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Inside cover
See Hui *et al.*, pp. 8399–8403. Image reproduced by permission of Chang-ye Hui from *Chem. Commun.*, 2026, **62**, 8399.

FEATURE ARTICLES

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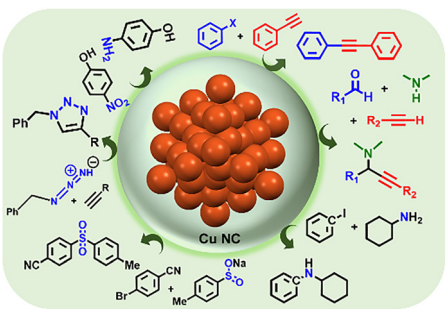
Copper nanoclusters with atomic precision as catalyst for organic reactions

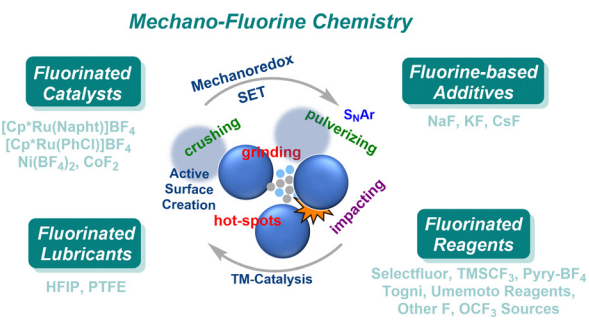
Rupa Sarma, Sourav Mandal, Dipanwita Rout, Mandira Ghosh, Tokuhisa Kawawaki, Sourav Biswas* and Yuichi Negishi*



8327

When mechanochemistry meets fluorine

Vishal B. Purohit, Ronak V. Prajapati, Vaibhav D. Prajapati, Dmitry Katayev, Satenik Mkrtchyan* and Viktor O. Iaroshenko*



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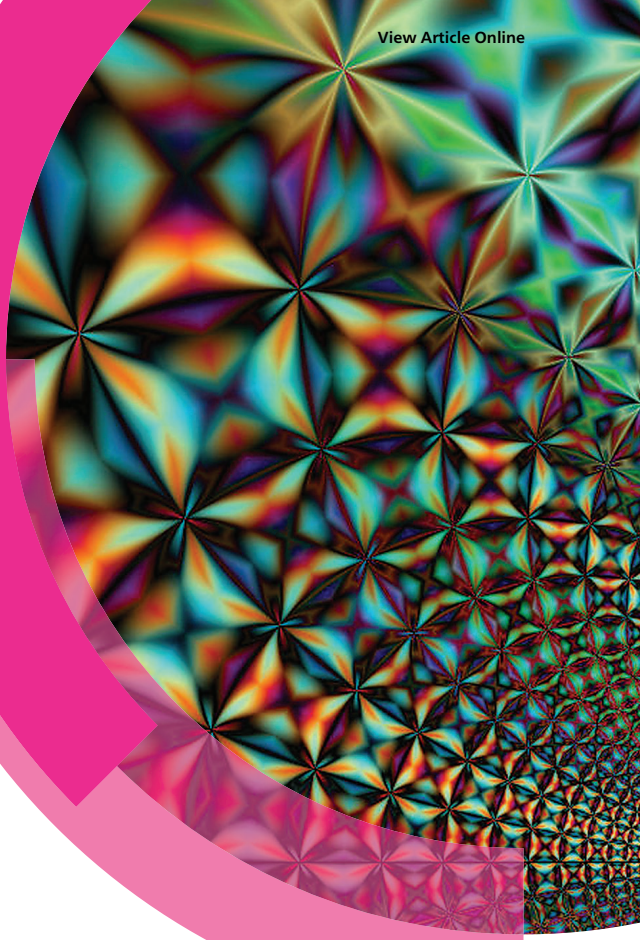

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REVIEWS

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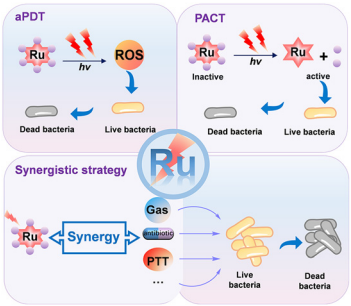
Ru(II) complexes in antibacterial phototherapy: emerging strategies for combating bacterial infections

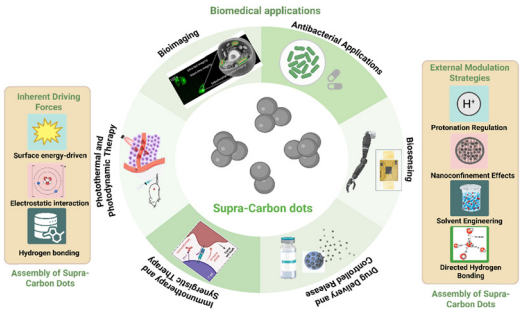
Qipeng Yuan, Jiayan Huang, Kangqi Guan, Xia Zhou, Ying Xiong, Siping Wei,* Lin Yang* and Yao Jian*



8361

Review of supra-carbon dots: from functional modification to biological applications

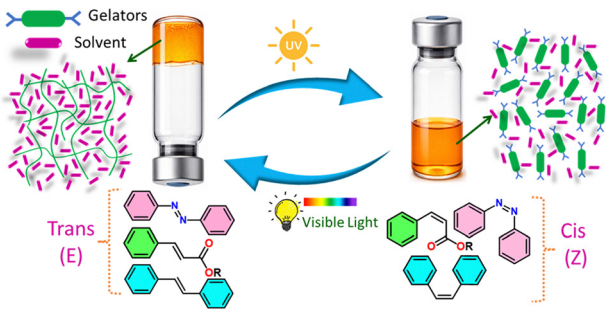
Xue Wu, Yupeng Liu, Caishi Huang* and Songnan Qu*



8374

Advances in functional photoisomerisable low-molecular-weight π-gelators

Tufan Singha Mahapatra,* Mukta Gan Choudhuri, Sourav Ghosh and Saheli Roy



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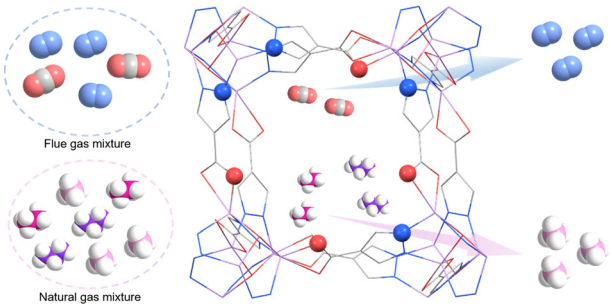
N/O-functionalized MOFs with nonpolar channels for efficient natural gas purification and carbon capture

Weiwei Xu, Xing-Zhe Guo, Nan Ma, Zihao Xing,* Jiantang Li* and Jinfa Chang*



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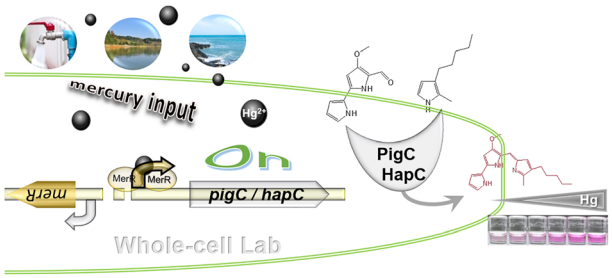

A prodigiosin-based whole-cell biosensor for sensitive colorimetric detection of Hg(II)

Peishuo Cao, Yan Guo,* Jingwen Ling, Jiao Bai, Xueqin Yang, Liang Zhou* and Chang-ye Hui*

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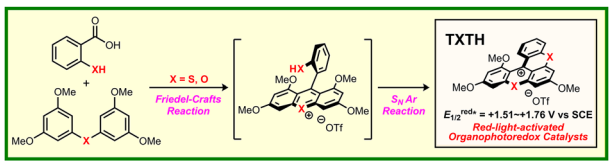

Synthesis of sulfur- and oxygen-bridged cationic [4]-helicenes mediated by Friedel–Crafts-S_NAr tandem reactions for red-light-driven organophotoredox catalysis

Ryoga Hasebe, Rumi Hanada, Yuta Tanaka, Yuta Goto, Mio Takeuchi, Hiroyoshi Takamura, Isao Kadota,* Kenta Tanaka* and Yujiro Hoshino*

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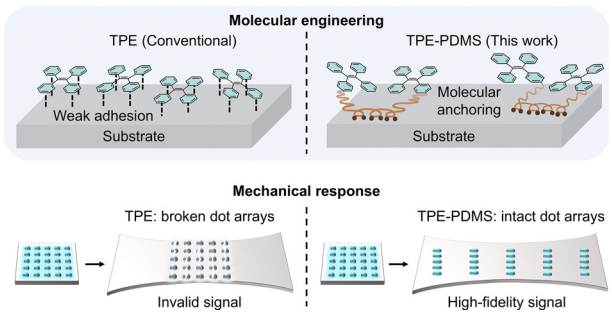

Molecularly anchoring TPE-PDMS micro-dots for rupture-free and high-fidelity deformation mapping

Wenbo Wang, Zhihao Zhao, Xiaohan Sun, Lingyun Xu, Zhao Wang,* Xiangyu Jiang* and Shutao Wang

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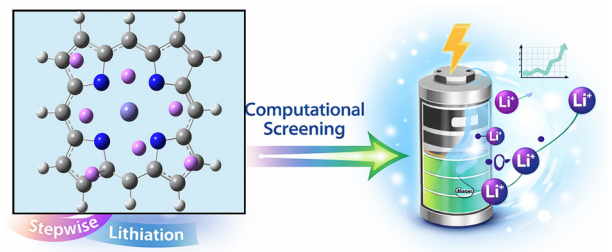

From screening to stepwise lithiation: computational insights into Fe-porphyrin for Li-ion batteries

Hemjot Kaur and Neetu Goel*

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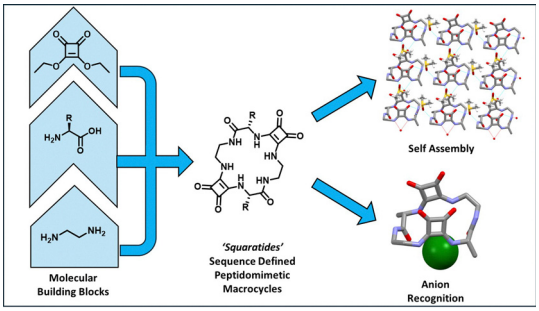
Squaratides: a tunable platform for anion binding in peptide-inspired macrocycles

Farhad Ali. Mohammed, Hua Tong, Chris S. Hawes, Shayon Bhattacharya, Damien Thompson, Katrina A. Jolliffe and Robert B. P. Elmes*



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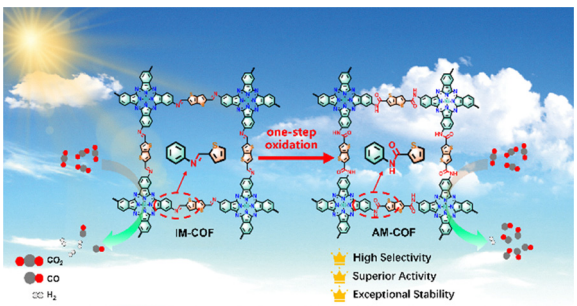
Amide linkage engineering in phthalocyanine-based covalent organic frameworks for enhanced photocatalytic CO_2 reduction

Mingchao Xie, Man Dong, Fanfei Meng, Jingting He, Wei Li, Chunjing Tao, Yuxiao Zhang, Baoli Li,* Liang Zhao* and Chunyi Sun*



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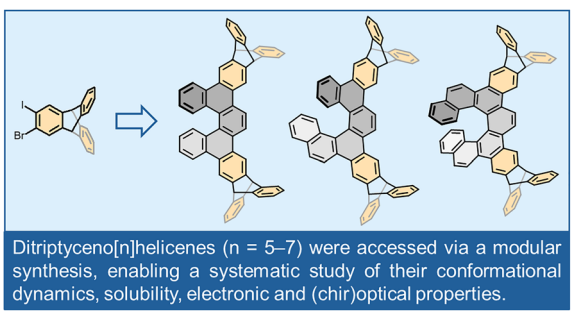
Triptycene-grafted helicenes: modular synthesis and key properties

Pattarakiat Seankongsuk, Martin Vacek, Jiří Rybáček, Jaroslav Vacek, Katsiaryna Kutsenka, Lucie Bednárová, Radek Pohl, Ivana Císařová, Irena G. Stará* and Ivo Starý*



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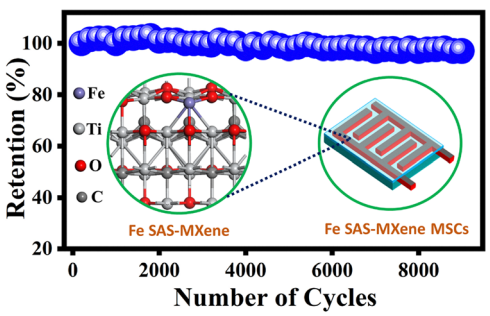
Iron single-atom sites on MXene for a high-performance interdigitated micro-supercapacitor

Mariyarathinam Vinoth Inbaraj, Mohandas Sanjay Kumar, Muthuramalingam Prakash and Govindhan Maduraiveeran*



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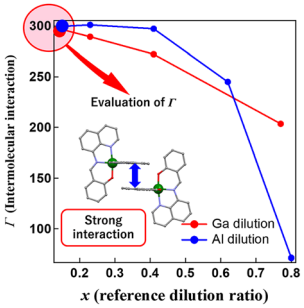

Quantitative evaluation of intermolecular interactions in Fe(III) spin crossover systems *via* metal dilution

Kanta Miyake, Hikaru Zenno, Yoshihiro Sekine, Wataru Kosaka, Hitoshi Miyasaka and Shinya Hayami*

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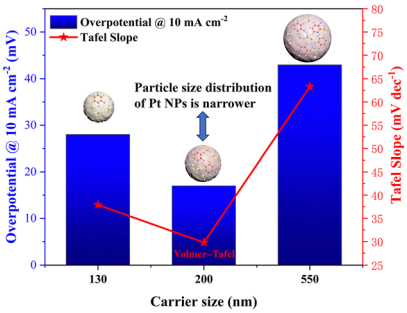

The impact of Pt particle size distribution on the HER pathway and performance

Yintong Zhou, Dayu Xiang, Jiayao Mao, Wenping He, Hanling Tie, Rongsheng Chen,* Jiaxing Wang, Feng Ma, Huimin Wang, Xiaohui Ren* and Hongwei Ni

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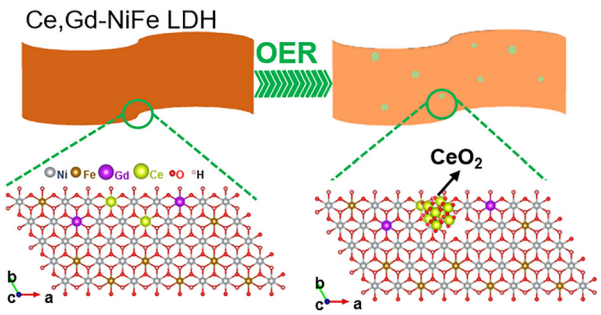

Ce/Gd Co-doping in NiFe LDH engineered oxygen vacancies for enhanced oxygen evolution

Xiaobing Bao, Junfeng Wang, Yang Yang, Qiqi Liu, Xiaoyong Fan, Shanjun Mao, Yutong Gong* and Lei Gou*

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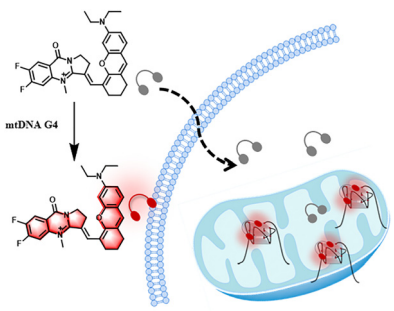

An isaindigotone-based NIR fluorogenic probe for visualizing mitochondrial DNA G-quadruplexes in living cells

Zhaocheng Liu, Yinxia Liu, Xiaoqing Wang, Juan Zeng, Wanxiang Li, Zihao Wu, Jinchang Zeng, Yuan Zhang* and Wen Chen*

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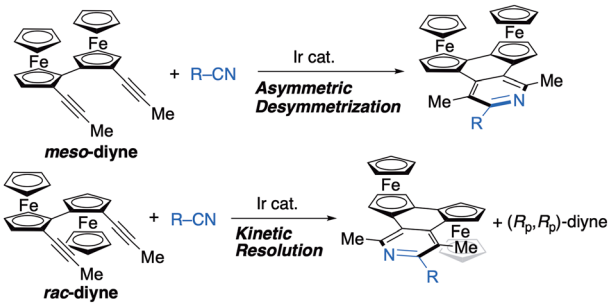
Synthesis of planar chiral biferrocenes by iridium-catalyzed [2+2+2] cycloaddition of biferrocene-linked diynes with nitriles: asymmetric desymmetrization and kinetic resolution

Takahiro Sawano, Kayo Murata, Tomoaki Suzaki, Kazuki Urasawa, Manami Kobayashi, Ryota Aso, Kazuki Ozasa, Eri Ishikawa and Ryo Takeuchi*



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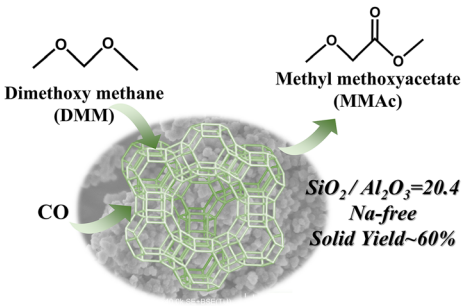
Synthesis of Na-free high-silica zeolite Y with excellent catalytic performance

Tongrui Liu, Juan Wang, Dali Zhu, Wenhao Cui, Shaolei Gao, Liang Qi, Dimei Yang, Linying Wang,* Peng Tian* and Zhongmin Liu



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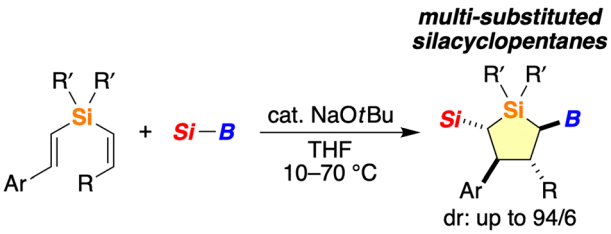
Regio- and diastereoselective synthesis of multi-substituted silacyclopentanes by catalytic cyclosilylborylation of styryl(vinyl)silanes

Kanta Ueji and Ryo Shintani*



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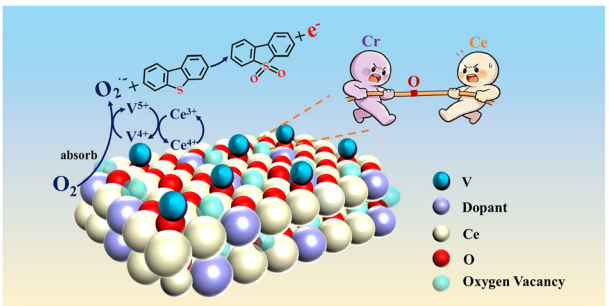
Tuning the oxygen vacancy formation energy of ceria by doping first row transition metals for aerobic oxidation desulfurization

Xiaoshuang Tian, Shenhao Huang, Yuhan Tang, Haiyang Feng, Lizhao Liu,* Hong Liu and Jiasheng Wang*



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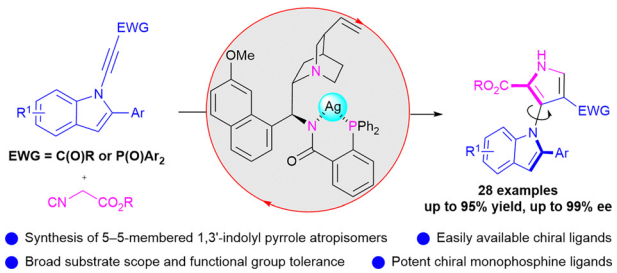

Silver-catalysed asymmetric [3+2] cycloaddition for the construction of 5–5-membered 1,3′-indolyl pyrrole atropisomers

Zhengguo Deng, Yan Xie, Chao Xiong, Jiayang Lv, Xinyu Chen, Jinzhong Yao,* Weihui Zhong* and Fei Ling*

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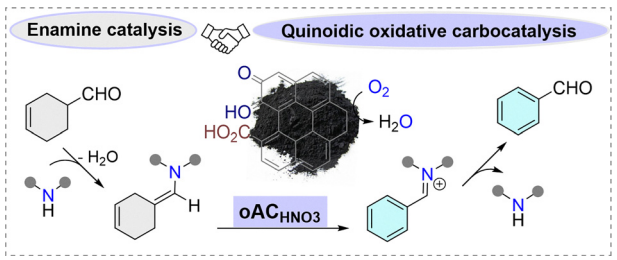

Desaturative arylaldehyde synthesis by synergistic carbocatalysis and organocatalysis

Naokatsu Kannari,* Ivan Curic, Nina Place, Lukas Enders, Shotaro Kawasaki, Anna Lenarda* and Juho Helaja*

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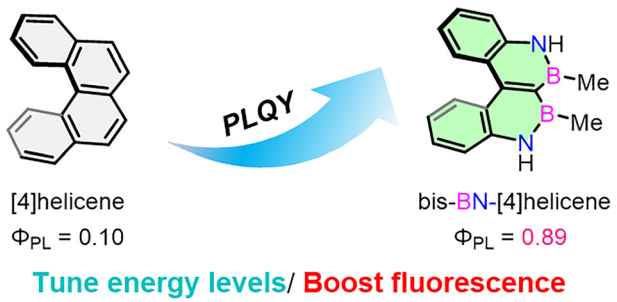

Bis-BN-embedded [4]helicenes: synthesis, structures and properties

Bingkang Liu, Jiahao Cui, Xiaoming Wu, Jing Zhou, Lei Zhang, Chenglong Li* and Xuguang Liu*

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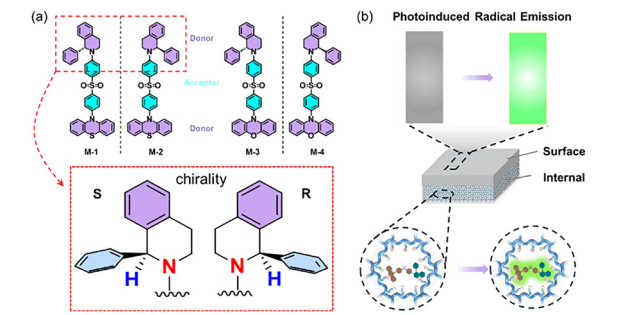

Thermally activated delayed fluorescence chiral molecules exhibiting photoinduced radical emission

Shujun Gong, Amjad Ali, Yudong Cao, Ying Liu,* Glib V. Baryshnikov, Hans Ågren, Guoquan Zhou,* Yunhui Wan,* Danfeng Ye* and Liangliang Zhu

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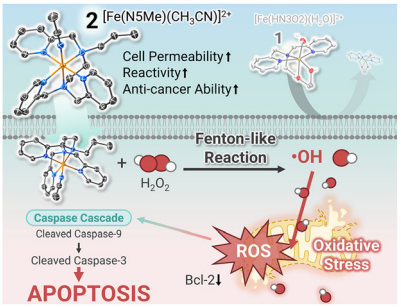
Ligand field and polarity tuning of Fe(II) complexes for selective ROS-mediated anticancer activity

Hyewon Lee, Lucia Wiwid Wijayanti, Hyungbin Park* and Seungwoo Hong*



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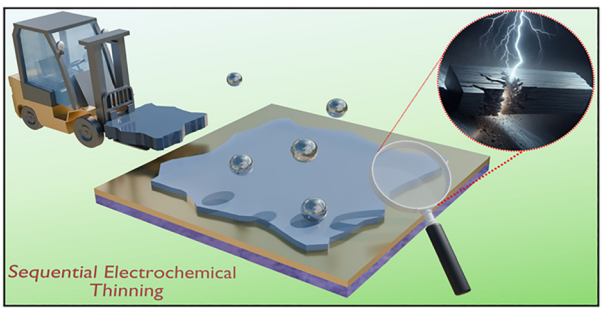
Stacking of MoS_2 monolayers by sequential electrochemical thinning of bulk crystals

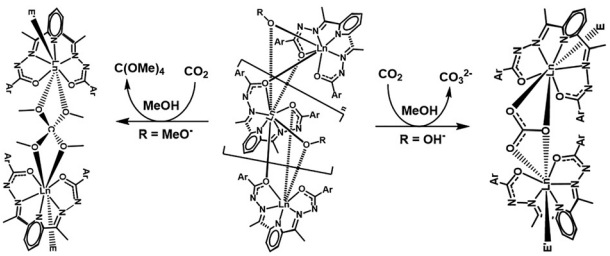
Isaque A. A. Feitosa, Renan G. de Assis, Matheus F. F. das Neves, Leonardo H. Hasimoto, Alisson R. Cadore, Ingrid D. Barcelos and Murilo Santhiago*



8501

An unprecedented genre of lanthanide-based coordination polymers to widen the scope of CO_2 fixation

Vaibhav Singh, Vajeeha Urunikulavan and Arun Kumar Bar*



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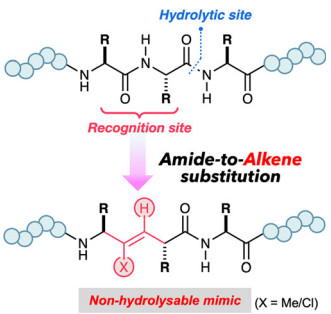
Strategic alkene incorporation into peptide backbones to prevent enzymatic hydrolysis by evading molecular recognition

Kohei Watanabe, Yoshinori Taguchi, Takuma Nishizawa, Sayuri Takeo, Chihiro Iio, Nobuyuki Mase, Kohei Sato* and Tetsuo Narumi*



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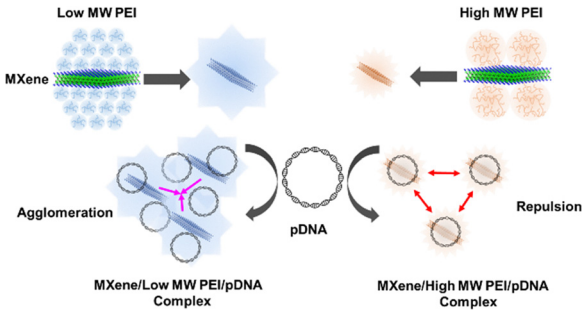

Polyethyleneimine-functionalized MXene as stable two-dimensional platforms for gene delivery systems

Farhan Hadi, Seoyeon Park, Tae-il Kim* and Jae-Min Oh*

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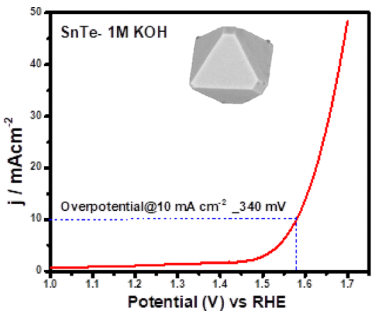

Bifunctional tin telluride electrocatalysts for oxygen evolution and reduction reactions

Harish Singh, Amideddin Nouralishahi, Kurt Lagemann and Manashi Nath*