Organic Chemistry, Hessische Str. 1-2, D-(O)-1040 Berlin, [a]Research Institute of Molecular Pharmacology, Alfred-Kowalke-Str. 4, D-(O)-1136 Berlin, (FRG)



Tetrahedron, **1992**, *48*, 9217

SPOT-SYNTHESIS: AN EASY TECHNIQUE FOR THE POSITIONALLY ADDRESSABLE, PARALLEL CHEMICAL SYNTHESIS ON A MEMBRANE SUPPORT

Ronald Frank
GBF (Gesellschaft für Biotechnologische Forschung mbH)
Mascheroder Weg 1, D-3300 Braunschweig, FRG

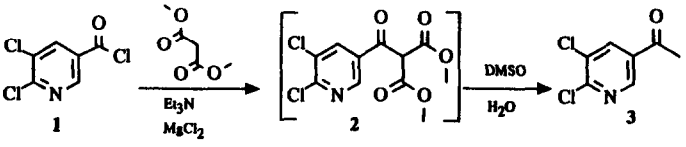


The chemical assembly of series of short peptide chains at distinct positions on a paper membrane for biological screening purposes is described.

Tetrahedron, **1992**, *48*, 9233

Magnesium Chloride Catalysed Acylation Reaction

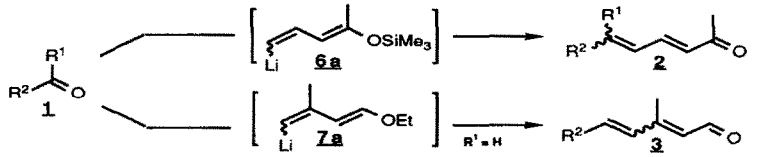
David L. Kuo
Research and Development Department, Lonza Ltd., Walliser Werke, CH-3930 Visp, Switzerland



Tetrahedron, **1992**, *48*, 9237

Polyvinylogation Reagents : 1-Lithio-4-trimethylsiloxy-penta-1,3-diene and 1-Lithio-4-ethoxy-2-methyl-buta-1,3-diene

L. DUHAMEL* and J.-E. ANGEL
URA 464 and IRCOF, BP 118, 76134 Mont-Saint-Aignan FRANCE



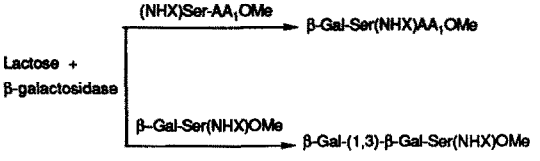
Reagents 6a and 7a allow transformations 1 --> 2 and 1 --> 3 in one pot.

Tetrahedron, **1992**, *48*, 9251

Enzymatic synthesis of β-galactosyldipeptides and of β-1,3-Digalactosylserine derivatives using β-galactosidase

Sandra Attal, Sylvie Bay, Danièle Cantacuzène
Unité de Chimie Organique, UA CNRS 487, Département de Biochimie et Génétique Moléculaire, Institut Pasteur, 28 rue du Dr Roux 75724 Paris (France)

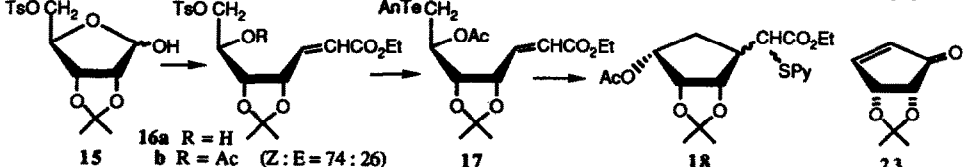
The transgalactosidation from lactose to dipeptides or to β-galactosylserine derivatives has been achieved using β-galactosidase as catalyst. Mild hydrolysis of the ester group of the labile glycosyl-dipeptide derivatives is also described.



Tetrahedron, **1992**, *48*, 9261

From Carbohydrates to Carbocycles: Radical Routes *via* Tellurium Derivatives

Derek H. R. Barton,[a] José Camara,[b] Xiaoqin Cheng,[a] Stephane D. Géro,[b] Joseph Cs. Jaszberenyi*[a,c] and Beatrice Quiclet-Sire*[b]
[a]Department of Chemistry, Texas A&M University, College Station, Texas 77843
[b]Institut de Chimie des Substances Naturelles, C.N.R.S., 91198 Gif-sur-Yvette, France.
[c]Research Group of Antibiotics of the Hungarian Academy of Sciences, Lajos Kossuth University, H-4010 Debrecen, Hungary.



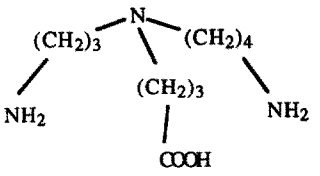
15 **16a** R = H **b** R = Ac (Z : E = 74 : 26) **17** **18** **23**

D-Ribose was transformed to its protected tosylate **15**, followed by a Wittig-reaction to give **16** as a 3:1 mixture of the corresponding **Z** and **E** isomers. This mixture was then transformed to the anisyltelluride **17** and the latter cyclized in a radical exchange reaction to a mixture of the carbocycles **18a** and **18b** (in a 17:2 ratio). The major product **18a** was then transformed to various chiral cyclopentane derivatives including the cyclopentenone-derivative **23**.

Tetrahedron, **1992**, *48*, 9277

SYNTHESIS OF A SPERMIDINE-DERIVED CONJUGATING AGENT

Christophe Morin * and Michel Vidal
LEDSS, Chimie Recherches, Université de Grenoble (France).

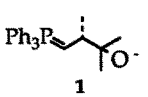


The following conjugating agent can be prepared in 3 steps from spermidine :

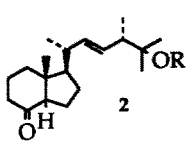
Tetrahedron, **1992**, *48*, 9283

25-Hydroxydihydrotachysterol$_2$. An Innovative Synthesis of a Key Metabolite of Dihydrotachysterol$_2$

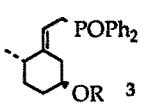
Jaap C. Hanekamp[*°¥], Rob Boer Rookhuizen[°], Hendrik J. T. Bos[*], Lambert Brandsma[*]. [*]Laboratory for Preparative Organic Chemistry, The Debye Institute, Utrecht University, Padualaan 8, 3584CH, Utrecht, The Netherlands [°]Department of Internal Medicine, University Hospital of Utrecht, Heidelberglaan 100, 3584CX, Utrecht, The Netherlands. A new direct total synthesis of the title compound is described. The hydroxylated side-chain is introduced via a chiral stereoselective Wittig reagent **1**. The DHT_2 A-ring is coupled to the 25-OH-Windaus and Grundmann's ketone **2** with an appropiate A-ring phosphonate **3**.



1



2

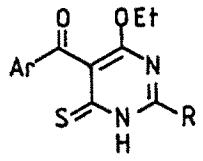


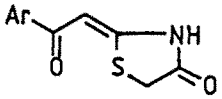
3

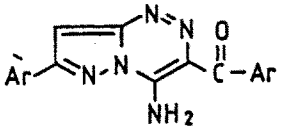
Tetrahedron, **1992**, *48*, 9295

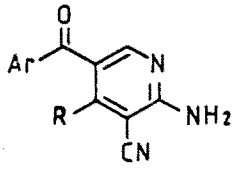
STUDIES WITH POLYFUNCTIONALLY SUBSTITUTED HETEROAROMATICS: SYNTHESIS OF SEVERAL NEW THIAZOLES, PYRAZOLO[5,1-c]TRIAZINES AND OF POLYFUNCTIONALLY SUBSTITUTED PYRIDINES AND PYRIMIDINES.

A.H.H. Elghandour[a‡], M.K.A. Ibrahim[a], F.M.M. Ali[b], and S.M.M. Elshikh[a].
[a]Faculty of Science, Cairo University, Giza, Egypt.
[b]Faculty of Science, Al-Azhar University, Cairo, Egypt.







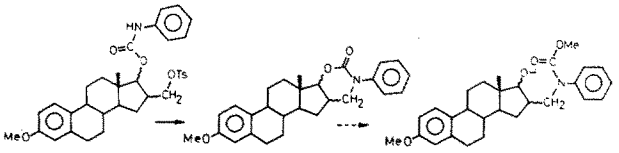


Tetrahedron, **1992**, *48*, 9305

N-ARYLURETHANE NEIGHBORING GROUP PARTICIPATION DURING SOLVOLYSIS OF 3-METHOXY-17-N-PHENYLCARBAMOYLOXY-16-p-TOLYLSULFONYLOXYMETHYLESTRA-1,3,5(10)-TRIENE STEREOISOMERS

László Hackler[a], Gyula Schneider[a,*] and Pál Sohár[b]
[a]Department of Organic Chemistry, József Attila University, Szeged, Hungary
[b]Spectroscopic Department, EGIS Pharmaceuticals, Budapest, Hungary

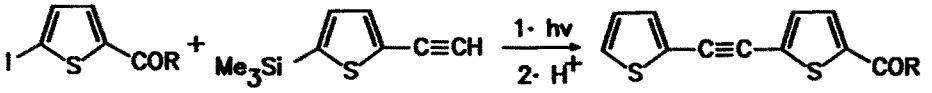
During methanolysis of 3-methoxy-16-p-tolylsulfonyloxymethylestra-1,3,5(10)-triene-17-N-phenylurethane isomers, cyclization involving (N⁻-6) neighboring group participation takes place.



Tetrahedron, **1992**, *48*, 9315

PHOTOCHEMICAL APPROACH TO THE SYNTHESIS OF NATURALLY OCCURRING THIENYL-ACETYLENES

M. D'Auria and D. Tofani
Centro CNR di Studio per la Chimica delle Sostanze Organiche Naturali, Dipartimento di Chimica, Università di Roma "La Sapienza", P.le A. Moro 2, 00185 Roma, Italy

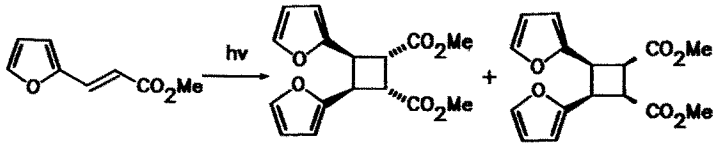


Tetrahedron, **1992**, *48*, 9323

PHOTOCHEMICAL BEHAVIOUR OF FURYLIDENE CARBONYL COMPOUNDS

M. D'Auria*(a), A. D'Annibale (b), and T. Ferri (b)
a) Centro CNR di Studio per la Chimica delle Sostanze Organiche Naturali, Dipartimento di Chimica, Università "La Sapienza", P.le A. Moro 2, 00185 Roma, Italy, b) Dipartimento di Chimica, Università "La Sapienza", P.le A. Moro 2, 00185 Roma, Italy

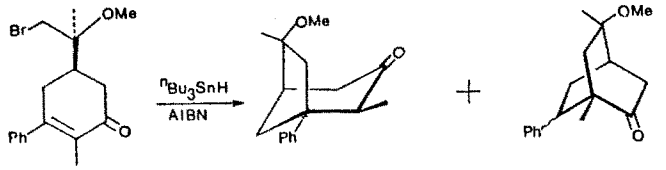
The mechamism of the furylacrylate dimerization is discussed.



Tetrahedron, **1992**, *48*, 9337

RADICAL CYCLISATION STRATEGIES TO BRIDGED SYSTEMS. REGIOSELECTIVE CONSTRUCTION OF CHIRAL BICYCLO [2.2.2] AND [3.2.1] OCTANES VIA 6-*EXO* TRIG AND 5-*EXO* TRIG RADICAL CYCLISATION REACTIONS

A. Srikrishna* and P. Hemamalini
Department of Organic Chemistry, Indian Institute of Science
Bangalore - 560 012, INDIA.



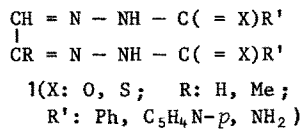
1 : 1.5

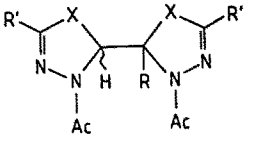
Tetrahedron, **1992**, *48*, 9355

SYNTHESIS AND STEREOSTRUCTURE OF SOME 5,5'-DISUBSTITUTED 3-ACETYL-2,2'-BI-2*H*-1,3,4-OXA(THIA)DIAZOLINES.

L. Somogyi[a,*], M. Czugler[b] and P. Sohár[c]; [a]Research Group for Antibiotics, Hung. Acad. Sci. (Hungary), [b]Central Research Institute of Chemistry, Hung. Acad. Sci. (Hungary), [c]Spectroscopic Laboratory, Department of General and Inorganic Chemistry, Eötvös University (Hungary)

The synthesis of some 1-type bis(acylhydrazones) and their cyclization into compounds 2-5 are described. The stereostructures of the new diastereomeric pairs were studied by ^1H and ^{13}C NMR spectroscopy, as well as by X-ray analysis.



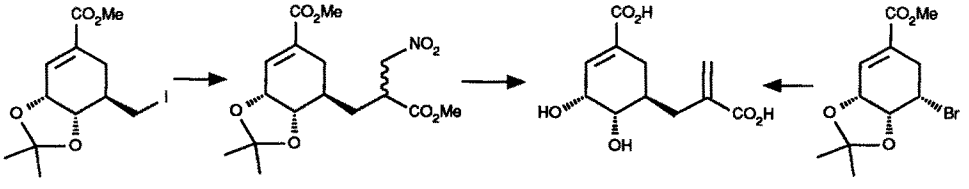


	X	R	R'
2	O	H	Ph
3	O	Me	Ph
4	O	Me	C_5H_4N-*p*
5	S	Me	NHAc

Tetrahedron, **1992**, *48*, 9363

SYNTHESIS OF A METHYLENE ANALOGUE OF 5-ENOLPYRUVYLSHIKIMIC ACID

Malcolm M. Campbell, Hélèna Rabiasz, Malcolm Sainsbury, Philip A. Searle (School of Chemistry, University of Bath, Claverton Down, Bath BA2 7AY, U.K.) and Gareth M. Davies (ICI Pharmaceuticals, Mereside, Alderley Park, Macclesfield, Cheshire SK10 4TG, U.K.)

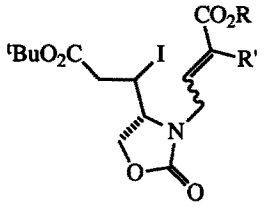


Tetrahedron, **1992**, *48*, 9373

AN INTRAMOLECULAR COBALT CYCLISATION FOR THE CONSTRUCTION OF SUBSTITUTED PYRROLIDINES.

J.E. Baldwin, M.G. Moloney, and A. F. Parsons.
The University of Oxford, Dyson Perrins Laboratory, South Parks Road, Oxford.

The synthesis of alkenes of type (I), and their elaboration to substituted pyrrolidines by a cobalt-mediated radical cyclisation, is described.



(I)

Tetrahedron, **1992**, *48*, 9385

Stereochemistry of the Addition of Lithiated Methyl Phenyl Sulfoxide to Nitrones.

Stephen G. Pyne* and A. R. Hajipour, Department of Chemistry, University of Wollongong, Locked Bag 8844, South Coast Mail Centre, NSW 2521, Australia.

The stereochemistry of the reaction of lithiated methyl phenyl sulfoxide with nitrones is described.