GRAPHICAL ABSTRACTS

Tetrahedron **1992**, *48*, 19

Synthesis of 10-Substituted "Open-Chain" Analogues of 5,10-Dideaza-5,6,7,8-tetrahydrofolic Acid (DDATHF, Lometrexol)

Edward C. Taylor*, Thomas H. Schrader and Loren D. Walensky
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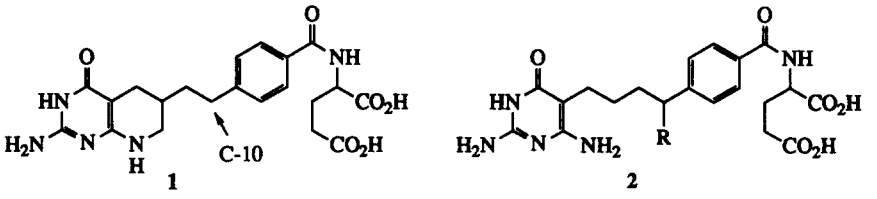
Potent folate antimetabolites (in vitro) have been prepared which are structurally based upon the "open-chain" analogue 2 (R = H) of DDATHF (1) but which carry one-carbon substituents in position "10" (2, R = -CH_3, -CH_2OH, =CH_2, etc).



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SYNTHESIS OF CYCLODECANE DERIVATIVES BY INTRAMOLECULAR ALKYLATION OF AN α-PHENYL-SULFENYL KETONE

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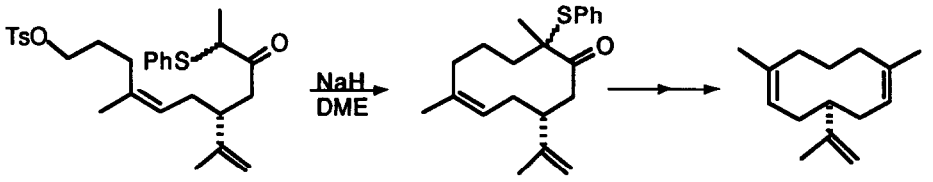
Cycloalkylation of an acyclic ω-tosyloxy-α-phenylsulfenyl ketone gave a cyclodecanone derivative which was transformed largely into a (Z),(Z)-1,6-cyclodecadienone derivative.



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A SIMPLE HIGH-YIELDING APPROACH TO PERYLENEQUINONE FROM THE NOVEL ONE-STEP DOUBLE COUPLING REACTION OF 1,2-NAPHTHOQUINONE

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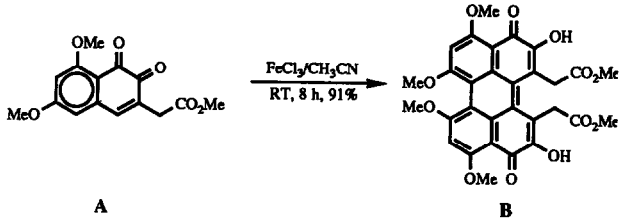
Department of Chemistry, University of Alberta, Edmonton, Alberta, Canada T6G 2G2



Compound **B** is synthesized by the one-step double coupling of compound **A**. The reaction mechanism and properties of compound **B** are discussed.

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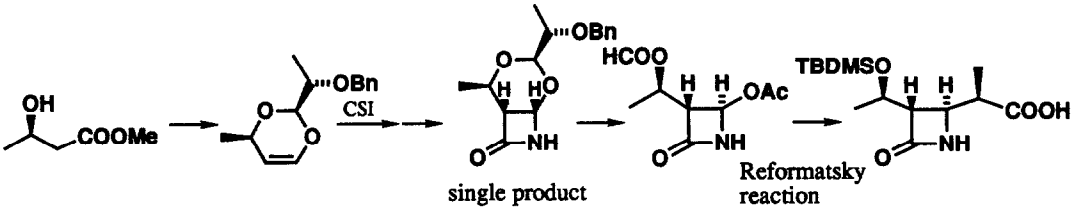
A HIGHLY STEREOSELECTIVE SYNTHESIS OF THE 1β-METHYLCARBAPENEM KEY INTERMEDIATE FROM (*R*)-3-HYDROXYBUTYRIC ACID

Yuko Kobayashi, Yoshio Ito, and Shiro Terashima*
Sagami Chemical Research Center, Nishi-Ohnuma, Sagamihara, Kanagawa 229, Japan



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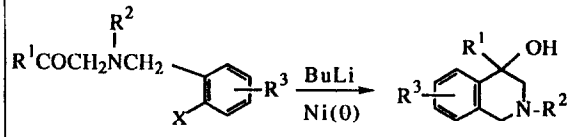
A CONVENIENT SYNTHESIS OF 4-SUBSTITUTED 1,2,3,4-TETRAHYDROISOQUINOLIN-4-OLS BY A NOVEL INTRAMOLECULAR BARBIER REACTION AND BY AN INSERTION REACTION: REACTION SCOPE AND LIMITATIONS

Masaru Kihara,* Minoru Kashimoto, and Yoshimaro Kobayashi
Faculty of Pharmaceutical Sciences, The University of Tokushima, Sho-machi, Tokushima 770, Japan



X: I, Br ; R^1: C_6H_5, C_6H_4F, C_6H_4Cl, C_6H_4Br, C_6H_4OMe, Me, C_6H_{11}; R^2: Me, Et, Bu, $C_6H_5CH_2$, COOEt, COMe, COC_6H_5, CHO; R^3: H, OMe

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A SYNTHESIS OF (+)-NONACTIC ACID BY MEANS OF THE SULFUR-YLIDE REARRAGEMENT

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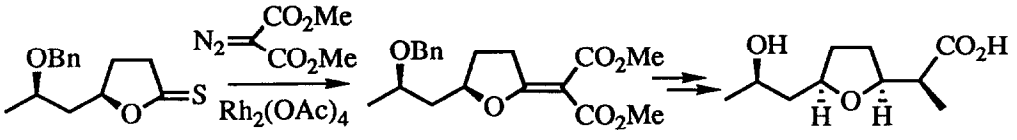
Institute of Medicinal Chemistry, Hoshi University, Ebara 2-4-41, Shinagawa, Tokyo 142, Japan

A stereoselective synthesis of (+)-nonactic acid was achieved by employing a condensation of the γ-thiolactone with dimethyl α-diazomalonate as a key step.



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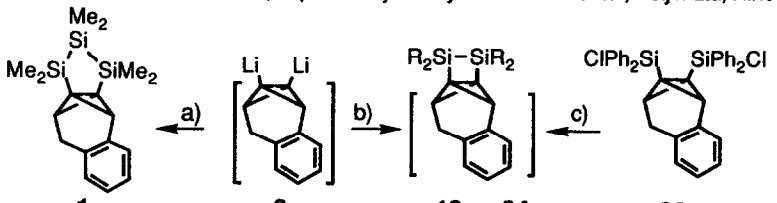
Synthesis and Reactivity of [3.1.1] and [2.1.1]Silapropellanes

Yoshiyuki Igarashi, Yoshio Kabe, Tsuneo Hagiwara,[1] and Wataru Ando,* Department of Chemistry, The University of Tsukuba, Tsukuba, Ibaraki 305, Japan. Teijin Tokyo Reserch Center, Teijin Ltd, Hino, Tokyo 191, Japan.[1]



1 **3** **13** or **24a** **23a**

a) $Cl(SiMe_2)_3Cl/Et_2O$, b) $Cl(SiMe_2)_2Cl/Et_2O$, c) Na/K/Toluene **13** : R=Me, **24a** : R=Ph

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1,4-ADDITION OF AZIDE TO *trans*-DIEPOXYCYCLOPENTANE WITH SOLVENT PARTICIPATION

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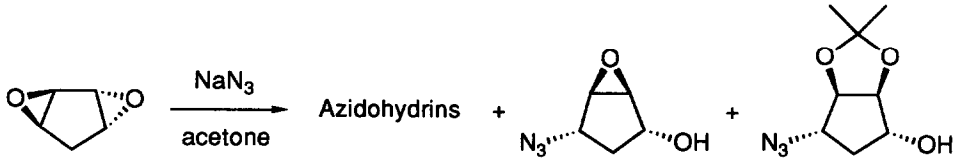
Reaction of *trans*-diepoxycyclopentane with NaN_3 leads to 1,2- and 1,4-addition products; one of the latter is an acetonide formed by participation of the solvent.



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Dioxa-Cage and Bridged Compounds as Possible Precursors for Tricyclo[5.5.0.0^{4,10}]dodeca-2,5,8,11-tetraene

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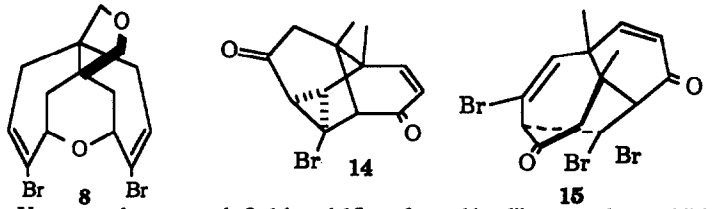

8 **14** **15**

Unexpected compounds **8**, **14**, and **15** are formed by dibromocarbene additions / rearrangements

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ASYMMETRIC SYNTHESIS OF ENANTIOMERICALLY PURE PHOSPHONIC ANALOGUES OF GLUTAMIC ACID AND PROLINE

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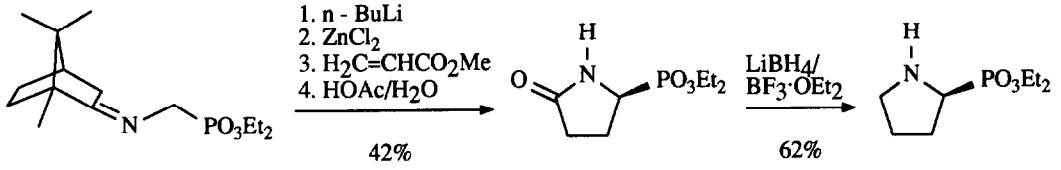

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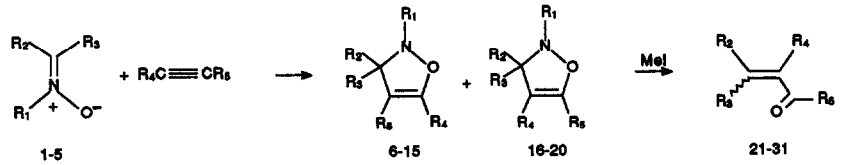
NOVEL APPROACH TO THE RING-OPENIG OF 4-ISOXAZOLINES: ONE-POT SYNTHESIS OF α-β ENONES

U. Chiacchio,[a] A. Liguori,[b] A. Rescifinia,[a] G. Romeo,[c] F. Rossano,[c] G. Sindona[b] and N. Uccella;[b]

[a]Università Catania, Italy.
[b]Università della Calabria, Italy.
[c]Università di Messina, Italy.



1-5 6-15 16-20 21-31

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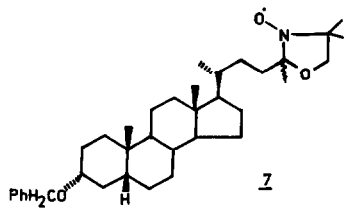
SYNTHESIS OF 2'-(3α-BENZYLOXY-24-NORCHOLAN-23-YL)-2',4',4'-TRIMETHYL-4',5'-DIHYDROOXAZOLINE-N-OXYL - A NEW POTENTIAL SPIN PROBE FOR BIOMEMBRANES

Sharmila Banerjee, Umesh R. Desai and Girish K. Trivedi*, Department of Chemistry, Indian Institute of Technology, Powai, Bombay 400 076 India.

The synthesis of the title compound 7, a new potential spin probe for biomembranes, is described. The isotropic ESR parameters for 7 have been measured.



7

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New Aspects in the Regioselective Functionalization of Furans. Synthesis of Tri- and Tetrasubstituted Furan Derivatives

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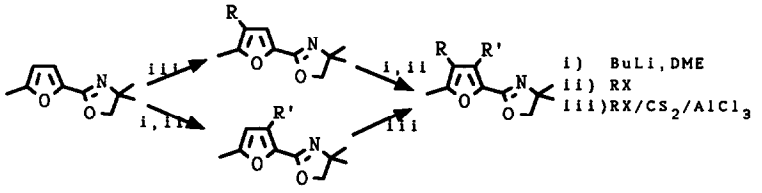
Departamento de Química Orgánica I, Facultad de Química, Universidad Complutense.
E-28040 Madrid, Spain



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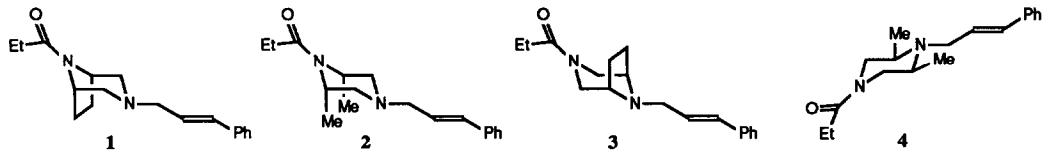
MOLECULAR MECHANICS AND ^{1}H NMR CONFORMATIONAL STUDY OF 3,8-DIAZABICYCLO[3,2,1]OCTANES AND RELATED *cis*-2,6-DIMETHYLPIPERAZINES ACTIVE ON OPIOID RECEPTORS

Lucio Toma,[a,*] Giorgio Cignarella,[b] Daniela Barlocco,[b] and Fiamma Ronchetti[c]
[a] Dip. Chimica Organica, Università di Pavia; [b] Ist. Chimico-Farmaceutico e Tossicologico, Università di Milano;
[c] Dip. Chimica e Biochimica Medica, Università di Milano, Italy.

Compounds 1-4 have been submitted to conformational analysis to explain the low affinity of 4 towards μ opioid receptors as compared to the high affinity of 1-3.



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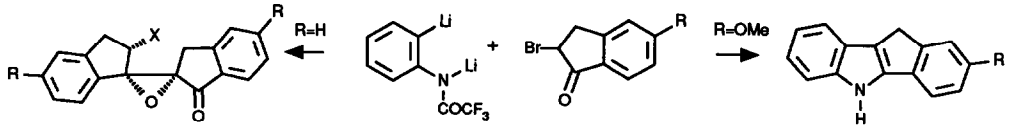
THE SYNTHESIS OF INDENOINDOLES

[a]J.Graham, [a]A.Ninan, [a]K.Reza
[a]M.Sainsbury, and [b]H.G.Shertzer
[a]School of Chemistry, University of Bath, Bath BA2 7AY, U.K.
[b]Dept. of Environmental Health, University of Cincinnati, Cincinnati, Ohio 45267-0056, U.S.A.

The nature of the substitution at C-5 in indanones influences the course of the Wender indolisation reaction



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A MODIFICATION OF THE PLÖCHL-ERLENMEYER REACTION.
I. SYNTHESIS OF 2-PHENYL-4-DIPHENYLMETHYLENE-5(4H)-OXAZOLONE.

Ginka G. Ivanova, Institute of Organic Chemistry, Bulgaria

An unsaturated azlactone of a diarylketone has been synthesized: