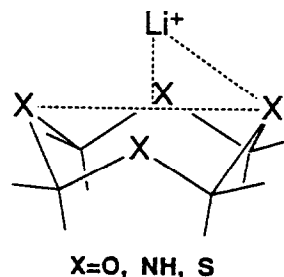


Tetrahedron, 1991, 47, 9317

THEORETICAL STUDY OF CHEMICAL INTERACTIONS IN CROWN ETHER-CATION COMPLEXES

Itaru Hataue, Yasuo Oishi, Masaaki Kubota and Hiroshi Fujimoto
Division of Molecular Engineering, Kyoto University, Kyoto 606, Japan

From the optimized structures of complexes of crown ethers with a guest cation Li^+ , a feature of chemical interactions in these species has been elucidated in terms of paired interacting orbitals.

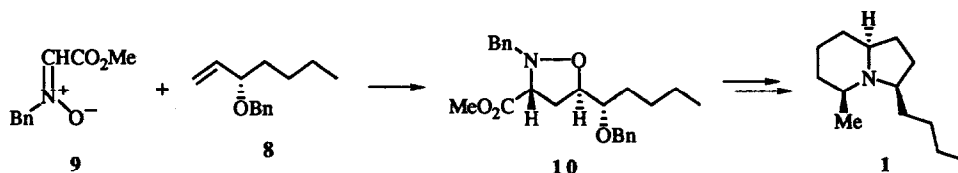


TOTAL SYNTHESIS OF (+)-MONOMORINE I VIA NITRONE CYCLOADDITION ROUTE

Masayuki Ito and Chihiro Kibayashi*

Tokyo College of Pharmacy, Horinouchi, Hachioji, Tokyo 192-03, Japan

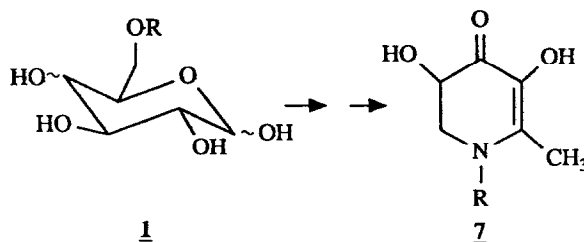
An enantioselective total synthesis of (+)-monomorphine **1** based on asymmetric nitronc cycloaddition with the chiral allylic ether **8** as a dipolarophile is reported.



Tetrahedron, 1991, 47, 9329

5,6-DIHYDRO-3,5-DIHYDROXY-4H-PYRIDONES - NEW MAILLARD PRODUCTS FROM 6-O-SUBSTITUTED HEXOSES AND PRIMARY AMINES

Berthold Kettner, Franz Ledl,*a)
Holger Lerche, Theodor Severin*
Institut für Pharmazie und Lebensmittelchemie der Universität,
Sophienstr. 10, 8000 München 2
Institut für Lebensmittelchemie und Analytische Chemie der Universität,
a) Pfaffenwaldring 55, 7000 Stuttgart 80



Tetrahedron, 1991, 47, 9351

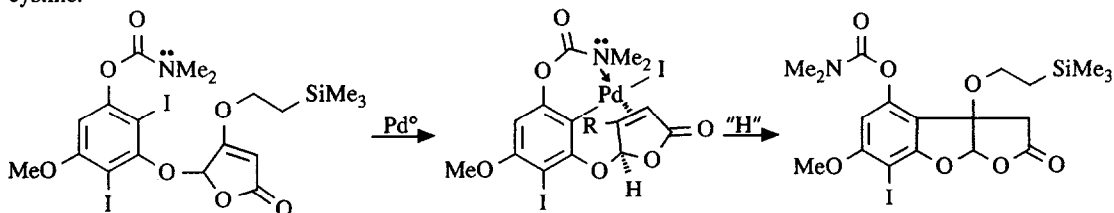
Dihydropyridones **7** have been isolated from reaction mixtures of primary amines and 6-O-substituted hexoses **1** such as isomaltose, glucose-6-phosphate and 6-O-benzylgalactose in yields up to 20%.

**On the Way to Aflatoxins and Related Structure Types.
Regiocontrolled Annulations by Application of Homogenous
Palladium Catalysis, Urethane Tether and *o,o'*-Diiodine Effect.**

Boris Schmidt and H. Martin R. Hoffmann*

Department of Organic Chemistry, University of Hannover, Schneiderberg 1 B, 3000 Hannover, Germany

Homogenous palladium catalyzed intramolecular hydroarylation afforded ABC substructures of AFM₁ and austocystine.

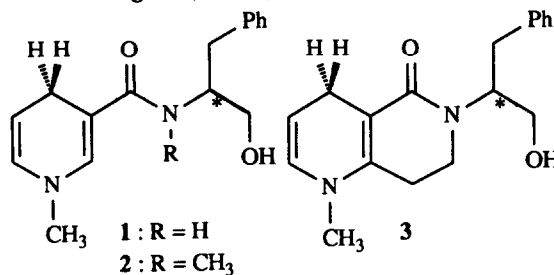


**STERESELECTIVITY OF HYDROGEN TRANSFER WITH CHIRAL NADH MODELS
AS A FUNCTION OF CONFIGURATION AND CONFORMATION**

Y. Combret, J. J. Torché, N. Plé, J. Duflos, G. Dupas, J. Bourguignon and G. Quéguiner

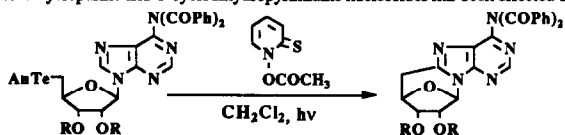
URA 1429, LCOH INSA-IRCOF, BP08 76131 Mont Saint Aignan (France)

NADH models 1, 2 and 3, bearing a chiral amide group have been synthesized. A NMR spectroscopy study has shown that compound 2 and its precursors could have conformers due to the hindered rotation of the amide moiety. Compound 3 reduced methyl benzoylformate with 85 % e.e.



**SYNTHESIS OF 5',8-CYCLOPURINE AND OF 5',6-CYCLODIHYDROPYRIMIDINE
NUCLEOSIDES USING INTRAMOLECULAR RADICAL CYCLISATION BASED ON
THE ARYL TELLURIDE RADICAL EXCHANGE PROCESS.**

Derek H.R. Barton,^a Stéphane D. Géro,^b Béatrice Quiclet-Sire^{a,b}, Mohammad Samadi^a and Claire Vincent^b.^aDepartment of Chemistry, Texas A&M University, College Station, Texas 77843, U.S.A. ^bInstitut de Chimie des Substances Naturelles, C.N.R.S., 91198 Gif-sur-Yvette, France. The synthesis of C-cyclopurine and C-cyclodihydropyrimidine nucleosides has been effected using 5'-aryltelluronucleosides by intramolecular radical cyclisation.

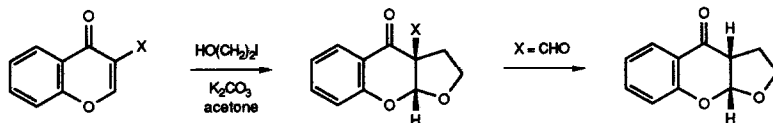


HETEROANNULATION OF 4-OXO-4H-1-BENZOPYRANS (CHROMONES) VIA THE CONJUGATE ADDITION OF HALOALKANOLS IN THE PRESENCE OF BASE

Peter J. Cremins, Roy Hayes, and Timothy W. Wallace*

Department of Chemistry and Applied Chemistry, University of Salford, Salford M5 4WT, U.K.

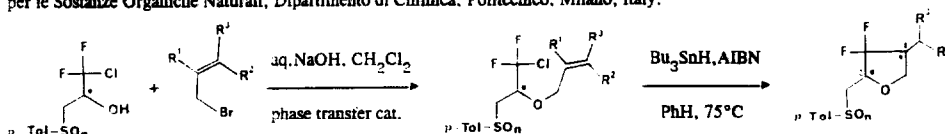
Chromones (4-oxo-4H-1-benzopyrans) with electron acceptors at C-3 react with 2-haloethanols and potassium carbonate in acetone to give tetrahydrofuro[2,3-b][1]benzopyran-4-ones, the products derived from chromone-3-carbaldehydes also undergoing *in situ* deformylation.



INTRAMOLECULAR TRAPPING OF DIFLUOROALKYL RADICALS BY TETHERED OLEFINS IN THE ASYMMETRIC SYNTHESIS OF 2,4-DISUBSTITUTED-3,3-DIFLUOROTETRAHYDROFURANS

Giancarlo Cavicchio^a, Valeria Marchetti^a, Alberto Arnone^a, Pierfrancesco Bravo^b, and Fiorenza Viani^b

^aDipartimento di Chimica, Ingegneria Chimica e Materiali, Università di L'Aquila, L'Aquila, Italy; ^bC.N.R. - Centro di Studio per le Sostanze Organiche Naturali, Dipartimento di Chimica, Politecnico, Milano, Italy.



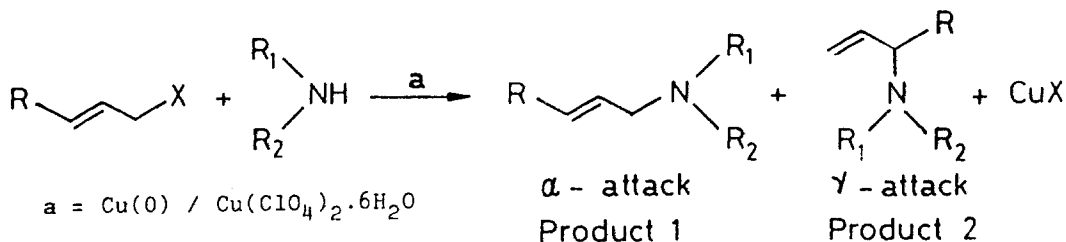
$n = 0, 1, 2$; $R^1 = H, Cl$; $R^2 = H, Me$; $R^3 = H, Ph, CO_2Et, Me, Cl$

Radical cyclization of several chiral unsaturated ethers, performed following the tributyltin hydride method, afforded, in moderate to high diastereoselection, the title compounds with prevailing *trans* arrangement of substituents in 2 and 4.

ALLYLIC AMINATION PROMOTED BY COPPER

Jubaraj B. Baruah and Ashoka G. Samuelson; Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore, 560 012 India.

A mild method for the synthesis of allylic amines.

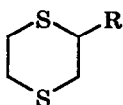


CONFORMATIONAL ANALYSIS OF 2-ALKYL-1,4-DITHIANES
AND RELATED COMPOUNDS BY NMR SPECTROSCOPY AND MMX

Yu.A.Strelenko^a, V.V.Samoshin^b, E.I.Troyansky^{a*}, D.V.Demchuk^a, G.I.Nikishin^a, and N.S.Zefirov^b;

^aN.D.Zelinsky Institute of Organic Chemistry the USSR Academy of Science, Moscow, U.S.S.R.

^bM.V.Lomonosov Moscow State University, Moscow, U.S.S.R.



R=Me, C₆H₁₃, CH₂OH, CMe₂OH

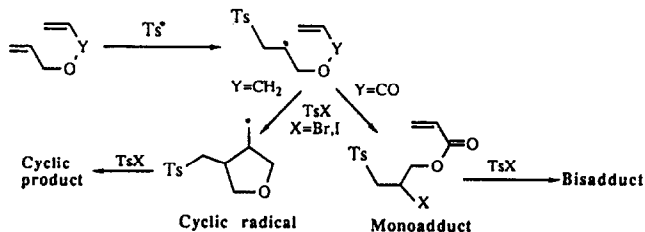
Equatorial conformer predominates

R= CH₂OAc, CH₂Cl

Axial conformer predominates

THE EFFECT OF THE CARBONYL GROUP IN THE
CYCLIZATION OF 1-HEXENYL RADICALS

A. C. Serra, C. M. M. da Silva Corrêa^{*}, and M. L. C. do VALE
Centro de Investigação em Química (INIC) - Faculdade de Ciências
4000 PORTO - PORTUGAL



The radical chain cyclization of allyl ether derivatives promoted by tosyl halides and light is suppressed by the presence of a carbonyl group conjugated with the double bond (acrylic double bond).

MECHANISTIC STUDIES ON THE ROLE OF
CARBON DIOXIDE IN THE SYNTHESIS OF
METHYLCARBAMATES FROM AMINES AND DIMETHYLCARBONATE IN THE
PRESENCE OF CO₂.

M. Aresta^{*} and E. Quaranta

Dipartimento di Chimica, Università, Campus Universitario, 70126, Bari, Italy
Centro CNR-MISO, Via Amendola, 173, 70126, Bari, Italy.

Carbon dioxide can promote, catalytically, the synthesis of N-alkylmethylcarbamates from amines and dimethylcarbonate.

