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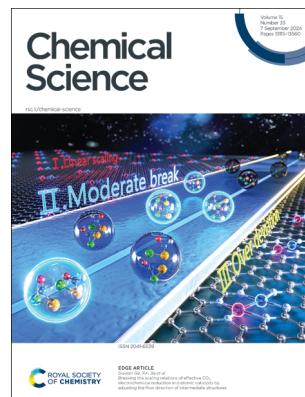
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See Jean-Christophe M. Monbaliu *et al.*, pp. 13148–13159. Image reproduced by permission of Jean-Christophe M. Monbaliu from *Chem. Sci.*, 2024, 15, 13148.



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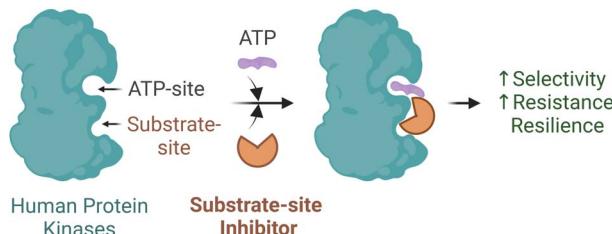
See Guixian Ge, Xin Jia *et al.*, pp. 13160–13172. Image reproduced by permission of Xin Jia from *Chem. Sci.*, 2024, 15, 13160.

REVIEW

13130

The prospect of substrate-based kinase inhibitors to improve target selectivity and overcome drug resistance

Biswajit Biswas, Yen-Hua Huang, David J. Craik* and Conan K. Wang*

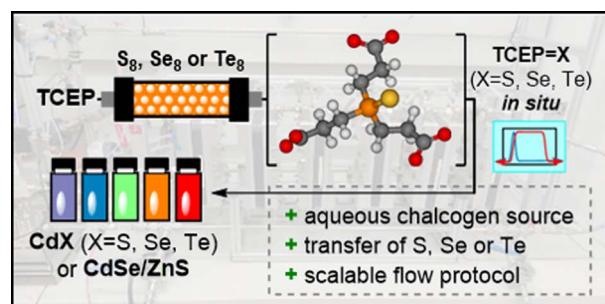


EDGE ARTICLES

13148

An innovative chalcogenide transfer agent for improved aqueous quantum dot synthesis

Guillaume Petit, Cedric Malherbe, Pauline Bianchi and Jean-Christophe M. Monbaliu*



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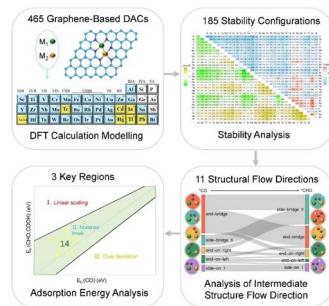
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Breaking the scaling relations of effective CO₂ electrochemical reduction in diatomic catalysts by adjusting the flow direction of intermediate structures

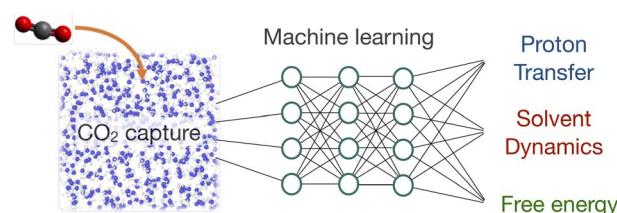
Yanwen Zhang, Zhaoqun Yao, YiMing Yang, Xingwu Zhai, Feng Zhang, Zhirong Guo, Xinghuan Liu, Bin Yang, Yunxia Liang, Guixian Ge* and Xin Jia*



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Machine learning demonstrates the impact of proton transfer and solvent dynamics on CO₂ capture in liquid ammonia

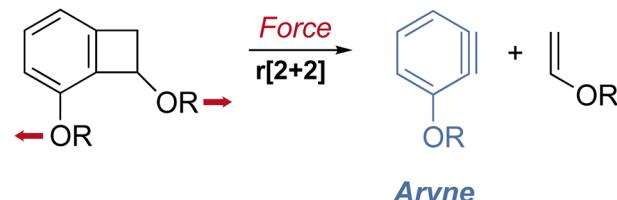
Marcos F. Calegari Andrade,* Sichi Li,* Tuan Anh Pham, Sneha A. Akhade and Simon H. Pang*



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Mechanochemical generation of aryne

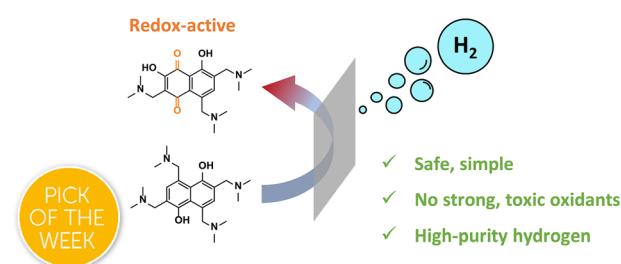
Qianqian Cheng and Guillaume De Bo*



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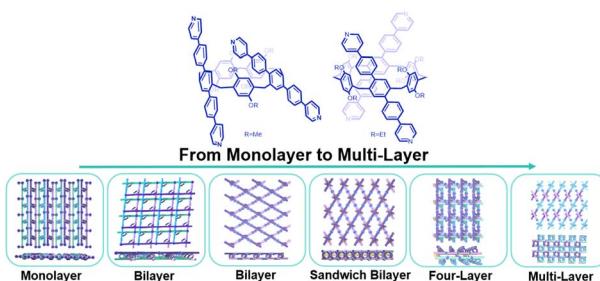
In situ electrosynthesis of quinone-based redox-active molecules coupling with high-purity hydrogen production

Hyunjoon Ji, Ziming Zhao, Changkun Zhang* and Xianfeng Li*



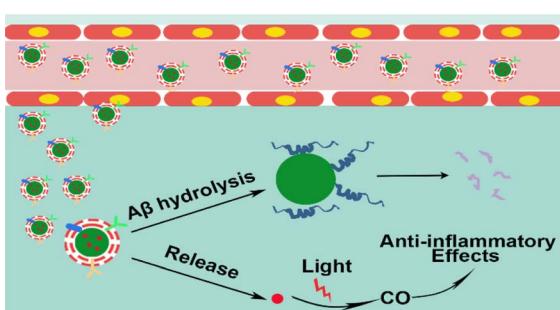
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**Accurate construction of monolayer, bilayer, sandwich bilayer, four-layer, multi-layer and chiral bilayer 2D pillararene-type supramolecular networks**

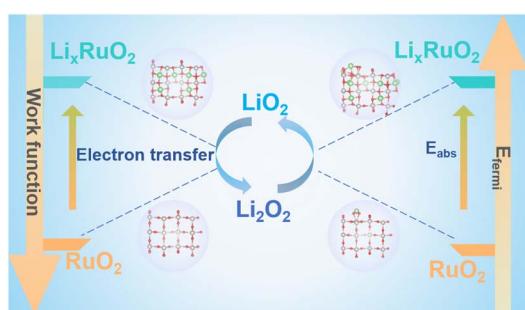
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**Biomimetic engineering of a neuroinflammation-targeted MOF nanzyme scaffolded with photo-trigger released CO for the treatment of Alzheimer's disease**

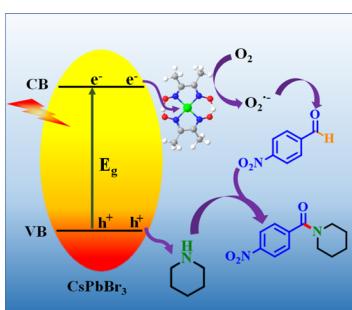
Chun Liu, Wenting Zhang, Haochen Zhang, Chuanqi Zhao, Xiubo Du, Jinsong Ren and Xiaogang Qu*

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**Unleashing the potential of Li–O₂ batteries with electronic modulation and lattice strain in pre-lithiated electrocatalysts**

Zhengcai Zhang, Dulin Huang, Shuochao Xing, Minghui Li, Jing Wu, Zhang Zhang, Yaying Dou* and Zhen Zhou*

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**Deciphering charge transfer dynamics of a lead halide perovskite–nickel(II) complex for visible light photoredox C–N coupling**

Vishesh Kumar, Sunil Kumar Patel, Ved Vyas, Deepak Kumar, E. Siva Subramaniam Iyer* and Arindam Indra*

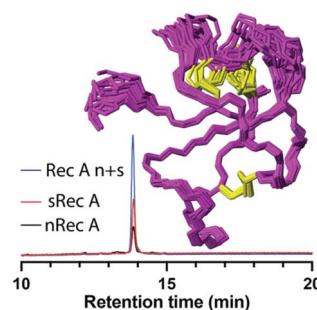


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Picking the tyrosine-lock: chemical synthesis of the tyrosyl-DNA phosphodiesterase I inhibitor recifin A and analogues

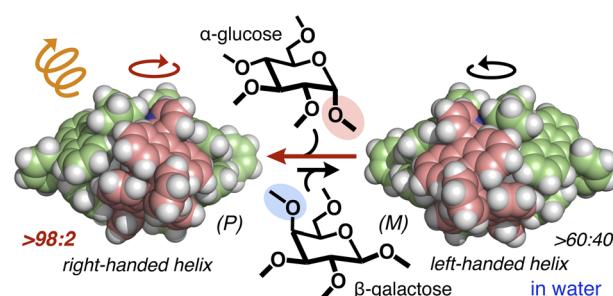
Taylor B. Smallwood, Lauren R. H. Krumpe, Colton D. Payne, Victoria G. Klein, Barry R. O'Keefe, Richard J. Clark,* Christina I. Schroeder* and K. Johan Rosengren*



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Helicity control of a polyaromatic coordination capsule through stereoselective CH–π interactions

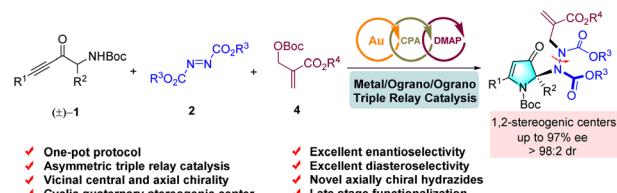
Natsuki Kishida, Hayate Sasafuchi, Tomohisa Sawada and Michito Yoshizawa*



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Enantioconvergent and diastereoselective synthesis of atropisomeric hydrazides bearing a cyclic quaternary stereocenter through ternary catalysis

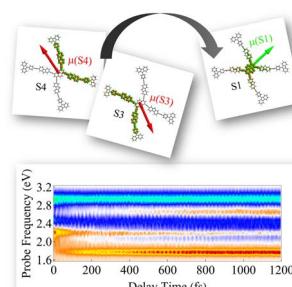
Xia Wang, Shao-Jie Wang, Xiaolan Xin, Hao An, Zhifeng Tu,* Hui Yang, Ming Wah Wong* and Shenci Lu*



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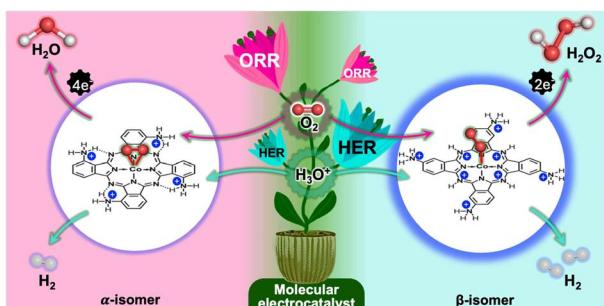
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Royle Perez-Castillo, Victor M. Freixas, Shaul Mukamel, Aliezer Martinez-Mesa, Llinersy Uranga-Piña, Sergei Tretiak, Maxim F. Gelin and Sebastian Fernandez-Alberti*



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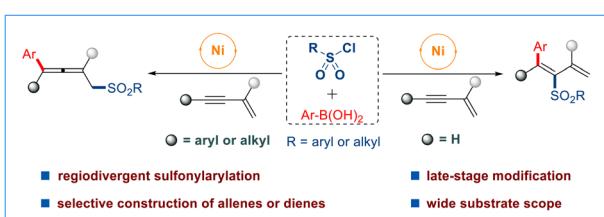
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Switchable molecular electrocatalysis

Shifali Dutt, Alagar Raja Kottaichamy, Neethu Christudas Dargily, Sanchayita Mukhopadhyay, Bhoj Kumar Nayak, Mruthyunjayachari Chattanhalil Devendrachari, Chatakudhath Prabakaran Vinod, Harish Makri Nimbegondi Kotresh and Musthafa Ottakam Thotiyil*

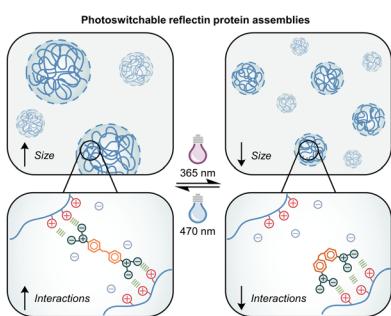
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Nickel-catalyzed regiodivergent sulfonylarylation of 1,3-enynes to access allenes and dienes

Zhuomin Chi, Yongchao Zhou, Bingbing Liu, Xiaojing Xu, Xueyuan Liu and Yongmin Liang*

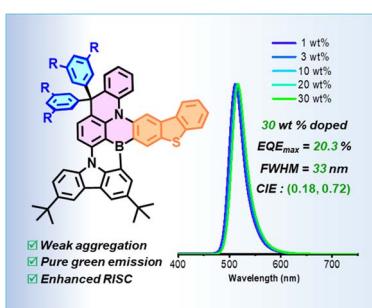
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Reversible and size-controlled assembly of reflectin proteins using a charged azobenzene photoswitch

Cassidy M. Tobin, Reid Gordon, Seren K. Tochikura, Bradley F. Chmelka, Daniel E. Morse and Javier Read de Alaniz*

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10-Dibenzothiophenyl-9,9-diphenylacridane-based multiple resonance emitters for high-efficiency narrowband green OLEDs with CIE $y > 0.7$ at high doping concentrations

Rui Zhong, Mengyu Wang, Xingdong Wang, Shumeng Wang, Shiyang Shao* and Lixiang Wang*



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Tandem catalytic allylic C–H amination and asymmetric [2,3]-rearrangement *via* bimetallic relay catalysis

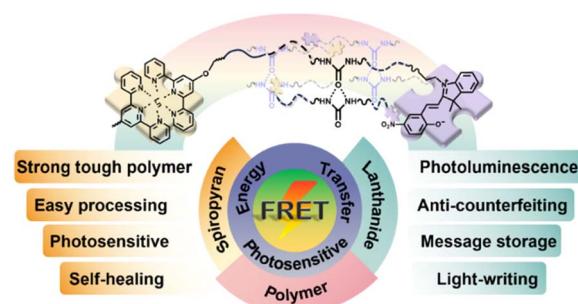
Zhenwei Wu, Xi Yang, Fangqing Zhang, Yangbin Liu*
and Xiaoming Feng*



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Self-healing photoluminescent polymers with photosensitive behavior for information storage and multiple-level dynamic encryption

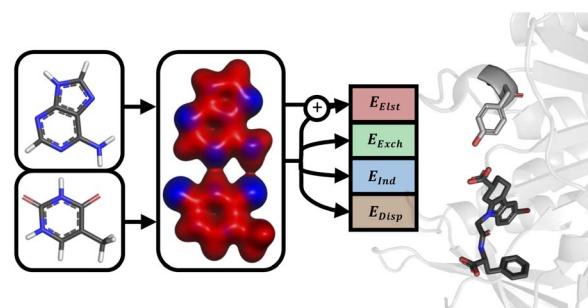
Di Zhao, Xianglong Li, Qianrui Li, Chunmei Yue,
Yige Wang* and Huanrong Li*



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A physics-aware neural network for protein–ligand interactions with quantum chemical accuracy

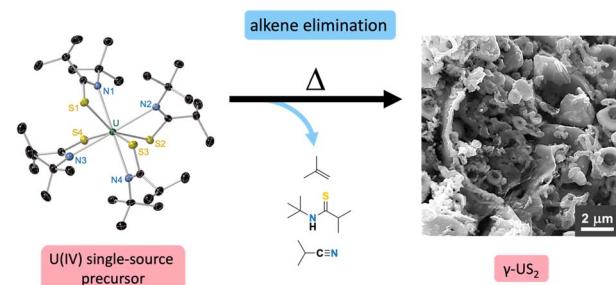
Zachary L. Glick, Derek P. Metcalf, Caroline S. Glick,
Steven A. Spronk, Alexios Koutsoukas, Daniel L. Cheney
and C. David Sherrill*



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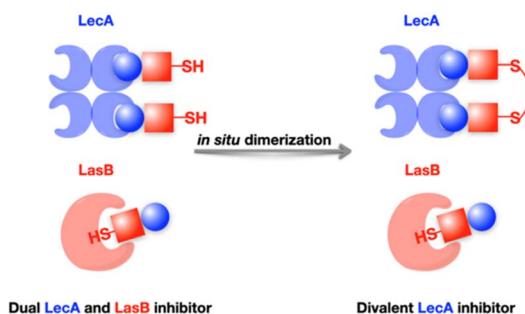
Formation of uranium disulfide from a uranium thioamide single-source precursor

Sheridon N. Kelly, Dominic R. Russo, Erik T. Ouellette,
Debashree Roy, Andrew J. Swift, Michael A. Boreen,
Patrick W. Smith, Liane M. Moreau,* John Arnold*
and Stefan G. Minasian*



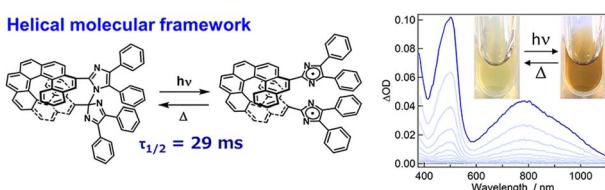
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**Dual inhibitors of *Pseudomonas aeruginosa* virulence factors LecA and LasB**

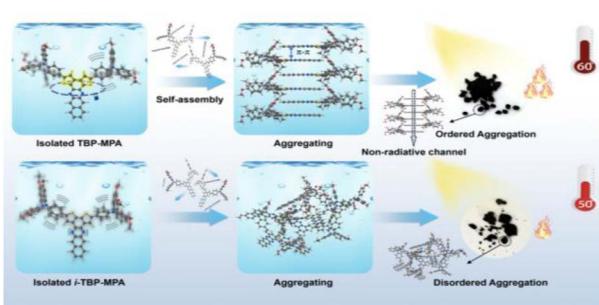
Olga Metelkina, Jelena Konstantinović, Andreas Klein, Roya Shafiei, Mario Fares, Alaa Alhayek, Samir Yahiaoui, Walid A. M. Elgaher, Jörg Haupenthal, Alexander Titz* and Anna K. H. Hirsch*

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**Fast photochromism of helicene-bridged imidazole dimers**

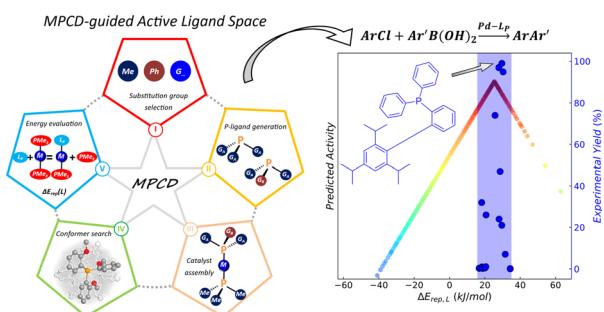
Katsuya Mutoh and Jiro Abe*

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**Isomer engineering for deep understanding of aggregation-induced photothermal enhancement in conjugated systems**

Peiyang Gu,* Tengfei He,* Zuoyu Wang, Shifan Wang, Liming Dong, Hanning Yao, Tao Jia,* Guankui Long, Guangfeng Liu and Hua Sun*

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**Data-driven discovery of active phosphine ligand space for cross-coupling reactions**

Sicong Ma,* Yanwei Cao, Yun-Fei Shi, Cheng Shang, Lin He* and Zhi-Pan Liu*

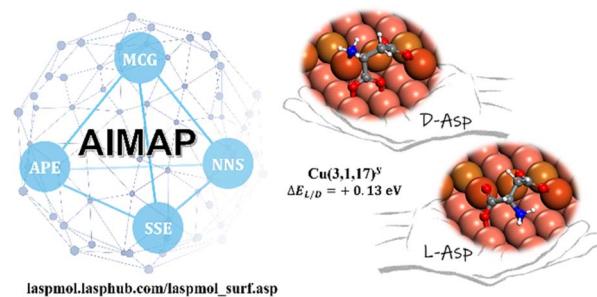


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Artificial intelligence driven molecule adsorption prediction (AIMAP) applied to chirality recognition of amino acid adsorption on metals

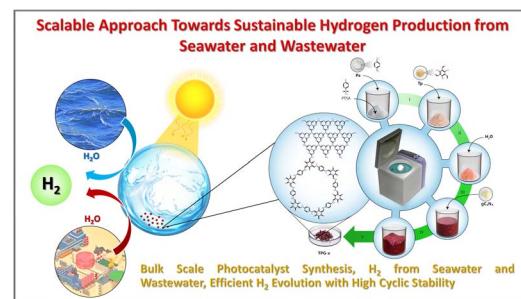
Zi-Xing Guo, Guo-Liang Song* and Zhi-Pan Liu*



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A scalable approach using a gC₃N₄-covalent organic framework hybrid catalyst towards sustainable hydrogen production from seawater and wastewater

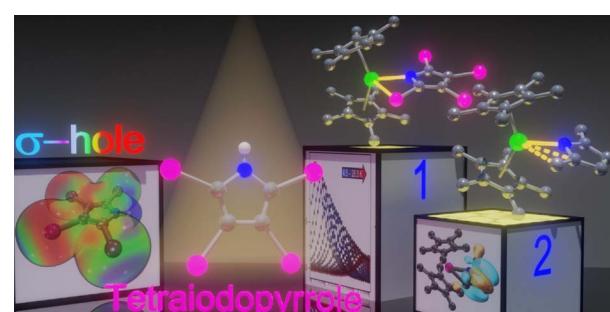
Kiran Asokan, T. M. Bhagyasree, George Devasia, Sailaja Krishnamurty, Sabah Solim, Lina Rueda, Dhabia M. Al-Mohannadi, Mohammed Al-Hashimi, Konstantinos Kakosimos and Sukumaran Santhosh Babu*



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Construction of intermolecular σ-hole interactions in rare earth metallocene complexes using a 2,3,4,5-tetraiodopyrrolyl anion

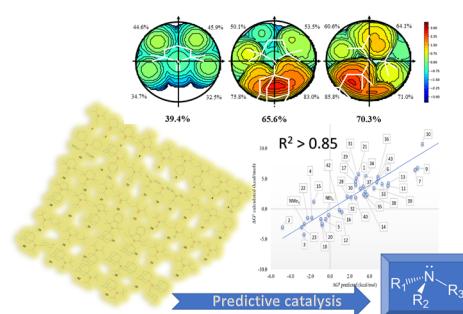
Francis Delano, IV, Florian Benner, Seoyun Jang, Samuel M. Greer and Selvan Demir*



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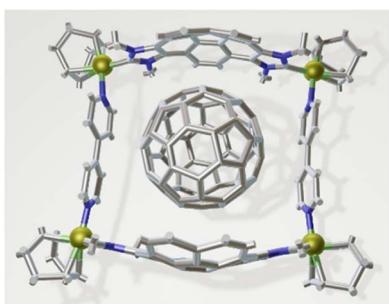
Tuning the steric hindrance of alkylamines: a predictive model of steric editing of planar amines

Michele Tomasini, Maria Voccia, Lucia Caporaso, Michal Szostak* and Albert Poater*



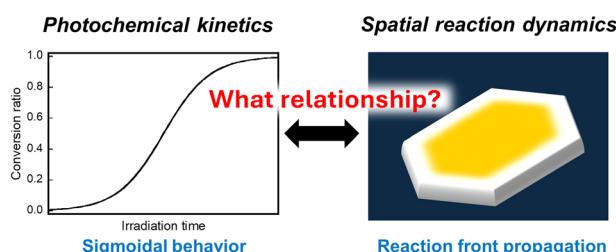
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**A corannulene-based metallocbox for the encapsulation of fullerenes**

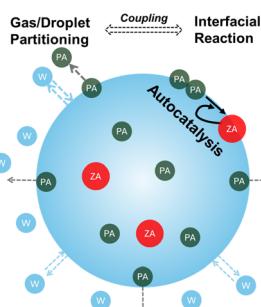
Susana Ibáñez,* Carmen Mejuto, Katherin Cerón, Pablo J. Sanz Miguel and Eduardo Peris*

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**Relationship between spatially heterogeneous reaction dynamics and photochemical kinetics in single crystals of anthracene derivatives**

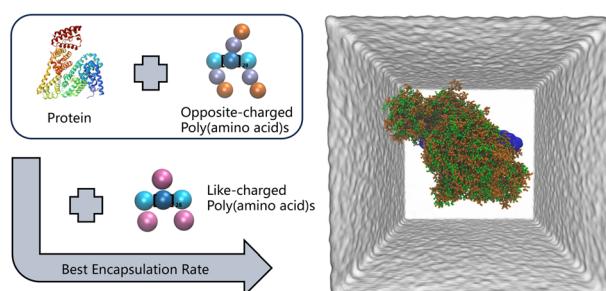
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**Enhanced condensation kinetics in aqueous microdroplets driven by coupled surface reactions and gas-phase partitioning**

Meng Li, Shu Yang, Meenal Rathi, Satish Kumar, Cari S. Dutcher* and Vicki H. Grassian*

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**Unraveling mechanisms of protein encapsulation and release in coacervates via molecular dynamics and machine learning**

Yiwei Wang, Rongrong Zou, Yeqiang Zhou, Yi Zheng, Chuan Peng, Yang Liu,* Hong Tan, Qiang Fu and Mingming Ding*

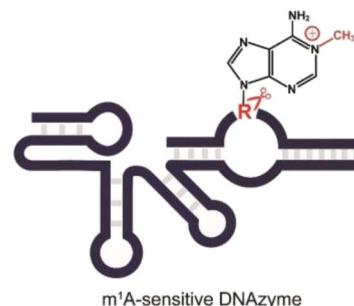


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In vitro selection of *N*¹-methyladenosine-sensitive RNA-cleaving deoxyribozymes with 10⁵-fold selectivity over unmethylated RNA

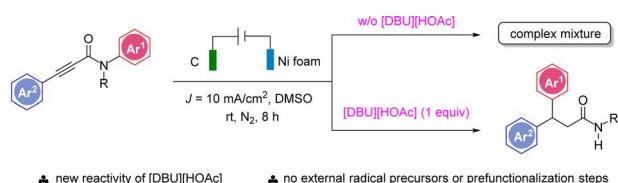
Jiarong Shi, Qiang Zhang, Yunping Wu, Yangyang Chang and Meng Liu*



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The merger of electro-reduction and hydrogen bonding activation for a radical Smiles rearrangement

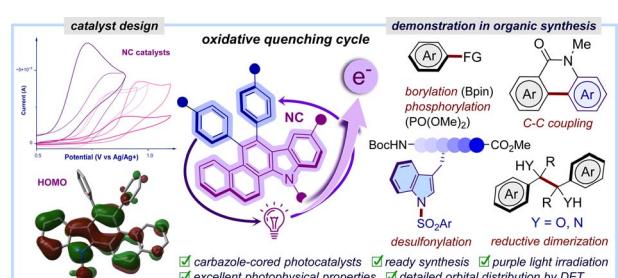
Liuyan Lan, Kun Xu* and Chengchu Zeng



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A toolbox approach to revealing a series of naphthocarbazoles to showcase photocatalytic reductive syntheses

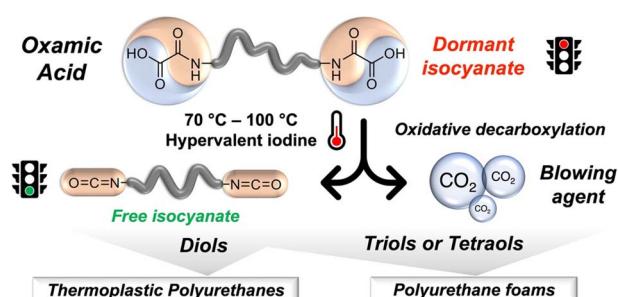
Sharmila Das, Samrat Kundu, Abhisek Metya and Modhu Sudan Maji*



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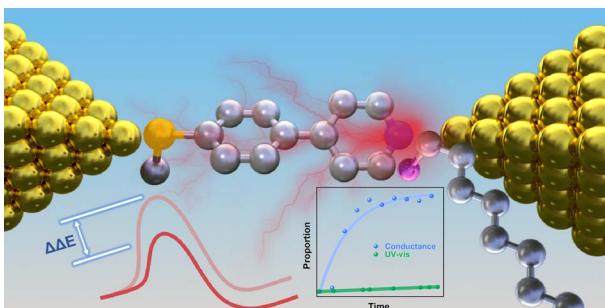
Synthesis of polyurethanes through the oxidative decarboxylation of oxamic acids: a new gateway toward self-blown foams

Quentin Jaussaud, Ikechukwu Martin Ogbu, Govind Goroba Pawar, Etienne Grau, Frédéric Robert, Thomas Vidil, Yannick Landais* and Henri Cramail*



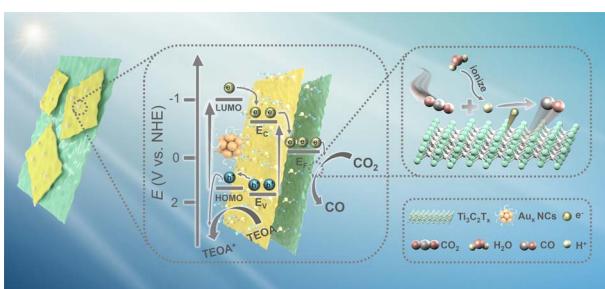
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**Massive acceleration of S_N2 reaction using the oriented external electric field**

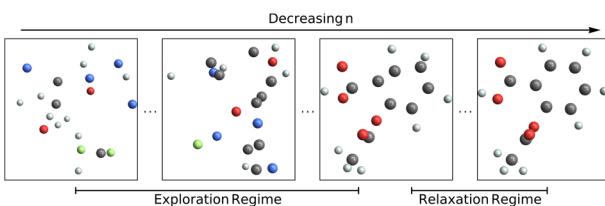
Chun Tang, Meiling Su, Taige Lu, Jueting Zheng, Juejun Wang, Yu Zhou, Yu-Ling Zou, Wenqing Liu, Ruiyun Huang, Wei Xu, Lijue Chen, Yanxi Zhang, Jie Bai, Yang Yang, Jia Shi, Junyang Liu* and Wenjing Hong

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**Atomically precise metal nanoclusters combine with MXene towards solar CO₂ conversion**

Yu-Shan Cai, Jia-Qi Chen, Peng Su, Xian Yan, Qing Chen, Yue Wu and Fang-Xing Xiao*

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**Investigating the behavior of diffusion models for accelerating electronic structure calculations**

Daniel Rothchild,* Andrew S. Rosen, Eric Taw, Connie Robinson, Joseph E. Gonzalez and Aditi S. Krishnapriyan*

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**Combining photocontrolled-cationic and anionic group-transfer polymerizations using a universal mediator: enabling access to two- and three-mechanism block copolymers**

Brandon M. Hosford, William Ramos and Jessica R. Lamb*

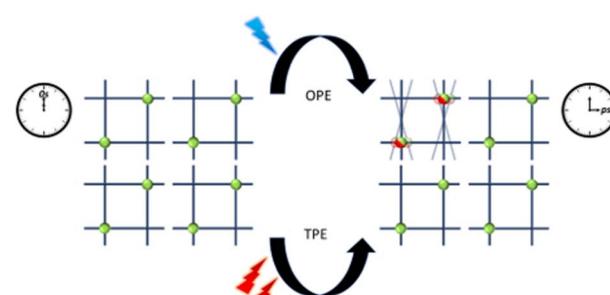


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Out-of-equilibrium dynamics of a grid-like Fe(II) spin crossover dimer triggered by a two-photon excitation

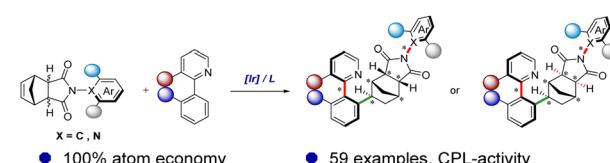
Jose de Jesus Velazquez-Garcia,* Krishnayan Basuroy, Joanne Wong, Serhiy Demeshko, Franc Meyer, Insik Kim, Robert Henning, Yannic U. Staechelin, Holger Lange and Simone Techert*



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Access to distal biaxial atropisomers by iridium catalyzed asymmetric C–H alkylation

Xueqing Hu, Yunxu Zhao, Tong He, Caoyue Niu, Feipeng Liu, Wei Jia, Yi Mu, Xingwei Li* and Zi-Qiang Rong*



1 synthetic step = 1 bond + 2 distal chiral axes + 5 chiral carbon centers

13550

A versatile fluorinated azamacrocyclic chelator enabling ^{18}F PET or ^{19}F MRI: a first step towards new multimodal and smart contrast agents

Charline Sire, Vincent Meneyrol, Nathalie Saffon-Merceron, Enzo Terreno, Francesca Garello, Lorenzo Tei, Emmanuelle Jestin, Raphaël Tripier and Thibault Troadec*

