

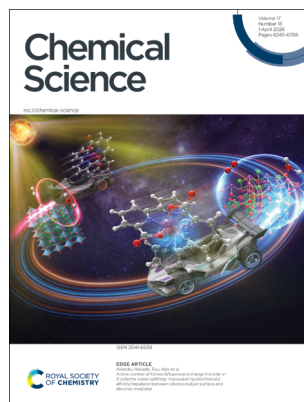
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IN THIS ISSUE

ISSN 2041-6539 CODEN CSHCBM 17(13) 6245–6788 (2026)



Cover
See Zengnan Wu, Xianli Meng, Jin-Ming Lin *et al.*, pp. 6371–6378. Image reproduced by permission of Shiyu Chen, Zengnan Wu, Xianli Meng and Jin-Ming Lin from *Chem. Sci.*, 2026, 17, 6371.



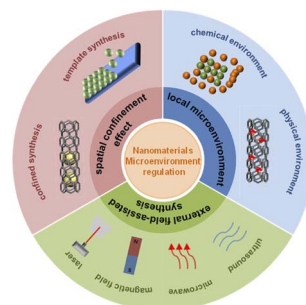
Inside cover
See Akinobu Nakada, Ryu Abe *et al.*, pp. 6379–6389. Image reproduced by permission of Akinobu Nakada from *Chem. Sci.*, 2026, 17, 6379.

PERSPECTIVES

6261

Microenvironment regulation in nanomaterial synthesis

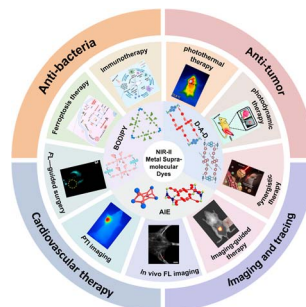
Shuyi Pang, Yuanduo Li, Wenxia Xu, Hangkai Shi, Hongdong Li, Jingqi Chi, Jianping Lai* and Lei Wang*



6283

Architecting NIR-II metal supramolecular dyes—illuminating the path to precision medicine

Fang Zhao, Qiao Song, Panxing Qiu, Xiaoxing Xiong,* Youjia Tang* and Yao Sun*



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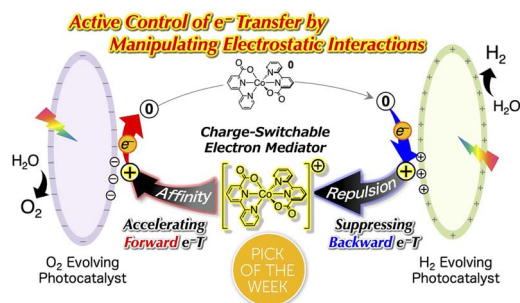
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Fundamental questions
Elemental answers

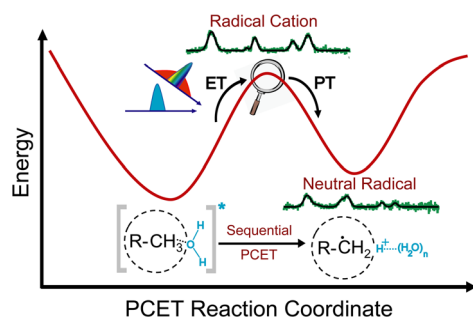
6379



Active control of forward/backward charge transfer in Z-scheme water splitting: manipulating electrostatic affinity/repulsion between photocatalyst surface and electron mediator

Ren Itagaki, Akinobu Nakada,^{*} Hajime Suzuki, Osamu Tomita and Ryu Abe^{*}

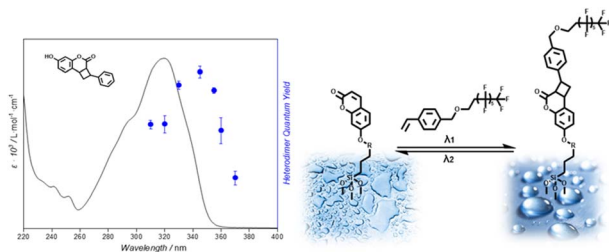
6390



Vibrational snapshots of ultrafast C–H bond photoactivation inside a water-soluble nanocage

Sunandita Paul, Shashi, Ankita Das, Dooshaye Moonshiram and Jyotishman Dasgupta^{*}

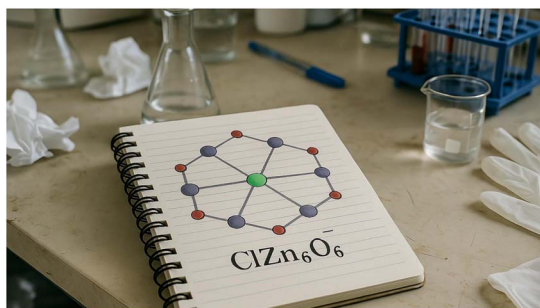
6402



Wavelength-resolved heterodimer [2 + 2] photocycloadditions for reversible surface grafting

Dushani Kanchana, Lauren Geurds, Aaron Micallef, Bryan Tuten, Kai Mundsinger^{*} and Christopher Barner-Kowollik^{*}

6411



Planar hexacoordinate chlorine

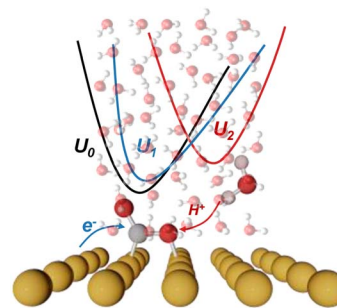
Ya-Xuan Cheng, Li-Xia Bai, Fernando Martínez-Villarino, Jin-Chang Guo^{*} and Gabriel Merino^{*}



6419

Resolving sequential electron–proton transfer kinetics for electrochemical CO₂ reduction at the Cu(100)/H₂O interface *via* a quantum-classical framework

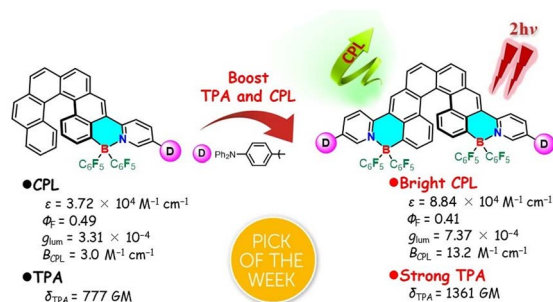
Yun Yang and Gang Fu*



6426

B ← N Lewis pair fusion of [6]helicene: one way to integrate circularly polarized luminescence with two-photon absorption

Min Wang, Zhi-Qiang Liu* and Cui-Hua Zhao*



6438

Pd-catalyzed stereoretentive synthesis of reversed C-acyl glycosides: access to rare L-sugars and higher-carbon sugars

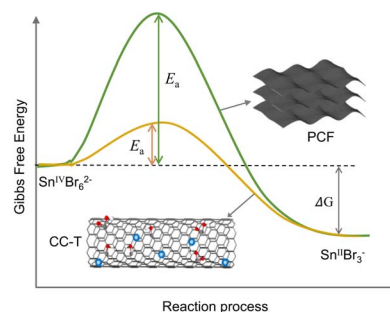
Guoqiang Cheng, Bo Yang* and Feng Zhu*



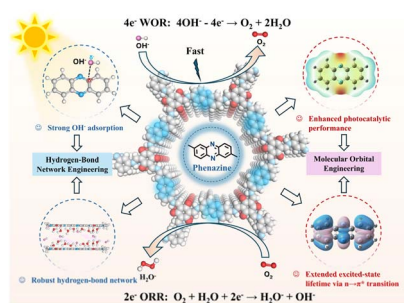
6448

A carbon nanotube-modified electrode for a highly active and reversible Sn⁴⁺/Sn anode

Yue Ao, Yonggang Wang, Shuo Wang, Chengji Zhao,* Congxin Xie* and Xianfeng Li*



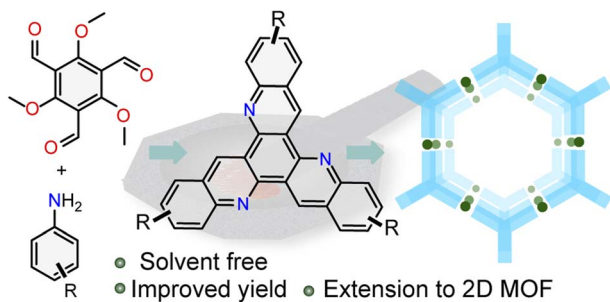
6456



Alkaline-adaptive covalent organic framework photocatalysts: synergistic molecular orbital and hydrogen-bond network engineering for H₂O₂ production

Zhiwu Yu, Jiayi Zhang, Xiaolong Zhang, Xuwen Sun, Guihong Wu, Zhiyun Zhang, Fengtao Yu* and Jianli Hua*

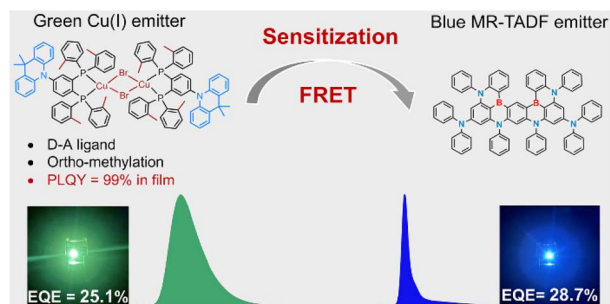
6467



A mechanochemical route to triazatri-naphthalenes: building blocks for π-extended, nitrogen-enriched two-dimensional metal–organic frameworks

Rohan Mahapatra, Kalipada Koner, Ranajit Maity and Rahul Banerjee*

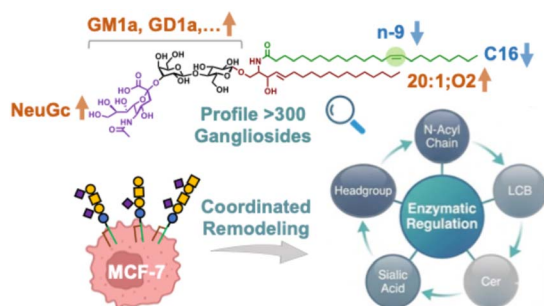
6477



Suppressing nonradiative decay via molecular configuration control in Cu(I)–halide clusters enables the fabrication of highly efficient green and green-sensitized blue OLEDs

Xiao Li, Sai Guo, Xin Liu, Yu-Fu Sun, Dong-Hai Zhang, Hui Yang, Jia-Min Lu* and Xu-Lin Chen*

6488



Deep profiling reveals coordinated remodeling of ganglioside metabolism in MCF-7 breast cancer cell line

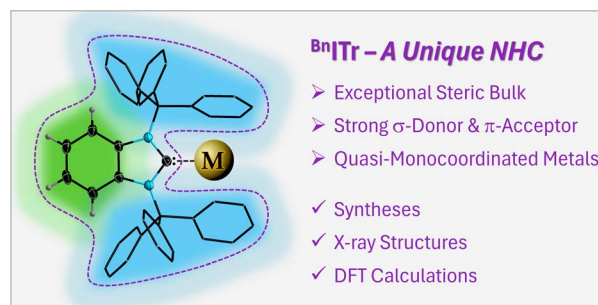
Yichun Wang, Gaoge Sun, Hang Yin* and Yu Xia*



6500

Achieving (quasi)-monocoordination in metal complexes with an exceptionally bulky carbene ligand

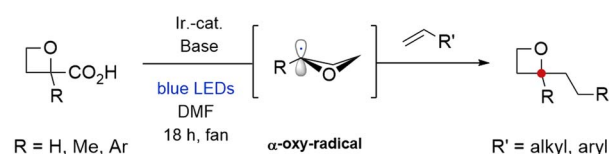
Ludwig Zapf* and Eric Rivard*



6507

Visible-light-mediated synthesis of 2-oxetanes via Giese addition to α -oxy radicals

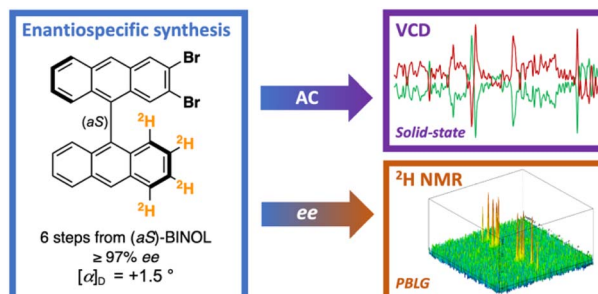
Matthew Liu, Elvis C. McFee and Corinna S. Schindler*

Giese Addition via α -oxy-Radicals

6513

[¹H]/[²H] discriminated bianthryl atropisotopomers: enantiospecific syntheses from BINOL and direct multi-spectroscopic analyses of their isotopic chirality

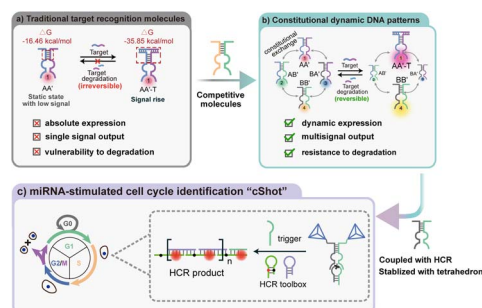
Florian Rigoulet, Guillaume Dauvergne, Jean-Valère Naubron,* Philippe Lesot,* Christie Aroulanda and Yoann Coquerel*



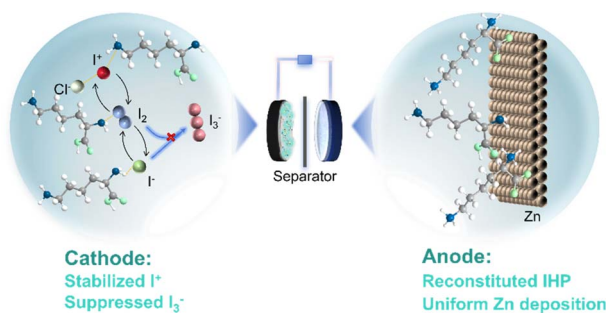
6524

cShot: spatial dynamic imaging of cell cycle-dependent miRNA heterogeneity using dynamic DNA patterns

Jie Zhou, Yuwei Sha, Ling'ou Qin, Fengying Yuan, Yu Ouyang,* Yaqin Chai,* Pu Zhang* and Ruo Yuan*



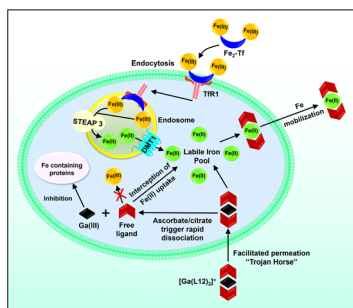
6536



A dual-function molecule enables stable four-electron conversion and Zn deposition for high-capacity aqueous Zn–I₂ batteries

Huiquan Zhang, Xueying Zhang, Dongmin Ma, Xinxin Cai, Mochi Lv, Hongting Yan, Junbo Niu and Weixing Song*

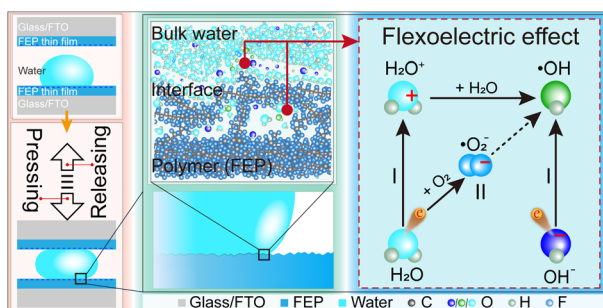
6546



Implementing the design cues of dissociation dynamics and transmetalation in gallium(III) complexes to promote the anti-proliferative activity of ligands targeting intracellular iron(II) trafficking

Mahendiran Dharmasivam,* Sadia Faiz, Busra Kaya, Tharushi P. Wijesinghe, Mediha Suleymanoglu, Mahan Gholam Azad, Vera Richardson, Ameer Fawad Zahoor, Danuta Kalinowski, William Lewis, Paul V. Bernhardt, Rukhsana Anjum and Des R. Richardson*

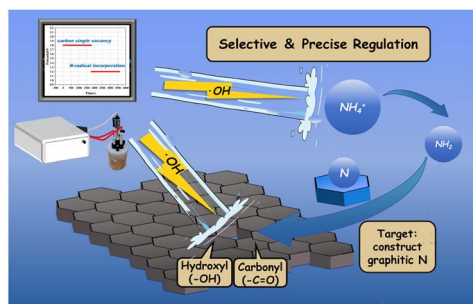
6564



Advanced oxidation processes at water/hydrophobic interfaces: energy-fluctuation mechanism and electron utilization quantification

Gaobo Xu, Fuling Li, Jin Ye, Shujun Zhang, Haiqin Ma, Guangdong Zhou, Cunyun Xu, Xiaofeng He, Xiude Yang and Qunliang Song*

6576



Precise graphitic nitrogen-incorporation by electrochemical oxidation

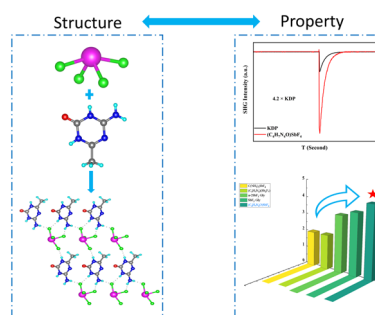
Leilei Xu, Zhibo Zhang, Hong Zhou, Ziqi Wen, Yuxuan Liu, Heng Dong* and Wei Xie*



6586

From centrosymmetric $(C_4H_8N_5)(SbF_6)$ to polar $(C_4H_7N_4O)(SbF_6)$: a new UV nonlinear optical material achieved by functional group modulation

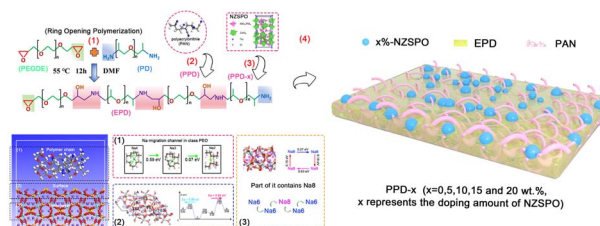
Zhi-Xiang Wang, Chun-Li Hu, Chuan-Fu Sun,*
Jiang-Gao Mao and Fang Kong*



6593

Synergistic strategy of interfacial ion channels and a cross-linked network in a composite electrolyte for dendrite-free sodium-metal batteries

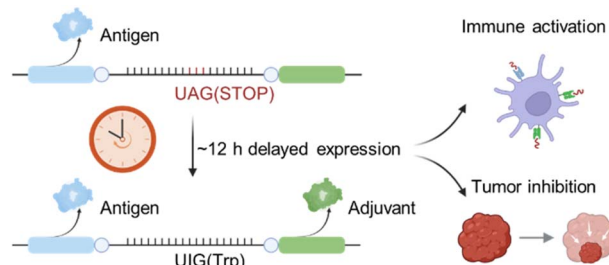
Lei Zhai, Hanghang Dong, Haichao Wang, Yijie Duan,
Zuo Liu, Shuang Yan, Chenguang You, Hao Yan,
Xin Tan and Shuangqiang Chen*



6605

Time-ordered-expression mRNA (TOE mRNA) for melanoma RNA vaccines

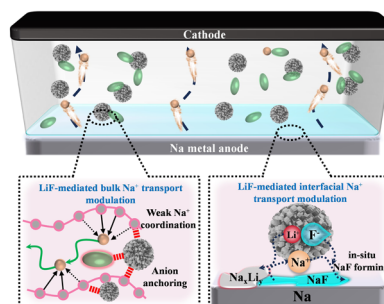
Xiangdong Zhang, Xucong Teng, Yicong Dai,
Ningqiang Gong, Qiushuang Zhang, Difei Hu,
Yuncong Wu, Hongwei Hou* and Jinghong Li*



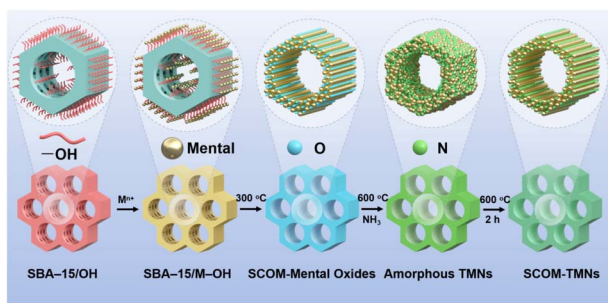
6619

Reactive lithium fluoride revitalizes bulk-interface Na-ion transport in all-solid-state PEO-based sodium batteries

You Fan, Binghong Zhao, Xin Zou, Wenlong Zhao,
Yanyan Zhang,* Meizhen Zhu, Hong Zhang, Zige Hong,
Xin Cheng, Peiming Chen, Zhengshuai Bai,*
Yanbin Shen and Yuxin Tang*



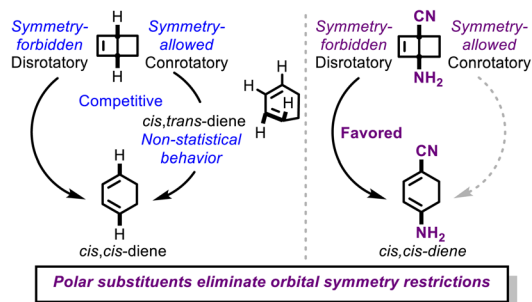
6632



Single-crystal-ordered-mesoporous metal nitrides without intrinsic Raman signals for highly sensitive SERS detection

Linchangqing Yang, Yijing Zong, Meng Yin, Wencai Yi, Junfang Li, Jie Lin,^{*} Qinghong Kong^{*} and Guangcheng Xi^{*}

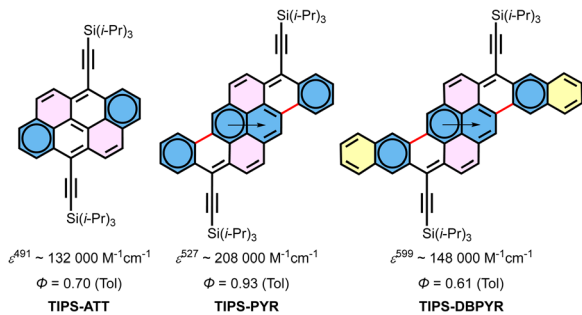
6644



Molecular dynamics of bicyclo[2.2.0]hex-2-ene ring opening and its polar derivative: allowed vs. forbidden pathways

Zhixin Qin, Qingyang Zhou, Rong-Kai Wu and K. N. Houk^{*}

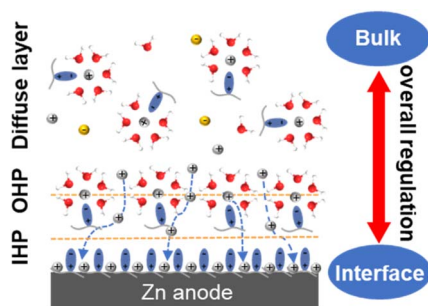
6653



High brightness in bis(tri-isopropylsilyl)ethynyl-functionalized polycyclic aromatic hydrocarbons: localized representation versus Clar's model

Kais Dhbaibi, Huong Le Thi, Jérôme Marrot, Masahiro Hayakawa, Masashi Mamada and Michel Frigoli^{*}

6662



Unveiling bulk-to-interface electrolyte regulation for ultralong-life Zn-ion batteries

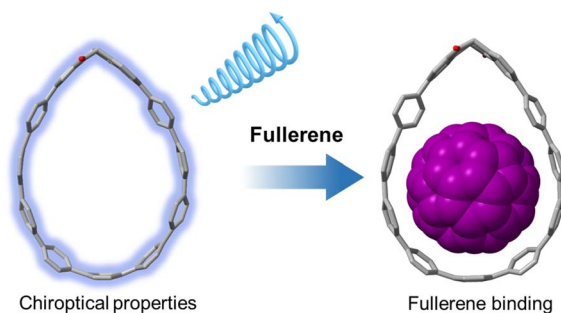
Yinyan Deng, Shuangtao Xu, Zhiping Peng, Linfeng Fei^{*} and Tao Wang^{*}



6677

Diketo[n]CPPs as chiral and shape-adaptive fullerene hosts and precursors to DBP[n]CPPs

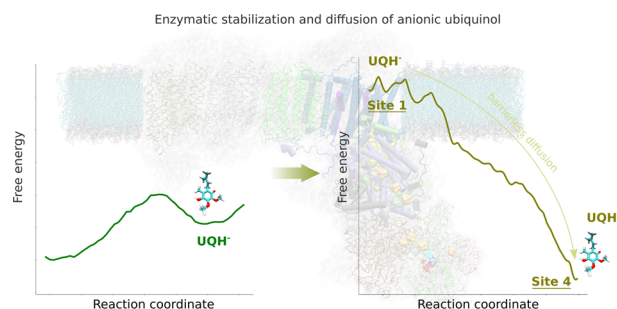
Xiaoshuang Xiang, Mathias Hermann, Lei Ye, Philipp Seitz, Lilian Estaque, Grégory Pieters, Thomas Drewello and Birgit Esser*



6688

Catalytic relevance of a quinol anion in biological energy conversion by respiratory complex I

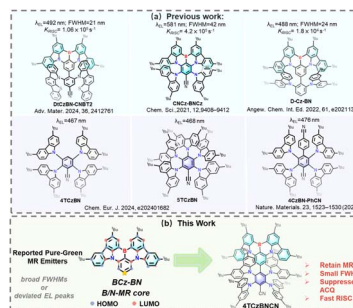
Oleksii Zdorevskiy,* Johannes Laukkanen and Vivek Sharma*



6702

A TADF sensitizer moiety decorated MR emitter for enhancing spin-flip and anti-ACQ

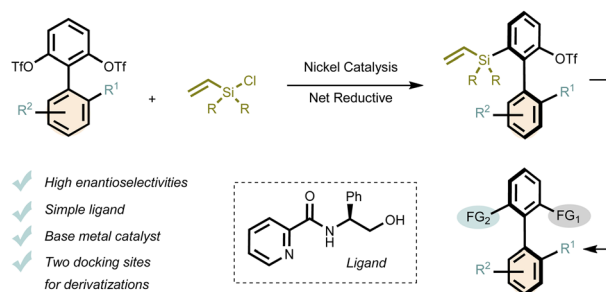
Xingtian Wang, Jianxing Chen, Songqian Ni, Yu Hu, Haorun Dai, Zezhu Xiao, Weiguo Zhu, Pi-Tai Chou* and Xiugang Wu*



6710

Reductive desymmetric silylation of biaryl bis(triflates) enabled by a chiral nickel/picolinamide complex

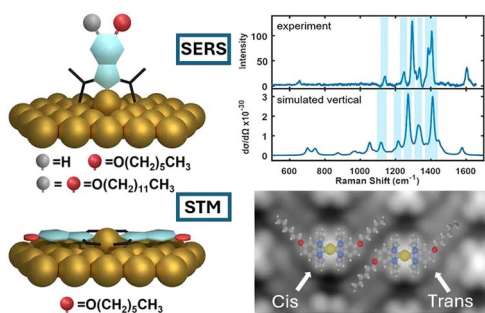
Zhe Chen, Junjie Zhang and Chuan Wang*



- ✓ High enantioselectivities
- ✓ Simple ligand
- ✓ Base metal catalyst
- ✓ Two docking sites for derivatizations



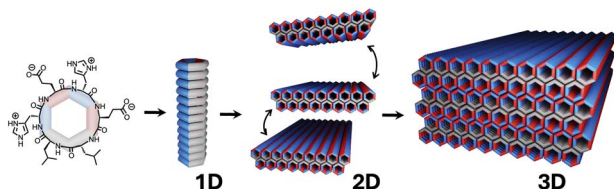
6717



Beyond wingtips: backbone alkylation affects the orientation of N-heterocyclic carbenes on gold nanoparticles

Ahmadreza Nezamzadeh, Shayanta Chowdhury, Gaohe Hu, Nathaniel L. Dominique, Emmett Desroche, Sakiat Hossain, Mark D. Aloisio, Michael Furlan, Ryan R. K. Groome, Kayla Boire, Alastair B. McLean,* Lasse Jensen,* Jon P. Camden* and Cathleen M. Crudden*

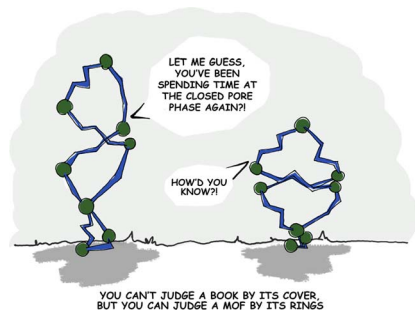
6727



3D self-assembly of cyclic peptides into multilayered nanosheets

Sandra Díaz, Adrian Sanchez-Fernandez, Juan R. Granja,* Ignacio Insua* and Javier Montenegro*

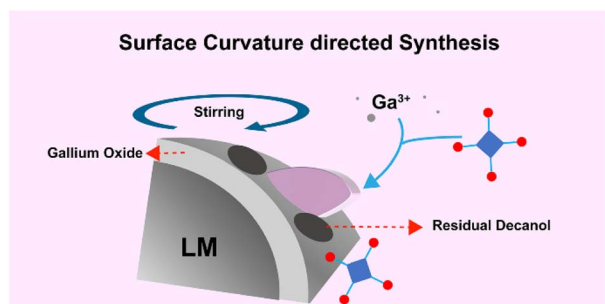
6734



Identifying phase transitions in zeolitic imidazolate frameworks: microscopic insight from molecular simulations

Léna Triestram and François-Xavier Coudert*

6746



Surface curvature-directed *in situ* synthesis of ultrathin 2D MOFs on liquid metals for antibacterial applications

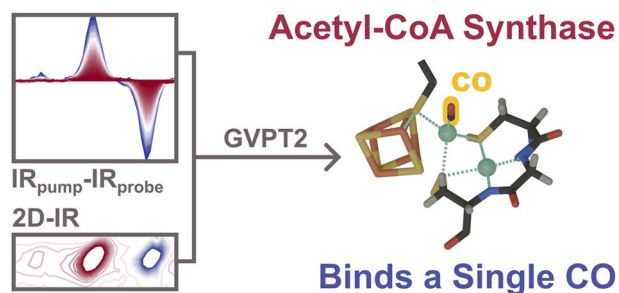
Jie Qi, Yihang Zhu, Chen Hang, Hao Tang, Lingmin Zhang* and Xingyu Jiang*



6755

From two to one: resolving CO binding in acetyl-CoA synthase

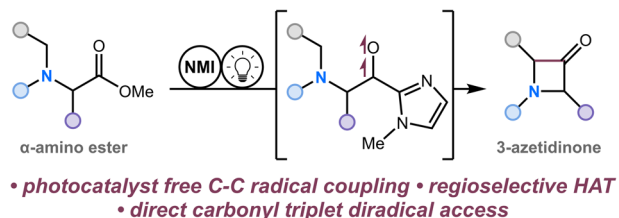
Denise Poire, Cornelius C. M. Bernitzky, Mathesh Vaithyanathan, Berta M. Martins, Christian Lorent, Tamanna M. Ahamad, Vladimir Pelmeshnikov, Igor Sazanovich, Gregory M. Greetham, Ingo Zebger, Holger Dobbek, Maria Andrea Mroginski and Marius Horch*



6766

Photochemical cyclization of α -amino esters to access 3-azetidiones

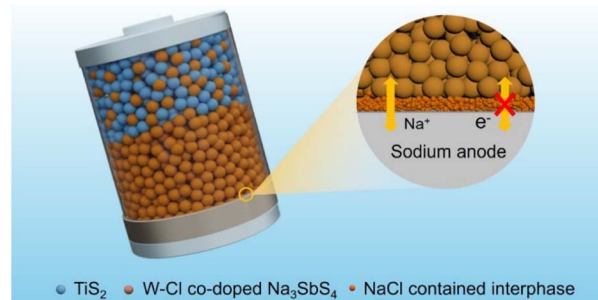
Meemie U. Hwang, Achyut Gogoi, Matthew Scurria, Osvaldo Gutierrez* and Karl A. Scheidt*



6773

NaCl interphase enables stable $\text{Na}_{2.85}\text{Sb}_{0.95}\text{W}_{0.05}\text{S}_{3.9}\text{Cl}_{0.1}$ -based all-solid-state sodium batteries

Zhanyou Feng, Liang Zhu, Enbo Qin, Ziman Weng, Jinghua Wu, Yong Li* and Xiayin Yao*



6782

Correction: Suppressing nonradiative decay *via* molecular configuration control in Cu(I)-halide clusters enables the fabrication of highly efficient green and green-sensitized blue OLEDs

Xiao Li, Sai Guo, Xin Liu, Yu-Fu Sun, Dong-Hai Zhang, Hui Yang, Jia-Min Lu* and Xu-Lin Chen*



CORRECTIONS

6783

Correction: Structural and spectroscopic basis of excitation energy transfer in microbial rhodopsins binding xanthophylls

Giacomo Salvadori, Piermarco Saraceno, Alisia Santomieri, Chris John and Laura Pedraza-González*

RETRACTION

6785

Retraction: Supramolecular engineering cascade regulates NIR-II J-aggregates to improve photodynamic therapy

Huizhe Wang, Huijia Liu, Wenqing Li, Shuai Li, Jiaqi Zhang, Jingzhe Zang, Li Liu and Peng Wang*

