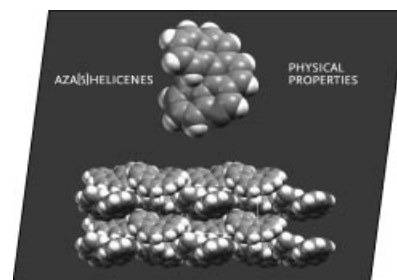


## COVER PICTURE

The cover picture shows the structure of 5-aza[5]helicene (top) and the crystal packing (single enantiomers, bottom). This is one of the aza[5]helicenes reported in the paper that were synthesized by photochemical ring closure of suitable ethenyl derivatives. The photophysical properties (very long triplet-state lifetime) and crystal packing (columnar arrangement) were studied and shown to be dependent on the nitrogenogen position. These molecules may be suitable for studies on  $\pi$ – $\pi$  interactions and complexation with metal ions. The extremely long triplet lifetime that was observed (in the range of seconds) makes these molecules promising candidates for practical applications in photo- and optoelectronics. Details are discussed in the article by T. Caronna et al. on p. 1247ff.



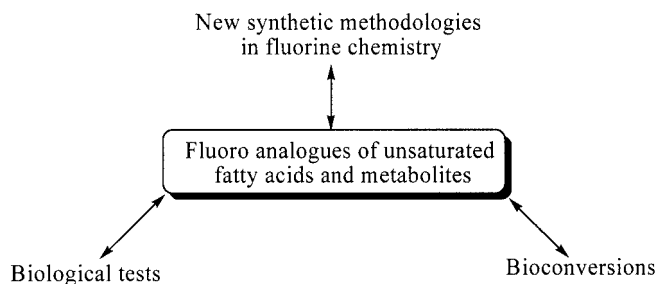
## MICROREVIEWS

### Contents

- 1221** M. Prakesch, D. Grée, S. Chandrasekhar,\*  
 R. Grée\*

Synthesis of Fluoro Analogues of Unsaturated Fatty Acids and Corresponding Acyclic Metabolites

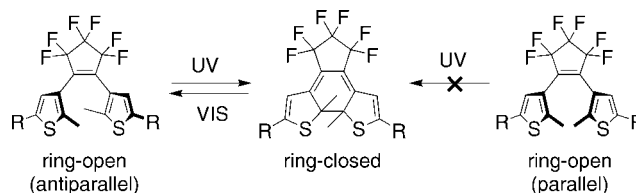
**Keywords:** Fluorine / Fatty acids / Eicosanoids /  
 Stereoselective synthesis



**1233** T. J. Wigglesworth, A. J. Myles,  
N. R. Branda\*

High-Content Photochromic Polymers Based  
on Dithienylethenes

**Keywords:** Molecular switches / Photochemistry /  
Photochromism / Polymers / Ring-opening  
metathesis polymerization



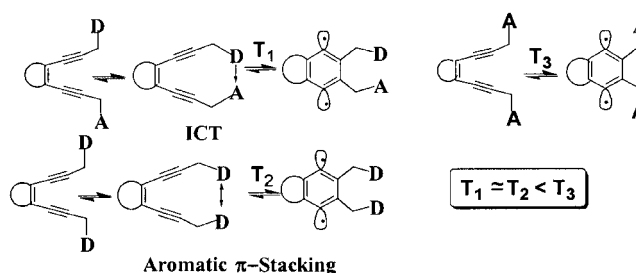
## SHORT COMMUNICATION

**1239** A. Basak,\* S. S. Bag, A. K. Das



The Effect of Charge-Transfer Complexation/  
 $\pi$ -Stacking Interactions in Lowering the Acti-  
vation Barrier of the Bergman Cyclization

**Keywords:** Cyclization / Charge transfer / Enediynes /  
Stacking interactions / UV-Vis spec-  
troscopy

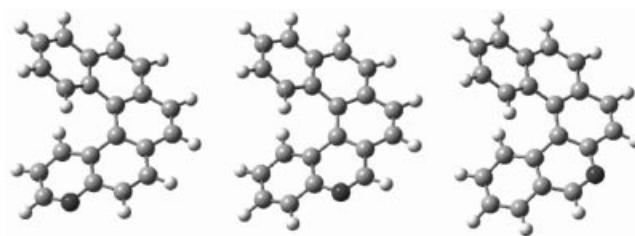


## FULL PAPERS

**1247** C. Bazzini, S. Brovelli, T. Caronna,\*  
C. Gambarotti, M. Giannone, P. Macchi,  
F. Meinardi, A. Mele, W. Panzeri,  
F. Recupero, A. Sironi, R. Tubino,

Synthesis and Characterization of Some Aza-  
[5]helicenes

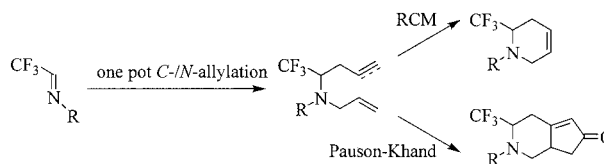
**Keywords:** Helical structures / Fluorescence spec-  
troscopy / Photochemistry



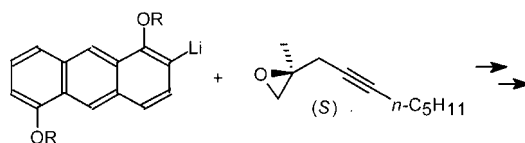
**1258** G. Magueur, J. Legros, F. Meyer,  
M. Ourévitich, B. Crousse,  
D. Bonnet-Delpon\*

A One-Pot Synthesis of Doubly Unsaturated  
Trifluoromethyl Amines: Easy Access to CF<sub>3</sub>-  
Substituted Piperidines

**Keywords:** Allylation / Cyclization / Fluoral / Nitrogen  
heterocycles / Trifluoromethyl group

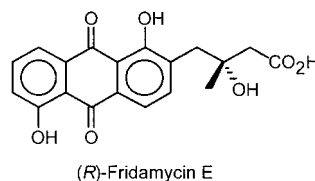


1266 B. J. Ueberbacher, I. Osprian, S. F. Mayer,  
K. Faber\*



by chemo-enzymatic deracemization

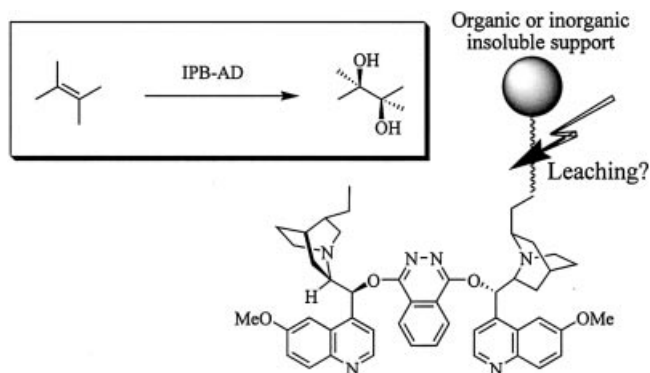
A Chemoenzymatic, Enantioconvergent, Asymmetric Total Synthesis of (*R*)-Fridamycin E



**Keywords:** Asymmetric synthesis / Biotransformations / Enzyme catalysis / Natural products / Total synthesis

1271 A. Mandoli, D. Pini, M. Fiori, P. Salvadori\*

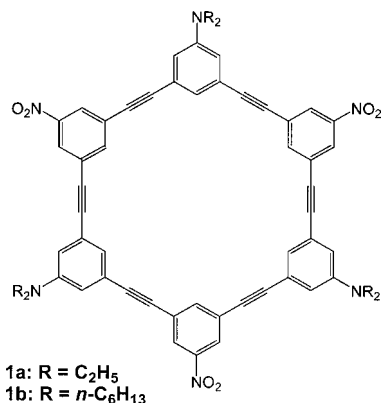
Asymmetric Dihydroxylation with Recoverable Cinchona Alkaloid Derivatives: A Warning Note and an Improved, Insoluble Polymer-Bound Ligand Architecture



**Keywords:** Asymmetric catalysis / Dihydroxylation / Osmium / Supported catalysts

1283 B. Traber, T. Oeser, R. Gleiter\*

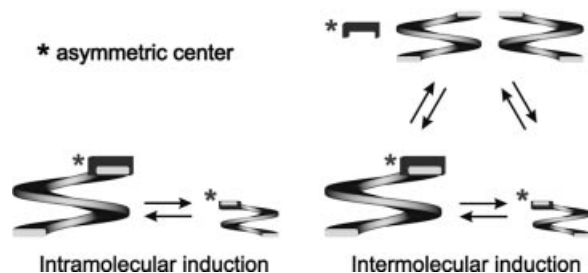
Donor–Acceptor-Substituted Phenylacetylene Macrocycles with Threefold Symmetry



**Keywords:** Donor-acceptor systems / Macrocycles / Cyclophanes / Alkynes / UV/Vis spectroscopy

1293 V. Maurizot, C. Dolain, I. Huc\*

Intramolecular Versus Intermolecular Induction of Helical Handedness in Pyridinedicarboxamide Oligomers

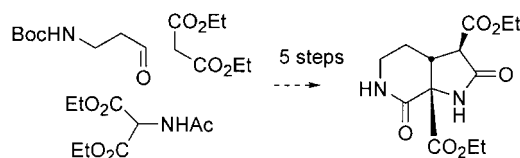


**Keywords:** Chirality / Conformation analysis / Hydrogen bonds / Helical structures / Supramolecular chemistry

**1302** S. Hourcade, A. Ferdenzi, P. Retailliau,  
S. Mons, C. Marazano\*

First Model Reactions towards the Synthesis of Sarain A Core Skeleton Based upon a Bio-genetic Scenario

**Keywords:** Alkaloids / Biomimetic synthesis / Multi-component synthesis / Knoevenagel reaction / Pyrrolidines / Sarain A

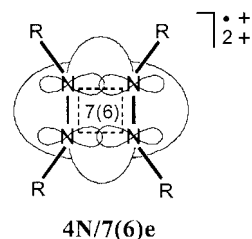


**1311** K. Exner, M. Heizmann, F. Yang, M. Kegel,  
M. Keller, L. Knothe, B. Großmann,  
J. Heinze, H. Prinzbach\*



Towards In-Plane Delocalized 4N/7e Radical Cations and 4N/6e Dications – One-/Two-Elec-tron Oxidation of Proximate-Parallel Bis(*N,N'*-bicyclic)-bishydrazines

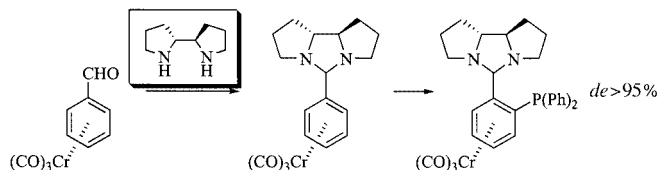
**Keywords:** Heterocycles / Cage compounds / Density functional calculations / Cyclic voltam-metry / Homoaromaticity



**1332** A. Alexakis,\* A. Tomassini, O. Andrey,  
G. Bernardinelli

Diastereoselective Alkylation of (Arene)tri-carbonylchromium and Ferrocene Complexes Using a Chiral, *C*<sub>2</sub>-Symmetrical 1,2-Diamine as Auxiliary

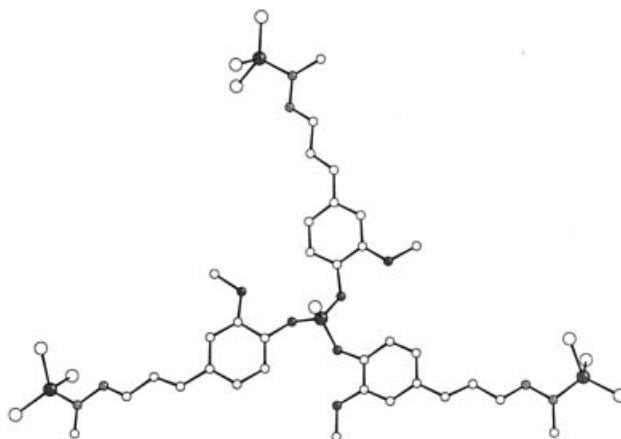
**Keywords:** Aminals / Chromium / Diamines / Homo-geneous catalysis / Planar chirality



**1340** G. Magro, P. Marchand, R.-M. Sebastián,  
C. Guyard-Duhayon, A.-M. Caminade,\*  
J.-P. Majoral\*

Synthesis and Characterization of Phosphorus Dendrimers Containing Long, Conjugated Branches

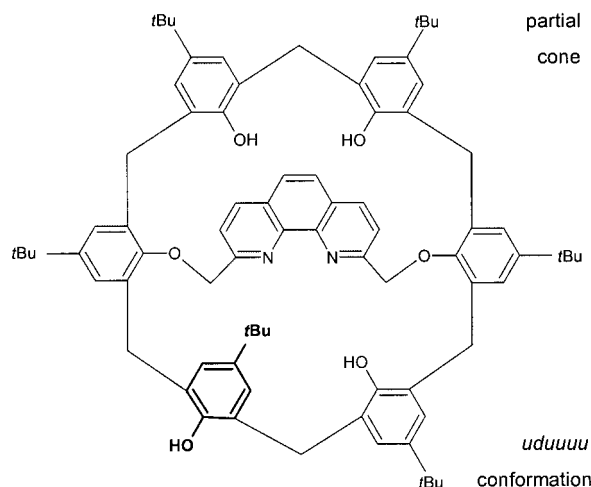
**Keywords:** Aldehydes / Dendrimers / Hydrazones / Main-group elements / Phosphorus



- 1348** J. P. W. Eggert, J. Harrowfield, U. Lüning,\*  
B. W. Skelton, A. H. White, F. Löffler,  
S. Konrad

Improved Synthesis and Conformational Analysis of an A,D-1,10-Phenanthroline-Bridged Calix[6]arene

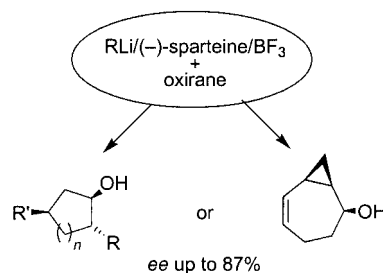
**Keywords:** Calixarenes / Conformation analysis / Halogenation / Heterocycles / Macrocycles



- 1354** E. Vrancken,\* A. Alexakis, P. Mangeney

Organolithium/Chiral Lewis Base/BF<sub>3</sub>: a Versatile Combination for the Enantioselective Desymmetrization of *meso*-Epoxides

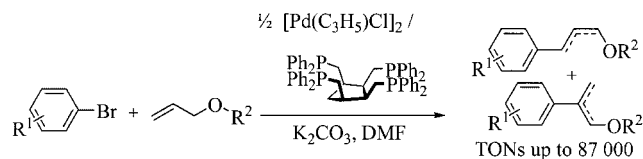
**Keywords:** Boranes / Carbenoids / Lithium / Lewis bases / Synthetic methods



- 1367** F. Berthiol, H. Doucet, M. Santelli\*

Heck Reaction of Protected Allyl Alcohols with Aryl Bromides Catalyzed by a Tetraphosphanepalladium Complex

**Keywords:** Allylic compounds / Alcohols / Heck reaction / Palladium / Phosphanes

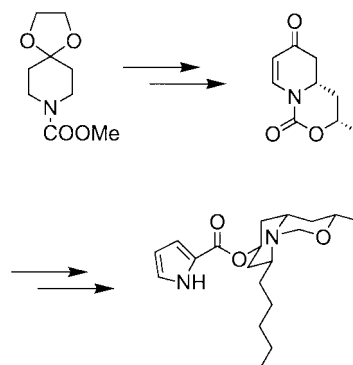


R<sup>1</sup> = Me, *i*Pr, *t*Bu, MeO, F, CF<sub>3</sub>, NMe<sub>2</sub>, MeCO, PhCO, HCO, CN  
R<sup>2</sup> = SiMe<sub>3</sub>, SiMe<sub>2</sub>*t*Bu, MEM, THP, Bn, *n*Bu, CH<sub>2</sub>CH<sub>2</sub>OH

- 1378** C. Doms, P. Laurent, D. Daloze,  
J. Pasteels, O. Nedved, J.-C. Braeckman\*

Synthesis and Absolute Configuration of Hyperaspine, an Alkaloid of the Ladybird *Hyperaspis campestris*

**Keywords:** Natural products / Alkaloids / Racemic synthesis / Ladybird / *Hyperaspis campestris* / Coccinellidae

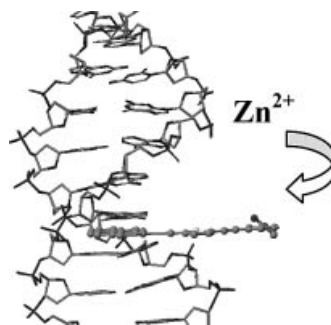


1384 A. C. Benniston, A. Harriman,\*  
D. J. Lawrie, M. Mehrabi



DNA Binding of a Molecular-Scale Receptor in the Presence of Zinc(II) Ions

**Keywords:** Receptors / DNA binding / Pyrene / Energy transfer

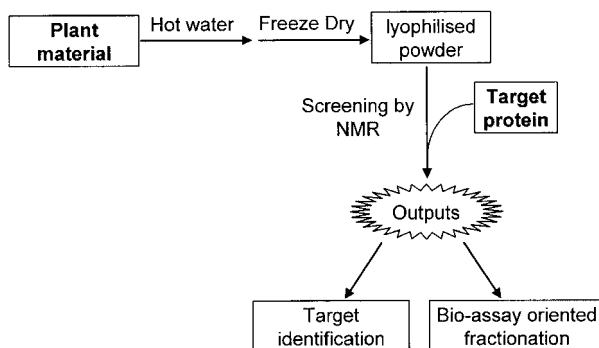


1392 M. Politi, M. I. Chávez, F. J. Cañada,  
J. Jiménez-Barbero\*



Screening by NMR: A New Approach for the Study of Bioactive Natural Products? The Example of *Pleurotus ostreatus* Hot Water Extract

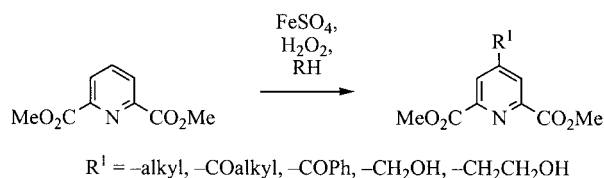
**Keywords:** Screening / NMR/ Medicinal plants / Hot water extract / *Pleurotus ostreatus* / *Lens culinaris* lectin / Bioactive conformation



1397 R. Shelkov, A. Melman\*

Free-Radical Approach to 4-Substituted Dipicolinates

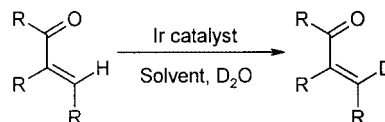
**Keywords:** Heterocycles / Acylation / Alkylation / Radical reactions



1402 J. Krüger, B. Manmontri, G. Fels\*

Iridium-Catalyzed H/D Exchange

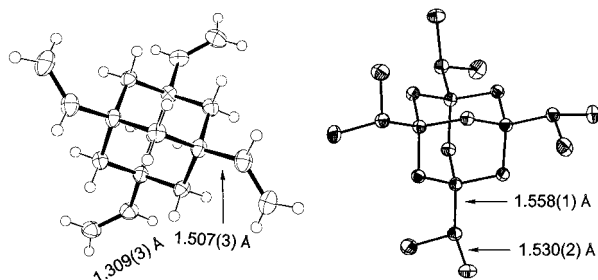
**Keywords:** Isotopic labelling / Iridium / Deuterium exchange



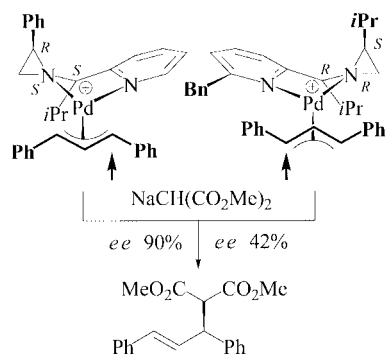
1409 S. I. Kozhushkov, D. S. Yufit, R. Boese,\*  
D. Bläser, P. R. Schreiner, A. de Meijere\*

Conformational Studies on Oligosubstituted Adamantane Derivatives – Structural Features of Tetravinyl-, Tetracyclopropyl-, and Tetraiso-propyladamantane

**Keywords:** Adamantane / Conformational analysis / Olefination / Small ring systems / Structure elucidation

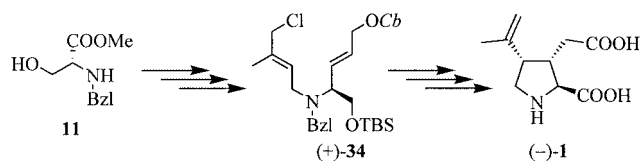


1416

F. Ferioli, C. Fiorelli, G. Martelli,  
M. Monari, D. Savoia\*, P. TobaldinSteric Effects in Enantioselective Allylic Alkylation Catalysed by Cationic ( $\eta^3$ -Allyl)palladium Complexes Bearing Chiral Pyridine-Aziridine Ligands**Keywords:** Asymmetric catalysis / Imines / N ligands / Palladium

1427

M. M. Martínez, D. Hoppe\*

Novel Approach to the (–)-Sparteine-Mediated Synthesis of Kainoids: Total Synthesis of (–)- $\alpha$ -Kainic Acid by (–)-Sparteine-Mediated Deprotonation**Keywords:** Natural products / Asymmetric synthesis / Pyrrolidines / (–)-Sparteine / Allyl carbamates

1444

A. Lanver, H.-G. Schmalz\*

A Pauson–Khand Approach to New Carbocyclic Nucleoside Analogs

**Keywords:** Cobalt / Palladium / Kinetic resolution / Nucleosides / Pauson–Khand reaction