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Cover
See Marta Redrado and M. Concepción Gimeno, pp. 10789–10803. Image reproduced by permission of M. Concepción Gimeno and Marta Redrado from *Chem. Sci.*, 2026, 17, 10789.



Inside cover
See Florian Weigend, Stephan Hohloch *et al.*, pp. 10886–10895. Image reproduced by permission of Anna Pavun from *Chem. Sci.*, 2026, 17, 10886. Image created by Anna Pavun.

PERSPECTIVES

10789

Golden immunity: gold complexes as emerging triggers of immunogenic cell death

Marta Redrado* and M. Concepción Gimeno*



10804

Responsible chemistry for a changing world: IUPAC's guiding principles

J. Garcia-Martinez,* Peter G. Mahaffy,* Mark C. Cesa, Mei-Hung Chiu, Jonathan E. Forman, Mary J. Garson, Richard M. Hartshorn, Tanja Junkers, Leah McEwen, Akiko Nakamura, Daniel O. Reddy, Marvadeen A. Singh-Wilmot, Christine M. Straut Langlinais, Supawan Tantayanon and Rylee E. Van't Land



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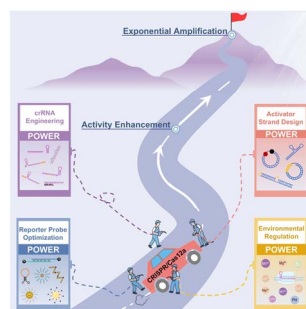
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REVIEWS

10813

Molecular engineering of CRISPR/Cas12a: from activity enhancement to exponential signal amplification

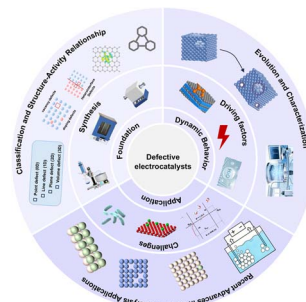
Qing-Nan Li, Qi-Fan Yang, Wei-Liang Jin, Xiao-Zhe Pang, Wen-Bo Sun, Jia-Xin Wang, Xin-Yue Wang, An-Na Tang, De-Ming Kong* and Li-Na Zhu*



10834

Beyond static paradigms: defect dynamic evolution and advanced applications in water electrolysis

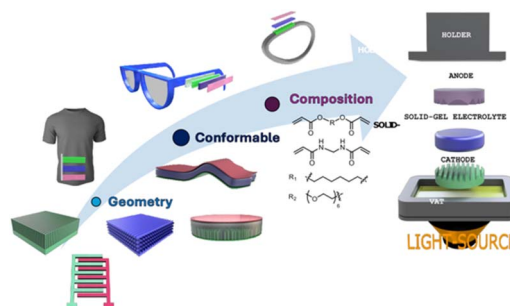
Xiaojun Wang, Huilin Zhao, Lei Li,* Weiping Xiao, Guangrui Xu, Guangying Fu,* Lei Wang* and Zexing Wu*



10864

Recent advances in VAT photopolymerization additive manufacturing of battery electrodes: towards high-resolution 3D-printed batteries

Sima Lashkari, Antonio Dominguez-Alfaro and David Mecerreyes

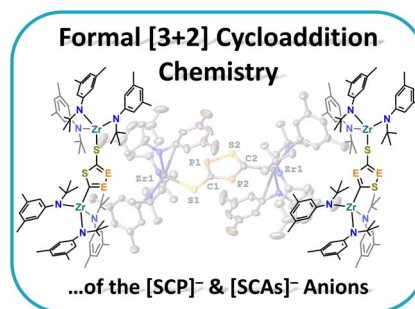


EDGE ARTICLES

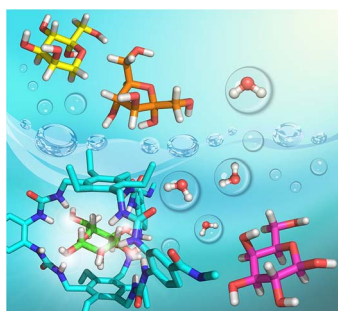
10886

Regioselective [3 + 2] cycloaddition reactions of the phosphorus and arsenic analogues of the thiocyanate anion

Marc Baltrun, David Hanneberg, Florian Hett, Michael Seidl, Florian Weigend* and Stephan Hohloch*



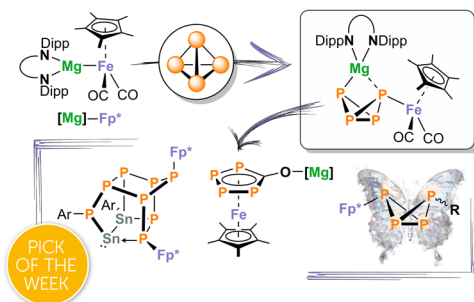
10896



Free energy simulations on a biomimetic glucose receptor: understanding the selectivity of GluHUT

Ryan Eades, Marko Hanzevacki, Adrian J. Mulholland* and Anthony P. Davis*

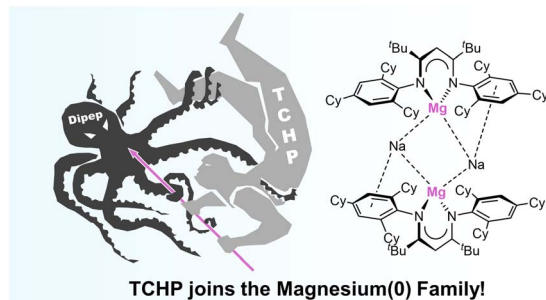
10907



Selective white phosphorus activation and functionalization with inorganic Grignard reagents

Franziska Gilch, Jan Brossette, Franz Westermair, Wagner Menezes da Silva, Gábor Balázs, Ruth M. Gschwind,* Hendrik Zipse* and Robert Wolf*

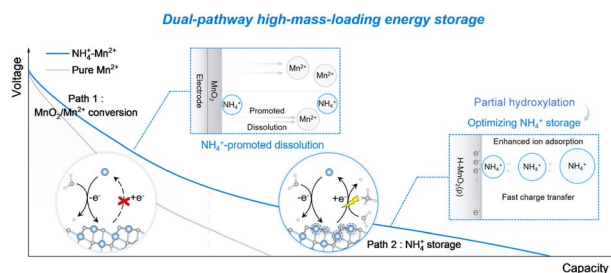
10917



Magnesium(0) complexes and their reduction reactions with binary transition metal carbonyls

Yixiao Jiang, Maryam Niksefat, Sophie G. Unsworth, Joseph M. Parr, Matthew J. Evans and Cameron Jones*

10927



NH₄⁺-mediated interfacial chemistry for collaborative dual-pathway high-mass-loading energy storage

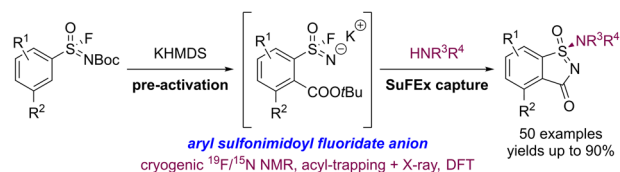
Jinxin Wang, Wei Guo,* Mingming Sun, Geng Zhang, Mengting Cheng, Wenbin Xie, Na Hu, Yuehan Yang and Qiuyu Zhang*



10939

Regioselective synthesis of aza-saccharins via anionic [1,4] Fries-type rearrangement of aryl sulfonylimidoyl fluorides

Mario Leypold,* Lorenzo Poli, Max Earl, Okky D. Putra, Karolina Kwapien, Richard J. Lewis, John J. Murphy, Marta Passamonti, Lena M. von Sydow, Victor Spelling, Ioannis Asproudis, Malvika Sardana, Claudia Gatti, Hikaru Seki, Thomas Lemaitre, Radvile Juskaite, Ranganath Gopalakrishnan, Stuart J. Francis, Cristina Gardelli, Per-Ola Norrby and Wengard Czechtizky

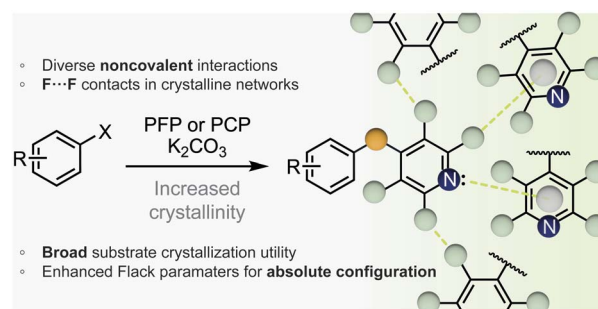


- excellent electronics-guided regioselectivity
- broad functional group tolerance
- stereospecific via inversion at sulfur atom
- one-pot, cryogenic protocol
- short reaction times

10948

Enhanced crystallinity of tetrahalopyridyl (THP) derivatized compounds

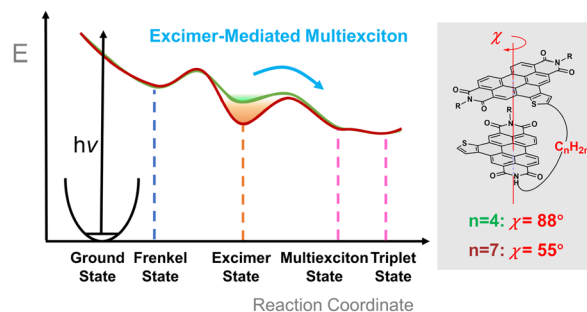
Callum S. Begg, Viktoriya G. Dragomanova, Dmitry S. Yufit, Toby J. Blundell, Steven L. Cobb, Mark A. Fox,* Matthew O. Kitching* and William D. G. Brittain*



10958

Excimer-mediated multiexciton generation in covalently linked cross foldamers of thiophene-fused perylene bisimides

Weicong Li, Wei Zhang,* Jiadong Zhou, Linlin Liu, Hongwei Song* and Zengqi Xie*



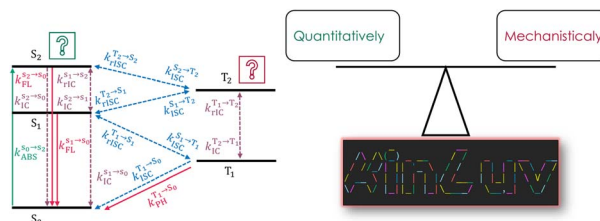
10967

Beyond the three-state picture: when higher-lying excited states become quantitatively indispensable

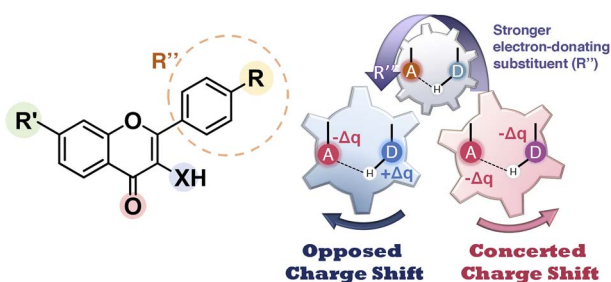
Yue He and Daniel Escudero*

To Include or Not Include

Higher-Lying Excited States ?



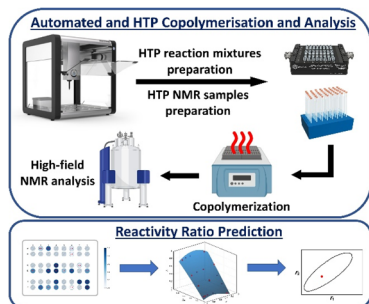
10982



Charge-dependent modulation of S–H vs. O–H excited-state intramolecular proton transfer

Chi-Chi Wu, Hao-Cheng Tsai, Hau-Yu Liu, Ya-Chen Lin, Chih-Hsing Wang, Alexander P. Demchenko, Chao-Tsen Chen* and Pi-Tai Chou*

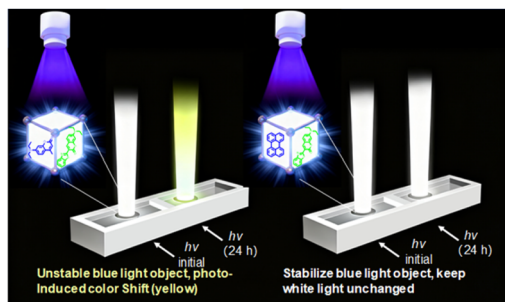
10992



A robotic approach to polymerisation kinetics: a case study on copolymerisation parameter estimation

Lachlan Alexander, Vianna F. Jafari and Tanja Junkers*

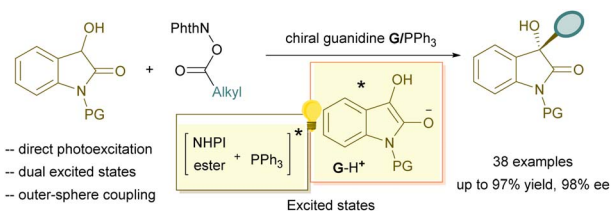
11003



Rational guest selection: a general principle for stabilizing multi-component luminescent materials

Li-Ke Jing, Yue-Yue Chang, He Li, Biao Lv, Guan-Yu Yang, Zhan-Ting Li and Bo Yang*

11010



Enantioselective organocatalytic radical alkylation enabled by photoexcitation

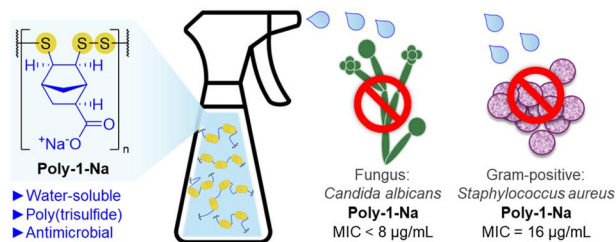
Yanji Song, Ruifeng Wang, Xi Lu, Yuqiao Zhou, Xiaoming Feng, Weidi Cao* and Xiaohua Liu*



11017

A poly(trisulfide) oligomer with antimicrobial activity

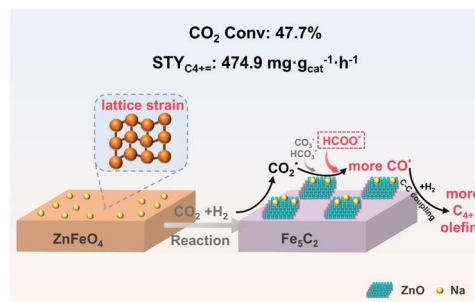
Jasmine M. M. Pople,* Ocean E. Clarke, Romy A. Dop, Thomas P. Nicholls, Harshal D. Patel, Witold M. Bloch, Zhongfan Jia, Sara J. Fraser-Miller, Evangeline C. Cowell, Jillian M. Carr, Daniel R. Neill, Joanne L. Fothergill, Bart A. Eijkelkamp,* Tom Hasell* and Justin M. Chalker*



11027

Lattice-strained Na-ZnFe₂O₄ catalyst boosting CO₂ hydrogenation to long-chain olefins

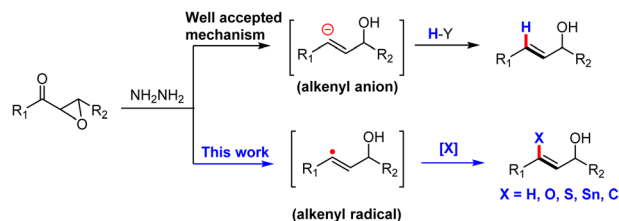
Xinyan Ai, Chengchao Liu,* Zhe Li, Yuhua Zhang, Sixu Liu, Haifeng Xiong* and Jinlin Li*



11035

Capturing elusive alkenyl radicals in the Wharton reaction and its interrupted cyclization

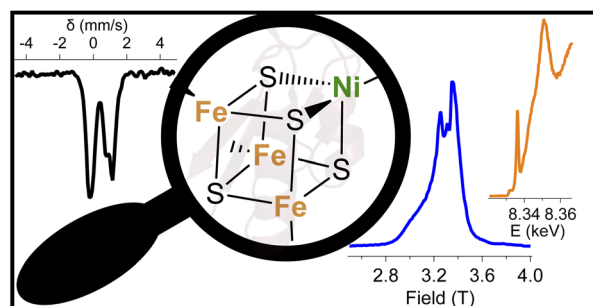
Kornkamon Akkarasereenon, Yichen Liu, Yin Tung Lai and Rongbiao Tong*



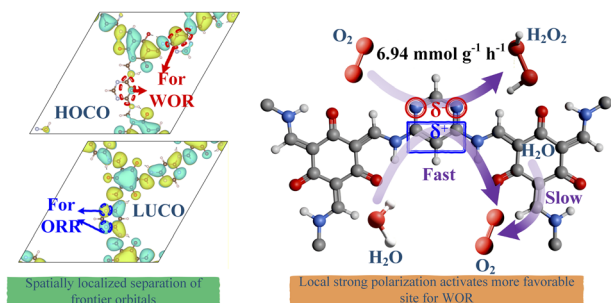
11042

A protein-based model of carbon monoxide dehydrogenase exhibits tunable covalency across cluster oxidation and ligand-bound states

Luke C. Lewis, Prajakta Badve, Itzel P. Vaca, Pujan Ajmera, Yuri Lee, Anastassia N. Alexandrova, Katlyn K. Meier and Hannah S. Shafaat*



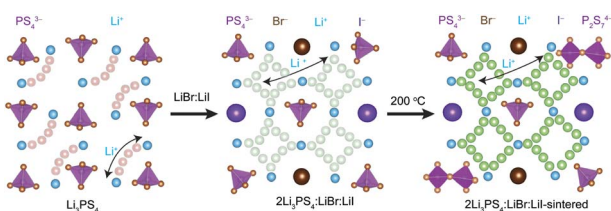
11062



A local polarization strategy for efficient sacrificial-free hydrogen peroxide photoproduction

Donghui Wang, Jin-Gang-Lu Tao, Haiyang Zhang, Po Zhang and Feng Chen*

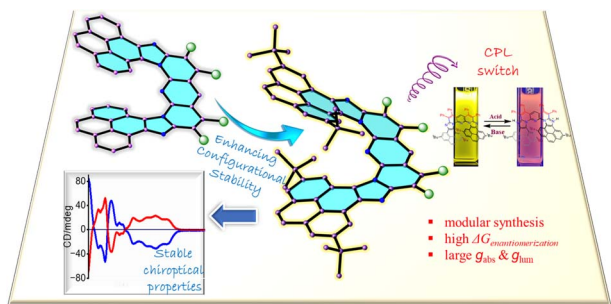
11073



Anion-sublattice engineering of $\text{Li}_3\text{PS}_4\text{:Br}$ and I incorporation enhances ionic conductivity and Li -metal compatibility

Tej P. Poudel, Michael J. Deck, Ifeoluwa P. Oyekunle, Pawan K. Ojha, Bright O. Ogbolu, Islamiyat Ojelade, Thilina N. D. D. Gamaralagale, Erica Truong, Yongkang Jin, Amirhossein Zareihassangheshlaghi and Yan-Yan Hu*

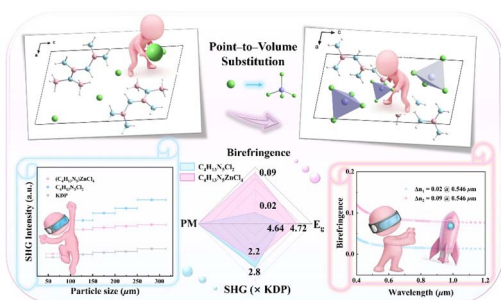
11083



Inducing configurational stability in inherently flexible expanded heterohelicenes and unlocking stimuli-responsive chiroptical switching

Manisha Pal, Pirudhan Karak, Debranjani Hati, Mrityunjay Giri, Subi J. George* and Joyanta Choudhury*

11091



Point-to-volume engineering enables enhanced birefringence and a wide bandgap in hybrid halide ultraviolet nonlinear optical crystals

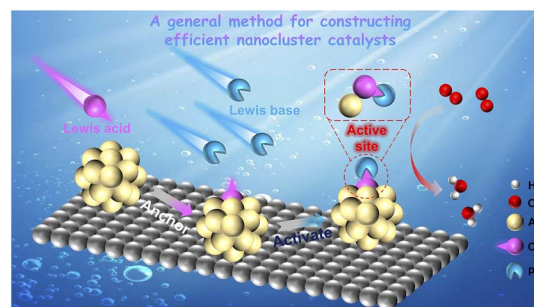
Jiajing Wu,* Ruo-Nan Li, Wen-Dong Yao, Yi-Fan Fu and Sheng-Ping Guo*



11098

Anchoring and activation of catalytic sites on the clusters *via* intermolecular interactions

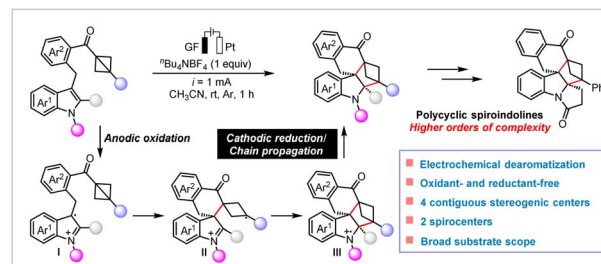
Feng Qian, Zhihang Zhao, Baoyu Huang, Zhixiang Xue, Qinzhen Li, Sha Yang, Jinsong Chai* and Manzhou Zhu*



11106

Electrochemically driven strain-release dearomative (3 + 2) cyclization for the synthesis of bicyclo[2.1.1] hexane-fused polycyclic spiroindolines

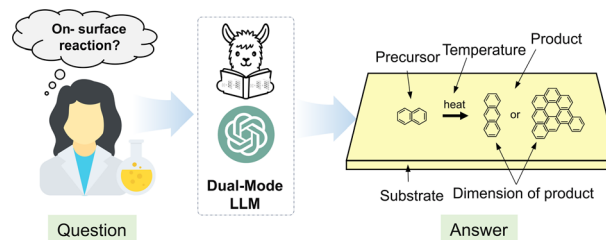
Yanren Zhu, Enfan Pu, Shaoxiong Yang, Dongbo Zhao, Qi Xu, Piaopiao Jiang, Xiong Li, Hongbin Zhang* and Jingbo Chen*



11114

A dual-mode large language model assistant for on-surface reactions *via* fine-tuning and retrieval-augmented generation

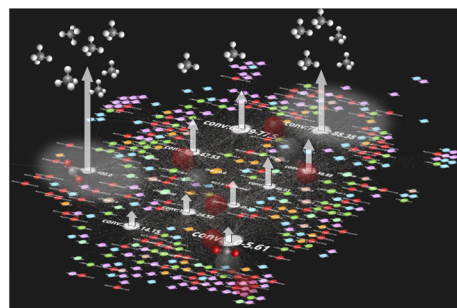
Juan Xiang, Qi Huang, Xinyi Zhang, Tairan Yang, Zhiwen Zhu, Chanyu Li, Liangliang Cai and Qiang Sun*



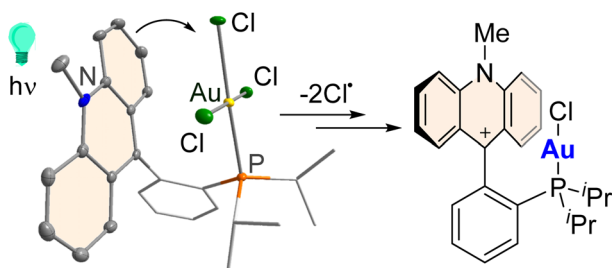
11127

Design rules for ternary CO₂ hydrogenation catalysts *via* literature-sourced network construction and analysis

Yoshiki Hasukawa, Fernando Garcia-Escobar, Shun Nishimura, Keisuke Takahashi* and Lauren Takahashi*



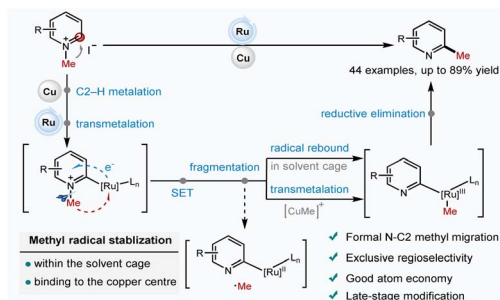
11140



Visible-light-induced chlorine photoelimination from acridinium-phosphine gold(III) complexes

Shantabh Bedajna, Kristopher G. Reynolds, Mohammadjavad Karimi, Elishua D. Little, Daniel G. Nocera* and François P. Gabbaï*

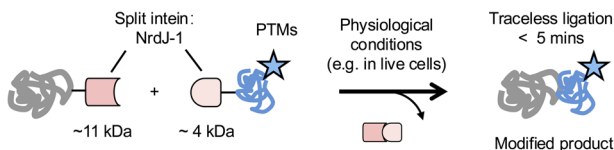
11149



Ortho-Methylation of pyridine via intramolecular N-methyl migration

Shun-Yao Huang, Shun Li, Ming-Yuan Li, Cong Lv, Shen-Xiang Wang, Wei-Chao Xue, Jia-Qi Xu, Xue-Li Zheng, Rui-Xiang Li, Hua Chen* and Hai-Yan Fu*

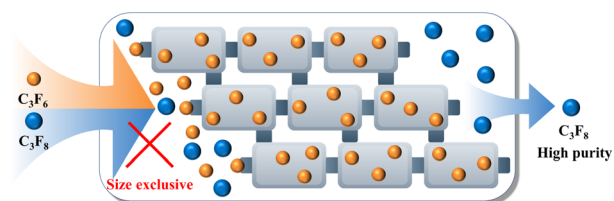
11157



Traceless protein semisynthesis in cells using the promiscuous ultra-fast split intein NrdJ-1

Xuanjia Ye, Joshua Sokol, Christian Kofoed, Anushka Dheer, Juner Zhang and Tom W. Muir*

11166



High-capacity sieving of C₃F₆ and C₃F₈ by a copper-based MOF with interconnected gourd-shaped channels

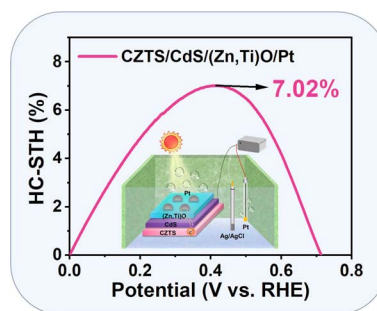
Zijian Wang, Mu-Yang Zhou, Shanshan Mao, Yilu Wu, Shenfang Li, Xin Zhou, Fu-An Guo, Liang Yu,* Manglai Gao* and Hao Wang*



11173

Band-bending engineering in $\text{Cu}_2\text{ZnSnS}_4$ photocathodes using a composite $(\text{Zn,Ti})\text{O}$ electron transport layer for solar water splitting

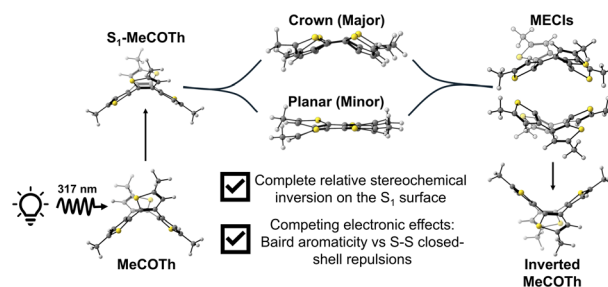
Siyuan Ren, Muhammad Abbas,* Zhibin Xie, Zilin Lu, Jasim Yousaf, Muhammad Ishaq, Zhuanghao Zheng, Jun Zhao, Shuo Chen* and Guangxing Liang*



11185

Singlet machine learning photodynamics reveal competing inversion paths of methylated cyclooctatetrathiophene

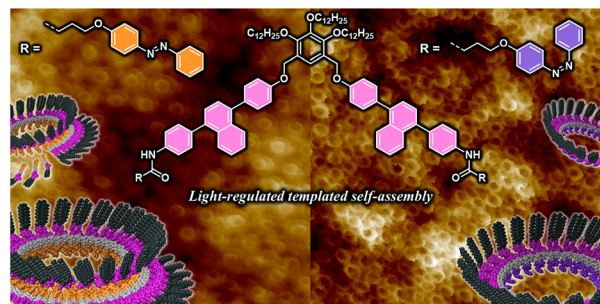
Christian Salguero and Steven A. Lopez*



11201

Light-regulated templated self-assembly of bilayered nanotoroids

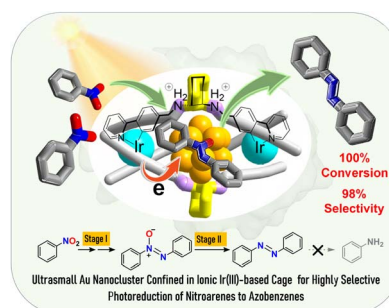
Kintaro Miyamoto, Sota Mihara, Hiroki Itabashi, Sougata Datta, Hiroki Hanayama and Shiki Yagai*



11207

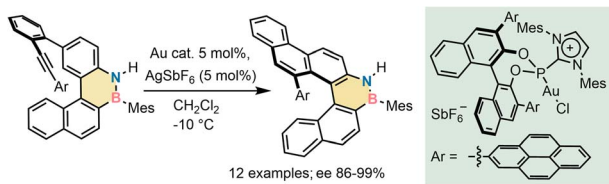
Confining ultrasmall Au nanoclusters in an ionic Ir(III)-based cage for selective photoreduction

Zhuolin Shi, Fengyang Yu, Jinguo Wu, Yongai Yu,* Hanshu Li, Xing Zhao, Rong Zhang, Wenjing Jiang, Yiwei Liu, Jianwei Wei, Xuezhao Li* and Cheng He



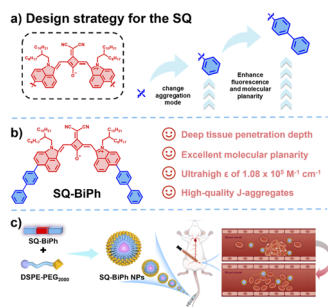
EDGE ARTICLES

11219

**Enantioselective synthesis of configurationally stable [5]helicenes containing 1,2-azaborine units**

Catherine Olguin, Christian Tabacaru, Lennart Besse, Martin Simon, Christopher Golz, Marcos Humanes, Manuel A. Fernández-Rodríguez, Patricia García-García,* Maïke Mücke, Ricardo A. Mata* and Manuel Alcarazo*

11229

**Real-time NIR-II fluorescence imaging-guided precision thrombolysis with a molecularly planarized phototheranostic agent**

Guosheng Zhang, Leilei Si, Fuhai Zhou, Xiaofang Song and Hongming Wang*

CORRECTION

11239

Correction: Regioselective synthesis of aza-saccharins via anionic [1,4] Fries-type rearrangement of aryl sulfonimidoyl fluorides

Mario Leybold,* Lorenzo Poli, Max Earl, Okky D. Putra, Karolina Kwapien, Richard J. Lewis, John J. Murphy, Marta Passamonti, Lena M. von Sydow, Victor Spelling, Ioannis Asproudis, Malvika Sardana, Claudia Gatti, Hikaru Seki, Thomas Lemaitre, Radvile Juskaite, Ranganath Gopalakrishnan, Stuart J. Francis, Cristina Gardelli, Per-Ola Norrby and Werngard Czechtizky

