

New trends in calixarene chemistry

Guest editors: Jack Harrowfield^a and Jacques Vicens^b

^aLaboratoire de Chimie Supramoléculaire, Institut de Science et d'Ingénierie Supramoléculaires (ISIS), 8, allée Gaspard Monge, F-67083 Strasbourg, France

^bLaboratoire de Conception Moléculaire, ECPM-IPHC-CNRS, 25, rue Becquerel, F-67087 Strasbourg, France

Contents

Announcement: Tetrahedron Symposia-in-Print Preface

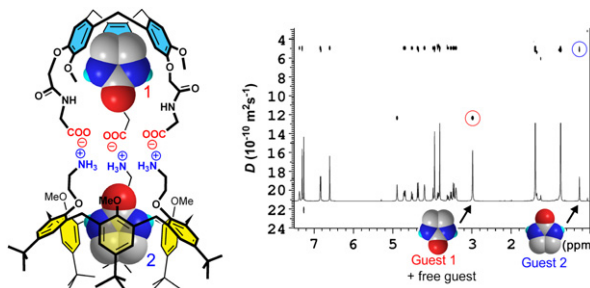
pp 10715–10717
p 10719

ARTICLES

Self-assembly via ionic interactions of calix[6]arene-based receptors displaying remarkable host–guest properties toward neutral guests

pp 10721–10730

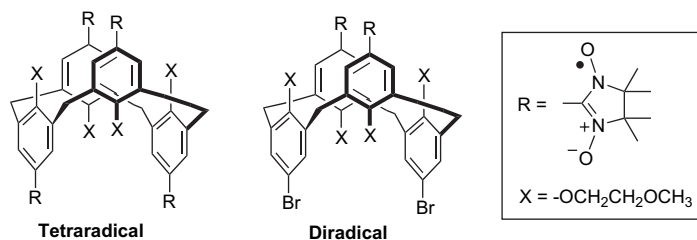
Stéphane Le Gac, Michel Luhmer, Olivia Reinaud and Ivan Jabin*



1,3-Alternate calix[4]arene nitronyl nitroxide tetraradical and diradical: synthesis, X-ray crystallography, paramagnetic NMR spectroscopy, EPR spectroscopy, and magnetic studies

pp 10731–10742

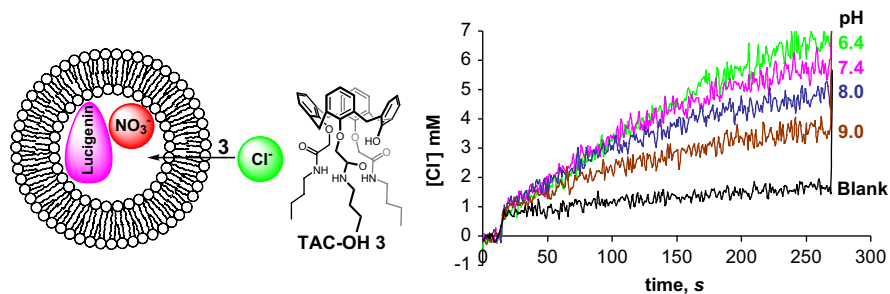
Andrzej Rajca,* Maren Pink, Sumit Mukherjee, Suchada Rajca and Kausik Das



Membrane-active calixarenes: toward ‘gating’ transmembrane anion transport

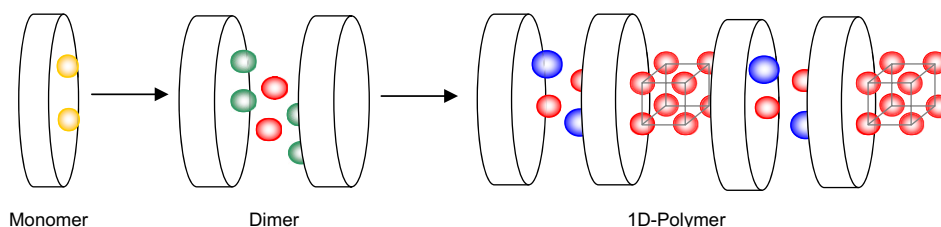
pp 10743–10750

Oluyomi A. Okunola, Jennifer L. Seganish, Kevan J. Salimian, Peter Y. Zavalij and Jeffery T. Davis*

**From simple rings to one-dimensional channels with calix[8]arenes, water clusters, and alkali metal ions**

pp 10751–10757

Rémi D. Bergougnant, Adeline Y. Robin and Katharina M. Fromm*

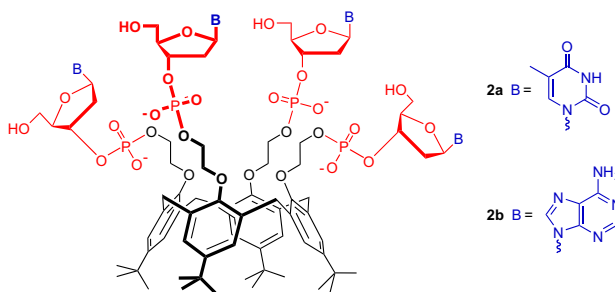


Varying alkali metal ions and the ratio of solvents THF/water, calix[8]arene ligands can be used to construct monomer, dimer, and finally polymer structures in which the cations are bridged by water molecules in channel systems.

**Synthesis of water-soluble nucleotide-calixarene conjugates and preliminary investigation of their in vitro DNA replication inhibitory activity**

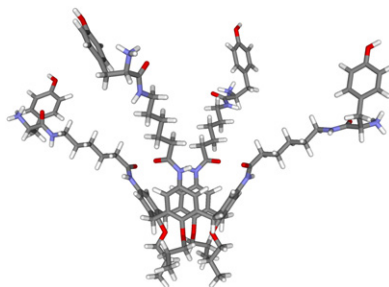
pp 10758–10763

Grazia M. L. Consoli,* Giuseppe Granata, Eva Galante, Isabella Di Silvestro, Laura Salafia and Corrada Geraci*

**Calix[4]arene-based ligands as endotoxin receptors**

pp 10764–10767

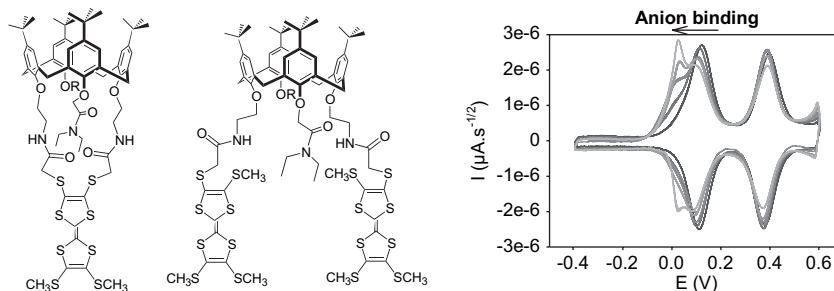
Tommaso Mecca and Francesca Cunsolo*



Carboxylic acid derivatives of tetrathiafulvalene: key intermediates for the synthesis of redox-active calixarene-based anion receptors

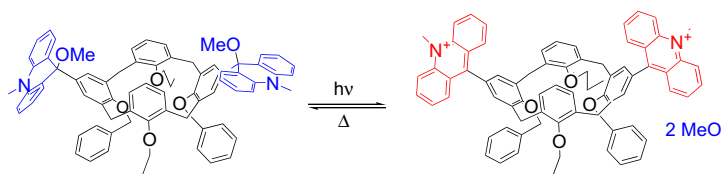
pp 10768–10777

Bang-Tun Zhao, María-Jesús Blesa, Franck Le Derf, David Canevet, Chahrazed Benhaoua, Miloud Mazari, Magali Allain and Marc Sallé*

**Photoswitchable calix[4]arenes bearing dihydroacridine substituents at the upper rim**

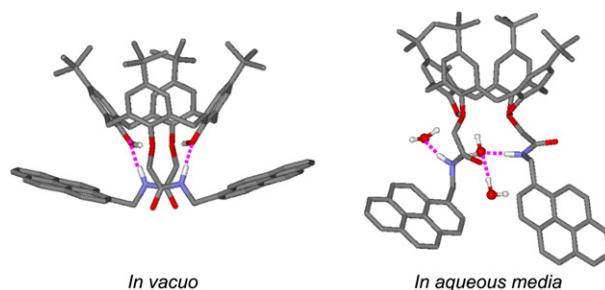
pp 10778–10787

Lutz Grubert and Werner Abraham*

**Ratiometry of monomer/excimer emissions of dipyrenyl calix[4]arene in aqueous media**

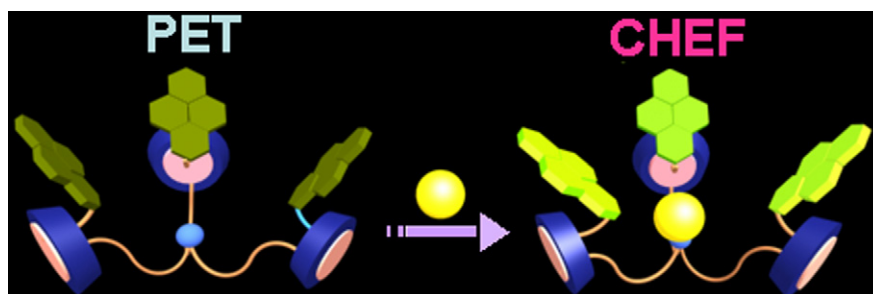
pp 10788–10792

Hyun Jung Kim, Duong Tuan Quang, Jooyeon Hong, Guipeun Kang, Sihyun Ham* and Jong Seung Kim*

**A novel pyrenyl-appended tricalix[4]arene for fluorescence-sensing of Al(III)**

pp 10793–10800

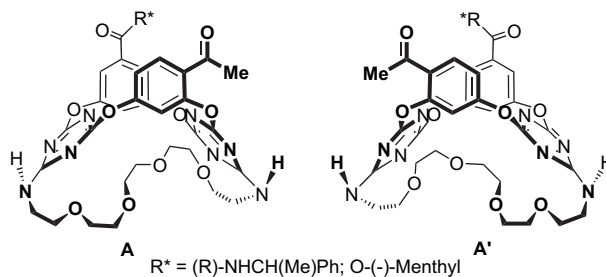
Amel Ben Othman, Jeong Won Lee, Young-Duk Huh, Rym Abidi,* Jong Seung Kim* and Jacques Vicens*



En route to inherently chiral tetraoxacalix[2]arene[2]triazines

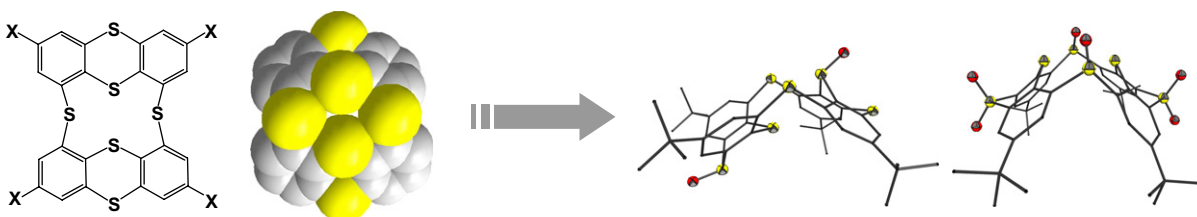
pp 10801–10808

Bao-Yong Hou, Qi-Yu Zheng, De-Xian Wang and Mei-Xiang Wang*

**Insights into the reactivity of thiacalix[2]thianthrenes: synthesis and structural studies of sulfoxide and sulfone derivatives**

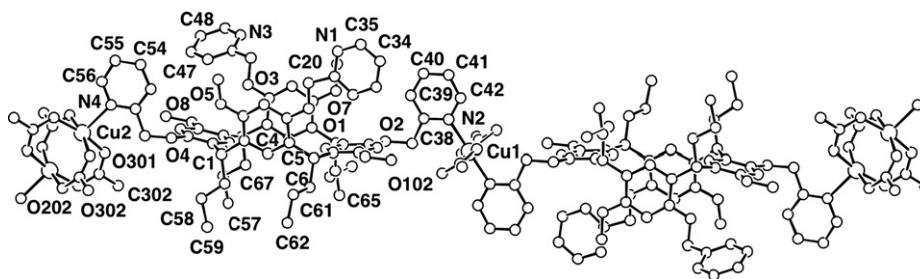
pp 10809–10816

Roman Zieba, Cedric Desroches,* Erwan Jeanneau and Stephane Parola*

**Pyridine-functionalised C₄ symmetric resorcinarenes**

pp 10817–10825

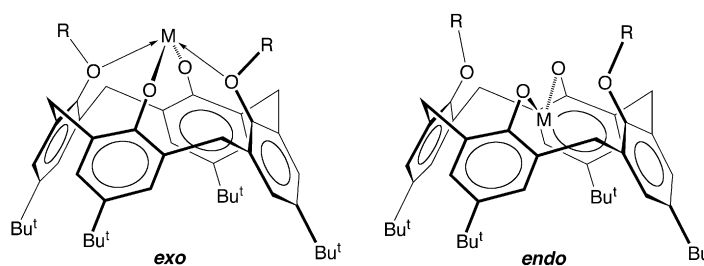
Matthew J. McIlldowie, Mauro Mocerino, Mark I. Ogden* and Brian W. Skelton

***exo* and *endo* Isomerism of subvalent tin and germanium complexes derived from 1,3-diethers of *p*-*tert*-butylcalix[4]arene**

pp 10826–10833

Tony Hascall, Keliang Pang and Gerard Parkin*

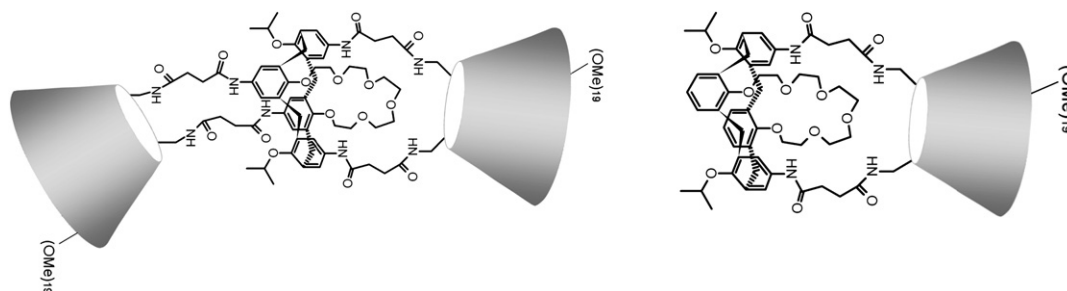
Germanium and tin complexes of calix[4]arene diethers have been prepared by the reaction of [Calix^{*t*}-Bu(OH)₂(OR)₂] with M[N(SiMe₃)₂]₂. X-ray diffraction studies demonstrate that [Calix^{*t*}-Bu(O)₂(OR)₂]M may exist with *exo* or *endo* structures.



New tubular products from calixarene–cyclodextrin coupling

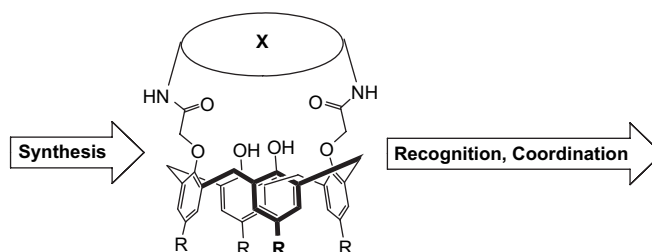
Céline Hocquelet, Christopher K. Jankowski* and Laurent Mauclaire

pp 10834–10839

**Calix(aza)crowns: synthesis, recognition, and coordination. A mini review**

Issam Oueslati

pp 10840–10851



*Corresponding author

Supplementary data available via ScienceDirect

COVER

The association of a C_{3v} -symmetrical calix[6]tris-amine with concave tris-carboxylic acids such as a cyclotrimeric unit is directed by the selective inclusion of neutral guests. These self-assembled host–guest systems allow simultaneous binding of two neutral molecules in two distinct hydrophobic cavities and show chiral guest recognition in the calixarene cavity.

© 2007 I. Jabin. Published by Elsevier Ltd.



Full text of this journal is available, on-line from **ScienceDirect**. Visit 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®



ELSEVIER

ISSN 0040-4020