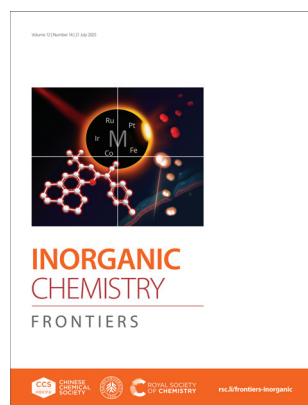


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#### Cover

See Vicente Marchán, José Ruiz *et al.*, pp. 4355–4375.

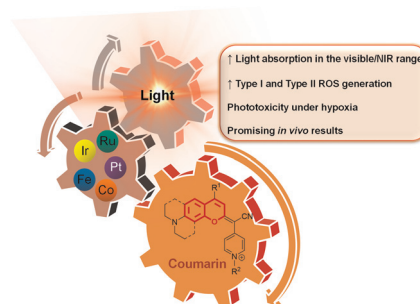
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### REVIEW

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#### Metal–coumarin derivatives as promising photosensitizers: unlocking their cancer phototherapy potential

Gloria Viguera, Eduardo Izquierdo-García, Elena de la Torre-Rubio, Diego Abad-Montero, María Dolores Santana, Vicente Marchán\* and José Ruiz\*

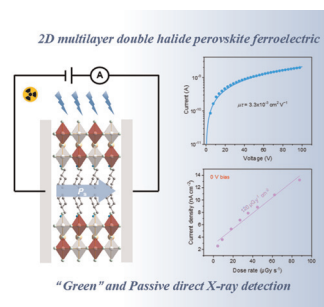


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#### Multilayered double perovskite ferroelectric for green high-performance self-powered X-ray detection

Zhangtong Han, Qianwen Guan, Huang Ye,\* Yi Liu, Jianbo Wu, Lijun Xu, Chengshu Zhang, Hang Li, Qiuxiao Yin and Junhua Luo\*



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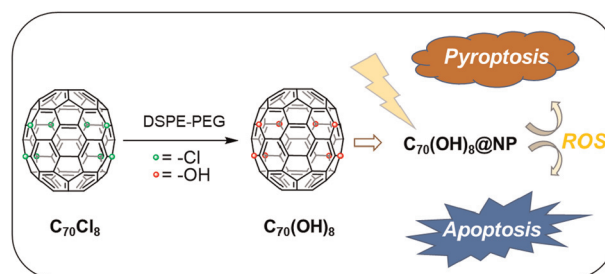
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## RESEARCH ARTICLES

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**Hydroxyl-modified fullerene  $C_{70}(OH)_8$  induces pyroptosis for cancer therapy**

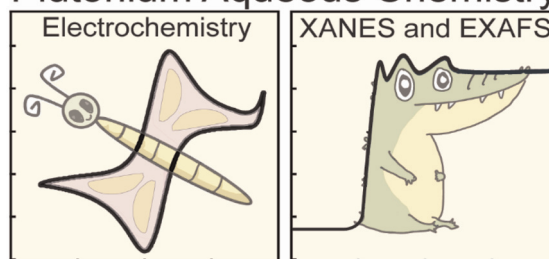
Hang Zhang, Zhen Liu, Xiao-Fei Zhu, Jun-Long Zhang\* and Liangbing Gan\*



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**Insights for controlling plutonium behavior in hydrochloric acid solutions**

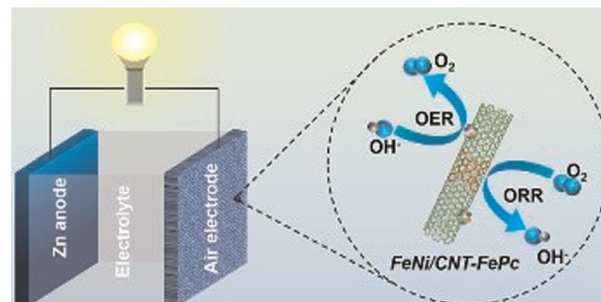
Yufei Wang, Natalie T. Rice, Julia G. Knapp, Sara L. Adelman, Kelly E. Aldrich, Brian T. Arko, Manuel L. Besmer, J. Connor Gilhula, Christopher J. Godt, Jan Klouda, Stosh A. Kozimor,\* Brian N. Long, Molly M. MacInnes, Travis Marshall-Roth, Alexandra L. Nagelski and Ida D. Piedmonte

**Plutonium Aqueous Chemistry**

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**Carbon-nanotube wall nanoengineering strategy to stabilize FeNi nanoparticles and Fe single atoms for rechargeable Zn–air batteries**

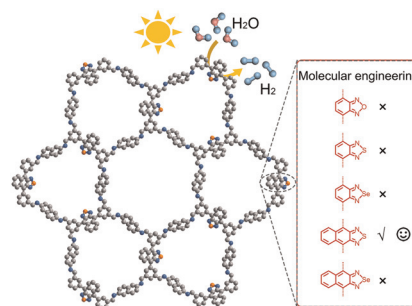
Yi-Yin Yang, Lin He, Peng-Fei Xie, Peng Dong, Hao Quan, Tao Li, Lingzhe Fang, Dong Feng, Yubo Xing\* and Jin-Cheng Li\*



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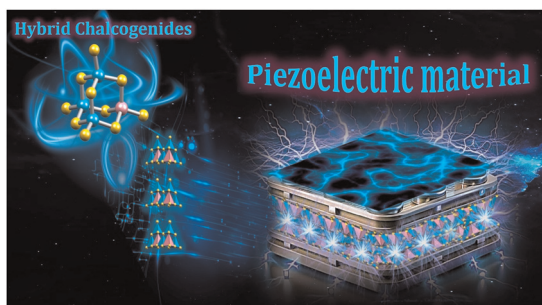
**Linker engineering of covalent organic frameworks for efficient photocatalytic hydrogen evolution**

Xu Ding, Xin Zhou, Xiao Wang, Hailong Wang\* and Jianzhuang Jiang\*



## RESEARCH ARTICLES

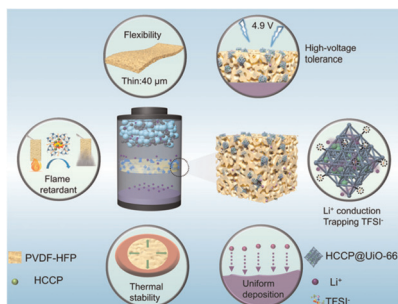
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### Surfactant-assisted synthesis of semiconductor hybrid Cd/Hg-selenidostannates with enhanced optoelectronic and piezoelectric properties

Mohamed Saber Lassoued, Yue-Qiao Hu,\*  
Ahmad Faizan and Yan-Zhen Zheng\*

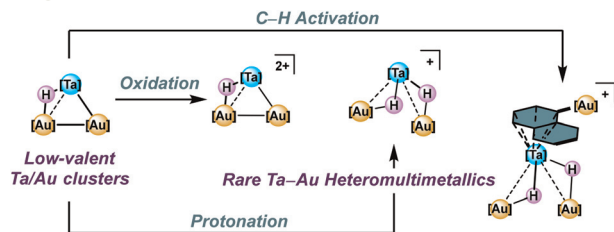
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### Achieving multifunctional MOF/polymer-based quasi-solid electrolytes via functional molecule encapsulation in MOFs

Xu Li, Hongwei Pan, Guijie Yin, Yang Xiang, Xitao Lin,  
Zhu Liu, Yinzhu Jiang, Qun Hui,\* Xuan Zhang\* and  
Maowen Xu\*

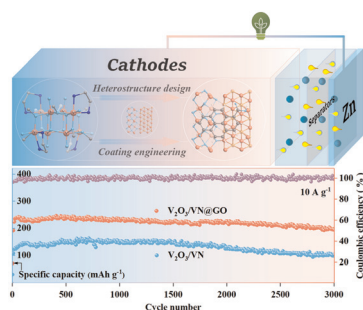
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### Low-valent tantalum/gold clusters: oxidation, protonation, and C–H activation

Michela L. Maiola and Joshua A. Buss\*

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### Construction of V<sub>2</sub>O<sub>3</sub>/VN@GO heterojunction cathodes derived from polyoxovanadates for high-performance aqueous zinc ion batteries

Feng Gong, Wen-Fei Di, Yong-Jia Ding, Si-Yu Chen,  
Yun-Xiang Zhou, Rui Zhang,\* Dunmin Lin and Yu Huo\*

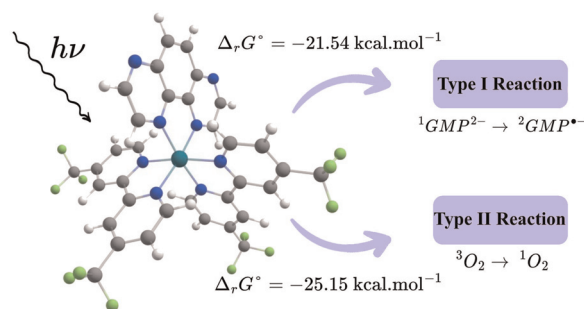


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### Exploring the photophysics and excited state reactivity of $[\text{Ru}(4,4'\text{-BTFMB})_2(\text{L})]^{2+}$ complexes (L = bpy, phen, TAP) as photodynamic therapy agents: a theoretical investigation

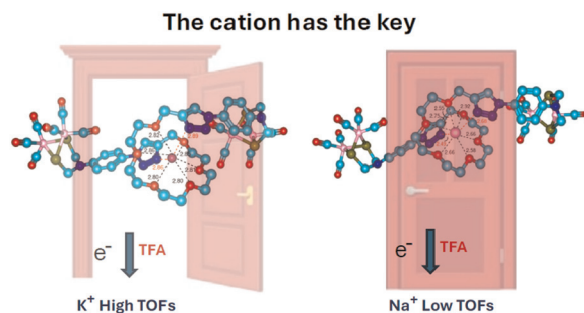
Sandy Veríssimo Morais Quintão, Aline de Souza Bozzi and Willian Ricardo Rocha\*



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### Exploring protonation sites with cation-responsive polyethylene glycol (PEG) tethers in $[\text{FeFe}]\text{-hydrogenase}$ mimics

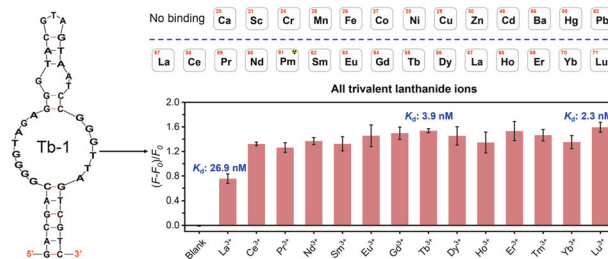
Alejandro Torres, Sergio Aguado, Alba Collado, Elena Sáez, Mar Gómez-Gallego and Miguel A. Sierra\*



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### A DNA aptamer for trivalent lanthanide ions with low nanomolar affinity

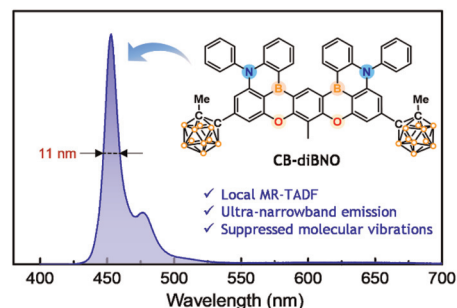
Jin Wang, Xin Wang, Xuesong Li, Xiangmei Li, Hongtao Lei and Juewen Liu\*



4503

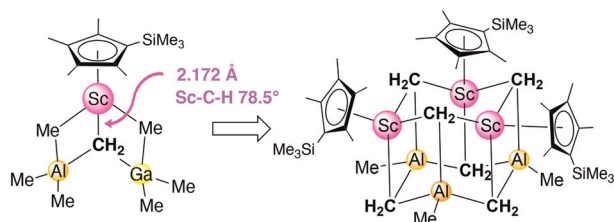
### *o*-Carborane decorated diboron-embedded multi-resonance TADF compounds featuring narrowband emission

Nhi Ngoc Tuyet Nguyen, Rafi Muhammad Lutfi, Taehwan Lee, Jaehoon Jung\* and Min Hyung Lee\*



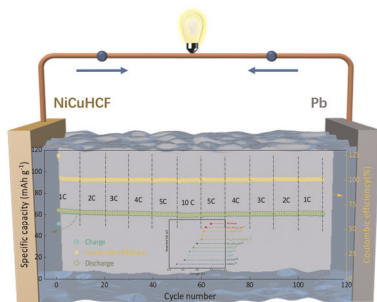
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**Half-sandwich scandium methylenes**

Gernot T. L. Zug, Sylvia A. Zeiner, Jonas Reuter, Hartmut Schubert, Cäcilia Maichle-Mössmer and Reiner Anwander\*

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**A novel dual-ion desalination battery system**

Baiming Su, Xinran Li, Chaoyi Qiu, Zhiwei Chen, Junqiang Deng, Zhichao Wang, Fei Jin, Lei Yan, Haoxiang Yu\* and Jie Shu\*

