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Dalton Transactions

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Cover
See Shigehisa Akine, pp. 15364–15378.

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Inside cover
See Kogularamanan Suntharalingam, Alexander F. R. Kilpatrick *et al.*, pp. 15389–15394.

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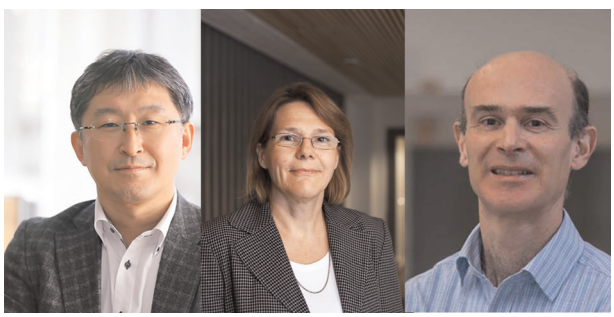
EDITORIAL

15361

Mixed-anion compounds

Teruki Motohashi, Maarit Karppinen and Simon J. Clarke

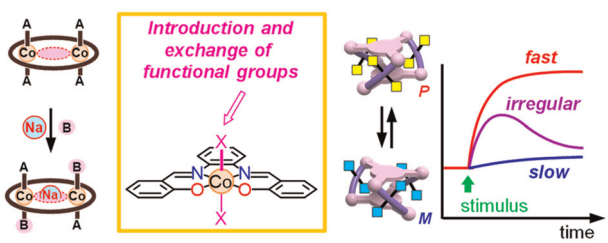


PERSPECTIVE

15364

Dynamic functions of bis- and tris(saloph) cobalt(III) structures based on axial coordination

Shigehisa Akine



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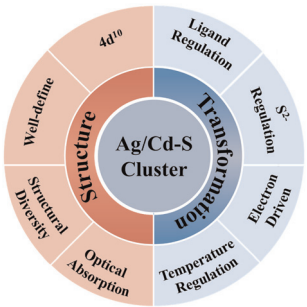
FRONTIER

15379

Ligand-protected silver–sulfur and cadmium–sulfur clusters: structures and transformations

Xin-Yu Tong, Yi-Jing Zeng, Yan-Xiang Ling, Ju-Suo Zhong, Zhan-Guo Jiang* and Cai-Hong Zhan*

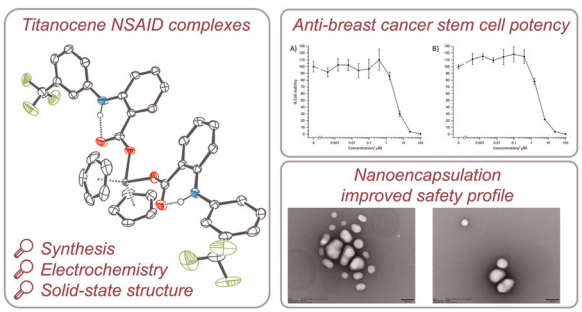


COMMUNICATIONS

15389

Anti-breast cancer stem cell activity of titanocene complexes of non-steroidal anti-inflammatory drugs

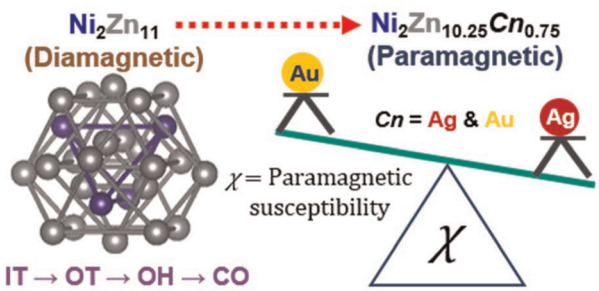
Olympia Mouriki, Ginevra Passeri, Karampal Singh, Sarah D. Lamorte, Kuldip Singh, Kogularamanan Suntharalingam* and Alexander F. R. Kilpatrick*



15395

Site-specific substitution in the structure of Ni_2Zn_{11} by the coinage metals (*Cn* = Ag and Au) to alter the magnetism

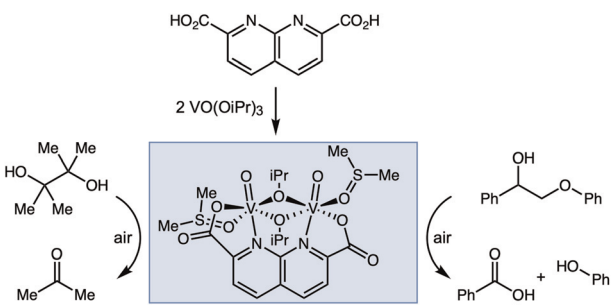
Amit Mondal, Siddha Sankalpa Sethi, Jayanta Dutta, Rahul Pan, Sandip Kumar Kuila, Weiwei Xie, Ahin Roy and Partha Pratim Jana*



15400

Cooperative enhancement of redox catalysis in divanadium complexes binucleated by 1,8-naphthyridine-2,7-dicarboxylate

Simran Simran, Maxym Tansky, Seth Trabulsi, Liangzi Deng, Ching-Wu Chu, Andrew Ozarowski and Robert J. Comito*



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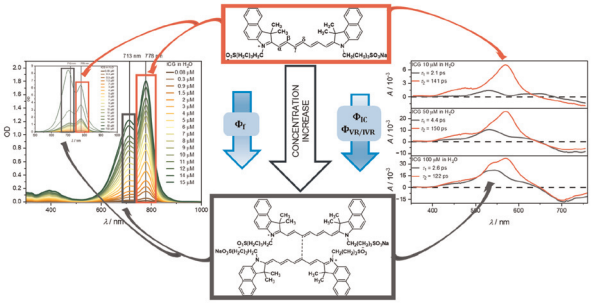
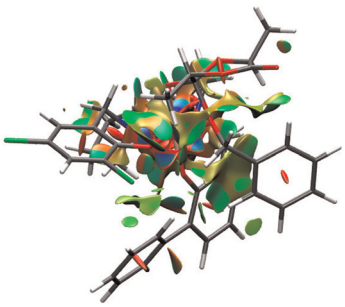
15406



ICG revisited: excited-state dynamics as a function of dye concentration and solvent environment

Maria T. Lahm, Pascal Rauthe, Kai-Ching Fan, Claus Feldmann and Andreas-Neil Unterreiner*

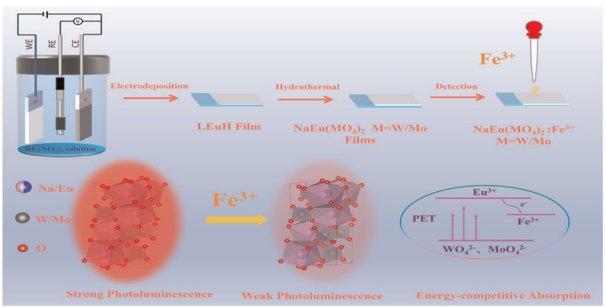
15416



Stereoselective ring opening polymerization of lactide using chiral aluminum salan catalysts

Samuel A. Fosu and Bess Vlaisavljevich*

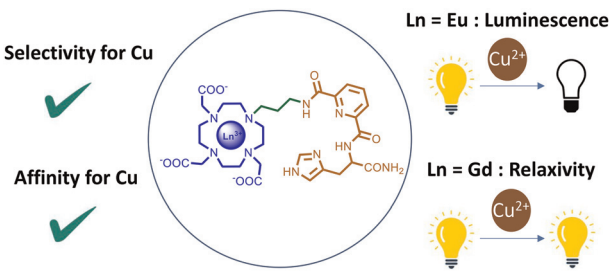
15424



Synthesis of europium-based fluorescent films for high-sensitivity detection of iron ions *via* layered precursor anion exchange

Lu He, Sen Qin, Haoxuan Zeng, Ziyuan Li, Qiao Liang, Xin Hu and Xiaoli Wu*

15432



Lanthanide complexes bearing a bioinspired Cu^{II} binding site with picomolar affinity: synthesis, structural, relaxometric and luminescence studies

Katharina Zimmeter, Bertrand Vileno, Agnès Pallier, Carlos Platas-Iglesias, Peter Faller, Célia S. Bonnet* and Angélique Sour*

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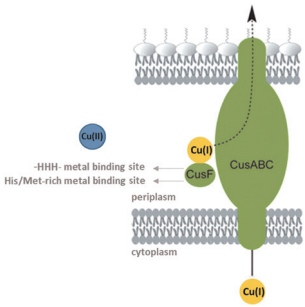
15441

Two sites, two stories: sequence-driven divergence in Cu(II) and Zn(II) binding to CusF

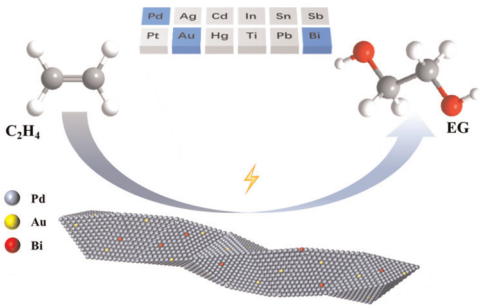
Michał Pakowski and Aleksandra Hecel*



15455

Regulating hydroxyl species over Pd-based nanowires towards enhanced direct electrooxidation of ethylene to ethylene glycol

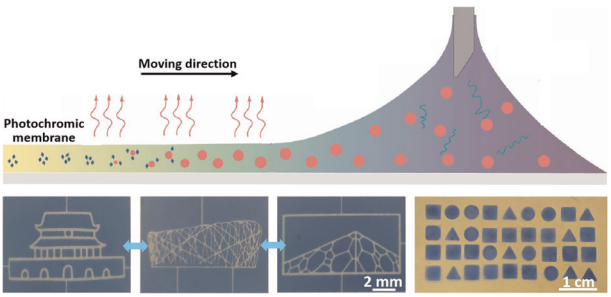
Shengyu Hu, Cuiyu Li, Hui Jin, Dandan Sun, Yachong Wang, Jie Cao, Qiaoli Chen* and Yihan Zhu



15461

Inkless rewritable paper enabled by a scalable photochromic membrane

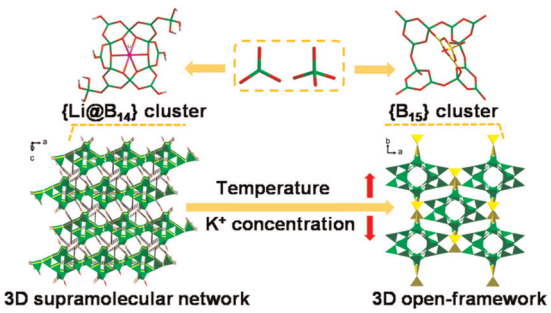
Junchao Liu,* Chenfang Zhang, Tianyu Huang, Xusheng Guo,* Zhenxin Kuang, Rongwei Kou, Zhong Yu, Pan Jia and Jingxia Wang*



15468

Two alkali metal borates built by {Li@B_{14}} and {B_{15}} cluster units

Ming-Zhao Li, Dan Qin, Juan Chen, Qi Wei and Guo-Yu Yang*



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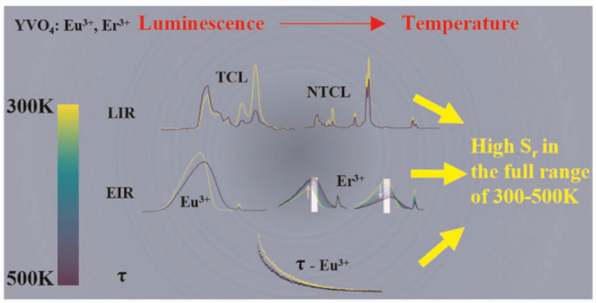
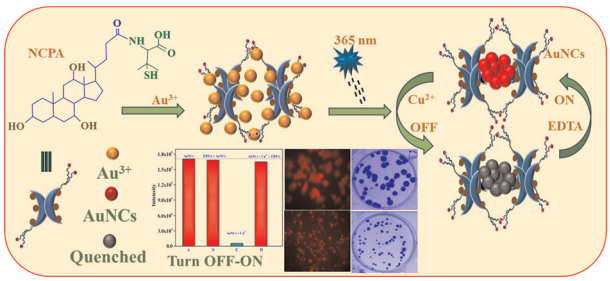
15474



Multimodal synergistic thermometry: designing wide-range optical thermometers *via* Eu^{3+}/Er^{3+} co-doped YVO_4

Ziyuan Li, Qiao Liang, Lu He and Xiaoli Wu*

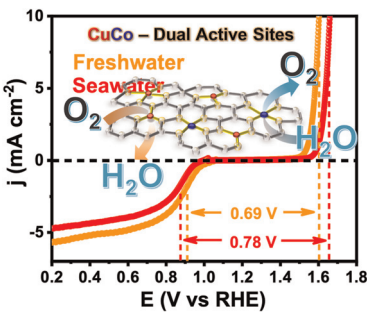
15483



NCPA-templated red-emitting gold nanoclusters: a turn-off–on fluorescent probe for rapid and selective detection of Cu^{2+} ions in live cells and evaluation of anticancer activity

Manikandan Elumalai, Gopinath Nagaraj, Sankar Ganesh Ramaraj,* Elangovan Vellaichamy, Hitoshi Tabata and Nagappan Rajendiran*

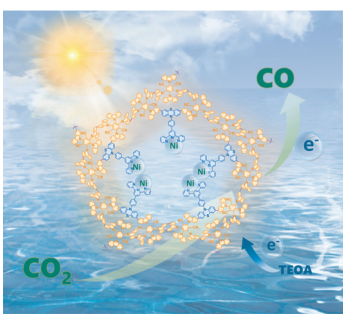
15500



Atomically dispersed Co–Cu dual active sites in carbon networks as an efficient oxygen electrocatalyst

Nibedita Sinha, Chandni Das, Santanu Pal, Rajashri R. Urkude, Tanbir Ahmed, Biplab Ghosh and Poulomi Roy*

15512



Porous organic polymers containing organic photosensitizers and metal–terpyridine molecules for efficient aqueous CO_2 photoreduction

Youting Fang,* Linfeng Sun, Yilin Xue and Duobin Chao*

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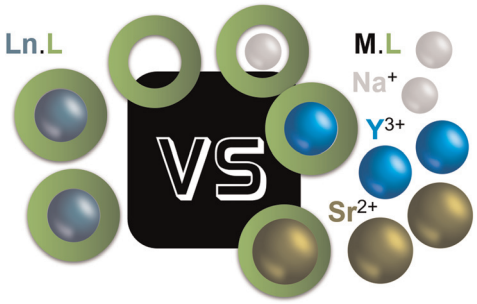
15519

Investigating lanthanide complex stability through kinetic and thermodynamic competition with metal ions and DTPA

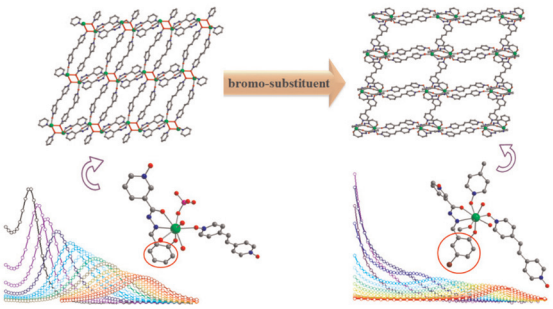
Vasileios Mouchtouris and Thomas Just Sørensen*



15529

Effect of a bromo-substituent on the magnetization dynamics of dysprosium coordination polymers constructed using a hybrid-ligand concept

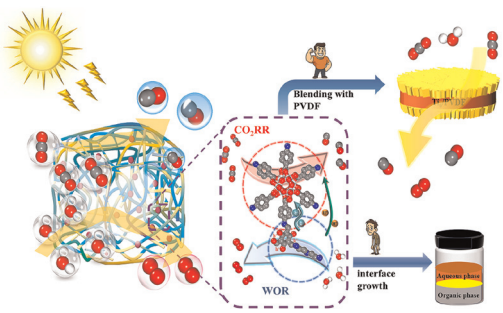
Fang Ma, Lei Zhang, Chan Yang, Zhen-Na Huang, XiaoXiao Huang* and Hao-Ling Sun*



15537

Design of titanium-oxide cluster-based metal-covalent organic frameworks for efficient photocatalytic CO_2 reduction

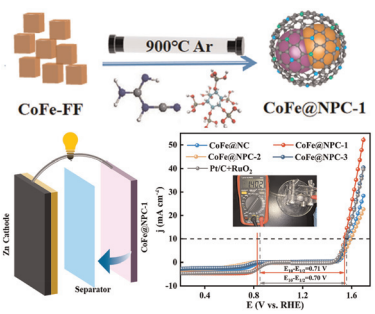
Teng Liu, Yao-Mei Fu, Xing Meng,* Li Xue, Hai-Ning Wang and Zhong-Min Su



15544

CoFe-FF derived CoFe alloy@N,P-doped carbon composites: preparation and zinc–air battery performance evaluation

Feng Wen, Qihao Wu, Heju Gao, Chunyan Wu, Guancheng Xu* and Li Zhang*



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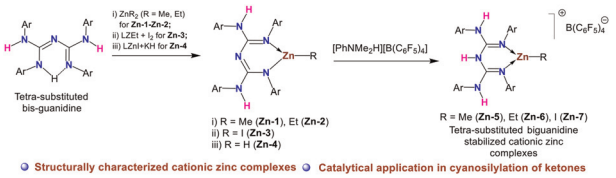
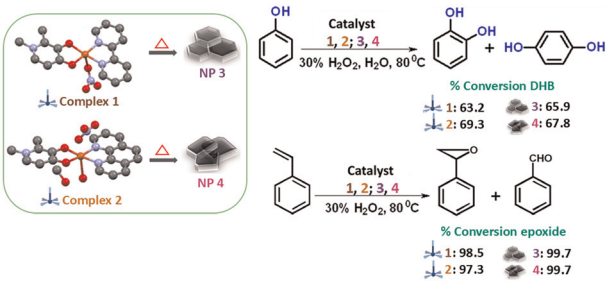


Bulky bis-guanidine ligand-based neutral and cationic zinc alkyl, halide, and hydride complexes: synthesis, characterization, and catalytic application

Rajata Kumar Sahoo, Sayantan Mukhopadhyay, Sagrika Rajput, Achintya Jana and Sharanappa Nembenna*

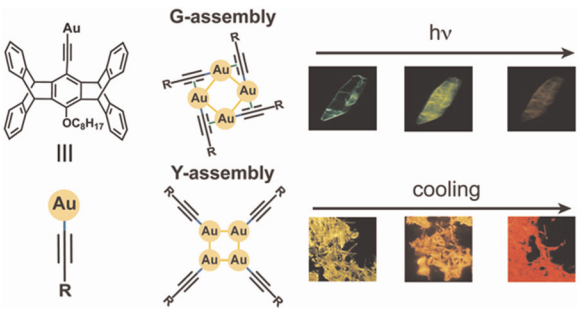
15561



Mixed ligand Cu(II) complexes as new precursors for the synthesis of CuO nanomaterials: development of homogeneous and heterogeneous catalysts for styrene epoxidation and phenol hydroxylation under mild conditions

Mitu Sharma,* Mukesh Sharma, Sazida Yasmin Sultana, Mallayan Palaniandavar* and Nashreen S. Islam*

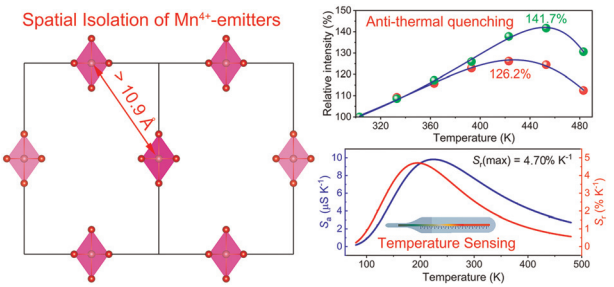
15581



Assembly-dependent thermochromic and photochromic luminescence in pentiptycene-based homoleptic gold(I) alkynyl clusters $[(AuC{\equiv}CR)_n]$

Ying-Feng Hsu, Shih-Ying Cheng, Che-An Cheng, Yu-Hsuan Kang, Yi-Hung Liu, Kien Voon Kong* and Jye-Shane Yang*

15588



$(Sr_3Ca_4)(Ca_2Ga_6)O_{18}:Mn^{4+}$: crystallographic spatial isolation enables high doping levels, exceptional anti-thermal quenching, and promising temperature sensing applications

Yaxin Xu, Xiangxiang Jing, Jia Yang, Zien Cheng, Rihong Cong, Tao Yang* and Pengfei Jiang*

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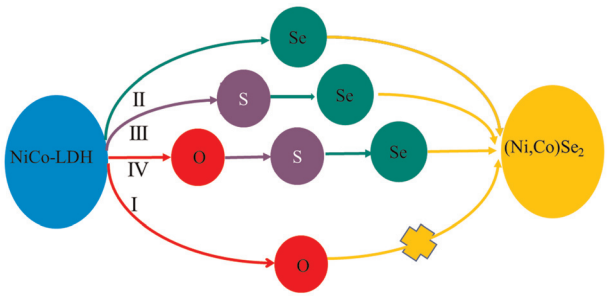
PAPERS

15601

Using a sequential synthesis approach to fabricate (Ni,Co)Se_2 electrodes for high-performance supercapacitors

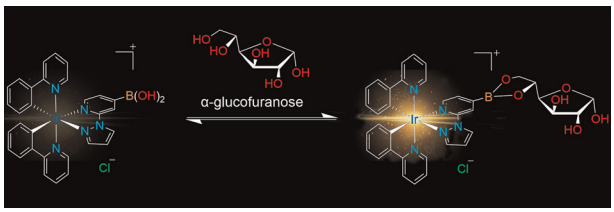
Yi Wang, Sicong Zhang, Qingfeng Zhan, Jingce Bi, Ningning Liu, Xia Zhang, Zhuopeng Wang and Yide Han*



15609

Luminescent iridium(III) complexes bearing boronic acid groups: potential sensors for carbohydrates

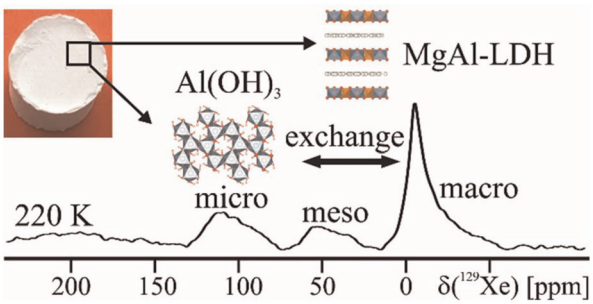
Rahad Rahman, Nurul H. Quazi, Keith F. White, Nicolau Saker Neto, Yuning Hong, Marcel Maeder, David J. D. Wilson and Peter J. Barnard*



15623

Phosphate recovery using porous monolith MgAl-LDH: insights from NMR spectroscopy, physisorption and microscopy

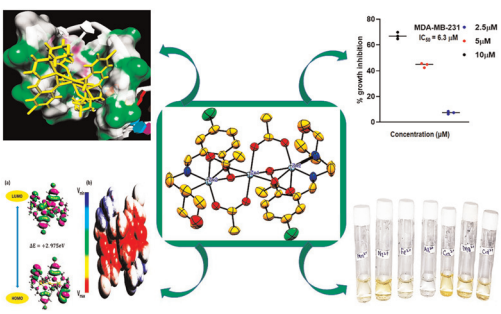
Kamilla Thingholm Bünning, Per Morgen, Claude Forano, Vanessa Prevot, Anne Selent, Ville-Veikko Telkki, Anu M. Kantola* and Ulla Gro Nielsen*



15637

An acetate bridged centrosymmetric trinuclear Zn(II) cluster: structural insights, biomolecular interactions, sensing and cytotoxic activity

Imtiyaz Ahmad Mantoo, Masrat Bashir, Mushtaq Ahmad Nengroo, Shahnawaz Ali Bhat and Imtiyaz Yousuf*



CORRECTION

15655

Correction: Collapse or capture? Guest-induced response of two structurally distinct pillared-MOFs upon exposure to pyridines and quinolines

Dario Giovanardi, Giorgio Cagossi, Pavel N. Zolotarev, Paolo P. Mazzeo, Alessia Bacchi, Lucia Carlucci, Davide M. Proserpio and Paolo Pelagatti*

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