



Tetrahedron Vol. 65, Issue 48, 2009

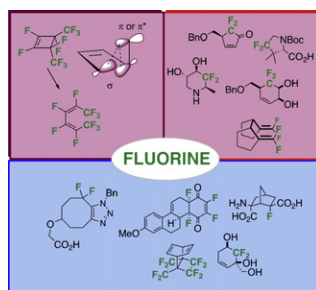
Contents

REPORT

Recent progress in the use of fluoroorganic compounds in pericyclic reactions

pp 9905–9933

Yu hong Lam, Steven J. Stanway, Véronique Gouverneur*

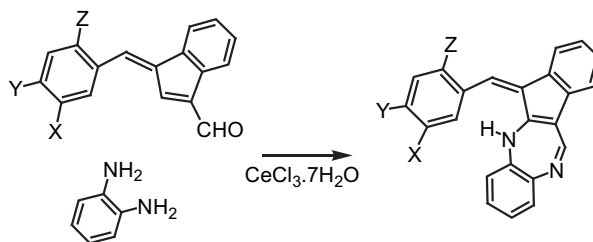


ARTICLES

Preparation of stable fulvene and difulvene aldehydes from benzaldehydes and an indene-derived enamine: formation of novel indene-fused benzodiazepines and attempted syntheses of di- and tricarbaporphyrinoid systems

pp 9935–9943

Randall N. Davis, Timothy D. Lash*



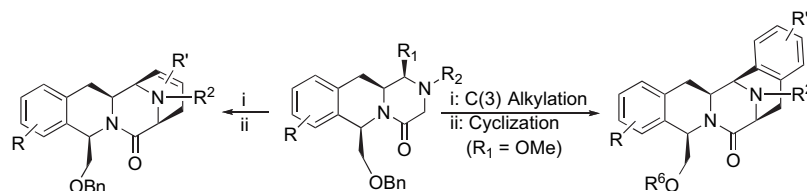
A general synthesis of fulvene aldehydes from an indene derived enamine has been developed for applications in the synthesis of carbaporphyrinoid systems. Reaction of fulvene aldehydes with *o* phenylenediamine in the presence of CeCl_3 afforded novel benzodiazepines.



C(3)-alkylation and cyclization of pyrazino[1,2-*b*]isoquinolin-4-ones

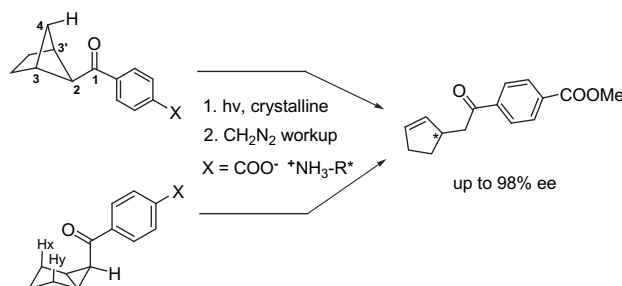
pp 9944–9951

Irene Ortín, Juan Francisco González, Elena de la Cuesta, Carmen Avendaño*

**Photochemical studies on *exo*-bicyclo[2.1.1]hexyl and bicyclo[3.1.0]hexyl aryl ketones: two approaches for synthesis of enantiomerically enriched cyclopentene derivatives**

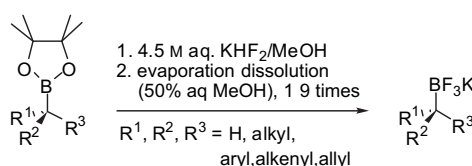
pp 9952–9955

Guolei Zhao, Chao Yang, Qian Chen, Jing Jin, Xiao Zhang, Liyan Zhao, Wujiong Xia*

**Improved method for the conversion of pinacolboronic esters into trifluoroborate salts: facile synthesis of chiral secondary and tertiary trifluoroborates**

pp 9956–9960

Viktor Bagutski, Abel Ros, Varinder K. Aggarwal*

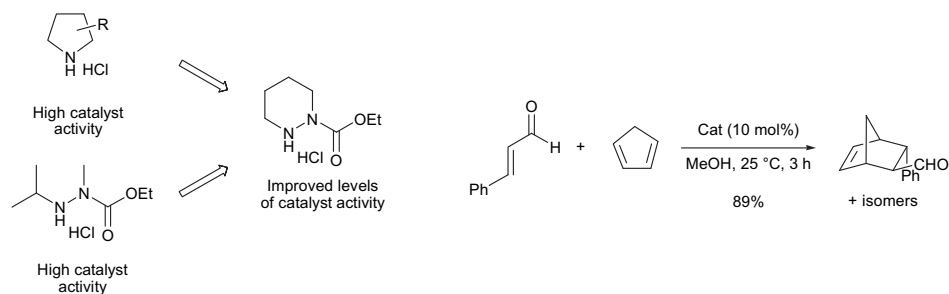


22 examples, 86–99% yield, 90–99% ee

**The α -effect in cyclic secondary amines: new scaffolds for iminium ion accelerated transformations**

pp 9961–9966

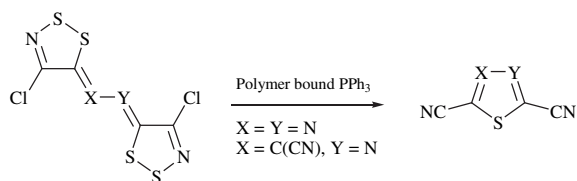
John B. Brazier, Julie L. Cavill, Richard L. Elliott, Gareth Evans, Timothy J.K. Gibbs, Ian L. Jones, James A. Platts*, Nicholas C.O. Tomkinson*



The preparation of dicyano-1,3,4-thiadiazole and tricyanothiazole via 1,2,3-dithiazole chemistry

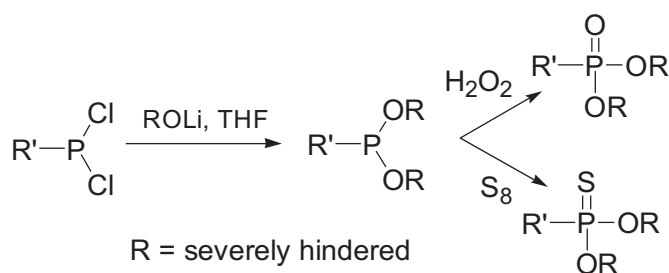
pp 9967–9972

Irene C. Christoforou, Andreas S. Kalogirou, Panayiotis A. Koutentis*

**Synthesis and characterisation of severely hindered P-OR compounds**

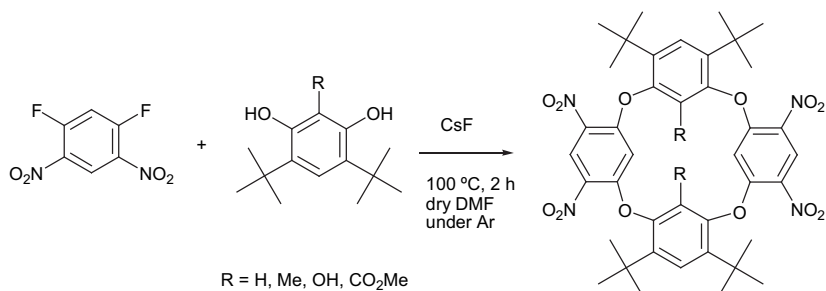
pp 9973–9982

D. Bradley G. Williams*, Takelani E. Netshiozwi

**Synthesis and solid state structure of oxalix[4]arenes bearing four nitro groups and four *tert*-butyl groups at their extra-annular positions**

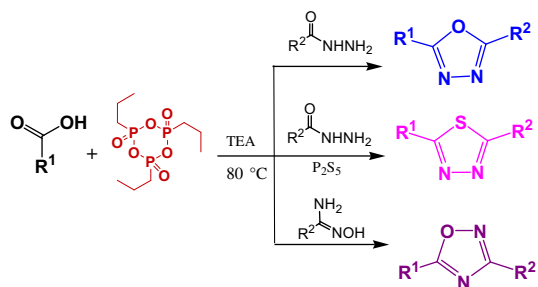
pp 9983–9988

Shuichiro Akagi, Yusuke Yasukawa, Kazuhiro Kobayashi, Hisatoshi Konishi*

**Propylphosphonic anhydride (T3P®): an efficient reagent for the one-pot synthesis of 1,2,4-oxadiazoles, 1,3,4-oxadiazoles, and 1,3,4-thiadiazoles**

pp 9989–9996

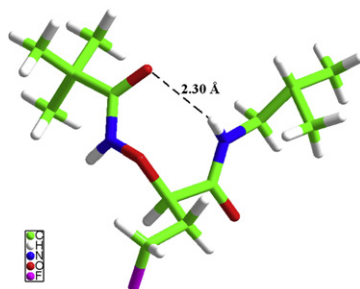
John Kallikat Augustine*, Veeramani Vairaperumal, Sharmila Narasimhan, Padma Alagarsamy, Anbarasi Radhakrishnan



α N–O turn induced by fluorinated α -aminoxy diamide: synthesis and conformational studies

pp 9997–10001

Dan Wei Zhang*, Zheng Luo, Guo Jun Liu, Lin Hong Weng

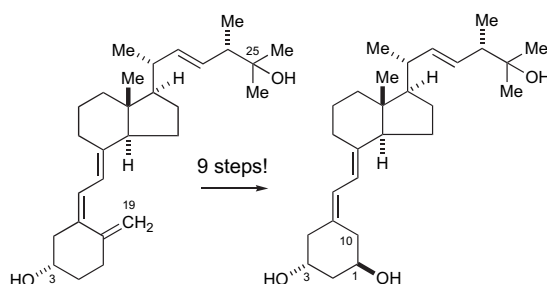


α N O turn is adopted insusceptibly by side chain fluorinated α aminoxy diamide. This was characterized by ^1H NMR and IR as well as X ray crystallography studies.

**Novel synthesis of 1 α ,25-dihydroxy-19-norvitamin D from 25-hydroxyvitamin D**

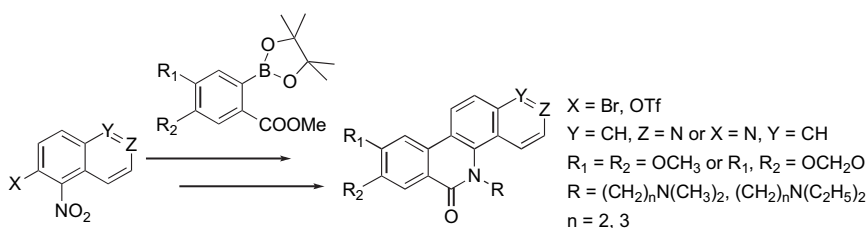
pp 10002–10008

Asako Toyoda, Hazuki Nagai, Tomonari Yamada, Yusuke Moriguchi, Junko Abe, Toshio Tsuchida, Kazuo Nagasawa*

**Synthesis of *N*-substituted benzo[*c*][1,7]- and benzo[*c*][1,8] phenanthroline-(5*H*)-6-ones through a Pd-mediated Suzuki–Miyaura heteroaryl-aryl coupling reaction**

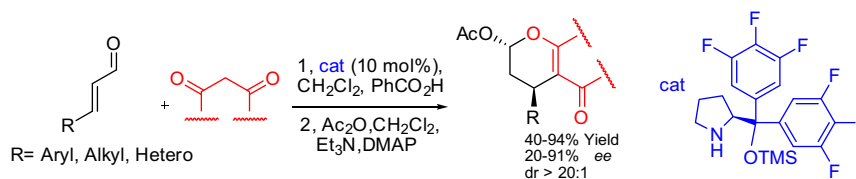
pp 10009–10015

Constance Genès, Sylvie Michel, François Tillequin, François Hugues Porée*

**Enantioselective synthesis of functionalized 3,4-dihydropyran derivatives organocatalyzed by a novel fluorinated-diphenylprolinolether**

pp 10016–10021

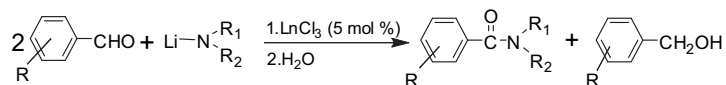
Chuanming Yu*, Fei Zheng, Haiwei Ye, Weihui Zhong



Synthesis of amides through the Cannizzaro-type reaction catalyzed by lanthanide chlorides

pp 10022–10024

Lijun Zhang*, Shunpeng Su, Hongping Wu, Shaowu Wang*

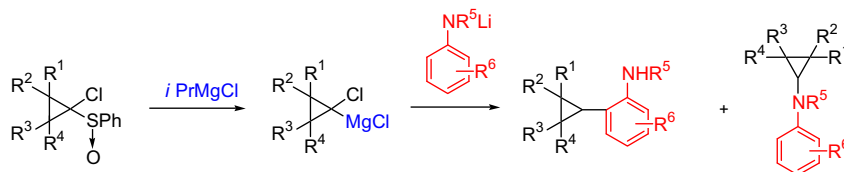


Amidation of aldehydes with lithium amides through the LnCl_3 catalyzed Cannizzaro type reactions afforded various amides in high yields. The methodology has the advantages of economical catalysts and a wide reaction scope and generality.

**Cyclopropylation of arylamines at the 2-position with cyclopropylmagnesium carbenoids**

pp 10025–10035

Yukie Yamada, Mirai Mizuno, Shinobu Nagamoto, Tsuyoshi Satoh*

**Generation and stereoselective transformations of 3-phenylcyclopropene**

pp 10036–10046

Andrey E. Sheshenev, Mark S. Baird*, Anna K. Croft, Ivan G. Bolesov

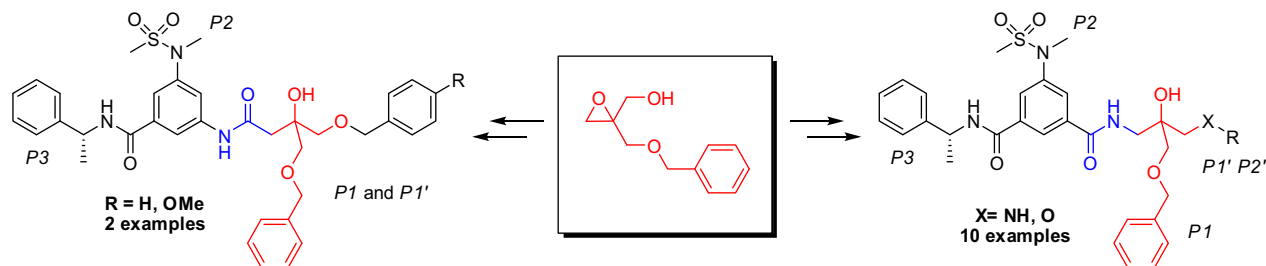


The generation of 3 phenylcyclopropenes and its reaction with a range of dienophiles and dipolarophiles to give [4+2] and [3+2] cycloadducts which were exclusively exo 3 phenyl cis 1,2 disubstituted cyclopropanes are described. Efficient trapping of 1 lithio 3 phenylcyclopropene with different electrophiles is also discussed.

**Synthesis and evaluation of a new class of tertiary alcohol based BACE-1 inhibitors**

pp 10047–10059

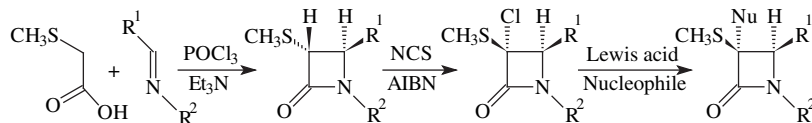
Francesco Russo, Fredrik Wängsell, Jonas Sävmarker, Micael Jacobsson, Mats Larhed*



Stereoselective synthesis and Lewis acid mediated functionalization of novel 3-methylthio- β -lactams

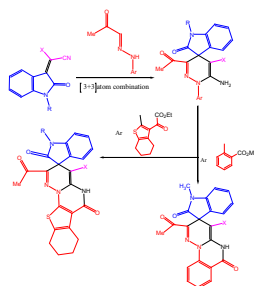
pp 10060–10068

Shamsher S. Bari*, Reshma, Aman Bhalla, Geeta Hundal

**DBU-Catalyzed, facile and efficient method for synthesis of spirocyclic 2-oxindole derivatives with incorporated 6-amino-4H-pyridazines and fused derivatives via [3 + 3] atom combination**

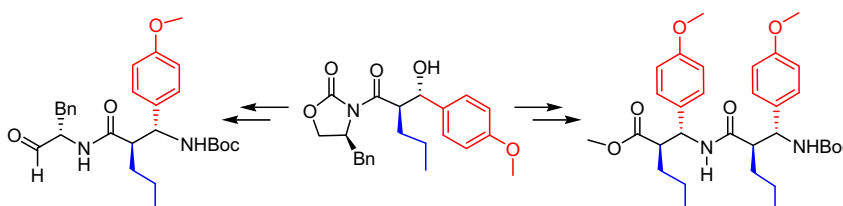
pp 10069–10073

Ismail A. Abdelhamid*, Mona H. Mohamed, Amr M. Abdelmoniem, Said A.S. Ghozlan

**An efficient synthetic approach towards *trans*- $\beta^{2,3}$ -amino acids and demonstration of their utility in the design of therapeutically important $\beta^{2,3}$ -peptides and $\alpha, \beta^{2,3}$ -peptide aldehydes**

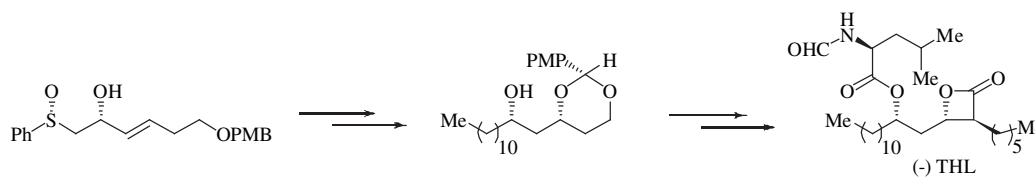
pp 10074–10082

Dhayalan Balamurugan, Kannoth M. Muraleedharan*

**Asymmetric synthesis of (–)-tetrahydrolipstatin**

pp 10083–10092

Sadagopan Raghavan*, Kailash Rathore

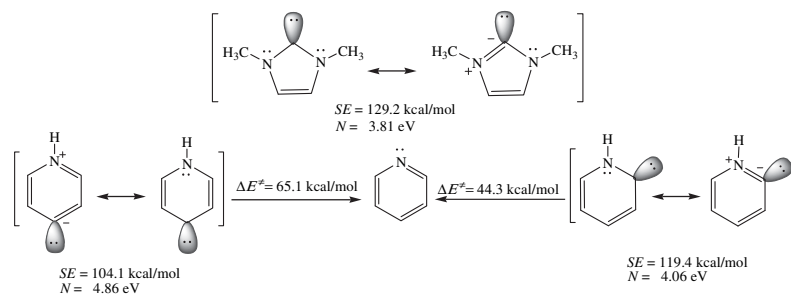


A palladium catalyzed Wacker type reaction, highly diastereoselective reduction of a β hydroxy ketone, selective oxidation of a diol, and modular approach constitute the key features of the successful route to THL. Attempts at introducing the decyl chain employing an ene reaction failed.

A DFT study on pyridine-derived *N*-heterocyclic carbenes

pp 10093–10098

M.Z. Kassae*, F.A. Shakib, M.R. Momeni, M. Ghambarian, S.M. Musavi



Pyridine derived *N* heterocyclic carbenes indicate comparable stabilization energies (SE) to the synthesized 1,3 dimethylimidazol 2 ylide. As potential ligands they show higher nucleophilicity indices (*N*) than a wide range of five membered NHCs.



*Corresponding author

Supplementary data available via ScienceDirect



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