

### IN THIS ISSUE

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#### Cover

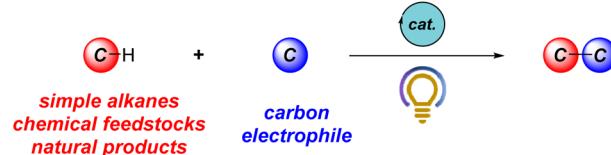
See Manuel Ferrer et al.,  
pp. 9469–9472.  
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*Chem. Commun.*,  
2023, 59, 9469.

### HIGHLIGHT

9424

#### C–C bond formation *via* photocatalytic direct functionalization of simple alkanes

Álvaro Velasco-Rubio, Pol Martínez-Balart,  
Andrés M. Álvarez-Constantino and  
Martín Fañanás-Mastral\*

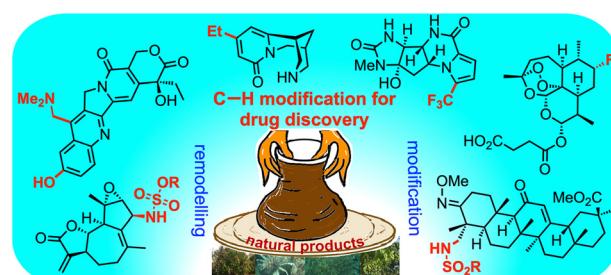


### FEATURE ARTICLES

9445

#### C–H modification of natural products: a minimalist enabling tactic for drug discovery, API processing and bioconjugation

Saumitra Sengupta,\* Srihari Pabbaraja\* and  
Goverdhan Mehta\*



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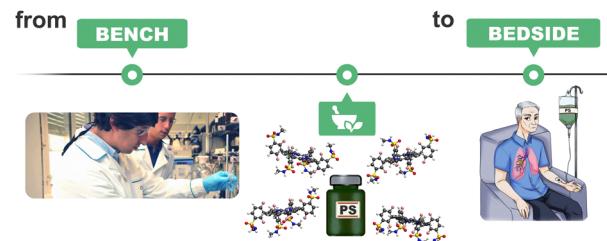


## FEATURE ARTICLES

9457

**Overcoming the challenges of infrared photosensitizers in photodynamic therapy: the making of redaporfin**

Luis G. Arnaut\* and Mariette M. Pereira\*

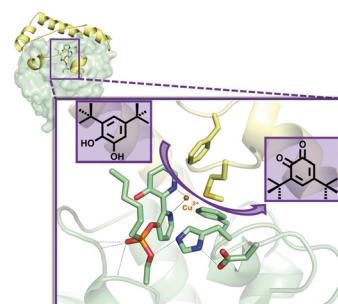


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9469

**Transforming an esterase into an enantioselective catecholase through bioconjugation of a versatile metal-chelating inhibitor**

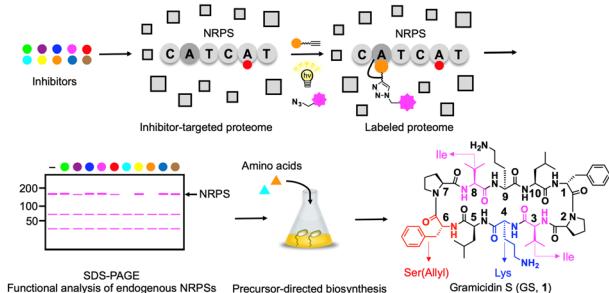
Laura Fernandez-Lopez, Isabel Cea-Rama, Julia Alvarez-Malmagro, Anna K. Ressmann, Jose L. Gonzalez-Alfonso, Cristina Coscolín, Patrick Shahgaldian, Francisco J. Plou, Jan Modregger, Marcos Pita, Julia Sanz-Aparicio and Manuel Ferrer\*



9473

**Biosynthetic diversification of non-ribosomal peptides through activity-based protein profiling of adenylation domains**

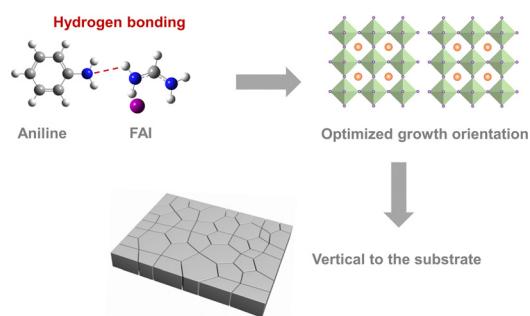
Fumihiro Ishikawa,\* Natsumi Tsukumo, Erika Morishita, Shumpei Asamizu, Saaya Kusuhsara, Shinsuke Marumoto, Katsuki Takashima, Hiroyasu Onaka and Genzoh Tanabe\*



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**Regulating the crystallization dynamics through hydrogen bonding for high efficiency tin halide perovskite solar cells**

Zhiyue Tang, Cheng Wu, Shurong Wang, Yu Xiao, Liming Ding and Feng Hao\*



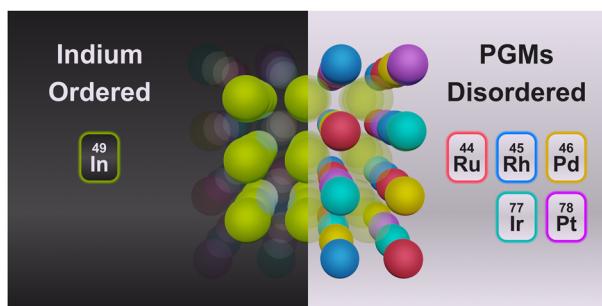
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Base-tuned selective 1,2-dichloromethyl-hydroxylation and 1,2-peroxyhydroxylation of 1,3-dienes *via* a tandem radical process

Jiantao Zhang, Weiming Zhu, Peng Zhou,\* Cui Chen and Weibing Liu\*

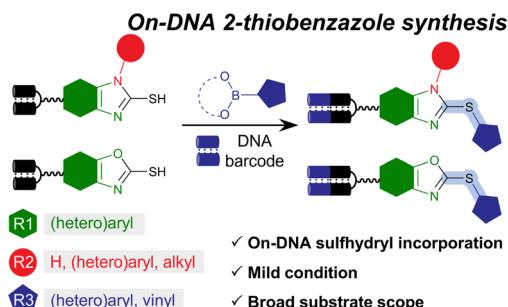
9485



## B2-structured indium–platinum group metal high-entropy intermetallic nanoparticles

Masashi Nakamura, Dongshuang Wu,\* Megumi Mukoyoshi, Kohei Kusada, Takaaki Toriyama, Tomokazu Yamamoto, Syo Matsumura, Yasukazu Murakami, Shogo Kawaguchi, Yoshiki Kubota and Hiroshi Kitagawa\*

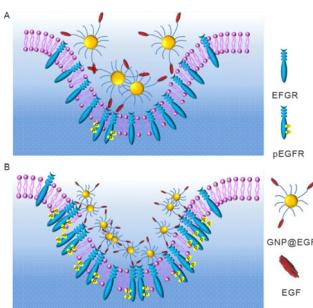
9489



## DNA-compatible combinatorial synthesis of functionalized 2-thiobenzazole scaffolds

Xianfeng Li, Changyang Liu, Yuting Gao, Gong Zhang,\* Yangfeng Li\* and Yizhou Li\*

9493



## In situ decrypting plasmonic nanoparticle size-controlled phosphorylation of epidermal growth factor receptor in living cells

Hongyan Wang, Yan Ding, Yu Zhang, Xiaoqi Shi and Honglin Liu\*

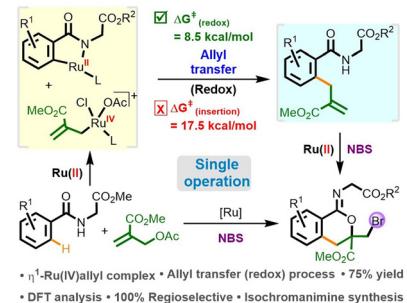


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**Ru(II)/Ru(IV)-catalyzed C(sp<sup>2</sup>)-H allylation with alkene difunctionalization to access isochroman-1-imines**

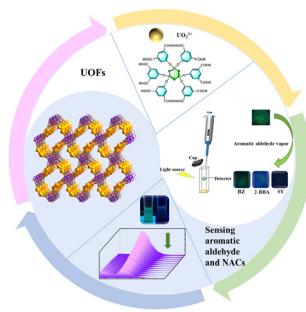
Ashish Joshi, Shruti Moorthy, Lilesh Rambhai Chavada, Saurabh Kumar Singh\* and Ashok Kumar Pandey\*



9501

**A UOF based on a cyclotriphosphazene skeleton: fluorescence sensing of different substituted aldehydes and NACs**

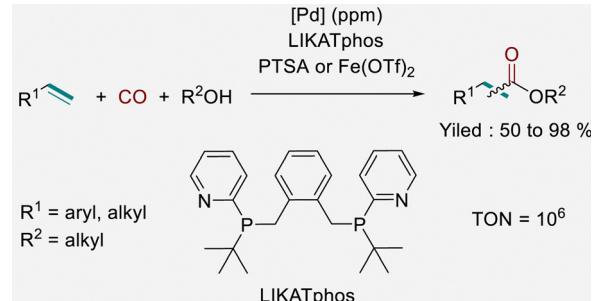
Yao Xiao, Zi-Xin You, Qing-lin Guan, Li-Xian Sun, Yong-Heng Xing\* and Feng-Ying Bai\*



9505

**Towards "homeopathic" palladium-catalysed alkoxy carbonylation of aliphatic and aromatic olefins**

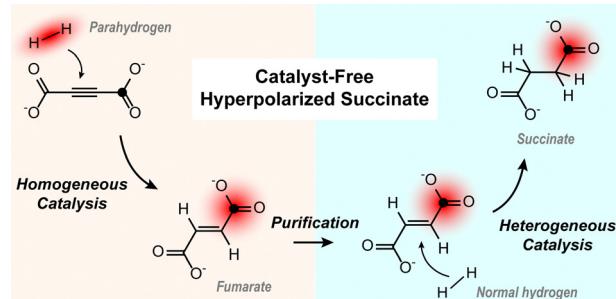
Weiheng Huang, Ralf Jackstell,\* Robert Franke\* and Matthias Beller\*



9509

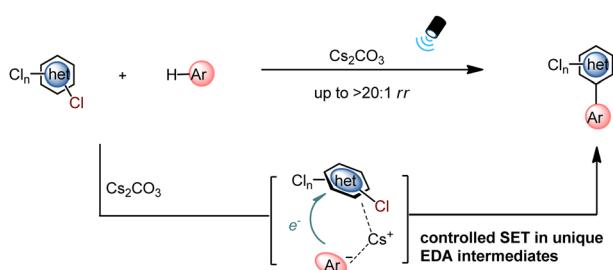
**Combined homogeneous and heterogeneous hydrogenation to yield catalyst-free solutions of parahydrogen-hyperpolarized [1-<sup>13</sup>C]succinate**

James Eills,\* Román Picazo-Frutos, Dudari B. Burueva, Larisa M. Kovtunova, Marc Azagra, Irene Marco-Rius, Dmitry Budker and Igor V. Koptyug\*



## COMMUNICATIONS

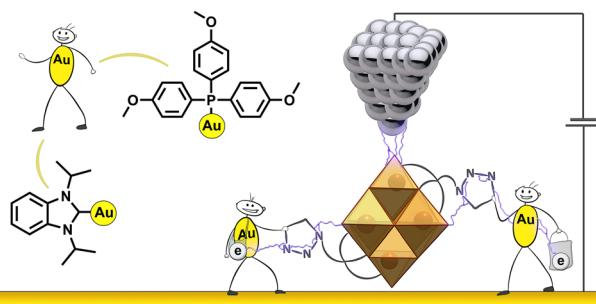
9513



**A transition metal- and photosensitizer-free approach for site-selective (hetero)arylation of polychlorinated heteroarenes**

Xiuliang Cheng, Yuhang He, Silin Song, Yu-Mei Lin\* and Lei Gong\*

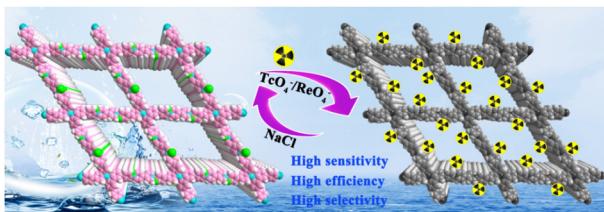
9517



**Increasing the redox switching capacity of Lindqvist-type hexavanadates by organogold post-functionalisation**

Stanislav K. Petrovskii, Marco Moors, Sebastian Schmitz, Elena V. Grachova\* and Kirill Yu. Monakhov\*

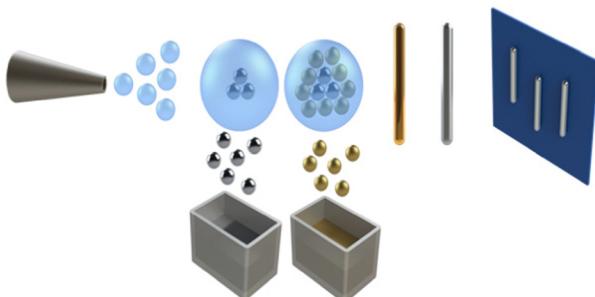
9521



**Ionic covalent organic framework for selective detection and adsorption of  $\text{TcO}_4^-/\text{ReO}_4^-$**

Xiao-Rong Chen, Cheng-Rong Zhang, Xin Liu, Ru-Ping Liang\* and Jian-Ding Qiu\*

9525



**Strong metal–support bonding enhanced thermal stability in  $\text{Au}-\text{Al}_2\text{O}_3$  core–shell nanowires characterized by *in situ* transmission electron microscopy**

Haotian Yang, Claron J. Ridge, Kyle Overdeep, C. Michael Lindsay, Xiao Tong and Alexander Orlov\*

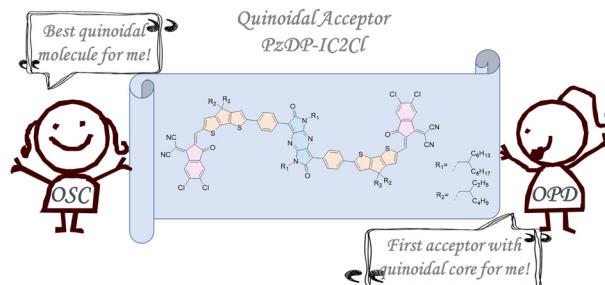


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**An electron acceptor with an intrinsic quinoidal core for bulk-heterojunction organic solar cells and photodetectors**

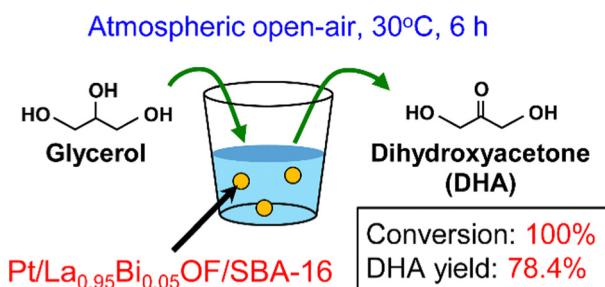
Haozhe Feng, Bingyan Yin, Langheng Pan, Xinyuan Liu, Seoyoung Kim, Yanfei Zhao,\* Xuelong Huang,\* Changduk Yang and Chunhui Duan\*



9533

**Dihydroxyacetone production by glycerol oxidation under moderate condition using Pt loaded on La<sub>1-x</sub>Bi<sub>x</sub>OF solids**

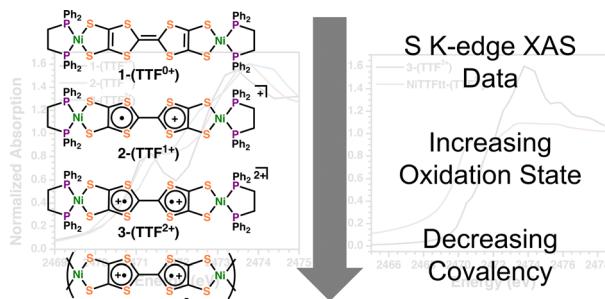
Naoyoshi Nunotani, Masanari Takashima, Yeon-Bin Choi, Yuta Uetake, Hidehiro Sakurai and Nobuhito Imanaka\*



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**Tetrathiafulvalene-2,3,6,7-tetrathiolate linker redox-state elucidation via S K-edge X-ray absorption spectroscopy**

Ningxin Jiang, Jan-Niklas Boyn, Arun Ramanathan, Henry S. La Pierre\* and John S. Anderson\*



9541

**Selective synthesis of boron-substituted enynes via a one-pot diboration/protodeboration sequence**

Jakub Szyling,\* Aleksandra Szymańska and Jędrzej Walkowiak\*

