

# Tetrahedron

## Tetrahedron Vol. 60, No. 2, 2004

# Contents

#### REPORT

## **The reverse Cope cyclisation: a classical reaction goes backwards** Nicholas J. Cooper and David W. Knight\*

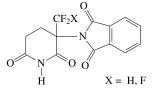
 $\begin{array}{c} R^{2} \\ \swarrow \\ NOH \\ R^{1} \\ R^{1} \\ n = 1,2 \end{array} \xrightarrow{R^{2}} \left( \begin{array}{c} R^{2} \\ \swarrow \\ (\uparrow) \\ (\uparrow) \\ (\uparrow) \\ (\uparrow) \\ (\uparrow) \\ (\downarrow) \\ (\downarrow)$ 

This report aims to summarize the salient features of the reverse Cope cyclisation, a useful method for the elaboration of pyrrolidines and, to a lesser extent piperidines, by pericyclic cyclisations of unsaturated hydroxylamines.

## ARTICLES

#### 3-Trifluoromethyl- and 3-difluoromethyl-thalidomides

Sergej N. Osipov, Pavel Tsouker, Lothar Hennig and Klaus Burger\*



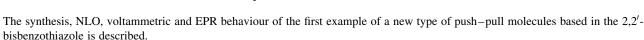
Synthesis of pyrido and pyrazinodithienodipyrimidine-4,8(3H,9H)-dione derivatives by the aza-Wittig methodology David Vázquez Vilarelle, Carlos Peinador Veira and José M. Quintela López\* pp 275–283

 $\begin{array}{cccccccccc} Ph_{3}P=N & N=PPh_{3} & & & & \\ EtO_{2}C & & & & & \\ \end{array} \\ \end{array} \xrightarrow{\begin{subarray}{c} Ph_{3}P=N & N=PPh_{3} & & & \\ \hline Ph_{3}P=N & & & \\ \hline Ph_{3$ 

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#### Synthesis and non-linear optical and redox properties of 6-nitro-6'-piperidyl-2,2'bisbenzothiazole: a new type of push-pull molecules Francisco López-Calahorra,\* Mariano Martínez-Rubio, Dolores Velasco, Enric Brillas and Lluís Julià



Enantioselective binding of amino acids and amino alcohols by self-assembled chiral basket-shaped receptors

Beatriu Escuder,\* Alan E. Rowan, Martinus C. Feiters\* and Roeland J. M. Nolte

#### Studies on the carbenium-iminium ions derived from N-methylmorpholine-N-oxide (NMMO)

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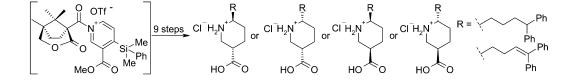
Thomas Rosenau,\* Antje Potthast and Paul Kosma

Heterolytic degradation of NMMO lead to the two carbenium-iminium ions 2 and 3. In the presence of catalytic amounts of water 3 was rearranged into 2-the first example of a Mannich intermediate interconversion. The reaction mechanism was clarified by trapping reactions, isotopic labeling, kinetic studies and DFT computations.

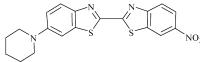
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solvent, H<sub>2</sub>O (cat.)

First asymmetric syntheses of 6-substituted nipecotic acid derivatives Cornelia E. Hoesl, G. Höfner and Klaus T. Wanner\*









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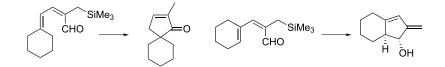
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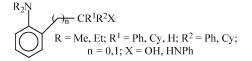
# Synthesis of spiro[4.5]decane and bicyclo[4.3.0]nonane ring systems by self-cyclization of (*Z*)- and (*E*)-2-(trimethylsilylmethyl)pentadienal derivative

Chiaki Kuroda,\* Shigenobu Honda, Yuki Nagura, Hiroyuki Koshio, Taku Shibue and Tokio Takeshita

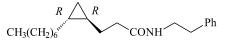


# Synthesis and molecular structures of (2-dialkylaminophenyl)alcohols and of 2-phenylaminoalkyl-dimethylaminobenzene derivatives Harbi Tomah Al-Masri, Joachim Sieler, Peter Lönnecke, Steffen Blaurock, Konstantin Domasevitch

and Evamarie Hey-Hawkins\*



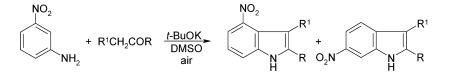
**The absolute stereochemistry of grenadamide** Juma'a R. Al Dulayymi, Mark S. Baird\* and Keith Jones



3-(2S-Heptylcycloprop-1S-yl) propanoic acid 2-phenylethanamide was synthesised from *cis*-cyclopropan-1,2-dimethanol dibutyrate via enzymatic desymmetrisation; it gave identical nmr data to those reported for grenadamide but had an equal and opposite absolute rotation, indicating that the latter is the 2R, 1R-enantiomer shown.

## Synthesis of 4- and 6-substituted nitroindoles

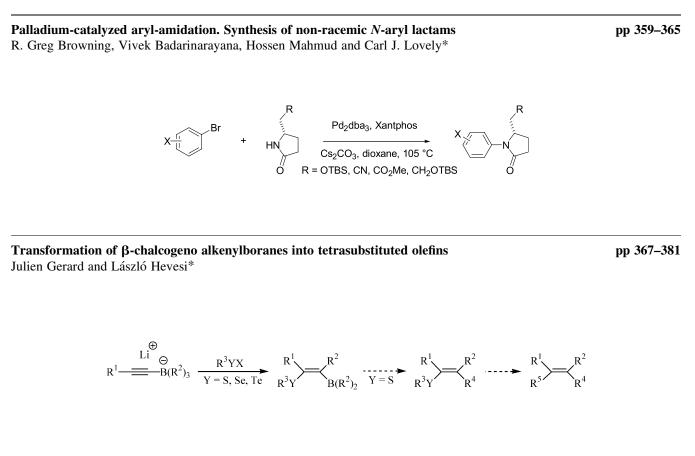
Nikolai Moskalev, Michał Barbasiewicz and Mieczysław Mąkosza\*



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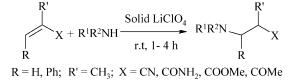
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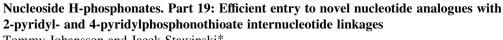
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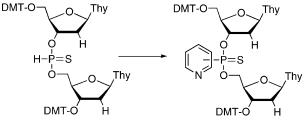
# $LiClO_4$ Accelerated Michael addition of amines to $\alpha,\beta$ -unsaturated olefins under solvent-free conditions

Najmedin Azizi and Mohammad R. Saidi\*





Tommy Johansson and Jacek Stawinski\*



Efficient protocols for the preparation of dinucleoside 2-pyridyl- and 4-pyridylphosphonothioates were developed.

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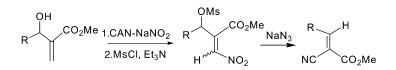
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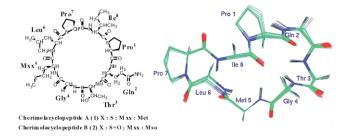
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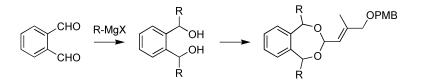
# NaNO<sub>2</sub>-Ceric ammonium nitrate mediated conversion of acrylic esters and Baylis-Hillman derived acrylic esters into corresponding β-nitro acrylic esters K. Jayakanthan, K. P. Madhusudanan and Yashwant D. Vankar\*



# Sequence and solution structure of cherimolacyclopeptides A and B, novel cyclooctapeptides from the seeds of *Annona cherimola* Alassane Wélé, Céline Landon, Henri Labbé, Françoise Vovelle, Yanjun Zhang and Bernard Bodo\*



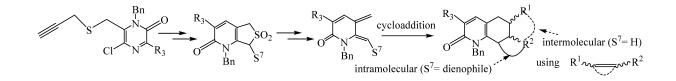
Synthesis of  $\alpha$ , $\beta$ -unsaturated dioxanes, dioxolanes and dioxepanes by *trans*-acetalisation of dimethylacetals with *meso* or  $C_2$ -symmetrical 1,2-, 1,3- and 1,4-diols Loïc Lemiègre, Fleur Lesetre, Jean-Claude Combret and Jacques Maddaluno\*



# Generation of 5,6-dimethylene-2(1*H*)-pyridinones from [3,4-*b*] sulfolene pyridinones and application in Diels–Alder reactions

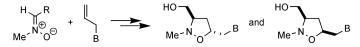
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Tom C. Govaerts, Ilse A. Vogels, Frans Compernolle and Georges J. Hoornaert\*



#### Diastereoselective synthesis of homo-*N*,*O*-nucleosides

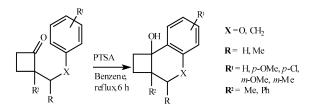
Ugo Chiacchio,\* Filippo Genovese, Daniela Iannazzo, Vito Librando, Pedro Merino,\* Antonio Rescifina, Roberto Romeo, Antonio Procopio and Giovanni Romeo\*



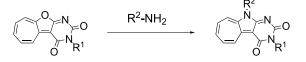
R = CO<sub>2</sub>Et, TBDPSOCH<sub>2</sub>; B = Thymine, *N*-acethylcitosine, 5-fluorouracil, adenine

# Use of cyclobutyl derivatives as intermediates in the synthesis of 1,2a,3,8b-tetrahydro-2*H*-cyclobuta[*c*]chromenes

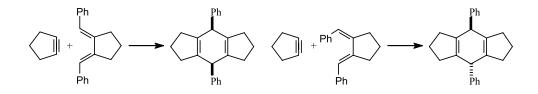
Angela M. Bernard, Costantino Floris, Angelo Frongia, Pier P. Piras\* and Francesco Secci



Alternative synthesis and novel oxidizing ability of 6,9-disubstituted cyclohepta[b]pyrimido[5,4-d]pyrrole-8(6H),10(9H)-dione derivatives Shin-ichi Naya, Yusuke Iida and Makoto Nitta\*



**Stereochemistry of the [2+4] cycloaddition of cyclopentyne** John C. Gilbert\* and Duen-Ren Hou



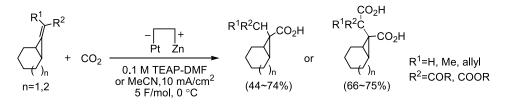
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#### **Electrochemical carboxylation of bicyclo**[*n***.1.0]alkylidene derivatives** Morshed Alam Chowdhury, Hisanori Senboku and Masao Tokuda\*



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\*Corresponding author ()<sup>+</sup> Supplementary data available via ScienceDirect

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