

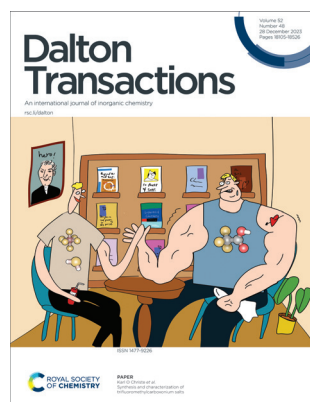
# Dalton Transactions

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See Karl O Christe *et al.*,  
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18143.



### Inside cover

See Phimphaka Harding,  
David J. Harding *et al.*,  
pp. 18148–18157.

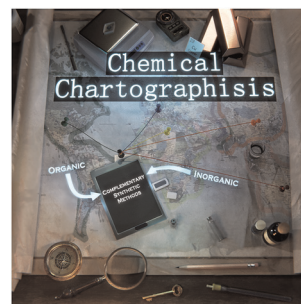
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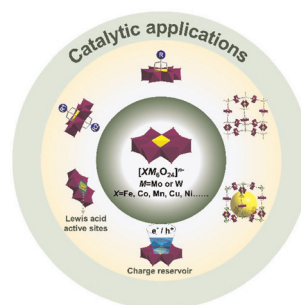


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### Anderson-type polyoxometalates for catalytic applications

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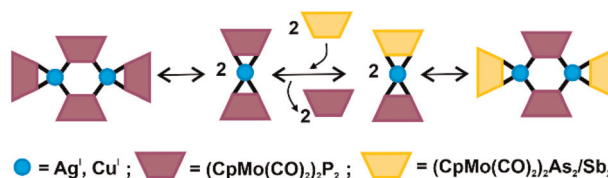


## COMMUNICATION

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### Novel synthetic route towards heteroleptic pnictogen-rich organometallic–inorganic coordination compounds

Pavel A. Shelyganov, Mehdi Elsayed Moussa, Michael Seidl, Lisa Zimmermann, Wagner Menezes da Silva and Manfred Scheer\*

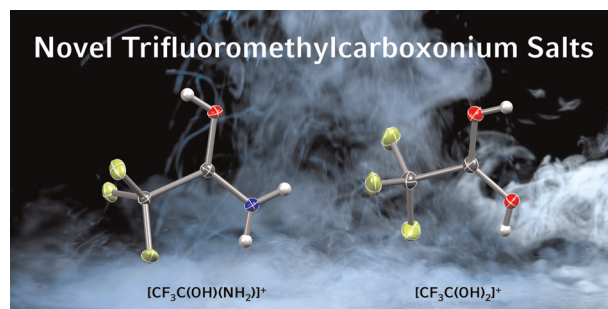


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### Synthesis and characterization of trifluoromethylcarboxonium salts

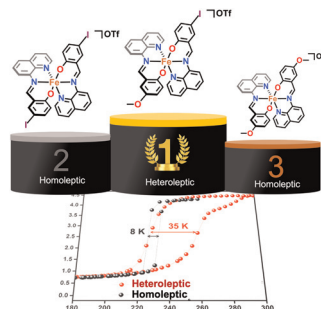
Thomas Saal, Ralf Haiges and Karl O Christe\*



18148

### Improving spin crossover characteristics in heteroleptic [Fe<sup>III</sup>(qsal-5-I)(qsal-5-OMe)]A complexes

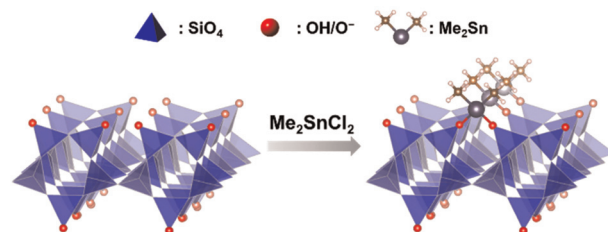
Raúl Díaz-Torres, Silvia Gómez-Coca, Eliseo Ruiz, Phimpaka Harding\* and David J. Harding\*



18158

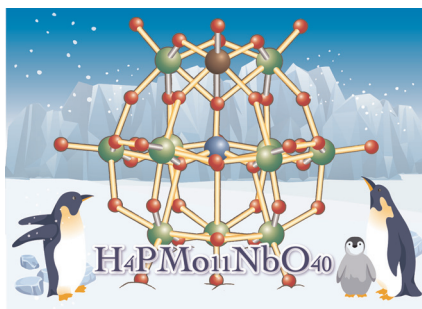
### Immobilization of isolated dimethyltin species on crystalline silicates through surface modification of layered octosilicate

Masashi Yatomi, Takuya Hikino, Seiji Yamazoe, Kazuyuki Kuroda and Atsushi Shimojima\*



## PAPERS

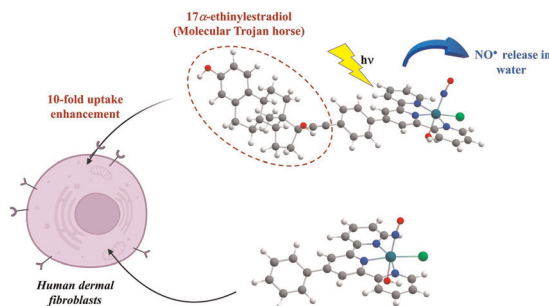
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### Preparation and isolation of mono-Nb substituted Keggin-type phosphomolybdic acid and its application as an oxidation catalyst for isobutylaldehyde and Wacker-type oxidation

Takashi Matono, Shinsuke Ueno, Yuki Kato, Naoya Umehara, Zhongling Lang, Yangguang Li, Wataru Ninomiya, Maher Elhallal, Edgar Osiris Gonzales-Yañez, Mickael Capron, Satoshi Ishikawa, Wataru Ueda, Tsuneji Sano and Masahiro Sadakane\*

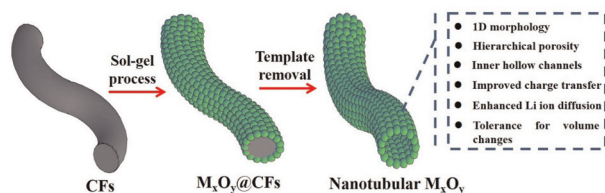
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### A Trojan horse approach for enhancing the cellular uptake of a ruthenium nitrosyl complex

Pablo Labra-Vázquez,\* Erika Rocha, Yue Xiao, Marine Tassé, Carine Duhayon, Norberto Farfán,\* Rosa Santillan, Laure Gibot, Pascal G. Lacroix and Isabelle Malfant\*

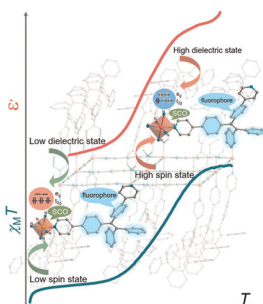
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### Nanotubular Fe<sub>2</sub>O<sub>3</sub> and Mn<sub>3</sub>O<sub>4</sub> with hierarchical porosity as high-performance anode materials for lithium-ion batteries

Zhen Li,\* Man Yang, Fengting Geng, Dashuai Zhang, Yongzheng Zhang, Xiuling Zhang, Xuliang Pang\* and Longlong Geng\*

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### Simultaneous magneto-dielectric transitions in a fluorescent Hofmann-type coordination polymer

Fei-Fei Yan, Dan Liu, Rui Cai, Liang Zhao, Pan-Dong Mao, Hui-Ying Sun, Yin-Shan Meng\* and Tao Liu\*

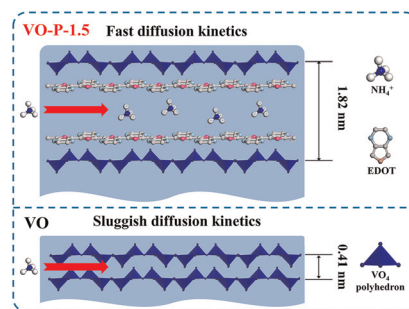


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# Ultra-expanded interlayer spacing of vanadium oxide nanowires intercalated with poly(3,4-ethylene dioxythiophene) in organic ammonium ion batteries

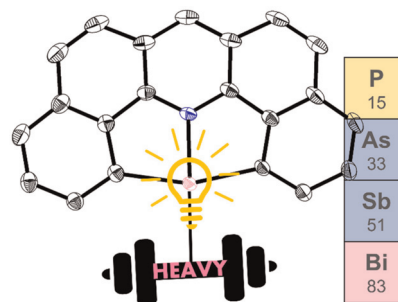
Haode Zhang, Shan Hu, Xinlei Tang, Yu Tian, Jiawen Zhao, Haohao Sun, Zelang Jian and Wen Chen\*



18220

# Enhanced luminescence properties through heavy ancillary ligands in [Pt(C<sup>N</sup>^C)(L)] complexes, L = AsPh<sub>3</sub> and SbPh<sub>3</sub>

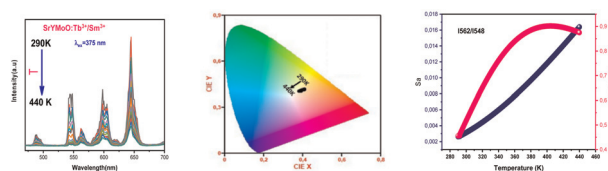
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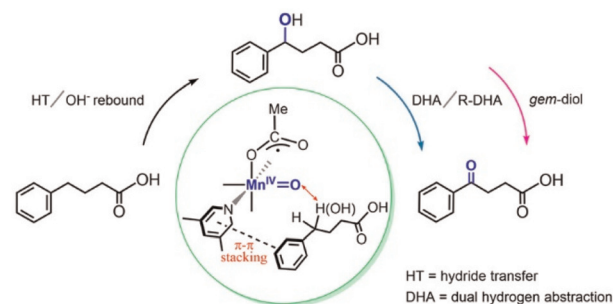
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# The elusive reaction mechanism of Mn(II)-mediated benzylic oxidation of alkylarene by H<sub>2</sub>O<sub>2</sub>: a *gem*-diol mechanism or a dual hydrogen abstraction mechanism?

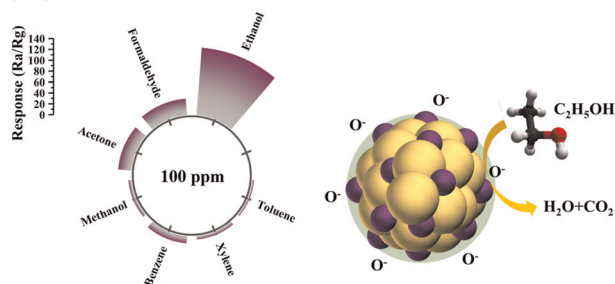
Shoujun Wang, Dongru Sun,\* Zhimin Wu, Yufen Zhao and Yong Wang\*





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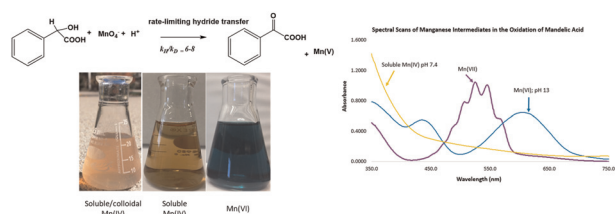
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Yang Mu, Zhenkai Zhang, Zhiguo Yang, Chen Yue, Zhenyue Liu, Davoud Dastan, Xi-Tao Yin\* and Xiaoguang Ma\*

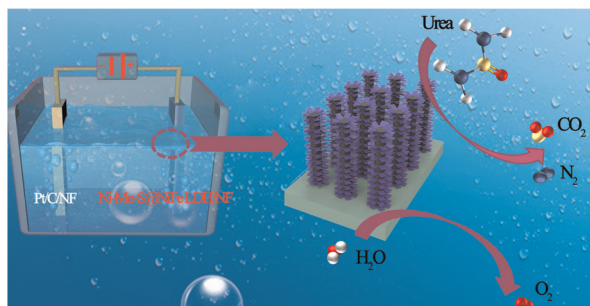
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### Pathways in permanganate oxidation of mandelic acid: reactivity and selectivity of intermediate manganese species

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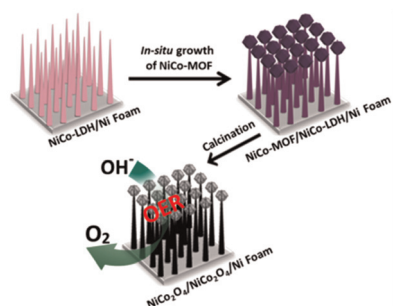
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### 1D/2D core–shell structure Ni–Mo–S@NiFe LDH grown on nickel foam: a bifunctional electrocatalyst for efficient oxygen evolution and urea oxidation reactions

Tengfei Zhang, Dan Xu, Ping Liu, Huan Liu, Long Chen, Tiantian Gu, Feng Yu, Yanyan Liu\* and Gang Wang\*

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### *In situ* growth of NiCo-MOF and the derived $\text{NiCo}_2\text{O}_4/\text{NiCo}_2\text{O}_4/\text{Ni}$ foam composite with a wire-penetrated-cage hierarchical architecture for an efficient oxygen evolution reaction

Xianchun Liu and Yan Xing\*

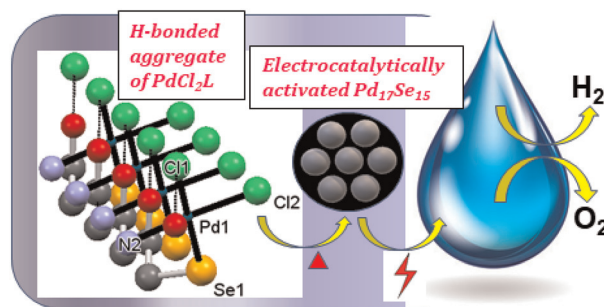


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### Hydrogen-bonded linear chain assemblies of palladium(II)-selenoether complexes: solid state aggregates as templates for nano-structural Pd<sub>17</sub>Se<sub>15</sub> leading to efficient electrocatalytic activity

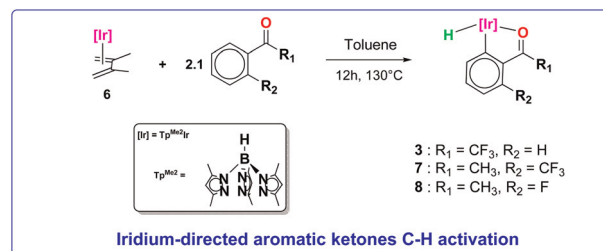
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### CH bond activation in aromatic ketones mediated by iridium-tris(pyrazolyl)borate complexes

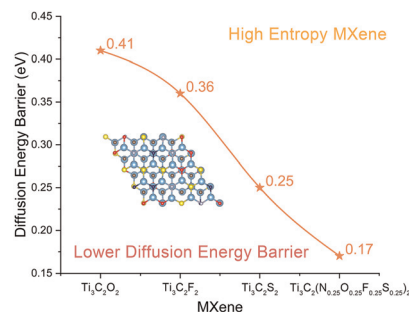
M. Ortiz-Hernández, V. Salazar-Pereda,\* D. Mendoza-Espinosa,\* M. A. Gomez-Bonilla, C. Cristobal, M. C. Ortega-Alfaro, A. Suárez and C. I. Sandoval-Chavez



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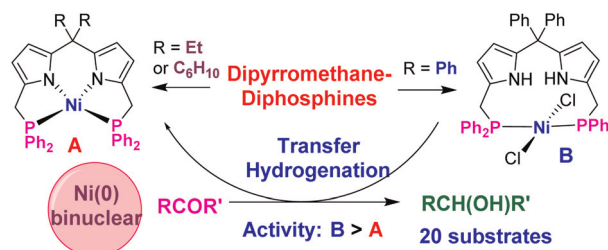
Ke Chen Li, Pengju Hao, Qian Zhang,\* Jianbo Zhang, Sydorov Dmytro and Yang Zhou\*



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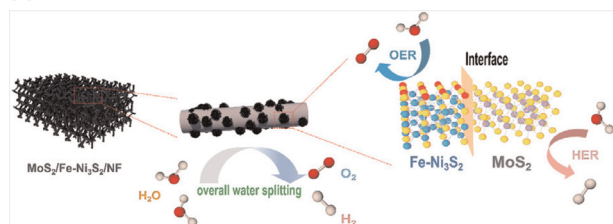
### Dipyrromethane–diphosphine: the effect of *meso* substituents on the formation of nickel complexes and on their performance in the transfer hydrogenation of ketones

Rohit Gupta, Ashok Kumar and Ganesan Mani\*



## PAPERS

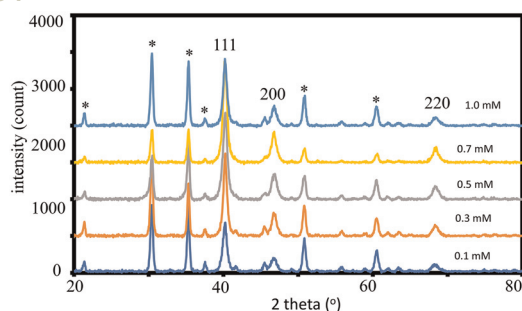
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### Ni(OH)<sub>2</sub>-derived lamellar MoS<sub>2</sub>/Ni<sub>3</sub>S<sub>2</sub>/NF with Fe-doped heterojunction catalysts for efficient overall water splitting

Minghao Dou, Mengjie Yao, Kai Ding, Yuye Cheng, Hongyu Shao, Shenjie Li\* and Yanyan Chen\*

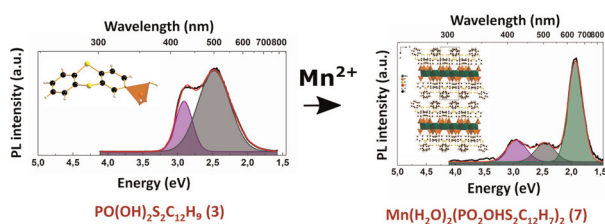
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### Iridium–palladium binary alloy as a counter electrode in dye-sensitized solar cells

N. A. S. Aziz, M. Y. A. Rahman,\* A. A. Umar and E. R. Mawarnis

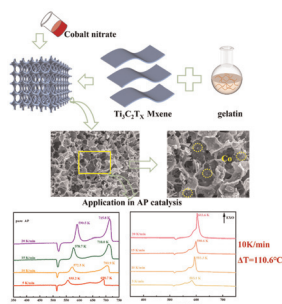
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### A new series of magnetic and luminescent layered hybrid materials obtained from thianthrene phosphonic acid: M(H<sub>2</sub>O)PO<sub>3</sub>-S<sub>2</sub>C<sub>12</sub>H<sub>7</sub> (M = Cu, Zn) and M(H<sub>2</sub>O)<sub>2</sub>(PO<sub>2</sub>OH-S<sub>2</sub>C<sub>12</sub>H<sub>7</sub>)<sub>2</sub> (M = Mn, Co)

Geoffrey Letheux, Parameshwari Ganesan, Fabien Veillon, Julien Varignon, Olivier Perez, Julien Cardin, Christophe Labbé, Guillaume Rogez, Mathilde Ligeour, Paul-Alain Jaffrès\* and Jean-Michel Rueff\*

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### Gelatin-modified MXene carbon aerogels for ammonium-perchlorate-catalyzed thermal decomposition

Yujie Yan, Bo Jin\* and Rufang Peng



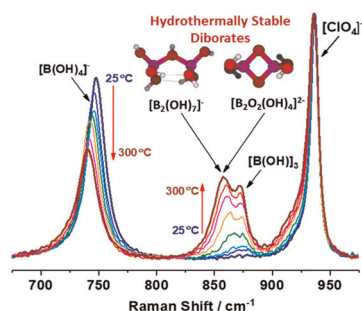


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### A Raman spectroscopic and *ab initio* investigation of aqueous boron speciation under alkaline hydrothermal conditions: evidence for the structure and thermodynamic stability of the diborate ion

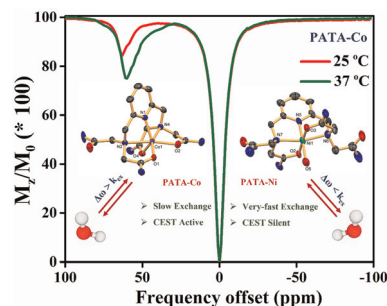
Swaroop Sasidharanpillai, Jenny S. Cox, Cory C. Pye and Peter R. Tremaine\*



18407

### Study of paraCEST response on six-coordinated Co(II) and Ni(II) complexes of a pyridine-tetraamide-based ligand

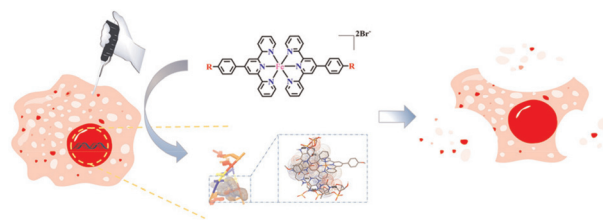
Suvam Kumar Panda, Ankit Rai and Akhilesh Kumar Singh\*



18416

### Fe(II) complexes of 2,2':6',2''-terpyridine ligands functionalized with substituted-phenyl groups: synthesis, crystal structures and anticancer potential

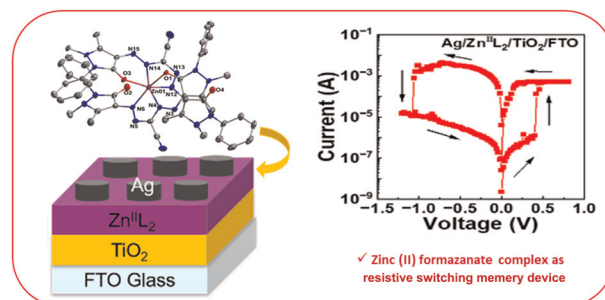
Dameng Sun, Xin Huang, Ruojun Man, Xinjie Jia, Xinluan Song, Sihan Wang, Xingyong Xue,\* Hongming Liu\* and Zhen Ma\*



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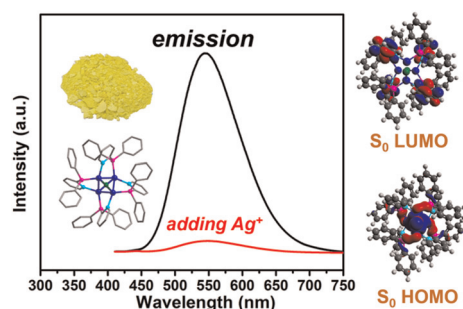
### Design and synthesis of a solution-processed redox-active bis(formazanate) zinc complex for resistive switching applications

Sunita Birara, Shalu Saini, Moumita Majumder,\* Prem Lama, Shree Prakash Tiwari\* and Ramesh K. Metre\*



## PAPERS

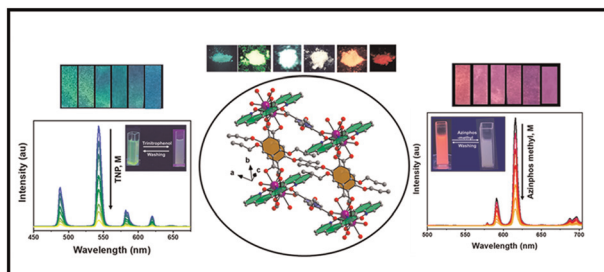
18442



### Large-scale synthesis, mechanism, and application of a luminescent copper hydride nanocluster

Tingting Xu, Endong Wang, Shuai Liu, Zhezhen Wei, Peiqun Yin, Jianan Sun, Wen Wu Xu\* and Yongbo Song\*

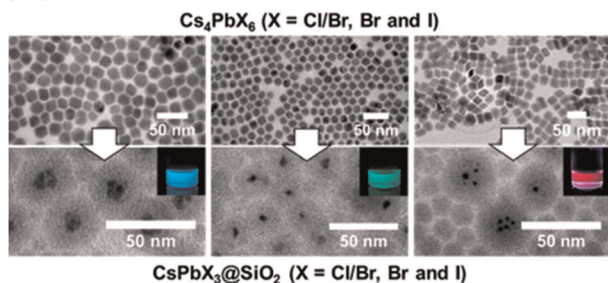
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### Turn-off luminescence sensing, white light emission and magnetic studies of two-dimensional lanthanide MOFs

Krishna Manna, Jean-Pascal Sutter\* and Srinivasan Natarajan\*

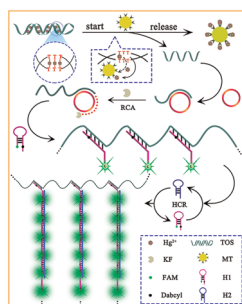
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### Water-assisted synthesis of stable and multicolored CsPbX<sub>3</sub>@SiO<sub>2</sub> core-shell nanoparticles as fluorescent probes for biosensing

Cynthia Collantes, William Teixeira, Victoria González-Pedro,\* María-José Bañuls, Pedro Quintero-Campos, Sergi Morais and Ángel Maquieira

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### A metal ion-coordinated DNA probe for sensitive fluorescence detection of metallothionein via a dual nucleic acid amplification strategy

Zihao Yin, Shunmei Li, Xiaoju Liu, Ruo Yuan and Yun Xiang\*

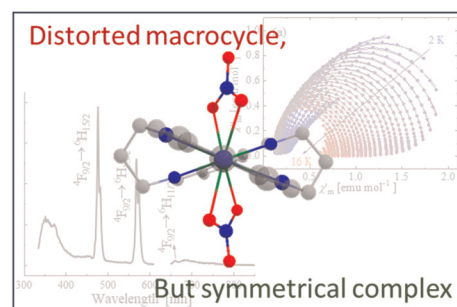


## PAPERS

18480

### Influence of symmetry on the magneto-optical properties of a bifunctional macrocyclic Dy<sup>III</sup> complex

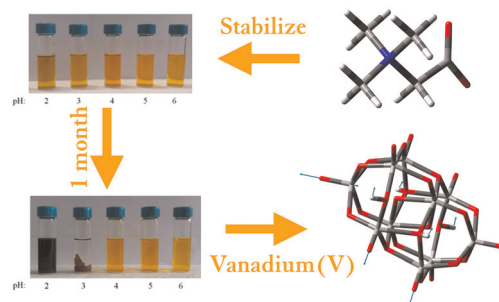
Yolimar Gil,\* Ricardo Costa de Santana, Andrés Vega, Daniel Aravena\* and Evgenia Spodine



18489

### Betaine mediated enhancement of thermal stability and acidity tolerance of vanadium(v) solutions

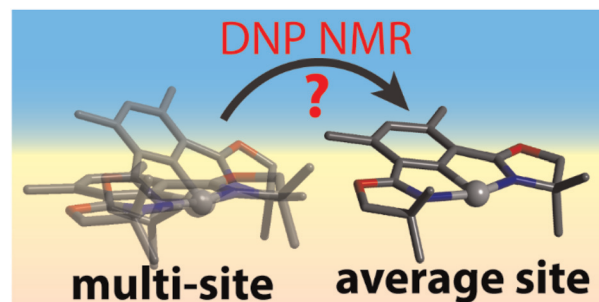
Luca Guglielmero,\* Andrea Mezzetta, Felicia D'Andrea, Lorenzo Guazzelli and Christian Silvio Pomelli\*



18502

### On the use of NMR distance measurements for assessing surface site homogeneity

Frédéric A. Perras\* and Damien B. Culver



18513

### Trigonal prismatic coordination geometry imparted by a macrocyclic ligand: an approach to large axial magnetic anisotropy for Co(II)

Eva Zahradníková, Jean-Pascal Sutter,\* Petr Halaš and Bohuslav Drahoš\*

