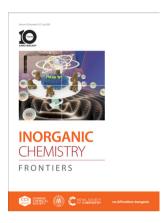
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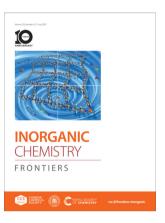


#### Cover

See Jicheng Zhou, Wentao Xu *et al.*, pp. 3808–3820.

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#### Inside cover

See Shi-Qiang Wang, Michael J. Zaworotko *et al.*, pp. 3821–3827.

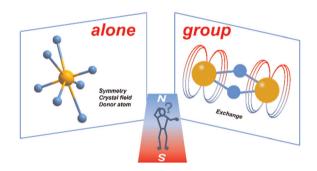
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# Actinide-based single-molecule magnets: alone or in a group?

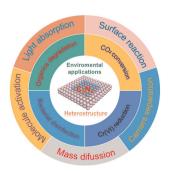
Ming Liu, Xiao-Han Peng, Fu-Sheng Guo\* and Ming-Liang Tong\*



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# Emerging heterostructured $C_3N_4$ photocatalysts for photocatalytic environmental pollutant elimination and sterilization

Yang Ding, Chunhua Wang, Lang Pei, Soumyajit Maitra, Qinan Mao, Runtian Zheng, Meijiao Liu, Yun Hau Ng, Jiasong Zhong,\* Li-Hua Chen\* and Bao-Lian Su\*



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### **REVIEWS**

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Halide perovskite photovoltaic-electrocatalysis for solar fuel generation

Jin Wook Yang, You Jin Ahn, Deok Ki Cho, Jin Young Kim\* and Ho Won Jang\*

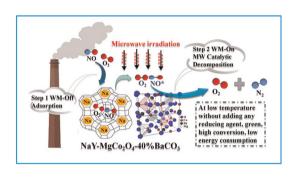


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Highly effective and energy-saving removal of NO through an adsorption-microwave catalytic decomposition method under complex flue gas at low temperature

Chunmu Yu, Yuhan Yi, Jicheng Zhou\* and Wentao Xu\*



#### 3821

The impact of solution vs. slurry vs. mechanochemical syntheses upon the sorption performance of a 2D switching coordination network

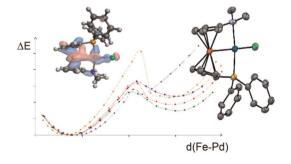
Shi-Qiang Wang,\* Shaza Darwish and Michael J. Zaworotko\*



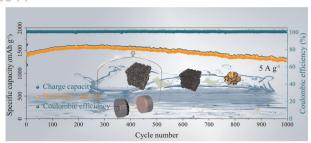
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Tailoring the Fe → Pd interaction in cationic Pd(II) complexes via structural variation of the ligand scaffold of sterically demanding dppf-analogs and their P,N-counterparts

Subhayan Dey, Fabian Roesler, Clemens Bruhn, Zsolt Kelemen\* and Rudolf Pietschnig\*

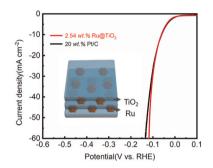


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## Highly efficient sulfur cathode built from biomass of hierarchical porous carbon for aqueous Cu-S batteries

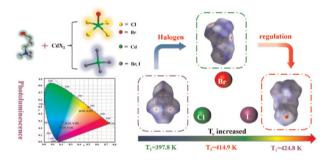
Xue Han, Jiaxi Xu, Haoxiana Yu, \* Junwei Zhana, Yiwen Liu, Junyi Wang, Zhouxiang Wu, Zhongjie Shu,\* Lei Yan, Liyuan Zhang and Jie Shu\*



# Unique sandwich structure of Ru@TiO2: salicylic acid micro-etching from K2Ti2O5 and highperformance electrocatalytic hydrogen evolution

Yuge Cao, Song Liang, Ya Yan, Wujie Dong, Chenlong Dong, Wangshu Zheng, Shuying Nong\* and Fuqiang Huang\*

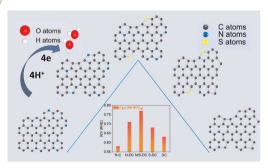
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# Halogenation triggering rules in hybrid materials for fluorescence and dielectric phase transitions

Jun-Qin Wang, Gele Teri, Hao-Fei Ni, Qing-Feng Luo, Xiao-Ping Wang, Da-Wei Fu,\* Yi Zhang\* and Qiang Guo\*

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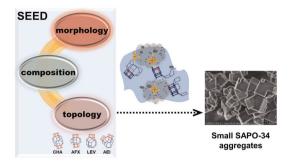
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Insights on the seed selection criteria of SAPO-34 synthesis: structural units and their chemical microenvironment

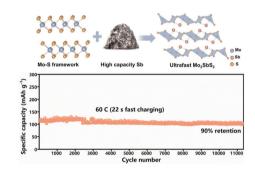
Xiaosi Zhang, Miao Yang,\* Ye Wang, Caiyi Lou, Shutao Xu, Peng Tian\* and Zhongmin Liu



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Anchoring atomic antimony in an intercalative Mo-S framework via soft covalent bonding for fast-charging and long-lived sodium ion batteries

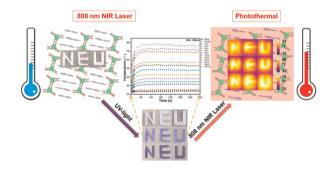
Baixin Peng, Zhuoran Lv, Yuqiang Fang, Tianxun Cai, Zhiyuan Shi, Ce Zhou, Yusha Gao and Fuqiang Huang\*



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Photoinduced radicals modulated NIR photothermal conversion in a photochromic inorganic-organic complex

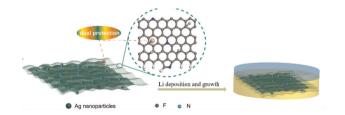
Zhe Wang, Tiegiang Wang, Junbiao Wu,\* Zhuopeng Wang and Jiyang Li\*

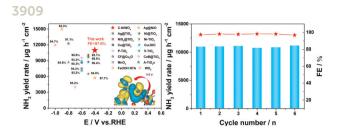


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A dual protection strategy for stable lithium metal anodes using Ag nanoseed decorated F-doped porous graphene current collectors

Yang Yan,\* Jing Sun, Ying Zhang, Wen Liu, Yu-jie Wang, Hui-qin Yang, Cheng-jie Li and Juan Zhang\*

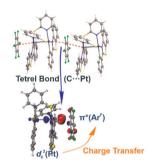




NiWO<sub>4</sub> nanoparticles with oxygen vacancies: high-efficiency electrosynthesis of ammonia with selective reduction of nitrite

Hang Qiu, Qiuyue Chen, Jing Zhang,\* Xuguang An, Qian Liu, Lisi Xie, Weitang Yao, Xuping Sun\* and Qingquan Kong\*

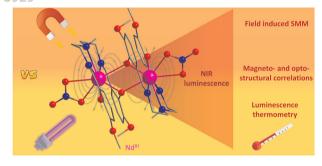
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Metal-involved  $C \cdots d_{z^2}$ -Pt<sup>II</sup> tetrel bonding as a principal component of the stacking interaction between arenes and the platinum(II) square-plane

Eugene A. Katlenok,\* Maxim L. Kuznetsov, Anton V. Cherkasov, Dmitry M. Kryukov, Nadezhda A. Bokach and Vadim Yu. Kukushkin\*

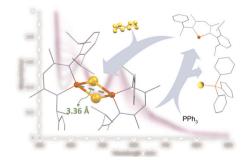
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The role of terminal ligands in the slow relaxation of magnetisation and luminescence thermometry of dinuclear Nd<sup>III</sup> complexes

Airton G. Bispo-Jr, Diogo A. Gálico, Roberto M. Diaz-Rodriguez, Jeffrey S. Ovens, Fernando A. Sigoli\* and Muralee Murugesu\*

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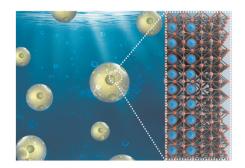
Synthesis, kinetic studies, and atom transfer reactivity of [2Fe-2E] model compounds

Erwin A. Weerawardhana, Matthias Zeller and Wei-Tsung Lee\*

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Engineering heterostructured Ti<sub>4</sub>O<sub>5</sub>/BaTiO<sub>3</sub> ferroelectric by surface reconstruction for enhanced photocatalytic CO2 reduction

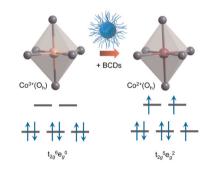
Ran Su. Zhitong Sun. Chao He. Suna Wei. Laniu Chen. Dawei Zhang, Zhipeng Wang,\* Xingtao An\* and Fatang Li\*



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Regulating the spin density of Co<sup>III</sup> using boron-doped carbon dots for enhanced electrocatalytic nitrate reduction

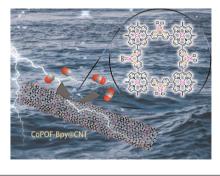
Jingjing Huang, Jingkun Yu, Xingmei Lu, Yingying Wei, Haoqiang Song, Ang Cao, Jinmeng Cai,\* Shuang-Quan Zang and Siyu Lu\*



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A supported polymeric organic framework composed of dual electrocatalytically active sites for high-performance carbon dioxide electroreduction

Shengsheng Huang, Qizhe He, Hongwei Li, Jinjie Qian,\* Wei Xu and Ting-Ting Li\*



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Enhanced radioluminescence of NaLuF<sub>4</sub>:Eu<sup>3+</sup> nanoscintillators by terbium sensitization for X-ray imaging

Tianshe Yang, Luo Guo, Hao Wang, Xueli Xu, Peilin Wu, Ning Zhang, Xiangmei Liu, Shujuan Liu\* and Qiang Zhao\*

