

## GRAPHICAL ABSTRACTS

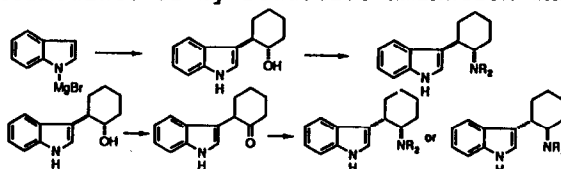
### STEREOCONTROLLED SYNTHESSES OF SOME CONFORMATIONALLY RESTRICTED ANALOGS OF SEROTONIN

*Tetrahedron*, 1991, 47, 8653

Arun Ghosh, Wuyi Wang, Jeremiah P. Freeman, John S. Althaus, Philip F. VonVoigtlander, Terrence A. Scahill, Stephen A. Mizsak, and Jacob Szmuszkovicz

Department of Chemistry and Biochemistry, University of Notre Dame, Notre Dame, IN 46556 USA

cis and trans-( $\beta$ -Indolyl)cyclohexylamine derivatives were prepared by either substitution reactions whose stereochemistry was controlled by the intervention of a spiroindoline intermediate or by reductive amination which was highly stereoselective.



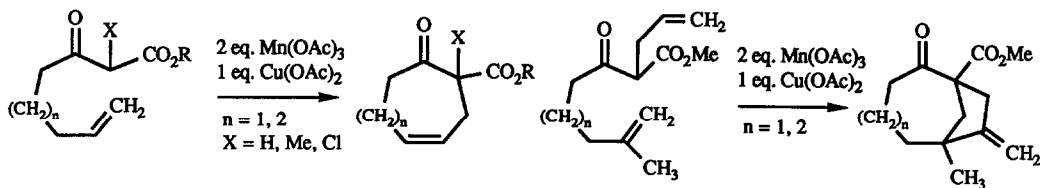
### FORMATION OF SEVEN- AND EIGHT-MEMBERED RINGS BY MN(III)-BASED OXIDATIVE FREE-RADICAL CYCLIZATION

*Tetrahedron*, 1991, 47, 8663

Barry B. Snider\* and John E. Merritt

Department of Chemistry, Brandeis University, Waltham, MA 02254-9110

Cycloheptenes, cyclooctenes, bicyclo[4.2.1]nonanes, bicyclo[5.2.1]decenes, bicyclo[5.3.0]decenes and bicyclo[6.3.0]undecanes can be prepared by oxidative mono and tandem cyclizations.



### NOVEL PSEUDOPTERANOIDS OF PSEUDOPTEROGORGIA ACEROSA

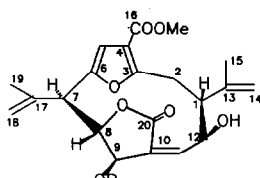
*Tetrahedron*, 1991, 47, 8679

Winston F. Tinto, Lisa John, William F. Reynolds, and Stewart McLean

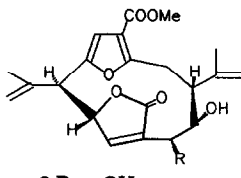
Centre for Natural Products Chemistry, University of Guyana, Georgetown, Guyana;

Department of Chemistry, University of Toronto, Toronto M5S 1A1.

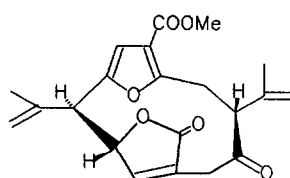
The structures of seven octocoral metabolites have been elucidated by 2-D NMR spectroscopy.



1 R = Me  
6 R = H



3 R = OH  
4 R = OMe  
7 (C<sub>21</sub>H<sub>29</sub>O<sub>4</sub>)<sub>2</sub>NH

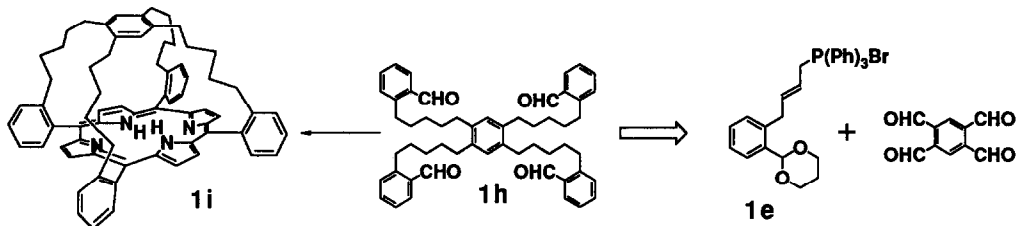


2  
5 diepoxide (3,4;5,6)

### THE SYNTHESIS OF A PORPHYRIN WITH A HYDROCARBON ENCAPSULATED FACE

Wayne F.K. Schnatter, Örn Almarsson and Thomas C. Bruice\*, Department of Chemistry  
University of California at Santa Barbara, Santa Barbara, CA 93106

The uniquely hydrocarbon-like capped porphyrin (C<sub>70</sub>H<sub>68</sub>N<sub>4</sub>), **1i**, has been successfully prepared by a high dilution reaction of pyrrole with tetrakis-1,2,4,5-[pentyl-5'-(2''-formylphenyl)]-benzene **1h** in the presence of boron trifluoride etherate.

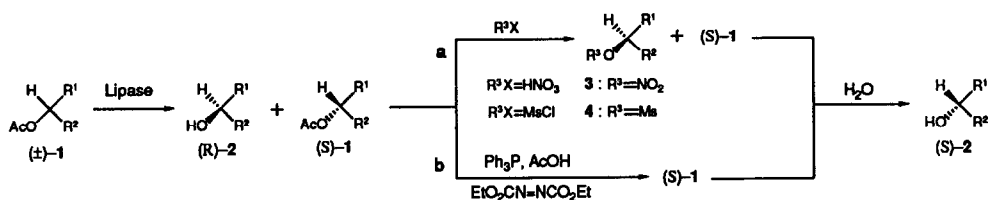


### PREPARATION OF OPTICALLY ACTIVE SECONDARY ALCOHOLS BY COMBINATION OF ENZYMATIC HYDROLYSIS AND CHEMICAL TRANSFORMATION

Tetrahedron, 1991, 47, 8701

Hidenori Danda,\* Toshio Nagatomi, Akira Maehara and Takeaki Umemura

Takarazuka Research Center, Sumitomo Chemical Co., Ltd., 2-1, 4-Chome, Takatsukasa, Takarazuka, Hyogo 665, Japan



### SOLID PHASE SYNTHESIS OF OLIGORIBONUCLEOTIDES BY THE PHOSPHORAMIDITE APPROACH USING 2'-O-1-(2-CHLOROETHOXY)-ETHYL PROTECTION.

O.Sakatsume, T.Yamaguchi, M.Ishikawa,<sup>+</sup> I.Hirao,<sup>+</sup> K.Miura,<sup>+</sup> and H.Takaku\*, Department of Industrial Chemistry, Chiba Institute of Technology, Narashino, Chiba 274, Japan and Department of Industrial Chemistry, Faculty of Engineering, The University of Tokyo, Hongo, Tokyo 113, Japan

The new type protecting group, 1-(2-chloroethoxy)ethyl group has been employed for the protection of the 2'-OH groups of ribonucleosides in the synthesis of RNA by the phosphoramidite approach on a solid support, using the acid-labile 5'-O-dimethoxytrityl group. The results of this study have been used successfully to synthesize a series of RNA of up to 20 residues.

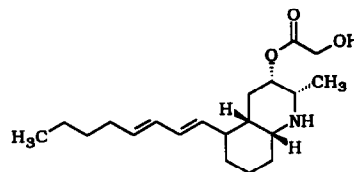
Tetrahedron, 1991, 47, 8717

**LEPADIN A, A DECAHYDROQUINOLINE ALKALOID FROM THE TUNICATE *CLAVELINA LEPADIFORMIS***

Bert Steffan

*Institut für Organische Chemie und Biochemie der Universität Bonn  
Gerhard-Domagk-Straße 1, 5300 Bonn 1, Germany*

The tunicate *Clavelina lepadiformis*, which was collected in the North Sea, contains the new decahydroquinoline alkaloid lepadin A. The structure has been determined on the basis of spectroscopic evidence.



lepadin A

**KINETICS AND MECHANISM OF PERBORATE OXIDATION OF ORGANIC SULPHIDES**

C. Karunakaran\* and P. Manimekalai, Annamalai University, (India)

$$-d[\text{NaBO}_3]/dt = 0.19[\text{EtSEt}][\text{H}^+][\text{NaBO}_3]$$

$$-d[\text{NaBO}_3]/dt = (1.7 \times 10^{-2}[\text{MeSPh}] + 4.4 \times 10^{-4})[\text{H}^+][\text{NaBO}_3]$$

$$-d[\text{NaBO}_3]/dt = 1.9 \times 10^{-3}[\text{PhSPh}][\text{H}^+][\text{NaBO}_3] \quad \text{at } 40^\circ\text{C}$$

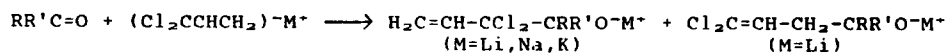
Oxidising species:  $(\text{HO})_2\text{BOOH}^\ddagger$  and  $(\text{HO})_2\text{BO}^+$

**REGIOSELECTIVITY IN LITHIUM, SODIUM AND POTASSIUM CHLOROALLYL SYSTEMS.**

**AN *AB INITIO*-THEORETICAL AND EXPERIMENTAL STUDY**

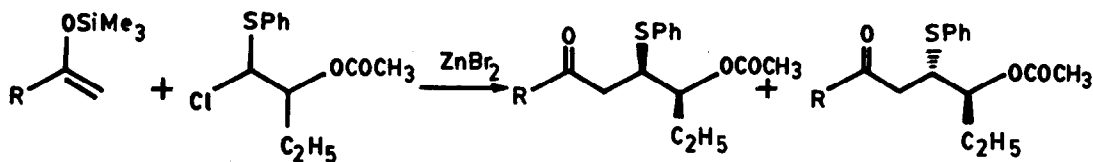
Carlo Canepa, Glauco Tonachini and Paolo Venturello  
Istituto di Chimica Organica dell' Università  
Via Pietro Giuria, 7 I-10125 Torino, Italy

*Ab initio* computations describe the Na and K systems as more inclined to  $\text{CCl}_2$  regioselectivity with carbonyl electrophiles than the analogous Li compounds. Some experimental results confirm this expectation.



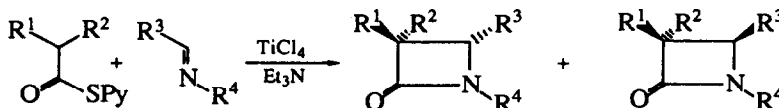
### HIGH DIASTEREOFACIAL SELECTIVITY IN THE REACTION OF SILYL ENOL ETHERS WITH CHLOROSULFIDES

Javed Iqbal\* and Alka Shukla  
Dept. of Chemistry, Indian Institute of Technology, Kanpur-208016, India



### MILD AND CONVENIENT ONE-POT SYNTHESIS OF $\beta$ -LACTAMS BY CONDENSATION OF TITANIUM ENOLATES OF 2-PYRIDYL THIOESTERS WITH IMINES.

M. Cinquini, F. Cozzi, P. G. Cozzi, and E. Consolandi  
Centro C.N.R. and Dipartimento di Chimica Organica e Industriale dell'Università, Milano, Italy.



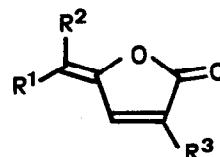
$R^1 = \text{Me, Et, Pr-i, PhthN, PhCH}_2\text{O}$ ;  $R^2 = \text{H, Me}$ ;  $R^3 = \text{Ph, Pr-n, PhCH=CH}$ ;  $R^4 = \text{PhCH}_2, \text{p-MeOPh}$ .

### 5-Ylidene-2(5H)-furanones as Dienophiles in Diels-Alder Cycloadditions: Effect of the Substituents on the Site-Selectivity.

V. Branchadell,<sup>a</sup> J. Font,<sup>a</sup> A. Oliva,<sup>a\*</sup> J. Ortí,<sup>a</sup>  
R. M. Ortuño,<sup>a\*</sup> S. Rafel,<sup>b</sup> N. Terris,<sup>b</sup> M. Ventura.<sup>b</sup>

a: Universitat Autònoma de Barcelona, Bellaterra, Barcelona, Spain;  
b: Estudi General de Girona, UAB; Girona, Spain.

Cycloadditions of dienes to the title compounds shown have been examined to investigate the role that different substituents play on the site-selectivity: attack at the endocyclic or at the exocyclic double bond of the dienophile.



$R^1 = \text{CO}_2\text{Me, Me, H}$ ;  $R^2 = \text{Me, H}$ ;  $R^3 = \text{AcO, H}$

**THE TWO-PHASE NITRATION OF PHENOLS, part 3**

**THE NITRATION OF ANISOLE.**

Malcolm J. Thompson and Petrus J. Zeegers\*

The Flinders University of South Australia, Adelaide, AUSTRALIA

Anisole can be nitrated by a modification of the two-phase procedure; it is assisted by N(III) species, the addition of which alter the ortho:para ratio.

