

# Dalton Transactions

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## IN THIS ISSUE

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See Tian Wen, Zhiqiang Jiang  
*et al.*, pp. 17414–17417.

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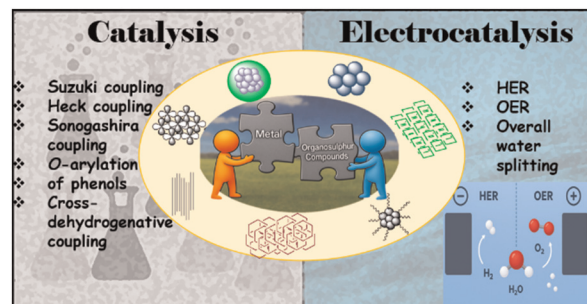
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## PERSPECTIVES

17360

### Development of nanosized materials using organosulphur compounds as building blocks for applications in catalysis and electrocatalysis

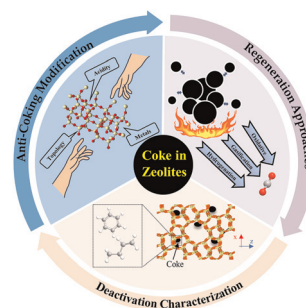
Anupma Tyagi, Suraj Purohit, Nivedita Kunwar,  
Anurag Bahuguna, Kamal K. Pant and Arun Kumar\*



17383

### Coke-induced deactivation in zeolite catalysts: mechanisms, anti-coking modifications, and regeneration approaches

Mengdi Zhang, Jing Huang, Fanshuo Meng,  
Chundong Zhang and Zunmin Zhang\*



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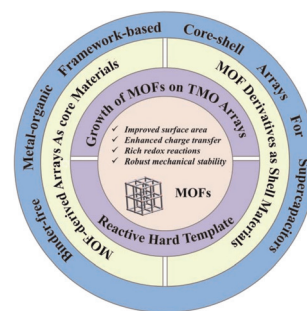
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17400

### Binder-free metal–organic framework-based core–shell arrays for supercapacitors

Liuliu Zhang, Fujuan Luo, Cui Yang,\* Hongbo Yu\* and Kai Tao\*

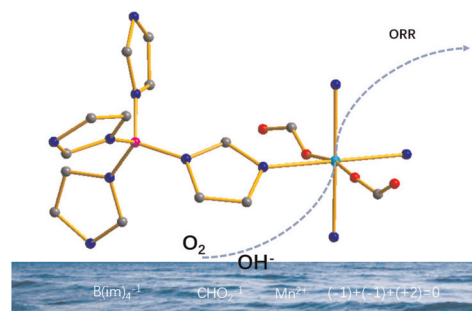


## COMMUNICATIONS

17414

### A neutral Mn(II)-BIF for electrocatalytic oxygen reduction reaction

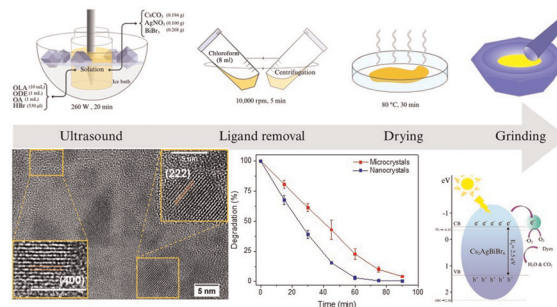
Minhong Li, Jingran Zhong, Chengjie Liao, Wenjuan Fan, Jin Lu, Dexiang Zhang, Tian Wen\* and Zhiqiang Jiang\*



17418

### Facile ultrasound-assisted synthesis of Cs<sub>2</sub>AgBiBr<sub>6</sub> nanocrystals for enhanced visible-light photocatalysis

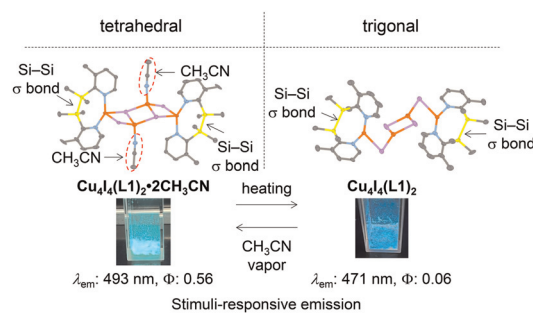
Emmanuel Godínez, Jennyfer Moreno, Sergio Chang, Victor Hugo Guzman, Yesenia A. García-Jomazo, Herlinda Montiel, Nora S. Portillo-Vélez\* and Hugo A. Lara-García\*



17425

### A disilane-bonded bis(methylpyridine) Cu(I) complex exhibiting reversible trigonal–tetrahedral switch with stimuli-responsive luminescence

Yoshinori Yamanoi,\* Yongjin Zhao, Toyotaka Nakae, Kaito Segawa, Masaki Yoshida, Masako Kato, Kazuma Kikuchi, Hiroaki Imoto, Kensuke Naka, Showa Kitajima, Hitoshi Kasai, Kouki Oka and Suguru Ito\*



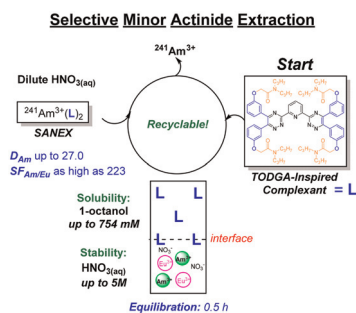
## COMMUNICATIONS

17430

Nickel-catalyzed 1,2-dialkenylation of *o*-carboranes with alkenyl bromides

Qihang Zhuo, Jie Zhang\* and Zuwei Xie\*

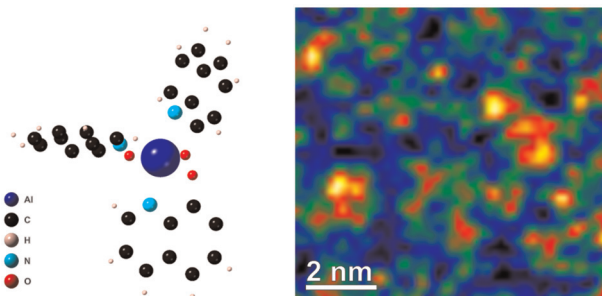
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## TODGA-inspired complexant for minor actinide extraction

Krishna P. Gnyawali and Jesse D. Carrick\*

17439

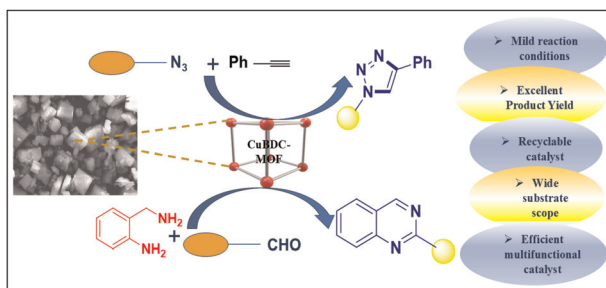


## Structures of aggregated metal-centered organic molecules revealed by transmission electron microscopy

Lifeng Zhang, Yuxin Qiu, Shuang Li, Ronghua Cui, Xing Chen and Langli Luo\*

## PAPERS

17444



## Interplay of morphology and particle size in CuBDC MOFs governing catalytic selectivity for the efficient synthesis of 1,4-disubstituted 1,2,3-triazoles and 2-substituted quinazolines

Masshuda Madni Khatun, Priyanka Gogoi, Nilakshi Dutta, Puja Pokhrel, Diganta Sarma\* and Kalyanjyoti Deori\*

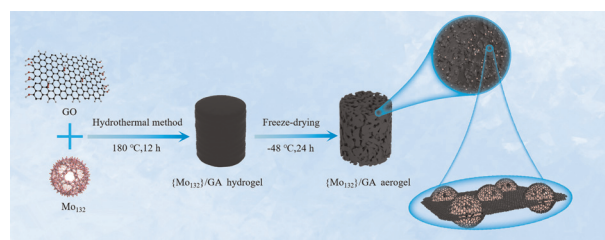


## PAPERS

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### Researching advancements in the electrochemical performance of molybdenum-based spherical polyoxometalate/reduced graphene oxide aerogel composites as electrode materials for supercapacitors

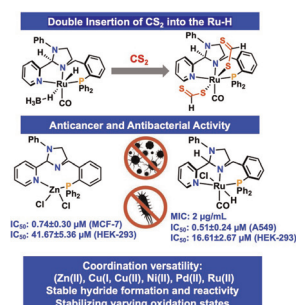
Renyou Huang, Jihua Wang,\* Junwang Liu, Xiaoyan Cai, Lige Gong and Limin Dong



17471

### Hemiparetic koneramine NNP ligand comprising strategic hard and soft donors: transition metal complexes, CS<sub>2</sub> activation and therapeutic potential

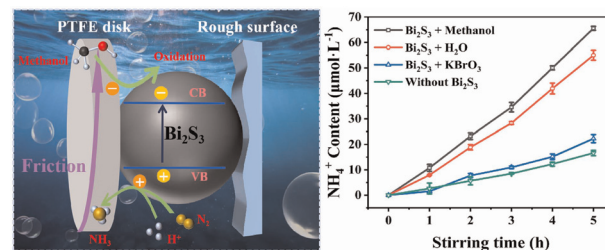
Archana Yadav, Sayari Dewan, Kajal Chaudhary, Ray J. Butcher, Ritika Gautam Singh and Raja Angamuthu\*



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### Highly efficient tribocatalytic nitrogen fixation of hydrothermally-synthesized Bi<sub>2</sub>S<sub>3</sub> driven by mechanical friction

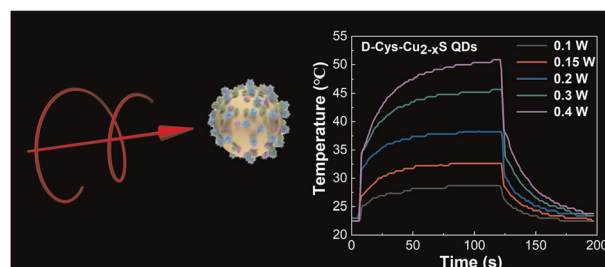
Ziqi Zhu, Zheng Wu,\* Jiajia Kang, Yuanfang Wang, Ruyu Yan, Changchun Hao, Gangqiang Zhu and Yanmin Jia\*



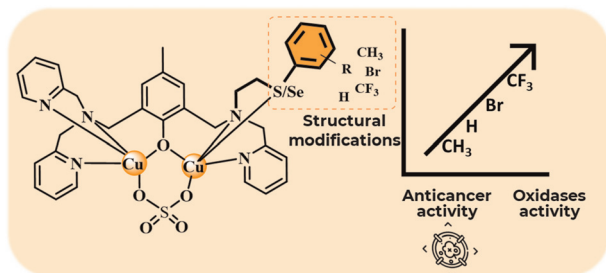
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### Chiral Cu<sub>2-x</sub>S quantum dots and their near-infrared photothermal conversion properties

Guangmin Li,\* Xinyu Jin, Jiayun Zheng, Shuang Li, Hongfei Liu, Anning Guo, Zhibo Chen, Xiongze Fan, Hongbin Zhao, Jiajia Kang, Guozhi Jia,\* Jiafeng Li and Gaoling Yang\*



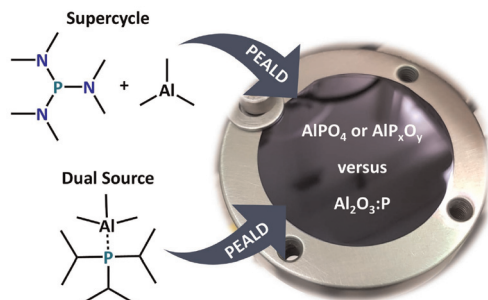
17495



### Structural influences on the oxidation and anticancer activities of dicopper(II) complexes containing different selenium and sulfur ligands

Daniele C. Durigon,\* Ronny R. Ribeiro, Olivia Espindola-Moreno, Ignacio E. León, Giordano Poneti, Adalton J. Bortoluzzi and Rosely A. Peralta\*

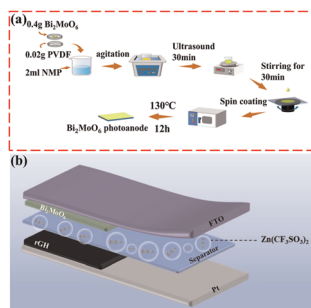
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### Plasma-enhanced atomic layer deposition of $\text{AlPO}_4/\text{AlP}_x\text{O}_y$ : comparing dual source and supercycle approaches for composition control

Florian Preischel, David Zanders, Jean-Pierre Glauber, Karl Rönnby, Detlef Rogalla, Thomas Gemming, Peter Dement, Michal Nolan and Anjana Devi\*

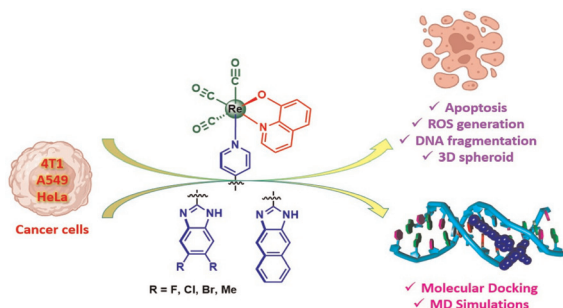
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### Development of an aqueous zinc ion rGH// $\text{Bi}_2\text{MoO}_6$ photo-assisted charging supercapacitor

Wenlong Zhang, Chengbin Zheng, Jiake Li,\* Hedong Jiang, Xin Liu, Pingchun Guo, Xueguo Zhao, Hua Zhu and Yanxiang Wang

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### $\text{Re}(\text{I})$ -quinolinate-pyridyl complexes with disubstituted benzimidazole pharmacophores as anticancer agents

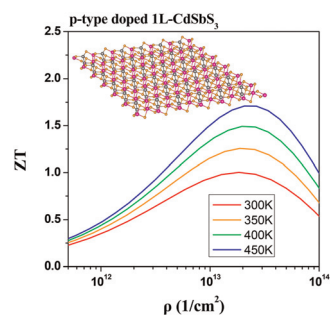
Reema L. Borkar,\* Chandra Lekha Putta, Merlin Platto, Nitisha Beniwal, Bharathi Banoth, Abhishesh Kumar Mehata, Shanmugam Ramasamy\* and Aravind Kumar Rengan\*



17546

### High p-type thermoelectric performance driven by a nearly flat band in single-layer CdSbS<sub>3</sub>

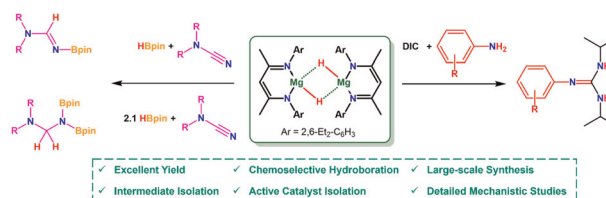
Won Seok Yun, June-Seo Kim\* and Myoung-Jae Lee\*



17553

### Magnesium catalyzed hydroamination of carbodiimides and hydroboration of cyanamides

Anubhab Das, Sayantan Mukhopadhyay, Sagrika Rajput and Sharanappa Nembenna\*

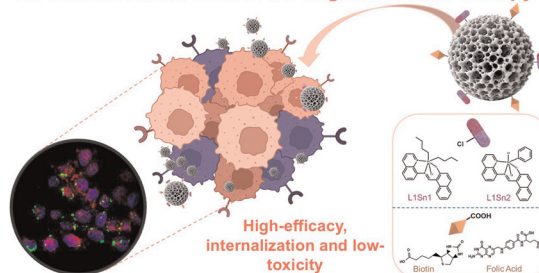


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### Engineered mesoporous silica nanosystems with organotin(IV) complexes containing 1-(quinolin-8-yliminomethyl)naphthalen-2-ol ligand for cancer cell targeting

Diana Díaz-García, Robin Vinck, Javier Álvarez-Conde, Victoria García-Almodóvar, Sanjiv Prashar, Gilles Gasser\* and Santiago Gómez-Ruiz\*

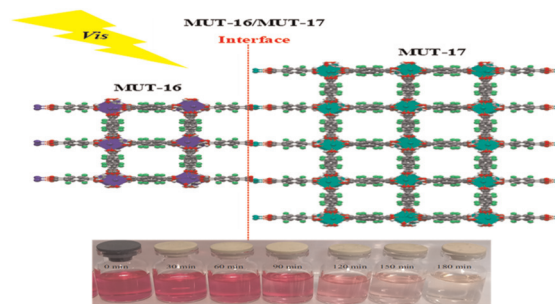
#### Tin-functionalized sMSNs for targeted cancer therapy



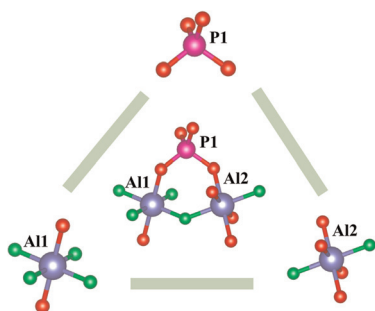
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### Design and synthesis of a homostructured MUT-16/MUT-17 nanocomposite via the epitaxial growth method as a photocatalyst for the degradation of Acid Red 33 under visible light

Roghayyeh Ghasemzadeh and Kamran Akhbari\*



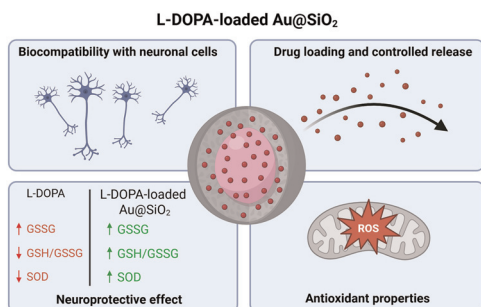
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### BaAlPO<sub>4</sub>F<sub>2</sub>: structure and properties of the first barium fluoroaluminophosphate with the mixed anion group [Al<sub>2</sub>PO<sub>8</sub>F<sub>5</sub>]

Yanhui Zhang, Jiajia Li, Yaqing Ding, Kaitong Liu\* and Xiaofeng Gu\*

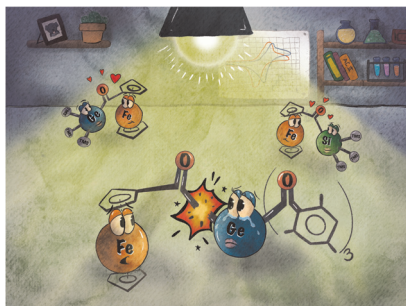
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### Nanostructures based on gold and silica as a delivery platform for enhanced L-DOPA therapy in neurodegenerative disease

Agata Kowalska,\* Elzbieta Adamska, Katarzyna Zima, Paulina Nowicka, Anna Wcisto, Mariusz Makowski and Beata Grobelna\*

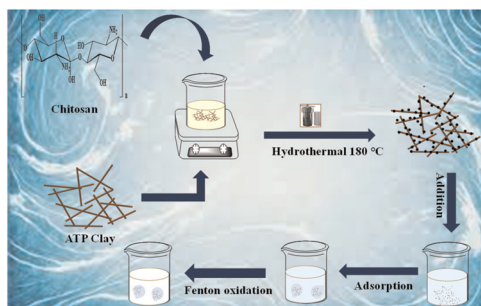
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### Synthesis, structure, photochemical and electrochemical properties of $\alpha$ -germyl ferrocenyl ketones

Madeleine Heurix, Petr Harmach, Ana Torvisco, Roland C. Fischer, Mathias Wiech, Ivana Císařová, Georg Gescheidt, Petr Štěpnička\* and Michael Haas\*

17621



### Synergistic adsorption–Fenton degradation of 2,4-dichlorophenol using chitosan-modified attapulgite for sustainable water remediation

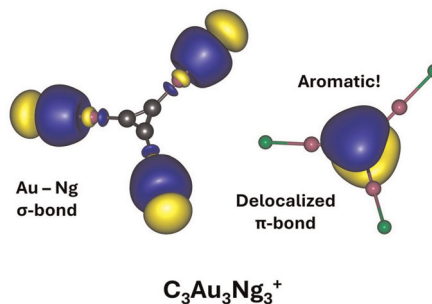
Nazish Shahab, Wei Han, Saeed Ahmed, Weiliang Tian, Chao Jiang, Huiyu Li\* and Yongjun Feng\*



17631

### Noble gas binding and bonding with gold-substituted cyclopropenyl cation

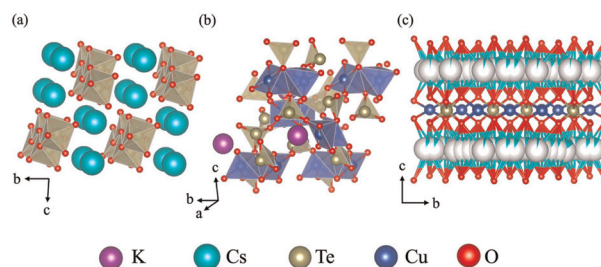
Leonardo Reyes-Fernández and Ricardo Pino-Rios\*



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### Hydroflux crystal growth of alkali tellurate oxide-hydroxides

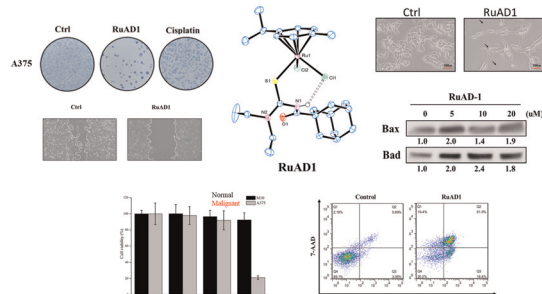
Madalyn R. Gragg, Allana G. Iwanicki,\* Maxime A. Siegler and Tyrel M. McQueen



17646

### Organoruthenium(II) complexes with adamantane-thiourea ligands: structural and biological insights

Chi-Xin Guo, Rahime Eshaghi Malekshah, Tzu-Yu Chen, Amir Karim, Yu-Ting Chu, En-De Shu, Chien-Chih Chiu, Ching-Ming Chien\* and Sodio C. N. Hsu\*



17662

### Tuning the electronic properties of Fe(II)-NHC sensitizers with thienyl $\pi$ -extended ligands

Nour Shalhoub, Edoardo Marchini,\* Federico Coppola, Roberto Argazzi, Stefano Caramori, Mariachiara Pastore,\* Philippe Pierrat and Philippe C. Gros\*

