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See Olexandr Isayev *et al.*, pp. 10228–10244. Image reproduced by permission of Olexandr Isayev and Tetiana Zubatyuk from *Chem. Sci.*, 2025, **16**, 10228.

Inside cover
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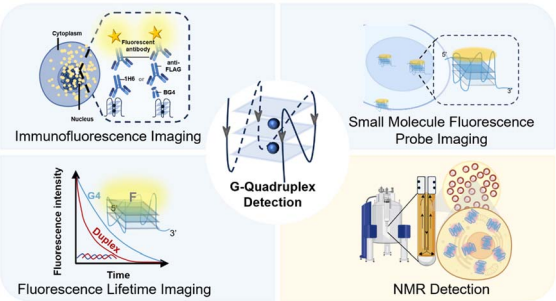
PERSPECTIVES

10083

Precise detection of G-quadruplexs in living systems: principles, applications, and perspectives

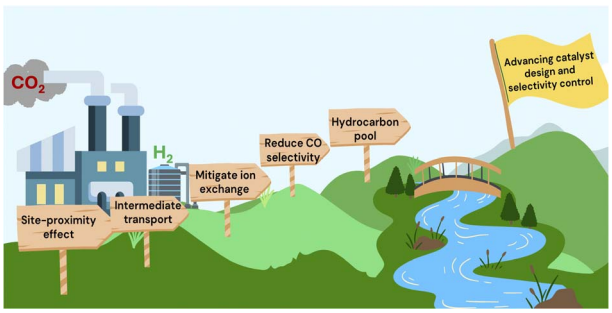
Huanhuan Li, Zelong Jin, Shuxin Gao, Shi Kuang,* Chunyang Lei and Zhou Nie*



10106

Interrogating the missing links in tandem CO_2 hydrogenation: role of intermediate transport, active site proximity, and ion exchange in zeolites

Fatima Mahnaz, Andrew Iovine and Manish Shetty*



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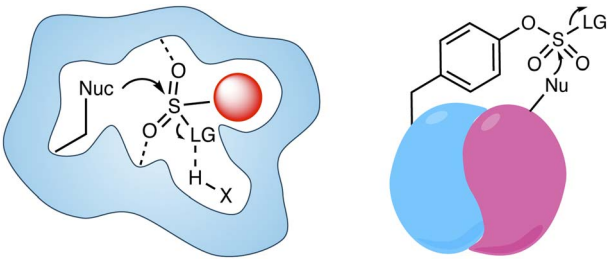
PERSPECTIVES

10119

Advances in sulfonyl exchange chemical biology: expanding druggable target space

Lyn H. Jones*



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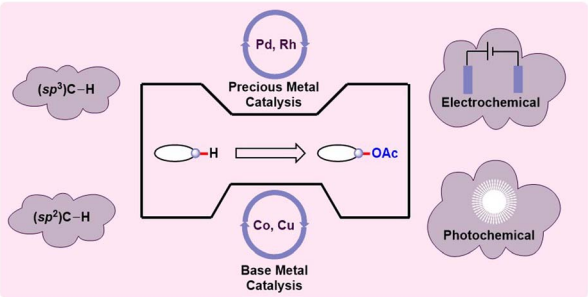
Harnessing C–H acetoxylation: a gateway to oxygen-enriched organic frameworks

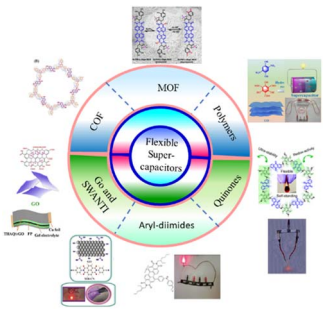
Jagrit Grover, Bishal Dutta, Devika Ghosh, Prakash K. Shee, Siddhartha Maiti, Daniel B. Werz* and Debabrata Maiti*



10159

Advancements in supercapacitors: breaking barriers and enabling amazing applications

Sidhanath V. Bhosale* and Sheshanath V. Bhosale*



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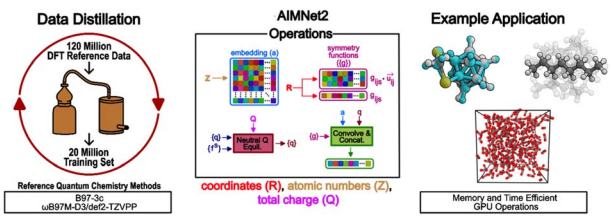
AIMNet2: a neural network potential to meet your neutral, charged, organic, and elemental-organic needs

Dylan M. Anstine, Roman Zubatyuk and Olexandr Isayev*



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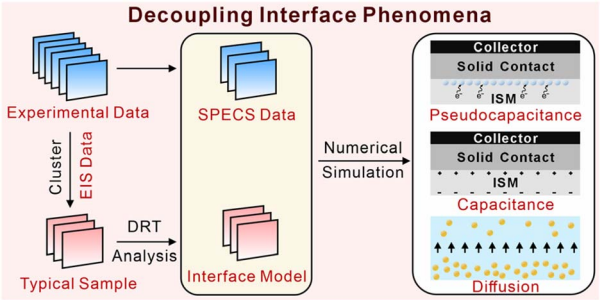
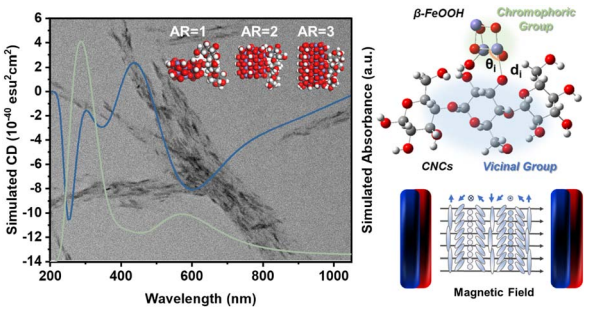


Inhibitions imposed by kinetic constraints of membranes in all-solid-state ion-selective electrodes: characteristics of interfacial capacitance in solid contacts

Rui-Ze Xia, Xin Cai, Jing-Yi Lin, Yong-Huan Zhao, Zi-Hao Liu, Chen-Lu Wang, Shi-Hua Chen,* Meng Yang,* Zong-Yin Song,* Pei-Hua Li* and Xing-Jiu Huang*

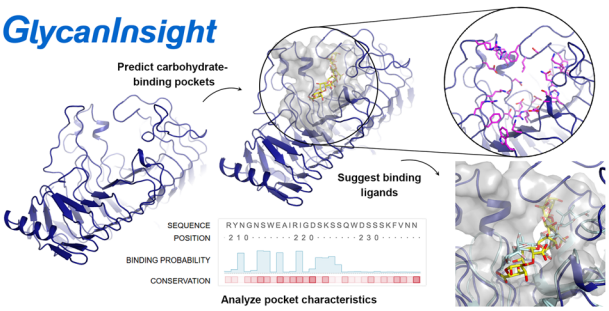
10255



Anisotropy-dependent chirality transfer from cellulose nanocrystals to β-FeOOH nanowhiskers

Jinyu Tang, Shouhua Feng and Ming Yang*

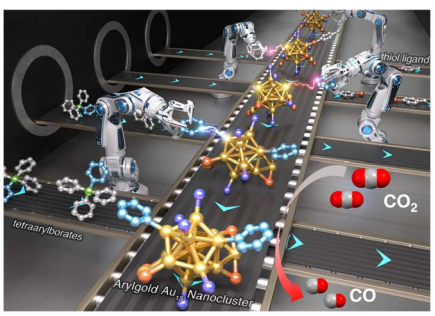
10264



GlycanInsight: an open platform for carbohydrate-binding pocket prediction and characterization

Qinyu Chu, Xinheng He, Xinyi Tan, Zhiyong Gu, Yin Luo, Zifu Huang, Mingyue Zheng* and Xi Cheng*

10273



Arylation of gold nanoclusters and insights into structure-related CO_2 reduction reaction performances

Chen Zhu, Bo Li, Chen Li, Luyao Lu, Hao Li, Xinhua Yuan, Xi Kang,* De-en Jiang* and Manzhou Zhu*

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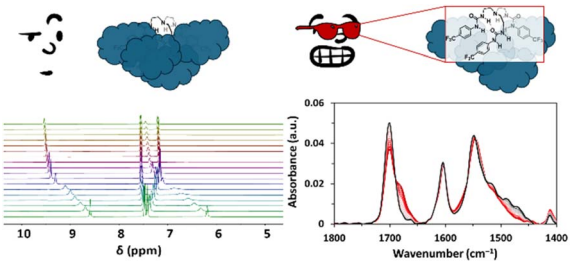
Expanding the toolbox for supramolecular chemistry: probing host–guest interactions and binding with *in situ* FTIR spectroscopy

Shiva Moaven, Douglas A. Vander Griend, Darren W. Johnson* and Michael D. Pluth*

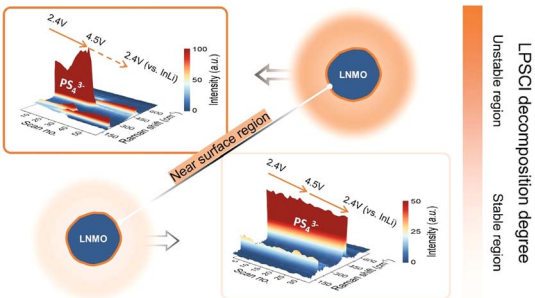


in-situ FTIR spectroscopy is a powerful technique to investigate host-guest interactions

10289

Combined effect of high voltage and large Li-ion flux on decomposition of Li_6PS_5Cl

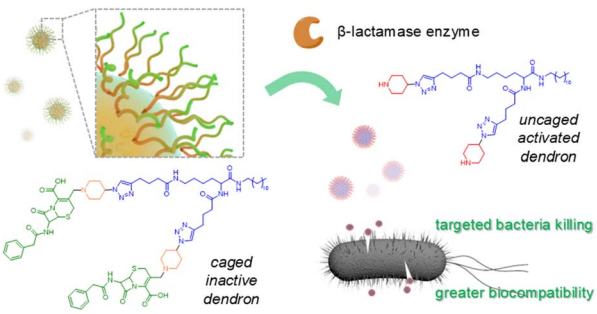
Deye Sun, Wenru Li, Yantao Wang, Jiangwei Ju, Pengxian Han, Shanmu Dong,* Jun Ma* and Guanglei Cui*



10296

β-Lactamase-activated antimicrobial dendron *via* the amine uncaging strategy

Hao Luo, Zeyu Shao, Karen Hakobyan, Jiangtao Xu, Rhiannon P. Kuchel, Shyam Kumar Mishra, Mark Willcox and Edgar H. H. Wong*



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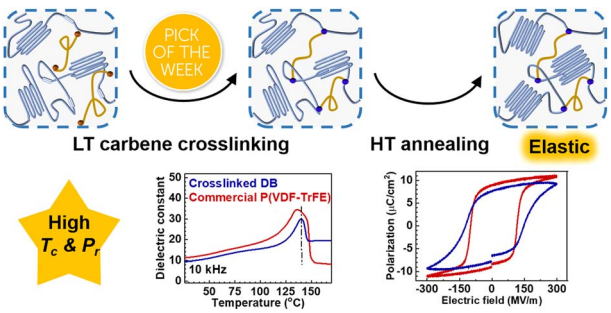
High-performance elastic ferroelectrics *via* low-temperature carbene crosslinking and high-temperature annealing

Linping Wang, Liang Gao, Xiaocui Rao, Fangzhou Li, Da Zu, Yunya Liu and Ben-Lin Hu*



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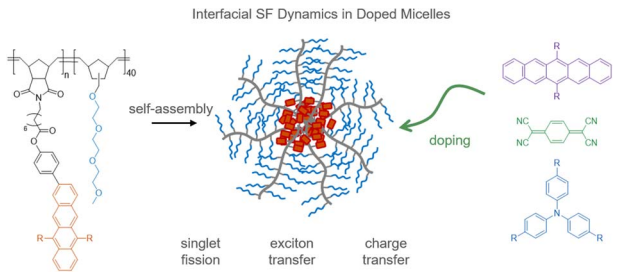

Exciton and charge transfer processes within singlet fission micelles

Daniel Malinowski, Guiying He, Bernardo Salcido-Santacruz, Kanad Majumder, Junho Kwon, Matthew Y. Sfeir* and Luis M. Campos*

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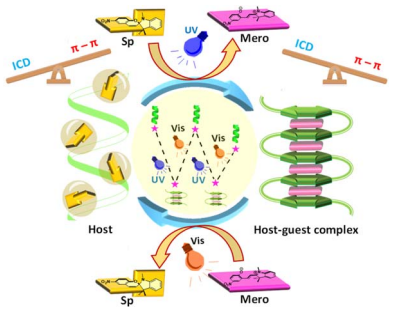

Light-induced twisting, untwisting, and retwisting of aromatic polyamides: an interplay between the induced chirality and the co-facial π-stacking interactions

Subhendu Samanta and Raj Kumar Roy*

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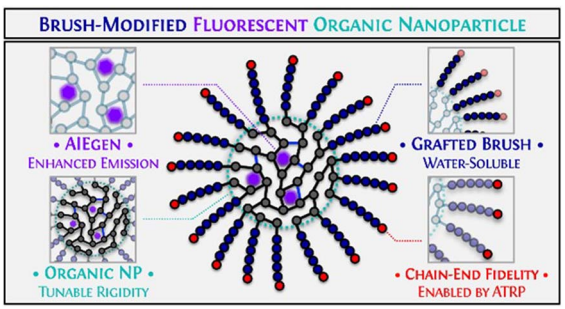
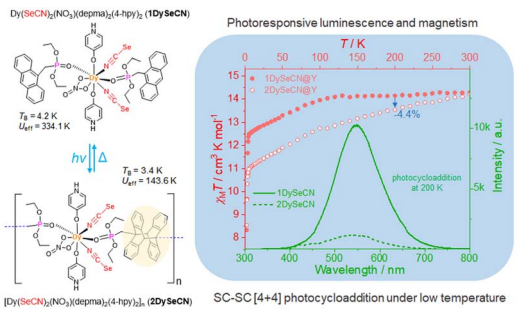


Brush-modified fluorescent organic nanoparticles by ATRP with rigidity-regulated emission

Rongguan Yin, Lianshun Luo, Xiaolei Hu, Hironobu Murata, Jaepil Jeong, Feng Gao, Zijie Qiu,* Ben Zhong Tang, Michael R. Bockstaller* and Krzysztof Matyjaszewski*

10340



A thermally and photoresponsive luminescent single-molecule magnet based on dysprosium–anthracene: effect of temperature on anthracene photocycloaddition

Xiu-Fang Ma, Xin-Lan Hou, Ye-Hui Qin, Qian Teng, Song-Song Bao, Yu-Xi Tian* and Li-Min Zheng*

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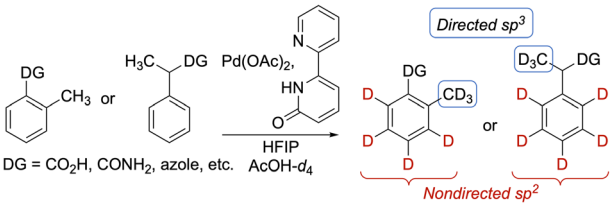
Merging directed sp^3 and nondirected sp^2 C–H functionalization for Pd-catalyzed polydeuteration of (hetero)arenes

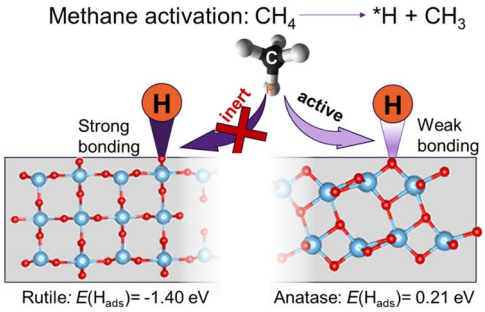
Soo Eun Park, Sungjun Choi, Chaewon Lim, Sang Hak Lee, Siyeon Jeong* and Jung Min Joo*



10357

Phase effect of TiO_2 on surface hydrogen adsorption/desorption in controlling photocatalytic methane conversion

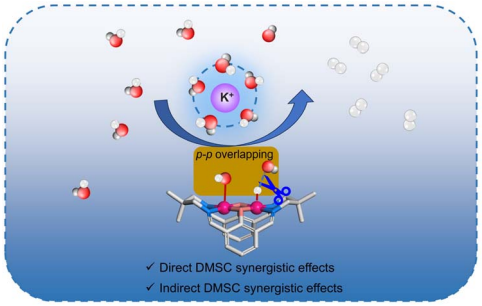
Jiakang You, Ardeshir Baktash, Dazhi Yao, Yanzhao Zhang, Shanshan Ding, Jingwei Hou, Guangyu Zhao, Yonggang Jin, Zhiliang Wang* and Lianzhou Wang*



10364

A salen-based dinuclear cobalt(II) polymer with direct and indirect synergy for electrocatalytic hydrogen evolution

Xiao-Mei Hu, Wen-Jie Shi,* Jian-Hua Mei, Yu-Chen Wang, Wei-Xue Tao, Di-Chang Zhong* and Tong-Bu Lu*



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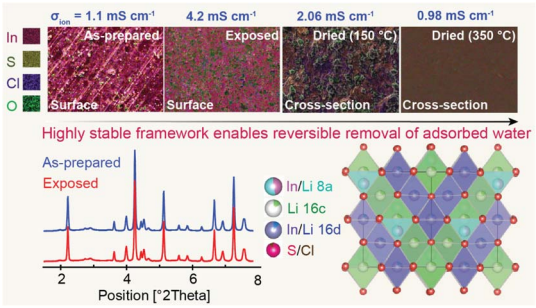
$Li_{3.6}In_7S_{11.8}Cl$: an air- and moisture-stable superionic conductor

Ifeoluwa P. Oyekunle, Erica Truong, Tej P. Poudel, Yudan Chen, Yongkang Jin, Islamiyat A. Ojelade, Michael J. Deck, Bright Ogbolu, Md. Mahinur Islam, Pawan K. Ojha, J. S. Raaj Vellore Winfred, Dewen Hou, Hui Xiong, Chen Huang and Yan-Yan Hu*



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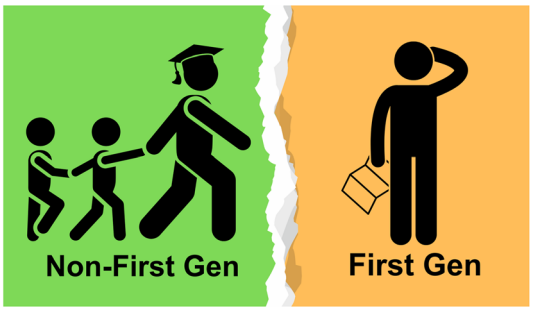

Being a first generation university graduate, the impact on a career in science

Mariam Yacoub, Sarah Koops, Panagiota Axelithioti, Claudia Caltagirone, Emily R. Draper, Cally J. E. Haynes, Charlotte K. Hind, Marion Kieffer, Larissa K. S. von Krbek, Anna J. McConnell, Sarah J. Pike, Anna G. Slater, Jennifer R. Hiscock* and Jennifer S. Leigh*

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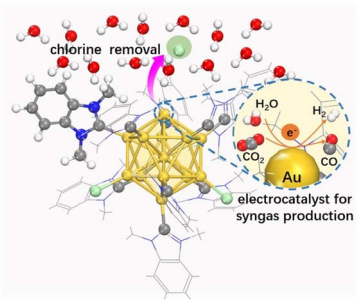
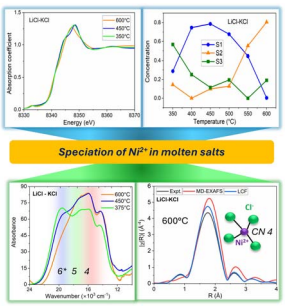


Electrochemical dechlorination promotes syngas production in N-heterocyclic carbene protected Au_{13} nanoclusters

Zhimin Chen, Dongjie Zuo, Lancheng Zhao, Yuping Chen, Fang Sun, Likai Wang,* Hui Shen* and Qing Tang*

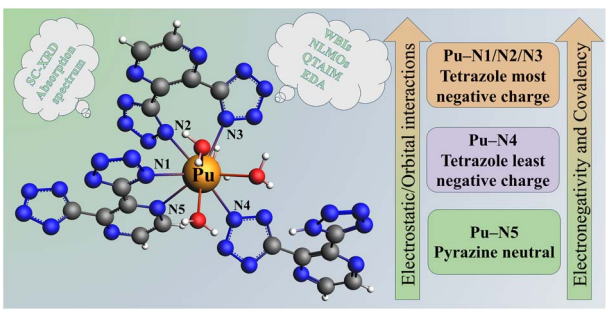
10414



Correlative analysis of Ni(II) coordination states in molten salts using a combination of X-ray and optical spectroscopies and simulations

Yang Liu, Mehmet Topsakal, Kaifeng Zheng, Luis E. Betancourt, Michael Woods, Santanu Roy, Nirmalendu Patra, Denis Leshchev, Phillip Halstenberg, Dmitry S. Maltsev, Sheng Dai, Alexander S. Ivanov, Vyacheslav S. Bryantsev, James F. Wishart,* Ruchi Gakhar,* Anatoly I. Frenkel* and Simerjeet K. Gill*

10424



Unveiling the covalency of versatile Pu(iii)-N bonds in a unique plutonium(iii) complex

Zhuanling Bai, Madeline C. Martelles, Joseph M. Sperling* and Thomas E. Albrecht*

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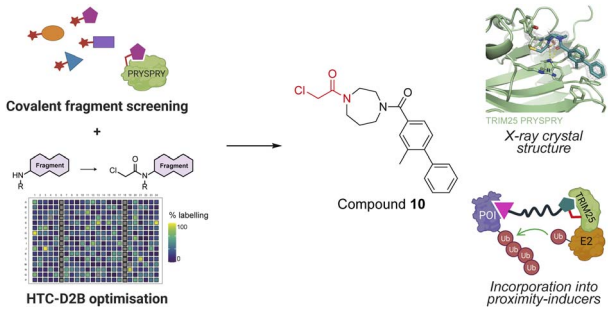
Discovery and optimisation of a covalent ligand for TRIM25 and its application to targeted protein ubiquitination

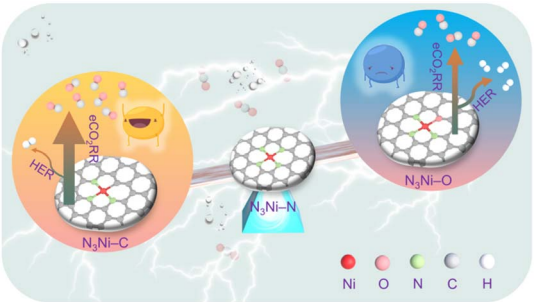
Katherine A. McPhie, Diego Esposito, Jonathan Pettinger, Daniel Norman, Thilo Werner, Toby Mathieson, Jacob T. Bush and Katrin Rittinger*



10444

Continuous coordination modulation with different heteroatoms unveils favorable single-atom Ni sites for near-unity CO selectivity in CO_2 electroreduction

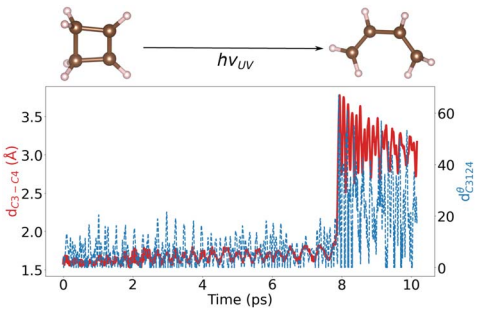
Shuangqun Chen, Tong Cao, Wen Yan, Ke Zhao, Yalin Guo,* Tiantian Wu,* Daliang Zhang, Ming Ma, Yu Han and Jianfeng Huang*



10454

The hole mass in Car–Parrinello molecular dynamics: insights into the dynamics of excitation

Sherif Abdulkader Tawfik* and Tiffany R. Walsh



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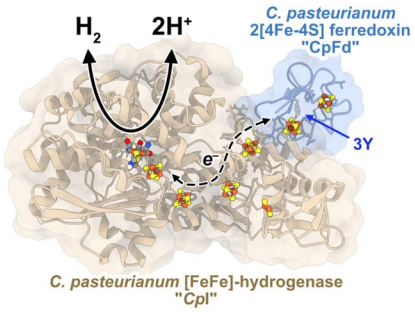
Probing the ferredoxin:hydrogenase electron transfer complex by infrared difference spectroscopy

Selmihan Sahin, Johanna Brazard, Kilian Zuchan, Takuji B. M. Adachi, Ulrich Mühlenhoff, Ross D. Milton* and Sven T. Stripp*



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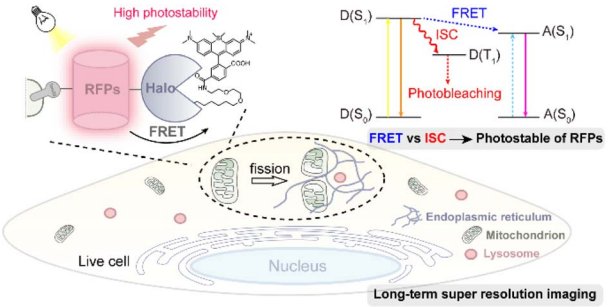
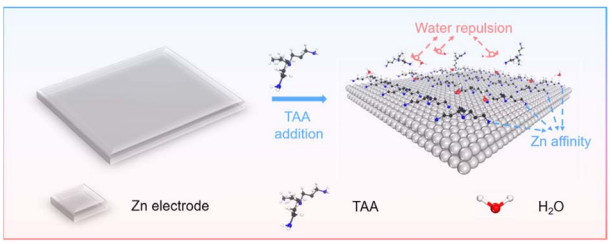


Enhancing the photostability of red fluorescent proteins through FRET with Si-rhodamine for dynamic super-resolution fluorescence imaging

Xuelian Zhou, Lu Miao,* Wei Zhou, Yonghui Chen, Yiyan Ruan, Xiang Wang, Guangying Wang, Pengjun Bao, Qinglong Qiao* and Zhaochao Xu*

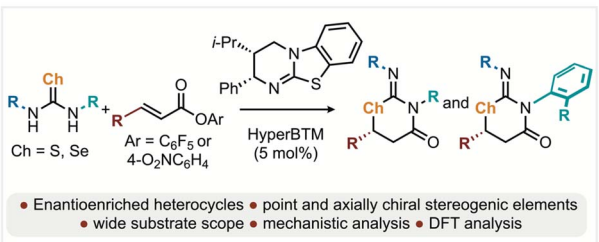
10487



An amine electrolyte additive with claw structure promoting the stability of a Zn anode in aqueous batteries

Xiaoqi Sun,* Hongtu Zhan, Qianrui Li and Kuo Wang*

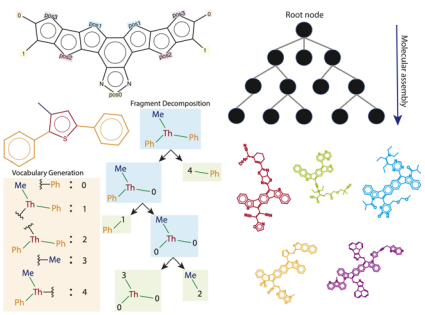
10494



Isothiourea catalysed enantioselective generation of point and axially chiral iminothia- and iminoselenazinanones

Alastair J. Nimmo, Alister S. Goodfellow, Jacob T. Guntley, Aidan P. McKay, David B. Cordes, Michael Bühl* and Andrew D. Smith*

10503



Symmetry-constrained generation of diverse low-bandgap molecules with Monte Carlo tree search

Akshay Subramanian, James Damewood, Juno Nam, Kevin P. Greenman, Avni P. Singhal and Rafael Gómez-Bombarelli*

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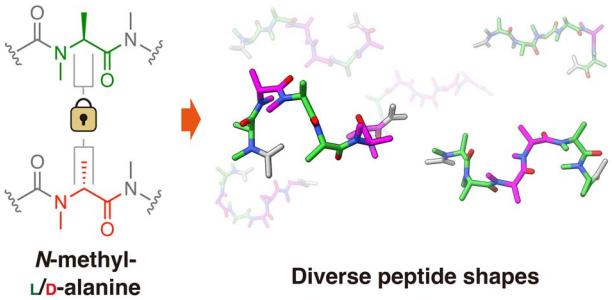
EDGE ARTICLES

10512

Bottom-up design of peptide shapes in water using oligomers of *N*-methyl-L/D-alanine

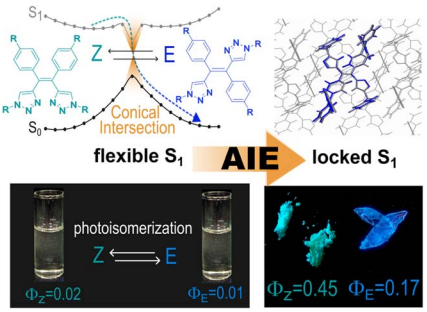
Jumpei Morimoto,* Marin Yokomine, Yota Shiratori, Takumi Ueda, Takayuki Nakamuro, Kiyofumi Takaba, Saori Maki-Yonekura, Koji Umezawa, Koichiro Miyanishi, Yasuhiro Fukuda, Takumu Watanabe, Mayuko Suga, Ayumi Inayoshi, Takuya Yoshida, Wataru Mizukami, Koh Takeuchi, Koji Yonekura, Eiichi Nakamura and Shinsuke Sando*



10523

Stereoselective synthesis of heterocyclic tetraphenylethylene analogues with configuration-dependent solid-state luminescence

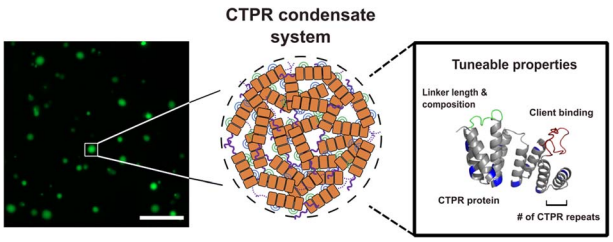
Mathilde Seinfeld,* Jean Rouillon, Raphael Rullan, Erwann Jeanneau, Stephan N. Steinmann, Chantal Andraud, Tangui Le Bahers* and Cyrille Monnereau



10532

Tandem-repeat proteins introduce tuneable properties to engineered biomolecular condensates

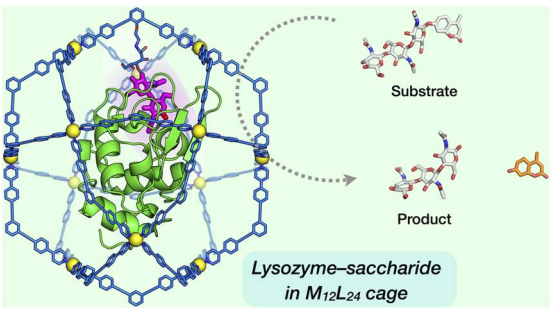
Tin Long Chris Ng, Mateo P. Hoare, M. Julia Maristany, Ellis J. Wilde, Tomas Sneideris, Jan Huertas, Belinda K. Agbetiameh, Mona Furukawa, Jerelle A. Joseph, Tuomas P. J. Knowles, Rosana Collepardo-Guevara, Laura S. Itzhaki* and Janet R. Kumita*



10549

Proximity-induced saccharide binding to a protein's active site within a confined cavity of coordination cages

Takahiro Nakama,* Miri Tadokoro, Risa Ebihara, Maho Yagi-Utsumi, Koichi Kato and Makoto Fujita*



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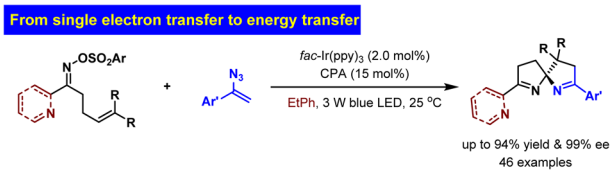
EDGE ARTICLES

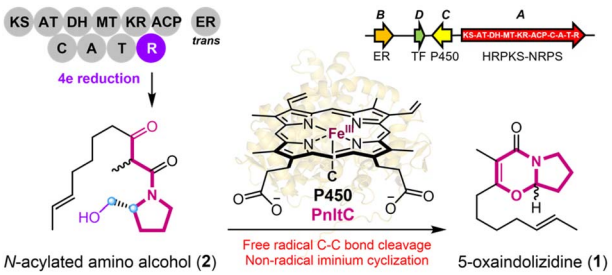
10555



Precise construction of spiro stereocenters *via* enantioselective radical addition through modulating photocatalysis from redox to energy transfer

Fayu Liu, Yanqi Guo, Weidong Lu, Xiaowei Zhao, Yanli Yin* and Zhiyong Jiang*

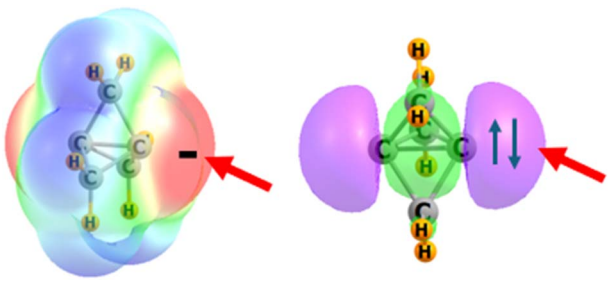
10563



Multifunctional cytochrome P450 orchestrates radical cleavage and non-radical cyclization in 5-oxaindolizidine biosynthesis

Kaijin Zhang, Jingxian Sun, Wencai Song, Junyu Liu, Chuanteng Ma, Yinghan Chen, Yan Guan, Yuting Liu, Zilin Ren, Qian Che, Guojian Zhang, Yankai Liu, Tianjiao Zhu and Dehai Li*

10572



Ability of strained C atoms to act as an electron donor

Mariusz Michalczyk, Wiktor Zierkiewicz* and Steve Scheiner*

10585

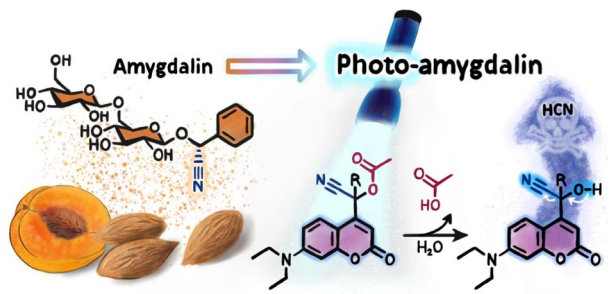


Photo-amygdalin: light-dependent control over hydrogen cyanide release and cytotoxicity

Albert Marten Schulte, Ainoa Guinart, Georgios Alachouzos, Wiktor Szymanski* and Ben L. Feringa*

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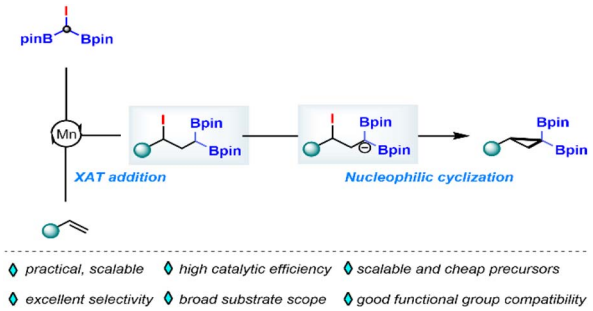
EDGE ARTICLES

10595

Synthesis of *gem*-di(boryl)cyclopropanes from non-activated olefins *via* Mn-photocatalyzed atom transfer radical addition

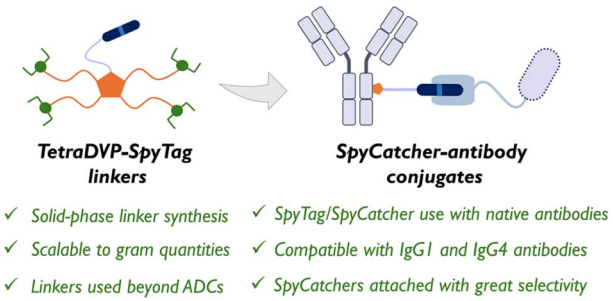
Jiefeng Hu,* Kun Zhang, Jing Wang, Mingming Huang, Shuangru Chen, Zhuangzhi Shi and Todd B. Marder*



10602

A platform for SpyCatcher conjugation to native antibodies

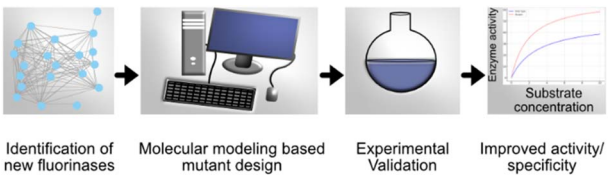
Sona Krajcovicova, Thomas Wharton, Claudia L. Driscoll, Thomas A. King, Mark R. Howarth* and David R. Spring*



10610

Unveiling the molecular basis of selective fluorination of SAM-dependent fluorinases

Ravi Kumar Verma, Wan Lin Yeo, Elaine Tiong, Ee Lui Ang,* Yee Hwee Lim,* Fong Tian Wong* and Hao Fan*



CORRECTIONS

10620

Correction: Exciton and charge transfer processes within singlet fission micelles

Daniel Malinowski, Guiying He, Bernardo Salcido-Santacruz, Kanad Majumder, Junho Kwon, Matthew Y. Sfeir* and Luis M. Campos*

CORRECTIONS

10621

Correction: Site- and stereoselective silver-catalyzed intramolecular amination of electron-deficient heterobenzylic C–H bonds

Tuan Anh Trinh, Stanislav Cherempei, Daniel S. Rampon and Jennifer M. Schomaker*

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