

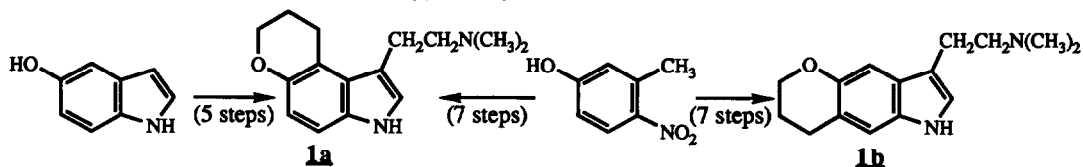
## GRAPHICAL ABSTRACTS

*Tetrahedron*, 1992, 48, 1039

### The Synthesis of Pyrano[3,2-e]indoles and Pyrano[2,3-f]indoles as Rotationally Restricted Phenolic Analogs of the Neurotransmitter Serotonin

John E. Macor,\* Kevin Ryan, and Michael E. Newman, Department of Medicinal Chemistry, Central Research Division, Pfizer Inc, Groton, Connecticut 06340

The synthesis of two rotationally restricted phenolic analogs (**1a** and **1b**) of the neurotransmitter serotonin have been accomplished. The reaction sequence of Claisen rearrangement, olefin hydroxylation, and intramolecular Mitsunobu reaction was used to form the fused-dihydropyran rings.



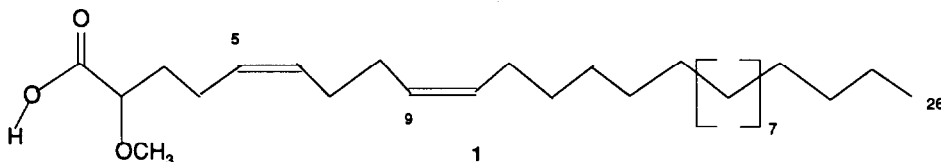
*Tetrahedron*, 1992, 48, 1053

### NOVEL NATURALLY OCCURRING $\alpha$ -METHOXY ACIDS FROM THE PHOSPHOLIPIDS OF CARIBBEAN SPONGES

Nestor M. Carballeira\*, Vilmary Negron, and Elba D. Reyes

Department of Chemistry, University of Puerto Rico, Rio Piedras, Puerto Rico 00931

The title compounds (5Z,9Z)-2-methoxy-5,9-hexacosadienoic (**1**), (5Z)-2-methoxy-5-hexadecenoic, and (6Z)-2-methoxy-6-hexadecenoic were isolated and characterized from three Caribbean sponges.

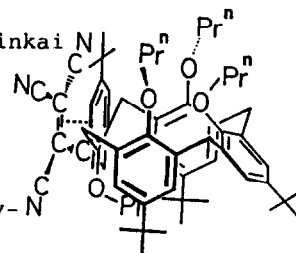


*Tetrahedron*, 1992, 48, 1059

### CALIXARENE-TETRACYANOETHYLENE COMPLEXES. ON THE SELECTIVE COMPLEXATION WITH CALIX[4]ARENE CONFORMERS

Atsushi Ikeda, Takeshi Nagasaki, Koji Araki and Seiji Shinkai, Department of Organic Synthesis, Faculty of Engineering, Kyushu University, Fukuoka 812, Japan

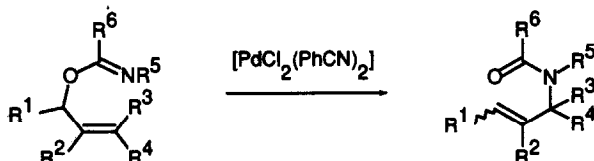
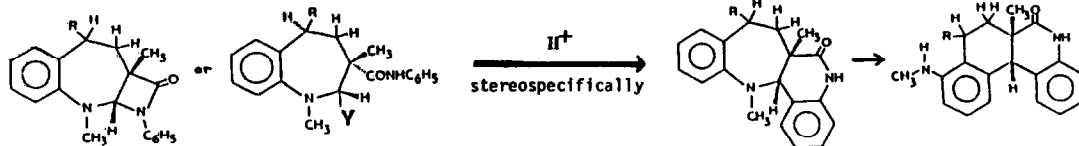
The conformational behaviors of O-alkylcalix[4]arene conformers (**1<sub>R</sub>**) and their analogs were investigated in dichloromethane. "Out"-**1<sub>R</sub>** was sterically-stable but could not accept TCNE whereas "in"-**1<sub>R</sub>** was sterically-unstable but could provide a room to accept TCNE.



## On the Palladium(II)-Catalyzed Rearrangement of Allyl Imidates

Peter Metz,\* Cornelia Mues and Andreas Schoop

Organisch-Chemisches Institut der Universität Münster, Corrensstrasse 40, D-4400 Münster, Germany

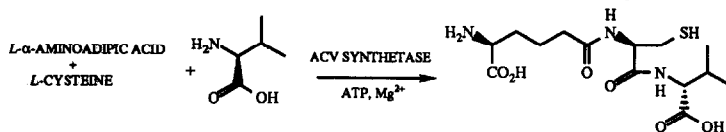
Efficient palladium(II)-catalyzed rearrangements of allyl *N*-phenylimidates and allyl trichloroacetimidates are described. This process is applied to a synthesis of (*R*)-*N*-(trichloroacetyl)norleucinol from (*R*)-2,3-*O*-isopropylidenglyceraldehyde.HETEROCYCLISATIONS DE SELS D'IMINIUM  
PROVENANT DE QUELQUES  $\beta$ -AMINO- $\beta$ -LACTAMES  
ET DE LEURS DERIVÉS GÉNÉRALISÉS.C. NISOLE, P. URIAC\*, J. HUET; L. TOUPET<sup>b</sup>Université de Rennes 1 : Laboratoire de Chimie Pharmaceutique, Av. Pr. Léon Bernard, F. 35043  
Rennes Cedex; <sup>b</sup> Laboratoire de Physique Cristalline, Campus de Beaulieu, F. 35042 Rennes Cedex.STUDIES ON THE EXCHANGE OF VALINE-OXYGEN DURING  
THE BIOSYNTHESIS OF  $\delta$ -(*L*- $\alpha$ -AMINOADIPYL)-*L*-CYSTEINYL-*D*-VALINE.

Jack E. Baldwin,\* Robert M. Adlington, Juliette W. Bird, Robert A. Field,

Niamh M. O'Callaghan, and Christopher J. Schofield

The Dyson Perrins Laboratory and Oxford Centre for Molecular Sciences,

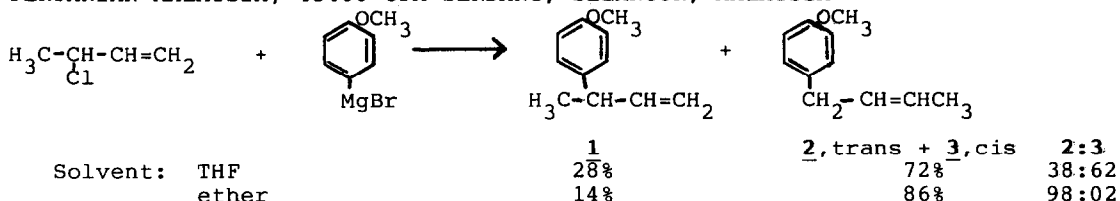
University of Oxford, South Parks Road, Oxford OX1 3QY, U.K.

The fate of valine carboxyl-oxygen atoms during ACV biosynthesis has been studied, both *in vivo* and *in vitro*. Results demonstrate the loss of a single <sup>18</sup>O label from [<sup>18</sup>O<sub>2</sub>]-valine during ACV formation.

*Tetrahedron*, 1992, 48, 1109

**SOLVOLYTIC STEREOSELECTIVE COUPLING REACTION OF p-METHOXYPHENYLMAGNESIUM BROMIDE WITH SUBSTITUTED ALLYLIC CHLORIDES.**

NORDIN HJ. LAJIS\* AND MOHAMMAD NIYAZ KHAN; CHEMISTRY DEPARTMENT, UNIVERSITI PERTANIAN MALAYSIA, 43400 UPM SERDANG, SELANGOR, MALAYSIA



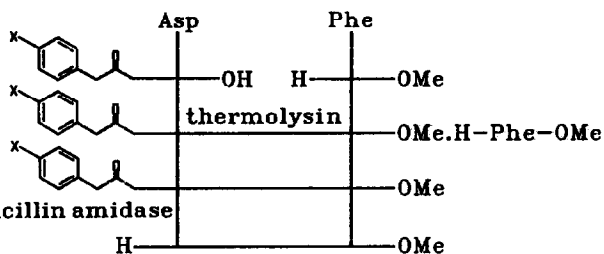
*Tetrahedron*, 1992, 48, 1115

**ENZYMIC SYNTHESIS DESIGN AND ENZYMIC SYNTHESIS OF ASPARTAME**

I.B.Stoineva, B.P.Galunsky, V.S.Lozaov\*, I.P.Ivanov\* and D.D.Petkov

Laboratory of Biocatalysis, Institute of Organic Chemistry, Bulgarian Academy of Sciences, 1040 Sofia and \*Laboratory of Bioorganic Synthesis, Biological Faculty, Sofia University "St.Kl. Ohridsky", 1421 Sofia, Bulgaria

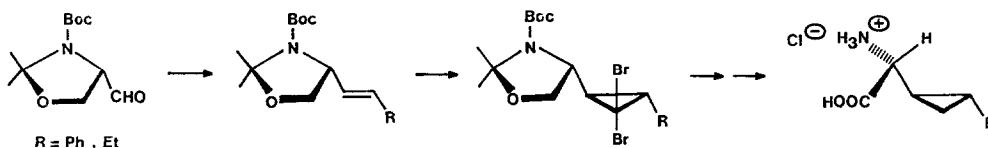
Bienzymic synthesis of aspartame has been designed and realized via p-substituted penicillin amidase phenylacetyl precursors.



*Tetrahedron*, 1992, 48, 1123

**SYNTHESIS OF ASYMMETRIC (E)-α-[2-PHENYL(ETHYL)CYCLOPROPYL]GLYCINES FROM SERINE BY DIASTEREOSELECTIVE DIBROMOCYCLOPROPANATION**

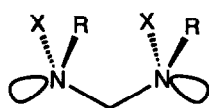
M<sup>a</sup> Pilar de Frutos, M<sup>a</sup> Dolores Fernández, E. Fernández-Alvarez and Manuel Bernabé\*  
*Instituto de Química Orgánica, CSIC, Juan de la Cierva 3, 28006-Madrid (Spain).*



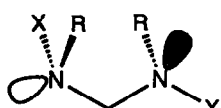
# COMPUTATION OF N-C-N SYSTEMS: THEORY VS. EXPERIMENT

Hanoch Senderowitz, Pinchas Aped and Benzion Fuchs  
School of Chemistry, Tel Aviv University, Ramat Aviv, 69978 Tel Aviv, Israel

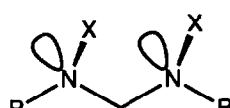
Calculated vs. experimental structural data of N-C-N containing molecular systems are studied.



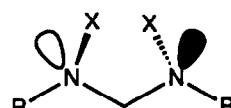
**aa**



**ag<sup>+</sup>**



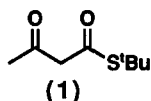
**g<sup>+</sup>g<sup>-</sup>**



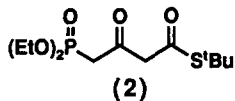
**g<sup>+</sup>g<sup>+</sup>**

## FURTHER REACTIONS OF t-BUTYL 3-OXOBUTANTHIOATE AND t-BUTYL 4-DIETHYL- PHOSPHONO-3-OXOBUTANTHIOATE : CARBONYL COUPLING REACTIONS, AMINATION, USE IN THE PREPARATION OF 3-ACYLTETRAMIC ACIDS AND APPLICATION TO THE TOTAL SYNTHESIS OF FULIGORUBIN A.

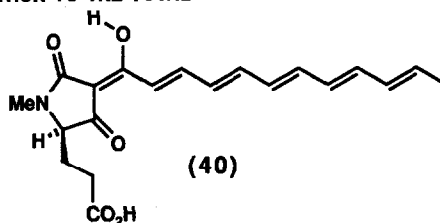
Steven V. Ley,\* Stephen C. Smith, Peter R. Woodward.  
Dept. of Chemistry, Imperial College of Science, Technology and Medicine,  
London SW7 2AY, UK.



**(1)**



**(2)**



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