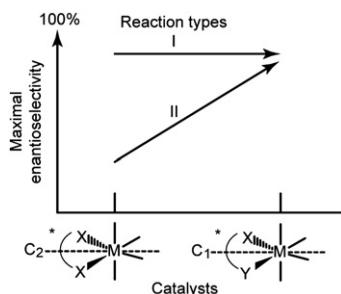


## Contents

## REPORT

**C<sub>2</sub> and C<sub>1</sub> Symmetry of chiral auxiliaries in catalytic reactions on metal complexes**  
Valeri A. Pavlov

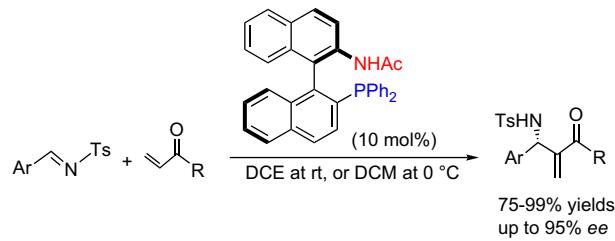
pp 1147–1179



## ARTICLES

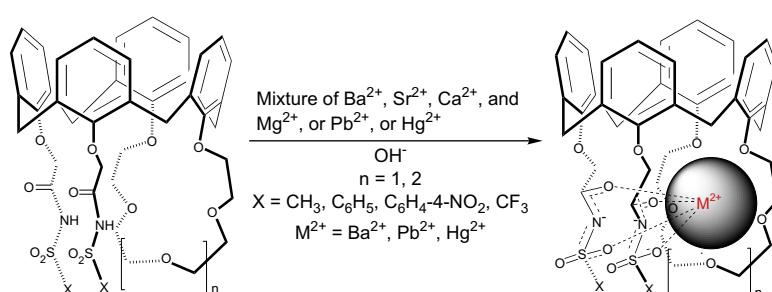
**Asymmetric catalytic aza-Morita–Baylis–Hillman reaction using chiral bifunctional phosphine amides as catalysts**  
Ming-Juan Qi, Teng Ai, Min Shi\*, Guigen Li\*

pp 1181–1186



**Di-ionizable calix[4]arene-1,2-crown-5 and -crown-6 ethers in cone conformations: synthesis and divalent metal ion extraction**  
Chuqiao Tu, Kazimierz Surowiec, Jerzy Gega, David W. Purkiss, Richard A. Bartsch\*

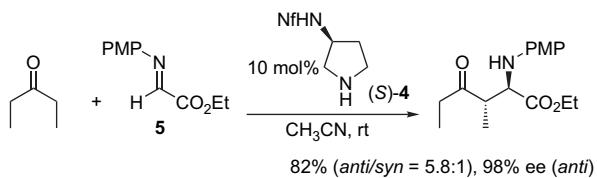
Di-ionizable calix[4]arene-1,2-crown-5 and -crown-6 ethers in the cone conformation exhibit selectivity for  $\text{Ba}^{2+}$  in competitive solvent extraction of alkaline earth metal cations and high extraction ability for  $\text{Pb}^{2+}$  and for  $\text{Hg}^{2+}$  in single species extraction.



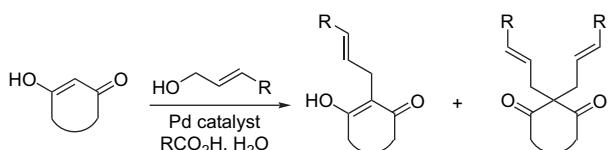
***anti*-Selective direct asymmetric Mannich reactions catalyzed by chiral pyrrolidine-based amino sulfonamides**

pp 1197–1203

Taichi Kano, Yoshio Hato, Akihiro Yamamoto, Keiji Maruoka\*

**Direct palladium/carboxylic acid-catalyzed C-allylation of cyclic 1,3-diones with allylic alcohols in water** pp 1204–1212

Kim-Hong Gan, Ciou-Jyu Jhong, Shyh-Chyun Yang\*

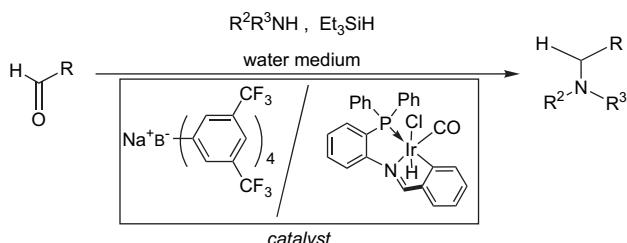


The palladium-catalyzed allylation of cyclic 1,3-diones with allylic alcohols using water as solvent could give the corresponding *C*-allylated products in good yields.

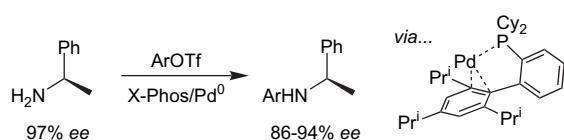
**One-pot reductive amination of aldehydes catalyzed by a hydriodic-iridium(III) complex in aqueous medium**

pp 1213–1217

Rung-Yi Lai, Chun-I Lee, Shiuh-Tzung Liu\*

**Steric effects in palladium-catalysed amination of aryl triflates and nonaflates with the primary amines PhCH(R)NH2 (R=H, Me)** pp 1218–1224

Rebecca E. Meadows, Simon Woodward\*

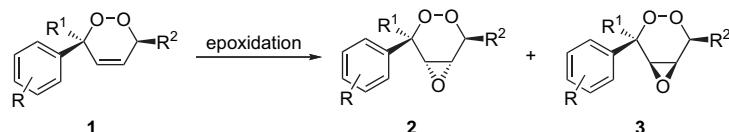


Only minor racemisation despite being a formal ‘monodentate’ ligand.

## **Design of 1,2-dioxines with anti-*Candida* activity: aromatic substituted 1,2-dioxines**

pp 1225–1232

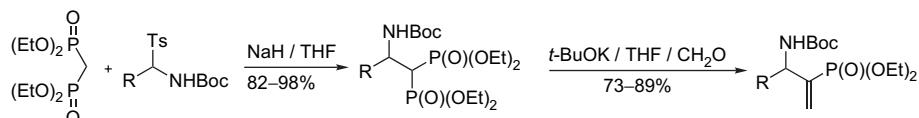
Ian G. Macreadie\*, Thomas D. Avery, Tony V. Robinson, Peter Macreadie, Miles Barraclough, Dennis K. Taylor\*, Edward R. T. Tiekkink



## A new access to substituted tetraethyl *N*-Boc 2-aminoethylidene-1,1-bisphosphonates and phosphonyl-substituted aza-Morita–Baylis–Hillman-type adducts

pp 1233–1241

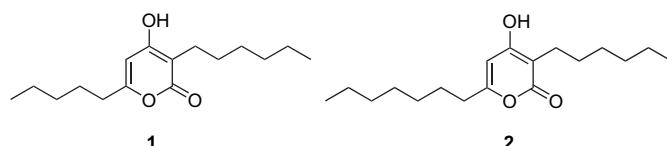
## **phosphonyl-substituted aza-**



## Natural product inhibitors of fatty acid biosynthesis: synthesis of the marine microbial metabolites pseudopyronines A and B and evaluation of their anti-infective activities

pp 1242–1249

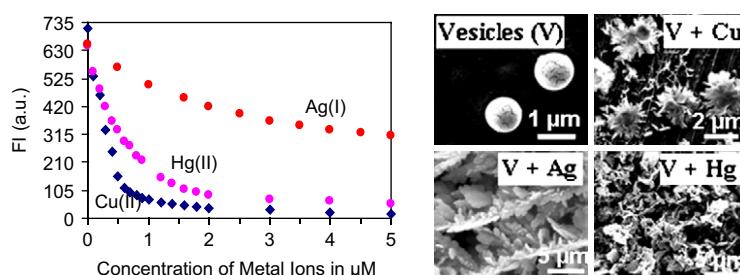
Anna C. Giddens, Lone Nielsen, Helena I. Boshoff, Deniz Tasdemir, Remo Perozzo, Marcel Kaiser, Feng Wang, James C. Sacchettini, Brent R. Copp\*



## Morphological consequences of metal ion-peptide vesicle interaction

pp 1250–1256

Morphological consequences of metal ion-peptidase interaction  
Surajit Ghosh, Prabhpreet Singh, Sandeep Verma\*

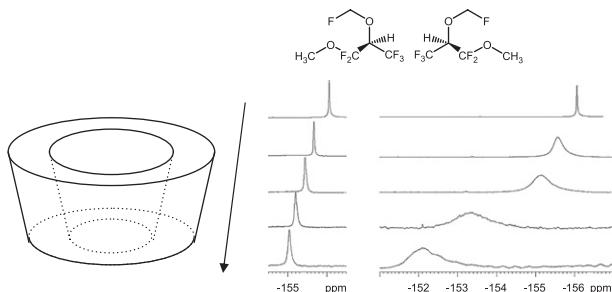


This report follows interaction of peptide-based soft structures with metal ions by fluorescence and microscopic analyses.

**Structural and thermodynamic investigations of an unusual enantiomeric separation: Lipodex E and compound B**

pp 1257–1262

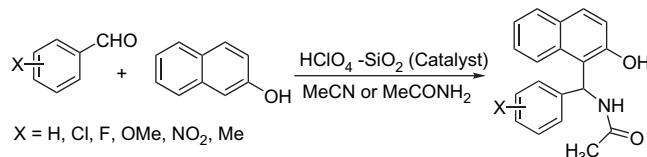
Anja Bogdanski, Kim L. Larsen, Reinhard Wimmer\*



**Silica supported perchloric acid ( $\text{HClO}_4\text{-SiO}_2$ ): an efficient and recyclable heterogeneous catalyst for the one-pot synthesis of amidoalkyl naphthols**

pp 1263–1269

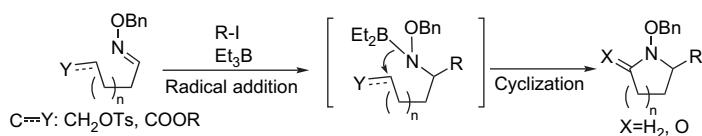
Hamid Reza Shaterian\*, Hossein Yarahmadi, Majid Ghashang



**Novel synthesis of substituted pyrrolidines and piperidines via radical addition–ionic cyclization reaction of oxime ethers**

pp 1270–1284

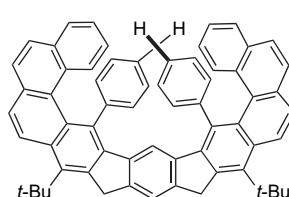
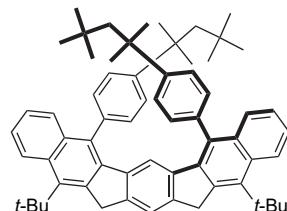
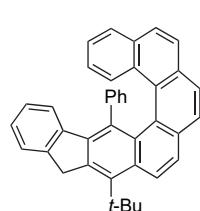
Okiko Miyata, Shinya Takahashi, Akira Tamura, Masafumi Ueda, Takeaki Naito\*



**Synthesis and structures of helical polycyclic aromatic hydrocarbons bearing aryl substituents at the most sterically hindered positions**

pp 1285–1293

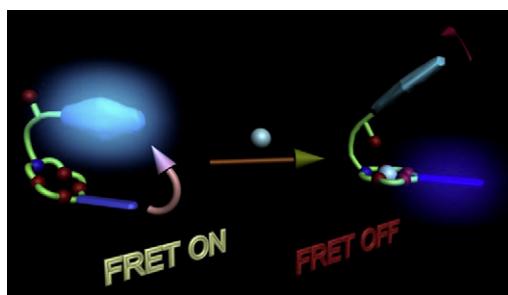
Yanzhong Zhang, Jeffrey L. Petersen\*, Kung K. Wang\*



**FRET-derived ratiometric fluorescence sensor for Cu<sup>2+</sup>**

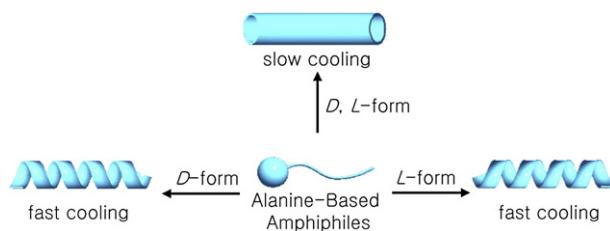
Hyun Jung Kim, Sun Young Park, Sangwoon Yoon\*, Jong Seung Kim\*

pp 1294–1300

**Self-assembled helical ribbon and tubes of alanine-based amphiphiles induced by two different formation mechanisms**

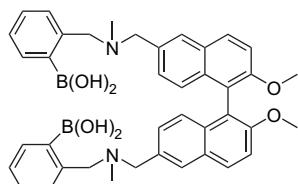
Soo Jin Lee, Eunjeong Kim, Moo Lyong Seo, Youngkyu Do, Young-A Lee, Shim Sung Lee, Jong Hwa Jung\*, Masaki Kogiso, Toshimi Shimizu\*

pp 1301–1308

**6,6'-Bis-substituted BINOL boronic acids as enantioselective and chemoselective fluorescent chemosensors for D-sorbitol**

Xiaofen Liang, Tony D. James, Jianzhang Zhao\*

pp 1309–1315

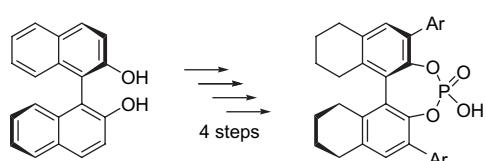


R-1 and S-1

Chiral sensor **1** has been developed to enantioselectively and chemoselectively recognize sugar alcohols, such as D-sorbitol.**A convenient protocol for the synthesis of axially chiral Brønsted acids**

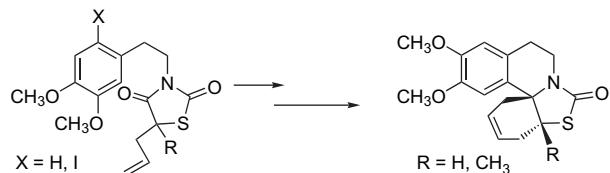
Michael Bartoszek, Matthias Beller\*, Jens Deutsch, Markus Klawonn, Angela Köckritz\*, Navid Nemati, Anahit Pews-Davtyan

pp 1316–1322



**Stereoselective synthesis of thiaerythrinanes based on an  $\alpha$ -amidoalkylation/RCM approach**  
Media Noori Abdullah, Sonia Arrasate, Esther Lete, Nuria Sotomayor\*

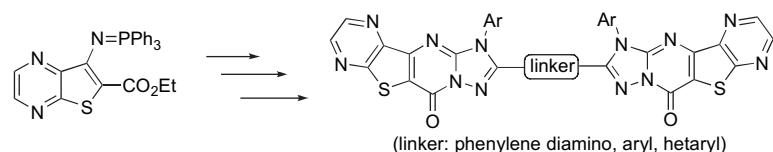
pp 1323–1332



**Application of the aza-Wittig reaction to the synthesis of pyrazinothienotriazolopyrimidinones: a new tetracyclic ring system**

pp 1333–1344

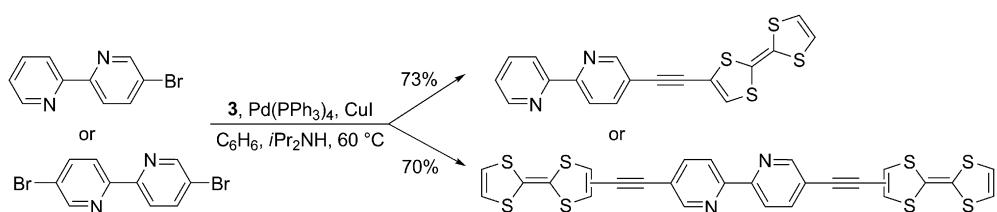
Gerardo Blanco, José M. Quintela\*, Carlos Peinador\*



**Synthesis of new ethynylbipyridine-linked mono- and bis-tetrathiafulvalenes: electrochemical, spectroscopic, and Ru(II)-binding studies**

pp 1345–1350

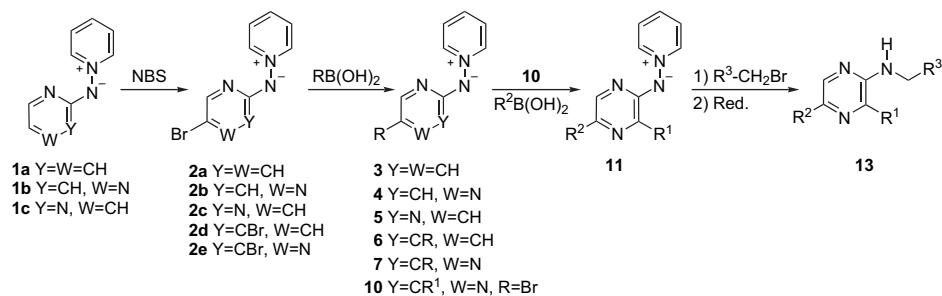
Christine Goze, Shi-Xia Liu\*, Claudia Leiggner, Lionel Sanguinet, Eric Levillain, Andreas Hauser, Silvio Decurtins



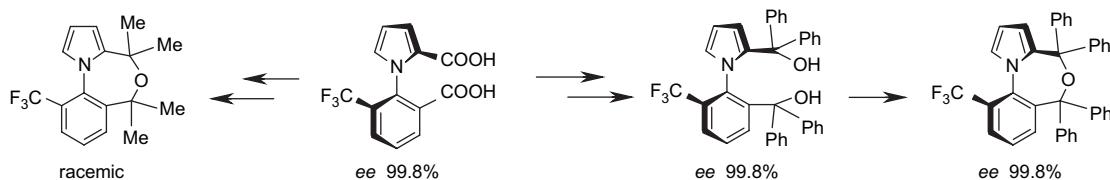
**Suzuki reaction on pyridinium *N*-haloheteroarylaminides: regioselective synthesis of 3,5-disubstituted 2-aminopyrazines**

pp 1351–1370

Rafael Castillo, M. José Reyes, M. Luisa Izquierdo, Julio Alvarez-Builla\*



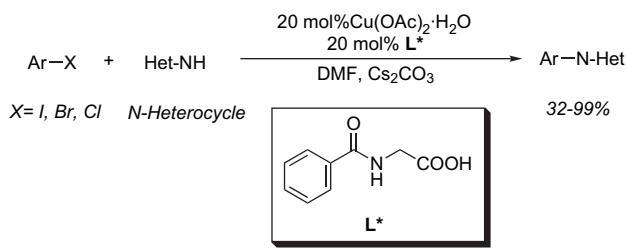
**Synthesis and stereochemical stability of new atropisomeric 1-(substituted phenyl)pyrrole derivatives** pp 1371–1377  
 Ferenc Faigl\*, Gábor Tárkányi, Katalin Fogassy, Dóra Tepfenhardt, Angelika Thurner



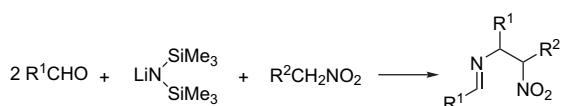
**Three-component reaction of 2-alkynylbenzaldehyde, amine, and nucleophile using Lewis acid-surfactant combined catalyst in water** pp 1378–1382  
 Yang Ye, Qiuping Ding, Jie Wu\*



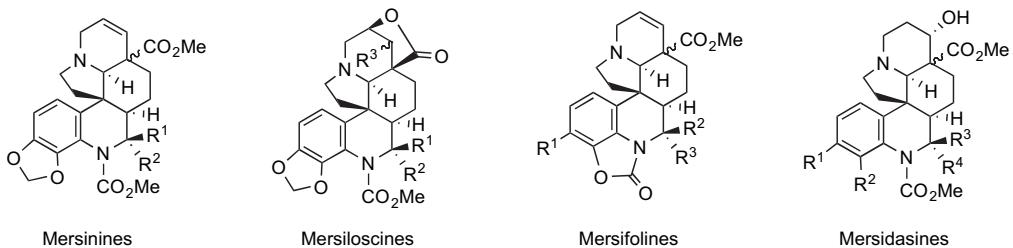
**Copper-catalyzed amination of aryl halides with nitrogen-containing heterocycle using hippuric acid as the new ligand** pp 1383–1387  
 Jincheng Mao\*, Jun Guo, Hongliang Song, Shun-Jun Ji\*



**Double nitro-Mannich reaction utilizing in situ generated *N*-trimethylsilylaldimines: novel four-component one-pot synthesis of nitroimines** pp 1388–1396  
 Seiji Tanaka\*, Yukinari Oguma, Yusuke Tanaka, Hidenori Echizen, Hyuma Masu, Kentaro Yamaguchi, Keiki Kishikawa, Shigeo Kohmoto, Makoto Yamamoto

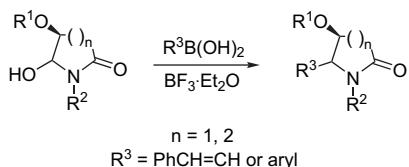


**The alkaloids of the mersinine group: a new subclass of the monoterpenoid indole alkaloids from *Kopsia*** pp 1397–1408  
 G. Subramaniam, Yeun-Mun Choo, Osamu Hiraku, Kanki Komiyama, Toh-Seok Kam\*

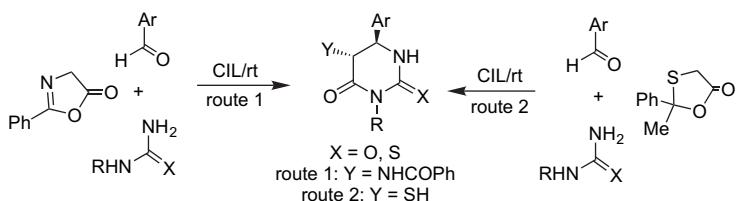


A total of 16 alkaloids characterized by a novel pentacyclic skeleton were isolated from *Kopsia singapurensis*.

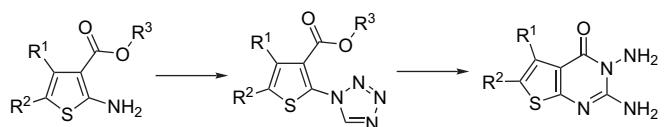
**Diastereoselective borono-Mannich reactions on cyclic N-acyliminium ions** pp 1409–1419  
 Ian R. Morgan, Arife Yazici, Stephen G. Pyne\*



**Chiral ionic liquid-catalyzed Biginelli reaction: stereoselective synthesis of polyfunctionalized perhydropyrimidines** pp 1420–1429  
 Lal Dhar S. Yadav\*, Ankita Rai, Vijai K. Rai, Chhama Awasthi

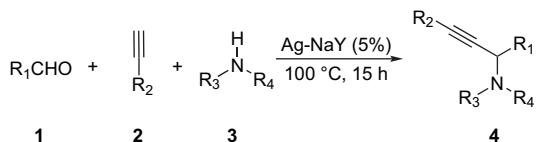


**New convenient synthesis of 2,3-diaminothieno[2,3-*d*]pyrimidin-4(3*H*)-one derivates from substituted alkyl 2-(1*H*-tetrazol-1-yl)thiophene-3-carboxylates** pp 1430–1434  
 Nazariy T. Pokhodylo, Vasyl S. Matiychuk, Mykola D. Obushak\*



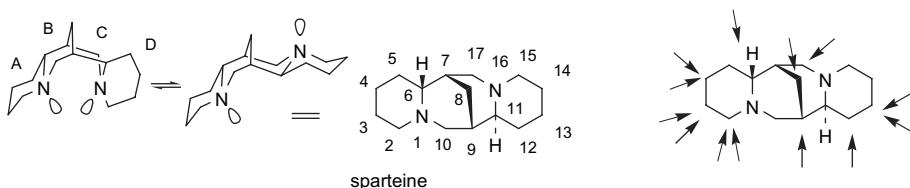
**AgY zeolite as catalyst for the effective three-component synthesis of propargylamines**  
Raimondo Maggi\*, Alessandra Bello, Chiara Oro, Giovanni Sartori, Laura Soldi

pp 1435–1439



**Effect of hydroxy groups on conformational equilibrium in bis-quinolizidine systems**  
Tadeusz Brukwicki, Waleria Wysocka\*

pp 1440–1458

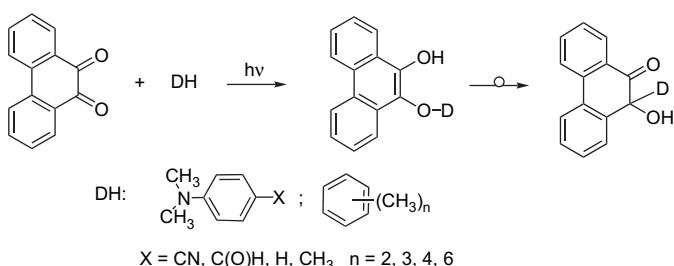


This article describes effects on the conformational equilibria of various sparteine derivatives brought about by the attachment of hydroxy groups to the bis-quinolizidine skeleton at the indicated positions.

**Products of photoreduction of 9,10-phenanthrenequinone in the presence of *N,N*-dimethylanilines and polymethylbenzenes**

M. P. Shurygina\*, Yu. A. Kurskii, S. A. Chesnokov, G. A. Abakumov

pp 1459–1466



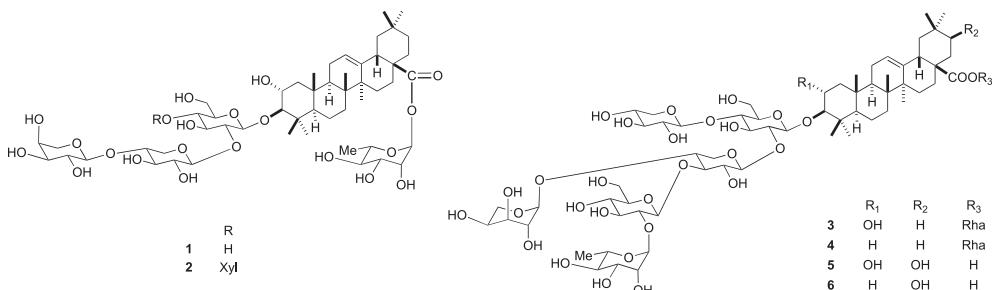
**A convenient ‘click chemistry’ approach to perylene diimide–oligonucleotide conjugates**  
Alexey V. Ustinov, Veronika V. Dubnyakova, Vladimir A. Korshun\*

pp 1467–1473



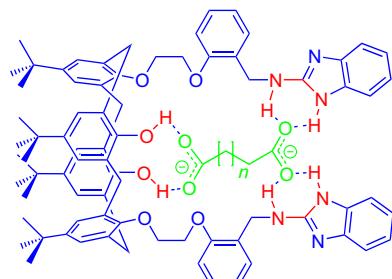
**Stryphnosides A–F, six new triterpene glycosides from the pericarps of *Stryphnodendron fissuratum***  
Akihito Yokosuka\*, Sachiko Kawakami, Mitsue Haraguchi, Yoshihiro Mimaki\*

pp 1474–1481



**p-tert-Butylcalix[4]arene-based fluororeceptor for the recognition of dicarboxylates**  
Narinder Singh, Gang Woo Lee, Doo Ok Jang\*

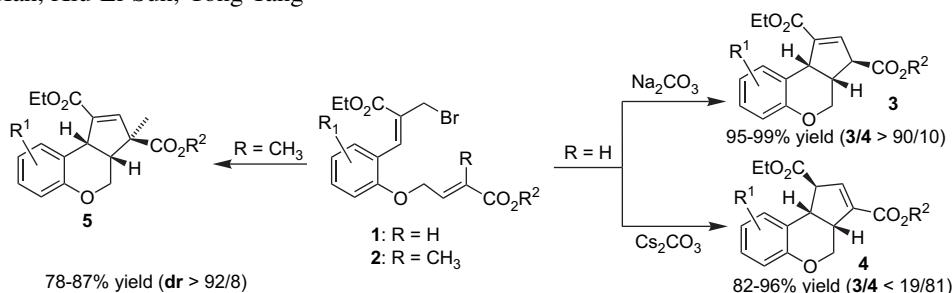
pp 1482–1486



**PPh<sub>3</sub>-catalyzed ylide cyclization for the controllable synthesis of benzobicyclo[4.3.0] compounds: base effects and scope**

pp 1487–1493

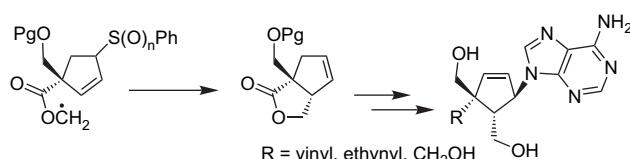
Long-Wu Ye, Xun Han, Xiu-Li Sun, Yong Tang\*



**Synthesis of ( $\pm$ )-9-[*c*-4, *t*-5-bis(hydroxymethyl)cyclopent-2-en-*r*-1-yl]-9*H*-adenine (BCA) derivatives branched at the 4'-position based on intramolecular S<sub>H</sub>2' cyclization**

pp 1494–1505

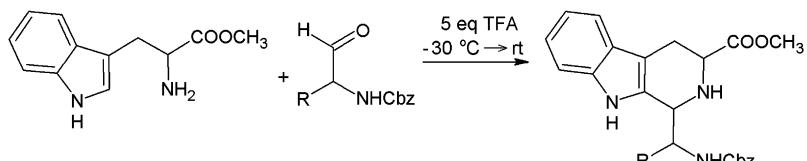
Hiroki Kumamoto\*, Nonoko Takahashi, Tomomi Shimamura, Hiromichi Tanaka, Kazuo T. Nakamura, Takayuki Hamasaki, Masanori Baba, Hiroshi Abe, Masahiko Yano, Nobuyuki Kato



**Diastereoselective Pictet–Spengler condensation of tryptophan with  $\alpha$ -amino aldehydes as chiral carbonyl components**

pp 1506–1514

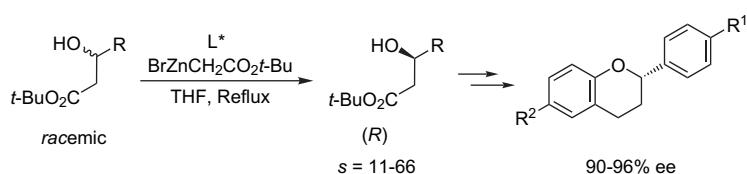
Karolina Pulka, Piotr Kulis, Dagmara Tymecka, Lukasz Frankiewicz, Marcin Wilczek, Wiktor Kozminski, Aleksandra Misicka\*



**Asymmetric dehydration of  $\beta$ -hydroxy esters and application to the syntheses of flavane derivatives**

pp 1515–1522

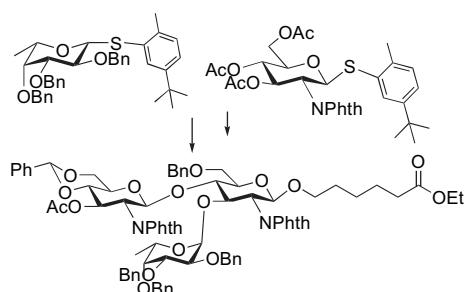
Eui Ta Choi, Min Hee Lee, Yongtae Kim, Yong Sun Park\*



**New thioglycoside derivatives for use in odourless synthesis of MUXF<sup>3</sup> N-glycan fragments related to food allergens**

pp 1523–1525

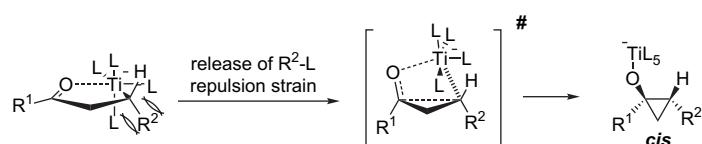
Mayeul Collot, Julie Savreux, Jean-Maurice Mallet\*



**Studies on the origin of cis-diastereoselectivity of the titanium-mediated cyclopropanation of carboxylic esters with Grignard reagents. Stereochemistry of the intramolecular cyclization of  $\beta$ -metalloketones**

pp 1536–1547

Dzmitry G. Kananovich, Oleg G. Kulinkovich\*



\*Corresponding author

†Supplementary data available via ScienceDirect



Full text of this journal is available, on-line from **ScienceDirect**. Visit [www.sciencedirect.com](http://www.sciencedirect.com) for more information.

---

Abstracted/indexed in: AGRICOLA, Beilstein, BIOSIS Previews, CAB Abstracts, Chemical Abstracts, Current Contents: Life Sciences, Current Contents: Physical, Chemical and Earth Sciences, Current Contents Search, Derwent Drug File, Ei Compendex, EMBASE/Excerpta Medica, Medline, PASCAL, Research Alert, Science Citation Index, SciSearch. Also covered in the abstract and citation database SCOPUS®. Full text available on ScienceDirect®

---



ISSN 0040-4020