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An international journal of synthetic, physical and biomolecular organic chemistry

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See Jinzhong Xu, Pinmei Wang et al., pp. 3552-3556.

Image designed and drawn by Dr Nannan Ren and Dr Qian Jiang (Ocean College, Zhejiang University).

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### Inside cover

See Aditya Mittal, V. Haridas et al., pp. 3557-3566.

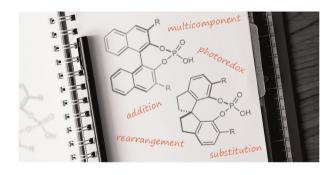
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### **REVIEWS**

### 3477

An update on chiral phosphoric acid organocatalyzed stereoselective reactions

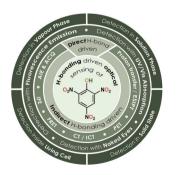
Eddy I. Jiménez



### 3503

Hydrogen bond directed high-fidelity optical detection of picric acid: A single driver on diverse roads towards the same destiny

Suvendu Paul, Provakar Paul, Saikat Samanta, Tapas Majumdar\* and Arabinda Mallick\*



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### **COMMUNICATIONS**

### 3525

Combining local conformational preferences and solvophobic effects in helical aromatic oligoamide foldamers

Binhao Teng, Joan Atcher, Lars Allmendinger, Céline Douat, Yann Ferrand and Ivan Huc\*

### 3531

### Formal synthesis of cyclotheonellazole A

Bohua Long, Liuyang Pu, Zhanyan Liu, Xiaobin Zeng and Zhengzhi Wu\*

- √ gram-scale synthesis
- √ high stereoselectivity and reaction yields
- √ mild reaction conditions and cheap reagents
- √ a concise and practical synthetic protocol for CA

### 3537

Chelation-assisted iridium-catalyzed hydroalkenylation and hydroarylation/cyclization with conjugated trienes

Yilei Liao, Cheng Zhang, Yini Wang, Yibu Hu, Liyuan Ding,\* Liangjun Zhong, Guofu Zhong\* and Jian Zhang\*

Spiro[indoline-2,3'-piperidines]

- + excellent regio-/stereo selectivity switchable hydroalkenylation/cyclization by C(sp²)-H bond
- + E/Z selective preparation of internal 1,4,6-trienes

### 3542

Intramolecular Buchwald-Hartwig N-arylation of bicyclic hydrazines: practical access to spiro [indoline-2,3'-piperidines]

Claire Fleurisson, Nessrine Graidia, Yann Foricher, Erica Benedetti\* and Laurent Micouin\*

Key bicyclic hydrazines

### **COMMUNICATIONS**

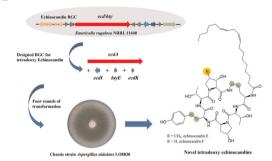
3547

## A highly efficient method to access unprotected C-3 bifunctional quaternary 3-allyl-3-(amino) oxindoles

Xunbo Lu,\* Guoling Huang, Fangpeng Liang, Siyu Sun, Yalin Chen and Zi Liang

### **PAPERS**

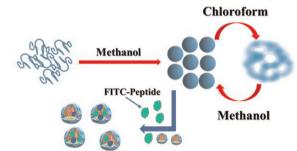
3552



### Unnatural tetradeoxy echinocandins produced by gene cluster design and heterologous expression

Xionghui Yu, Qian Jiang, Xiaona Chen, Hongjun Shu, Yushan Xu, Huan Sheng, Yuchao Yu, Wenjie Wang, Nancy P. Keller, Jinzhong Xu\* and Pinmei Wang\*

3557



## Pseudopeptosomes: non-lipidated vesicular assemblies from bispidine-appended pseudopeptides

Hanuman Singh, Pragya Pragya, Aditya Mittal\* and V. Haridas\*

No need to isolate or activate the MBH adduct

No need to isolate or activate the MBH adduct

Water as a solvent
Yields up to 70%

MBH adduct

No need to isolate or activate the MBH adduct

Water as a solvent
Yields up to 70%

MBH adduct

No need to isolate or activate the MBH adduct

Water as a solvent
Yields up to 70%

### One-pot organocatalyzed synthesis of tricyclic indolizines

Lucas A. Zeoly, Lais V. Acconcia, Manoel T. Rodrigues, Jr., Hugo Santos, Rodrigo A. Cormanich, Juan C. Paniagua, Albert Moyano\* and Fernando Coelho\*

### 3582

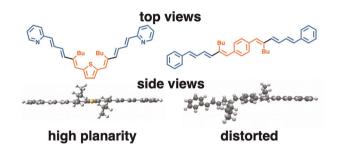
Concise synthesis of 2,3-disubstituted guinoline derivatives via ruthenium-catalyzed three-component deaminative coupling reaction of anilines, aldehydes and amines

Aldiyar Shakenov, Krishna Prasad Gnyawali and Chae S. Yi\*

### 3588

Ru(0)-catalysed cross-dimerisation and -trimerisation of alkynyl- with butadienylheteroarenes

Sayori Kiyota, Kohei Kamakura, Nobuyuki Komine and Masafumi Hirano\*



### 3604

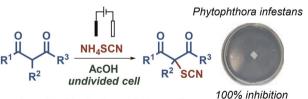
Regioselective synthesis of novel nitrosopyrazolylquinoxalines via HOAc-mediated cyclocondensation of 2-hydroxyimino-1,3diketones with hydrazinylquinoxalines

Pavel S. Bobrov,\* Sergei D. Kirik, Ivan V. Peterson and Georgii A. Suboch

### 3615

An environmentally benign way to synthesize 2-thiocyano-1,3-dicarbonyl compounds with high antifungal activity: a key role of solvent

Andrey S. Kirillov, Egor A. Semenov, Oleg V. Bityukov, Maria A. Kuznetsova, Valentina N. Demidova, Alexander N. Rogozhin, Alexei P. Glinushkin, Vera A. Vil'\* and Alexander O. Terent'ev\*



• external oxidants-free • halogen-free

30 mg/L

• dual role of NH4SCN • high fungicidal activity

### 3623

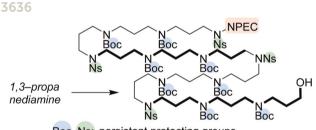
$$\begin{array}{c|c} O & & & & & \underbrace{\text{K234, NADP, 2-PrOH}} & & \underbrace{\begin{array}{c} OH \\ \hline \\ R \\ \end{array}} \\ \hline & & & \\ & & & \\ \hline & & \\ \hline & & & \\ \hline & & \\ \hline$$

### Biocatalytic asymmetric reduction of fluoroalkyl ketones to access enantiopure fluoroalkyl secondary alcohols

Yahan Wu, Kaiji Wang, Xia Wang, Jingjing Wu\* and Fanhong Wu\*

### Magnesium halide-catalyzed hydroboration of isocyanates and ketones

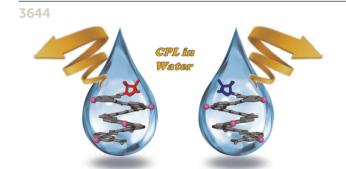
Jinyi Shi, Man Luo, Xuguang Zhang, Taoyue Yuan, Xiaoyan Chen\* and Mengtao Ma\*



Boc, Ns: persistent protecting groups NPEC: photoremovable temporary group

### Synthesis of a fully protected long-chain polyamine subunit of aculeine B using the photoremovable NPEC group

Masayoshi Miyahara, Ryoya Wakabayashi, Raku Irie and Masato Oikawa\*



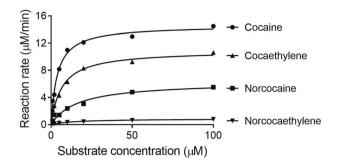
### CPL-active water-soluble aromatic oligoamide foldamers

Vincent Laffilé, Kevin Moreno, Eric Merlet, Nathan McClenaghan, Yann Ferrand\* and Céline Olivier\*

### 3650

### Kinetic characterization of an efficient cocaine hydrolase against toxic metabolites of cocaine

Max Zhan, Shurong Hou, Linyue Shang, Xiabin Chen, Chang-Guo Zhan\* and Fang Zheng\*



### 3660

### One-step synthesis of favipiravir from Selectfluor® and 3-hydroxy-2-pyrazinecarboxamide in an ionic liquid

Germán Fuentes, María F. García, Hugo Cerecetto, Guzmán Álvarez,\* Marcos Couto\* and Angel H. Romero\*

### 3669

Cu(OAc)2-catalyzed three-component cycloaddition of malonates, nitrosoarenes and alkenes: access to isoxazolidines

Yuting Wu, Qiang Liu, Shuangping Huang, Chaofeng Zhang, Wenlong Wei and Xing Li\*

$$\frac{N}{R^5}$$
 +  $\frac{COOR^4}{COOR^4}$  +  $\frac{R^1}{R^2}$  R3  $\frac{Cu(OAc)_2}{CH_3CN, 80 °C}$  R2  $\frac{R^1}{R^3}$  COOR4  $\frac{R^3}{COOR^4}$ 

- wide substrate scope
- cheap and readily available starting materials
- excellent functional group compatibility

### 3675

Copper-catalyzed ring-opening trifluoromethylthiolation/trifluoromethylselenolation of cyclopropanols with TsSCF<sub>3</sub> or Se-(trifluoromethyl) 4-methoxybenzenesulfonoselenoate

Ankun Li, Xiaoxing Wang, Yuqing Liu, Delong Hao, Xia Zhao\* and Kui Lu\*

### 3684

R = Aryl, benzyl, alkyl, cycloalkyl, adamantyl

20 examples, up to 25:1 dr Synthesis of cyclopropanes through gold-catalyzed [2 + 1] cycloaddition of allenamides with sulfoxonium ylides

Tong Hong, Yongchun Liu, Kun Zhao, Song Cheng, Qingsong Liu, Shuting Zhang, Ying Zhong, Xiaoxiao Li\* and Zhigang Zhao\*

### 3691

Brønsted acid-catalyzed C6 functionalization of 2,3-disubstituted indoles for construction of cyano-substituted all-carbon guaternary centers

Wen-Jun Huang, Li-Xia Liu, Yong-Gui Zhou, Bo Wu\* and Guo-Fang Jiang\*

An attempt to construct an indole-fused azabicyclo[3.3.1]nonane framework *via* radical cyclization

Vipin Kumar Singh, Uttam Ghosh and Tushar Kanti Chakraborty\*

### **CORRECTION**

### 3702

Correction: Concise synthesis of 2,3-disubstituted quinoline derivatives *via* ruthenium-catalyzed three-component deaminative coupling reaction of anilines, aldehydes and amines

Aldiyar Shakenov, Krishna Prasad Gnyawali and Chae S. Yi\*