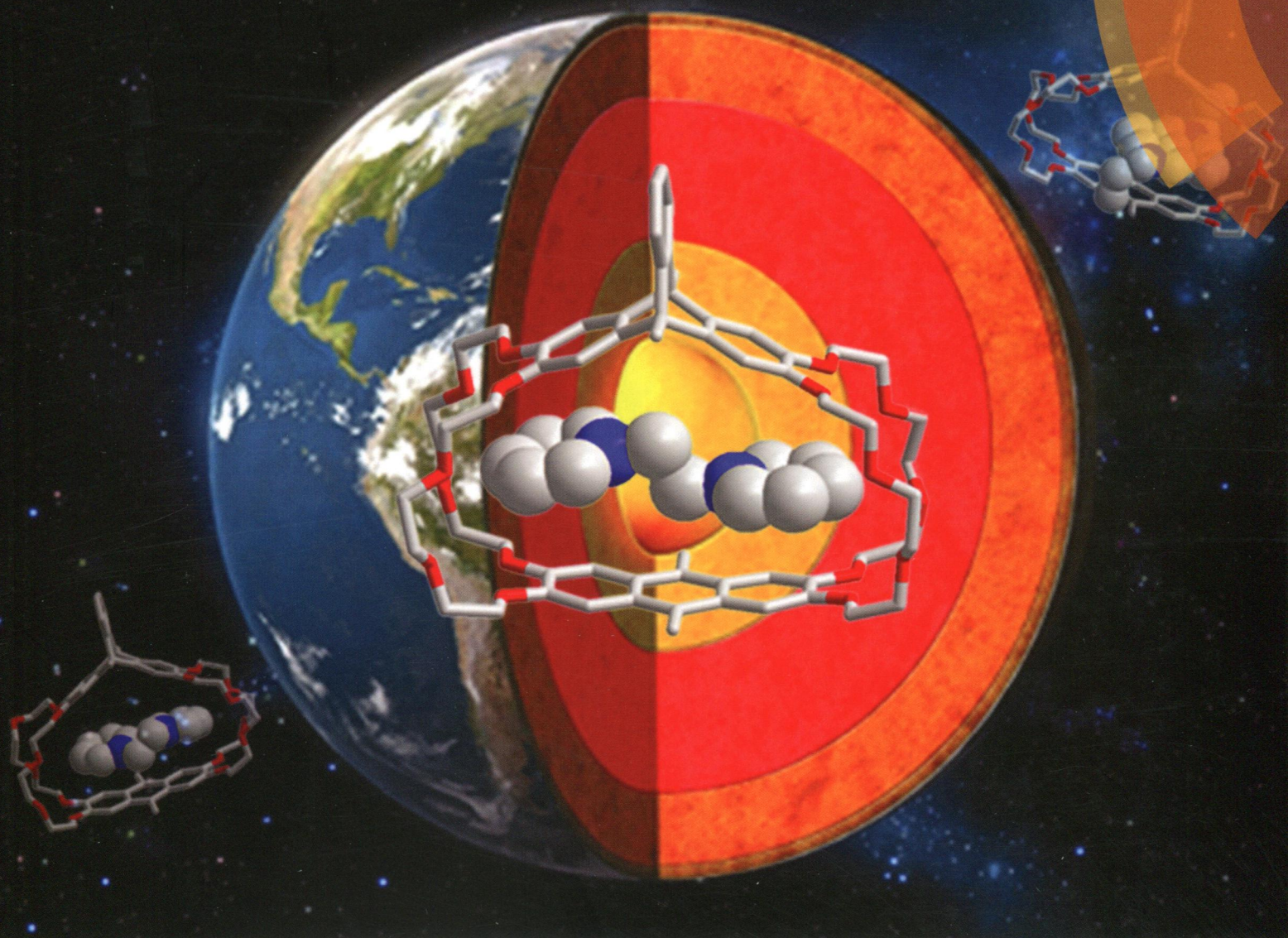


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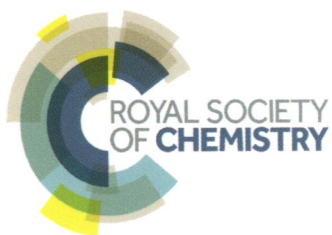
Volume 12 | Number 18 | 14 May 2014 | Pages 2813–2980

Organic & Biomolecular Chemistry

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COMMUNICATION

Chuan-Feng Chen *et al.*

Triptycene-derived macrotricyclic polyether containing an anthracene unit as a powerful host for 1,2-bis(pyridium)ethane, diquat and 2,7-diazapyrenium salt

Organic & Biomolecular Chemistry

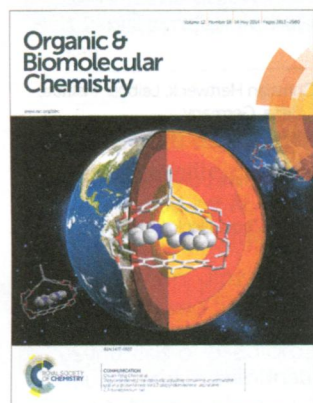
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IN THIS ISSUE

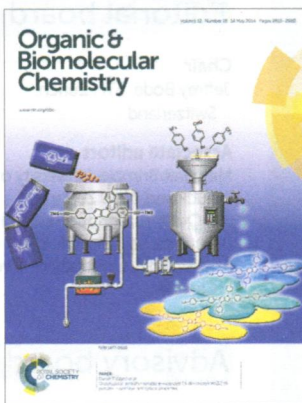
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Cover

See Chuan-Feng Chen *et al.*, pp. 2850–2853.

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Inside cover

See Daniel T. Gryko *et al.*, pp. 2874–2881.

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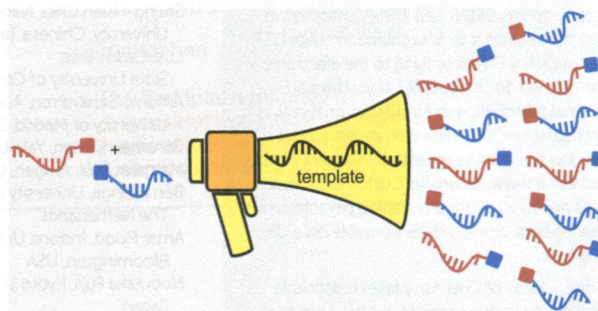
REVIEWS

2821

Amplification by nucleic acid-templated reactions

Julia Michaelis, Alexander Roloff and Oliver Seitz*

Nucleic acid-templated reactions that proceed with turnover provide a means for signal amplification, which facilitates the use and detection of biologically occurring DNA/RNA molecules.



2834

The battle for the "green" polymer. Different approaches for biopolymer synthesis: bioadvantaged vs. bioreplacement

Nacú Hernández, R. Christopher Williams and Eric W. Cochran*

In this perspective we compare and contrast two distinct approaches to the economical realization of biomaterials.



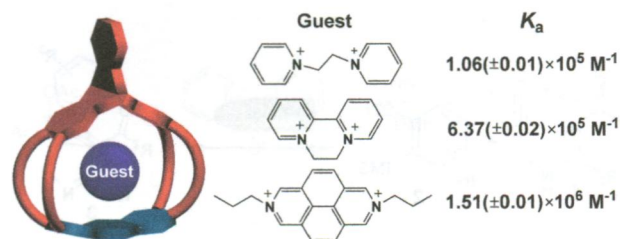
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Уральского отделения
Российской академии наук (ЦНБ УрО РАН)

2850

Triptycene-derived macrotricyclic polyether containing an anthracene unit as a powerful host for 1,2-bis(pyridium)ethane, diquat and 2,7-diazapyrenium salt

Ya-Kun Gu, Fei Zeng, Zheng Meng and Chuan-Feng Chen*

Triptycene-derived macrotricyclic polyether containing an anthracene unit was shown to be a powerful host for 1,2-bis(pyridium)ethane, diquat and 2,7-diazapyrenium salt.

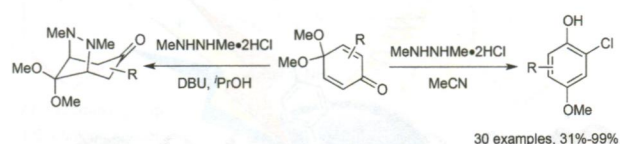


2854

Synthesis of *o*-chlorophenols via an unexpected nucleophilic chlorination of quinone monoketals mediated by *N,N'*-dimethylhydrazine dihydrochloride

Zhiwei Yin, Jinzhu Zhang, Jing Wu, Riana Green, Sihan Li and Shengping Zheng*

Synthesis of *o*-chlorophenols via an unexpected nucleophilic chlorination of quinone monoketals mediated by *N,N'*-dimethylhydrazine dihydrochloride has been demonstrated.

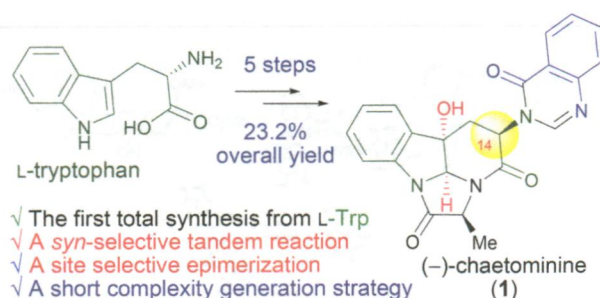


2859

Complexity generation by chemical synthesis: a five-step synthesis of (–)-chaetominine from L-tryptophan and its biosynthetic implications

Chu-Pei Xu, Shi-Peng Luo, Ai-E Wang and Pei-Qiang Huang*

We demonstrated, for the first time, that the hexacyclic peptidyl alkaloid (–)-chaetominine (**1**) can be synthesized in a straightforward manner from L-Trp, which could be helpful in understanding the biosynthetic pathway of (–)-chaetominine (**1**).

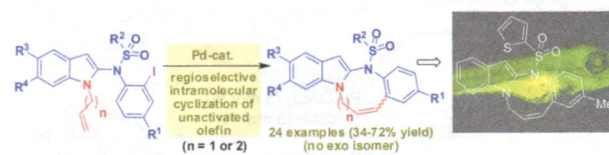


2864

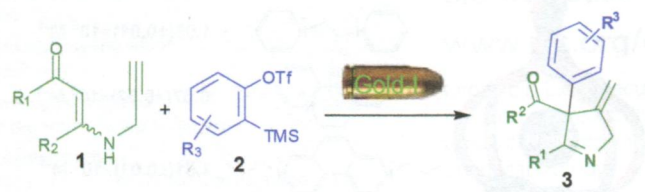
A Pd-based regioselective strategy to indole-1,2-fused 8- and 9-membered rings: their evaluation as potential scaffolds for apoptosis in zebrafish

Bagineni Prasad, B. Yogi Sreenivas, Araka Sushma, Swapna Yellanki, Raghavender Mediseti, Pushkar Kulkarni and Manojit Pat*

A Pd-based strategy afforded novel indoles as potential scaffolds for apoptosis.



2869



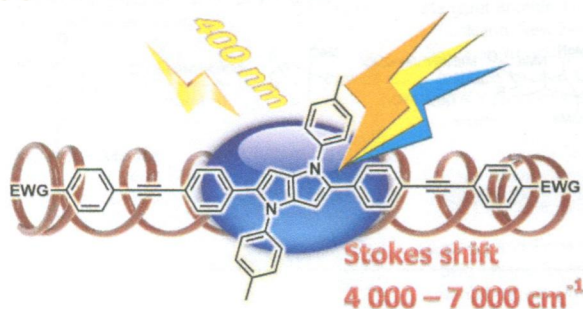
Gold-catalysed cyclisation of *N*-propargylic β -enaminones to form 3-methylene-1-pyrroline derivatives

Kommuru Goutham, N. S. V. M. Rao Mangina, Suriseti Suresh, Pallegogu Raghavaiah and Galla V. Karunakar*

A gold(I) catalysed reaction between *N*-propargylic β -enaminones and arynes was developed to access 3-methylene-1-pyrrolines. The title compounds were obtained in 57–78% yields.

PAPERS

2874

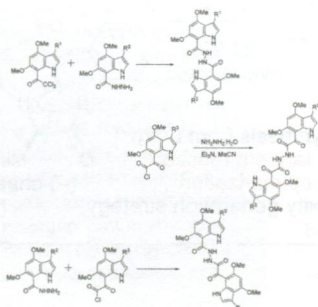


Quadrupolar, emission-tunable π -expanded 1,4-dihydropyrrolo[3,2-*b*]pyrroles – synthesis and optical properties

Anita Janiga, Dominika Bednarska, Bjarne Thorsted, Jonathan Brewer and Daniel T. Gryko*

A–D–A chromophores containing pyrrolo[3,2-*b*]pyrrole, as a central donor moiety, display blue, turquoise, yellow and orange fluorescence, depending on the strength of the electron-withdrawing substituent.

2882

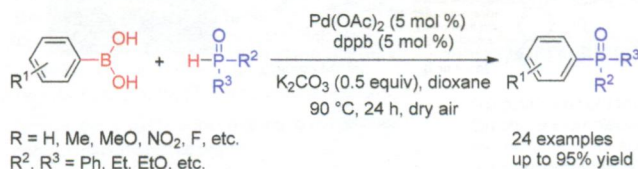


Synthesis and biological activity of novel bis-indole inhibitors of bacterial transcription initiation complex formation

Marcin Mielczarek, Ruth V. Devakaram, Cong Ma, Xiao Yang, Hakan Kandemir, Bambang Purwono, David StC. Black, Renate Griffith, Peter J. Lewis* and Naresh Kumar*

The synthesis of novel bis-indole amides and glyoxylamides as bacterial transcription complex formation inhibitors and their structure–activity relationships are discussed.

2895



Palladium-catalyzed air-based oxidative coupling of arylboronic acids with H-phosphine oxides leading to aryl phosphine oxides

Tingting Fu, Hongwei Qiao, Zhimin Peng, Gaobo Hu, Xueji Wu, Yuxing Gao* and Yufen Zhao

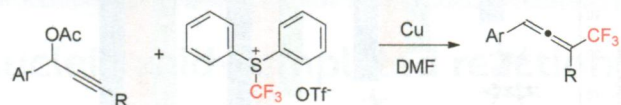
Various valuable aryl phosphine oxides were effectively prepared *via* the palladium-catalyzed coupling of arylboronic acids with H-phosphine oxides.

2903

Copper-mediated trifluoromethylation of propargyl acetates leading to trifluoromethyl-allenes

Yun-Long Ji, Jun-Jie Kong, Jin-Hong Lin,*
Ji-Chang Xiao* and Yu-Cheng Gu

A copper-promoted trifluoromethylation of propargyl acetates with *S*-(trifluoromethyl)diphenylsulfonium triflate leading to trifluoromethyl-allenes under mild conditions is described.

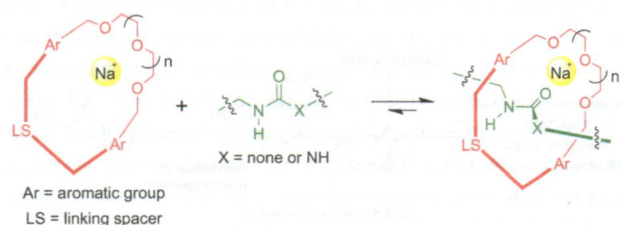


2907

Five additional macrocycles that allow Na⁺ ion-templated threading of guest units featuring a single urea or amide functionality

You-Han Lin, Chien-Chen Lai and Sheng-Hsien Chiu*

Five analogues of the macrocycle BPX26C6 are also capable of recognizing single urea and/or amide functionalities in the presence of templating Na⁺ ions.

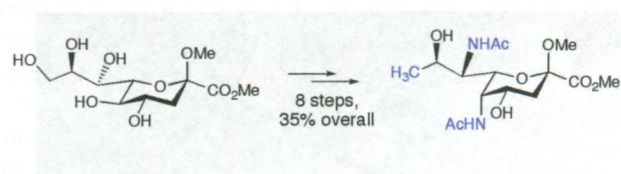


2918

A new approach towards the synthesis of pseudaminic acid analogues

Matthew Zunk, James Williams, James Carter and Milton J. Kiefel*

This paper describes a novel and efficient approach to the synthesis of pseudaminic acid analogues starting from *N*-acetylneuraminic acid.

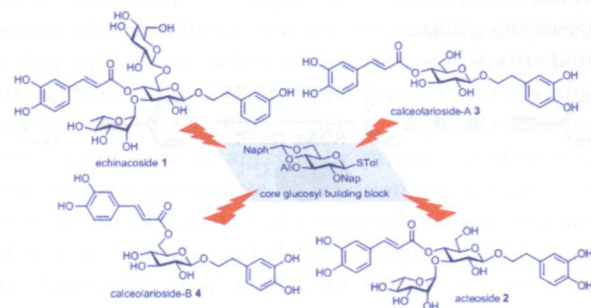


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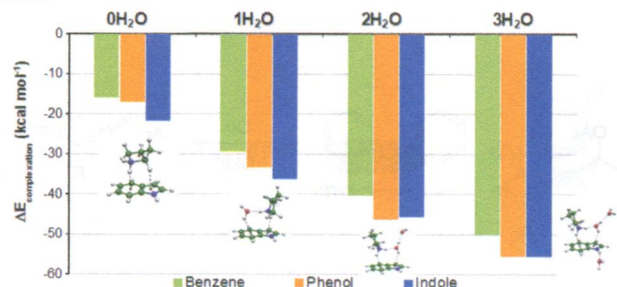
A general synthetic strategy and the anti-proliferation properties on prostate cancer cell lines for natural phenylethanoid glycosides

Shaheen K. Mulani, Jih-Hwa Guh and Kwok-Kong Tony Mong*

The total synthesis of natural glycosides for the anti-proliferation of cancer cell lines.



2938

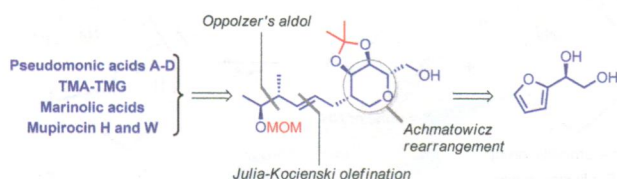


Cation... π interaction and microhydration effects in complexes formed by pyrrolidinium cation and aromatic species in amino acid side chains

Ana A. Rodríguez-Sanz, Enrique M. Cabaleiro-Lago* and Jesús Rodríguez-Otero

Microhydration deeply affects the characteristics of pyrrolidinium cation complexes with aromatic units found in amino acid side chains.

2950

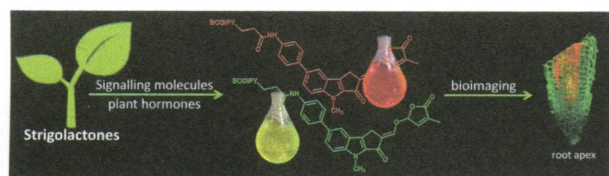


A unified strategy for the synthesis of the C1–C14 fragment of marinolic acids, mupirocins, pseudomonic acids and thiomarinols: total synthesis of pseudomonic acid methyl monate C

Y. Sridhar and P. Srihari*

A flexible stereoselective approach to the common C1–C14 skeleton present in natural products of the pseudomonic acid family is described.

2960



Tailoring fluorescent strigolactones for *in vivo* investigations: a computational and experimental study

Cristina Prandi,* Giovanni Ghigo, Ernesto G. Occhiato, Dina Scarpi, Stefano Begliomini, Beatrice Lace, Gabriele Alberto, Emma Artuso and Marco Blangetti

Fluorescent strigolactones have been designed and synthesized to fit bioimaging requirements.

2969



KOAc-promoted alkylation of α -C–H bonds of ethers with alkynyl bromides under transition-metal-free conditions

Jiajun Zhang, Pinhua Li* and Lei Wang*

KOAc-promoted α -position C–H activation and alkylation of ethers with alkynyl bromides to 2-alkynyl ethers was developed under transition-metal-free conditions.