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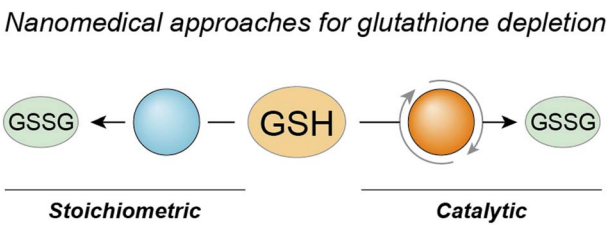
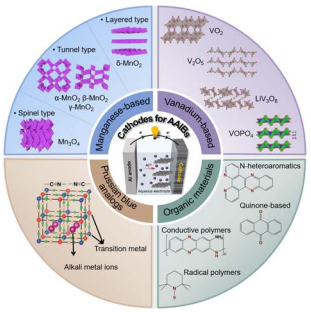
Cover
See Yukiya Kitayama, Atsushi Harada *et al.*, pp. 2067–2077. Image reproduced by permission of Yukiya Kitayama from *Chem. Sci.*, 2026, **17**, 2067.

Inside cover
See Philipp Gotico, Zakaria Halime, Christophe Werlé, Ibrahim Abdellah *et al.*, pp. 2078–2086. Image reproduced by permission of Ibrahim Abdellah from *Chem. Sci.*, 2026, **17**, 2078. Image created by Benjamin Large (Sc·EYE·nce Illustrations).

PERSPECTIVE



REVIEWS



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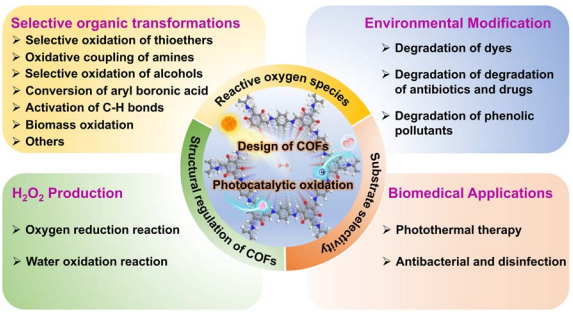
REVIEWS

1964

Design strategies and application progress of covalent organic frameworks in photocatalytic oxidation reactions

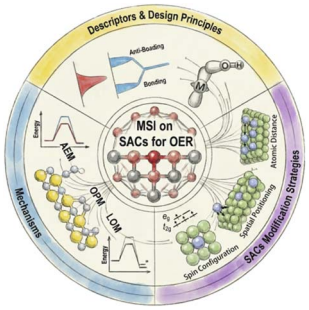
Tao Sun, Rui Wang, Renquan Guan, Li Wang, Tian Zhong, Chunbo Liu,* Xueying Cheng* and Qianrong Fang*



2001

Designing single-atom catalysts: bridging metal–support interaction and adsorption energy optimization

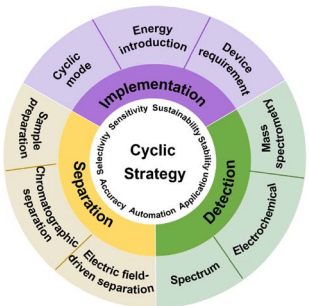
Huaizhen Cui, Jiaqi Zhang* and Chen Chen*



2028

The progress of the cyclic strategy in separation and detection

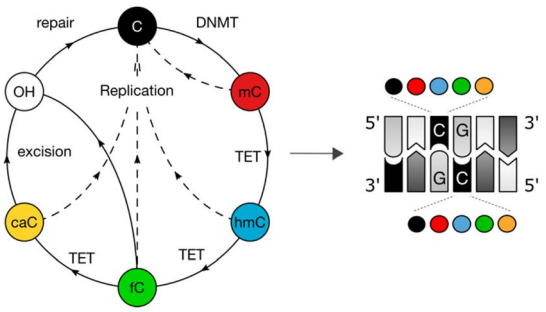
Baisen Chen, Ziwang Liu, Xiaoshuai Yang, Xiaolu Zhou, Ling Xia and Gongke Li*



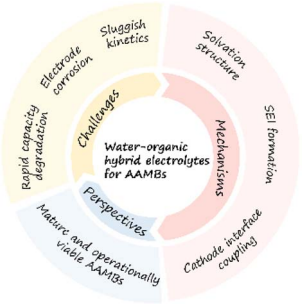
2045

The role of cytosine modification symmetry in mammalian epigenome regulation

Zeyneb Vildan Cakil, Lena Engelhard and Daniel Summerer*



REVIEWS



Beyond water: a mini review on hybrid electrolyte strategies for advanced aqueous aluminum batteries

Li Li, Hang Yang* and Wei Han*

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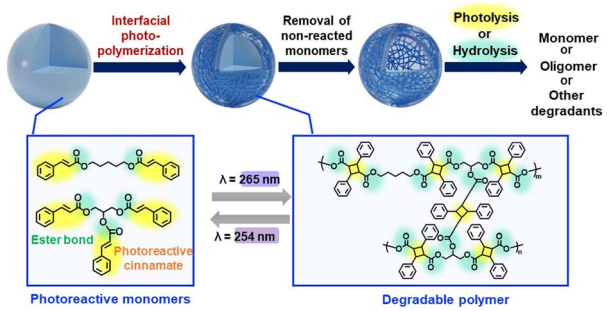
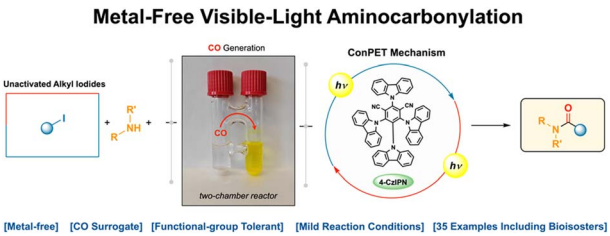


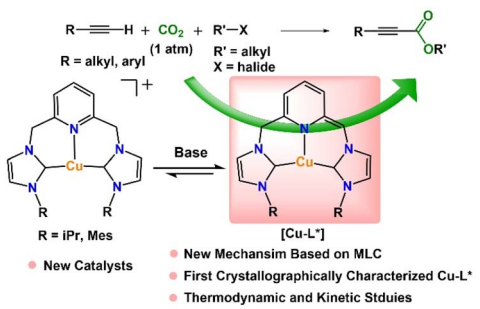
Interfacial photocycloaddition polymerization: a synthetic approach for structurally functionalized degradable polymer particles from naturally derived monomers

Yukiya Kitayama,* Misato Yamashita and Atsushi Harada*



Metal-free visible-light carbonylation of alkyl iodides to amides *via* consecutive photoinduced electron transfer

Fatima Akhssas, Guillaume Chu, Meriem El Malamy, Naomi Illi, Jasmine Hertzog, Bertrand Vileno, Nolwenn Le Breton, Michael Badawi, Miguel Ponce-Vargas, Philipp Gotico,* Alexandre Vasseur, Zakaria Halime,* Christophe Werlé* and Ibrahim Abdellah*



Metal ligand cooperativity in the direct carboxylation and esterification of terminal alkynes by Cu-CNC complexes bearing 2,6-lutidine linkers

Nick Back, Emylie Guthrie, Chengxu Zhu, Sam P. de Visser and Laleh Tahsini*

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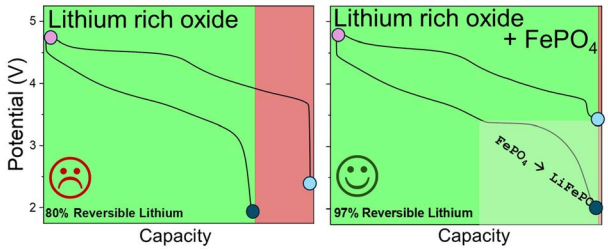
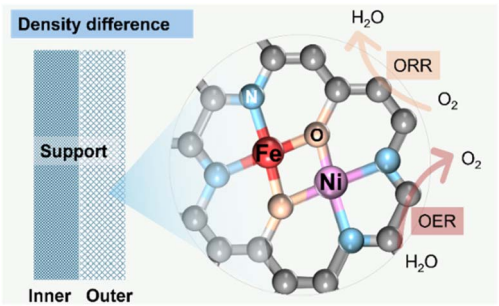


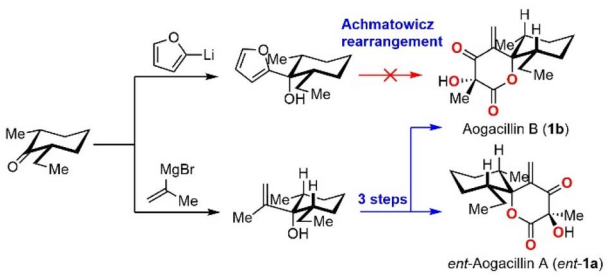
Addressing first cycle irreversible capacity in lithium-rich layered oxides by blending with delithiated active materials

Dimitrios Chatzogiannakis, Violetta Arszelewska, Pierre-Etienne Cabelguen, M. Rosa Palacin* and Montse Casas-Cabanas*



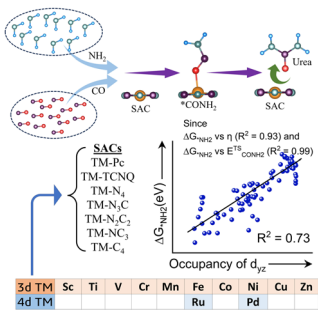
Synergistic Fe–Ni dual-atom sites on hollow carbon enabling high-performance rechargeable zinc–air batteries

Yue Wang, Jianhua Wang, Xueting Feng, Guanzhen Chen,* Xusheng Wang, Tao Gan,* Xing Fan,* Haiping Lin and Yunhu Han*



Total syntheses of *ent*-aogacillin A and aogacillin B

Huixing Gu, Ziyi Li, Xinwei Zhang, Ruocheng Sang, Zhendong Li, Jinyi Ren, Xiaojing Chen, Boya Ma, Wenhao Qiu, Zebin Yang, Xiaoyan Li,* Rongbiao Tong* and Wei Zhang*



Electronic and energy descriptors for SACs as tri-functional catalysts towards urea formation and unveiling the C–N coupling mechanism

Narad Barman, Chiranjib Majumder and Ranjit Thapa*

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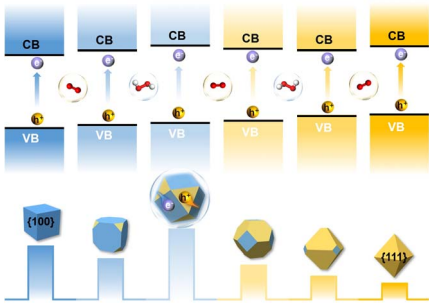

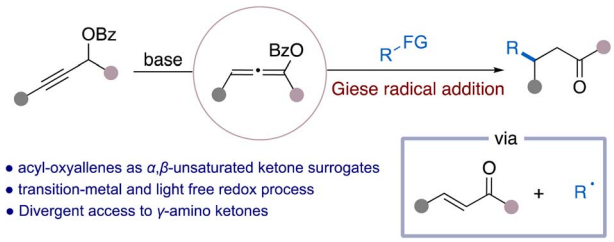

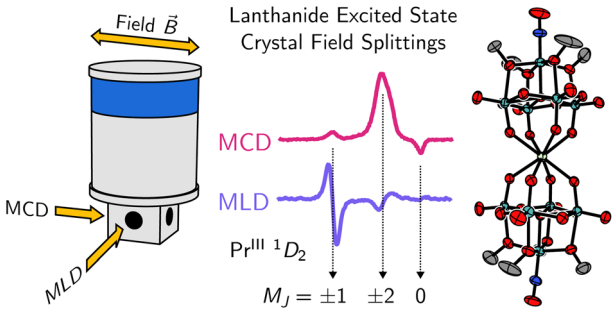

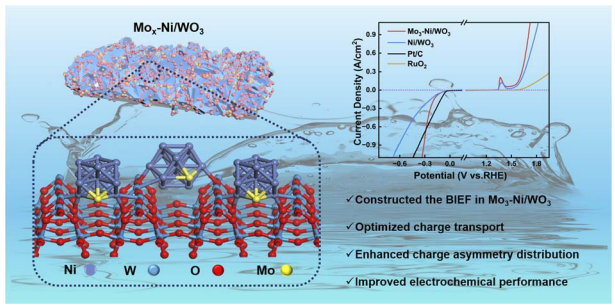

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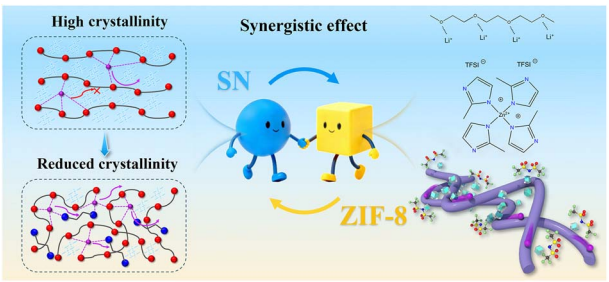

Synergistic effect of MOF fillers and succinonitrile in PEO-based electrolytes for long-cycle all-solid-state Li–CO_2 batteries

Yilong Huang, Jinfeng Ha, Zhixin Liu, Xingyu Yu, Yin Liu, Xiaoli Fan, Xianli Huang, Jianping He, Shuping Huang* and Tao Wang*

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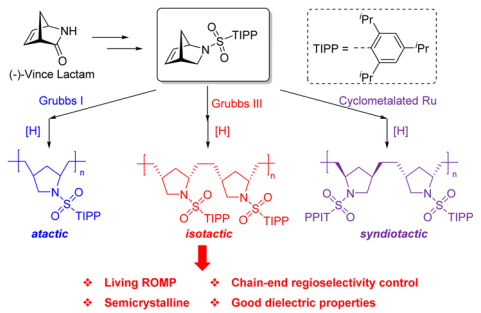

Chiral poly(aza-norbornene) derivatives with tunable tacticity and living ROMP capability

Jing Bai, Yu Wang,* Yisong Wang, Na Zhang, Xiaoyang Wang, Yan Xu* and Wei You*

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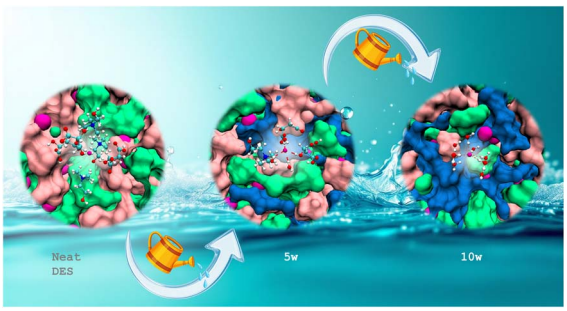

Water drives sequential breakdown of dynamic nanodomains in deep eutectic electrolytes

Tubai Chowdhury, Athira Babu, Sreekumar Kurungot,* Rajib Biswas,* Sapna Ravindranathan* and Sayan Bagchi*

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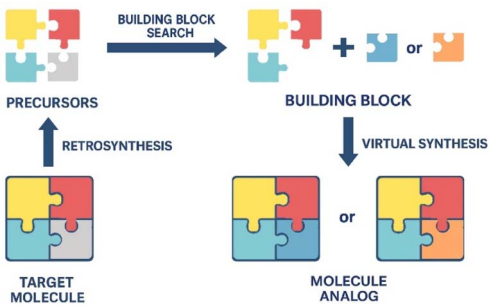

SynTwins: a retrosynthesis-guided framework for synthesizable molecular analog generation

Shuan Chen, Gunwook Nam, Alán Aspuru-Guzik and Yousung Jung*

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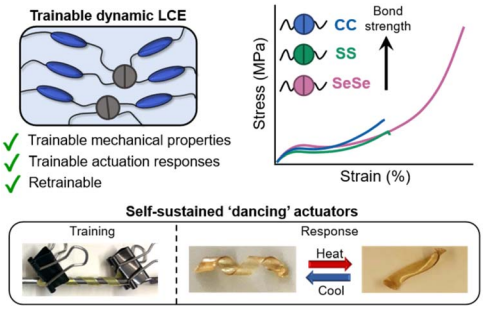

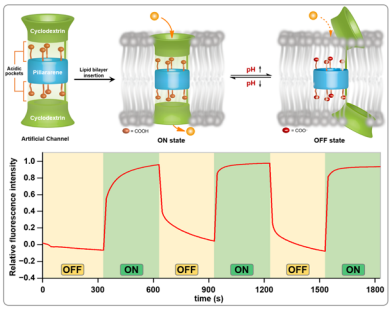

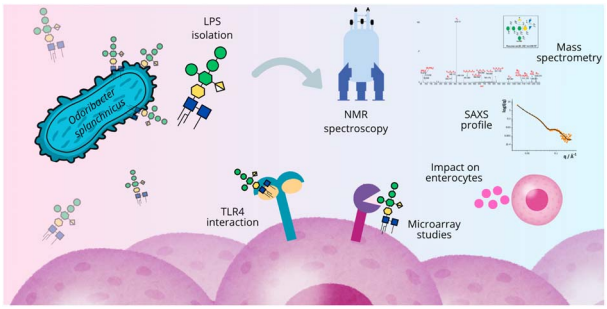

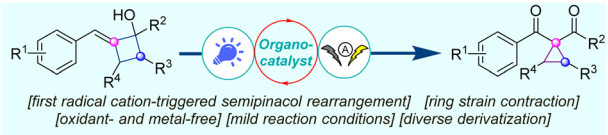

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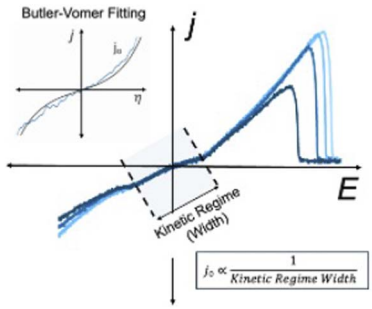

Amide additives enhance the understanding of kinetic reversibility in zinc anode stability using ultramicroelectrodes

James H. Nguyen, Ashutosh Rana, Kudekallu Shiprath, Brajesh R. Bhagat, Saptarshi Paul, Shaonsikta Chatterjee, Newton Roy, Ishita Das, Bidisa Das,* Abhik Banerjee* and Jeffrey E. Dick*

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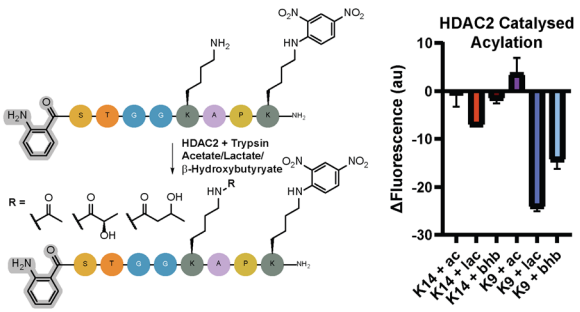

Internally quenched fluorescent peptides provide insights into underexplored and reversible post-translational modifications

Jordi C. J. Hintzen, Kamiel D. Beckley, Emily L. Goldberg and George M. Burslem*

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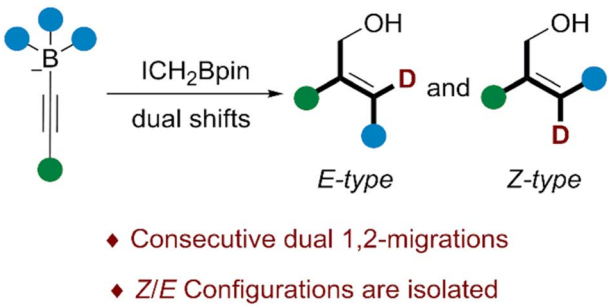

Synthesis and separation of two stereoisomers of deuterated tetrasubstituted allylic alcohols *via* consecutive dual 1,2-metallate shifts

Puhui Li, Yajun Yu, Xingxing Ma* and Qiuling Song*

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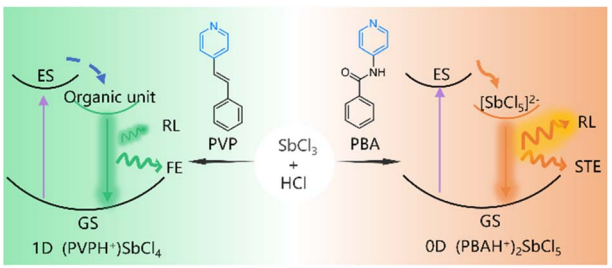

A pyridinium cation engineering strategy to achieve high-performance X-ray scintillation of antimony halides

Yuan-Yuan Zhao, Jian-Cheng Chen, Li Zhang, Jiabin Chen,* Qing Liao,* Zhong-Qiu Li,* Meijin Lin, Jiannian Yao and Yu-Wu Zhong*

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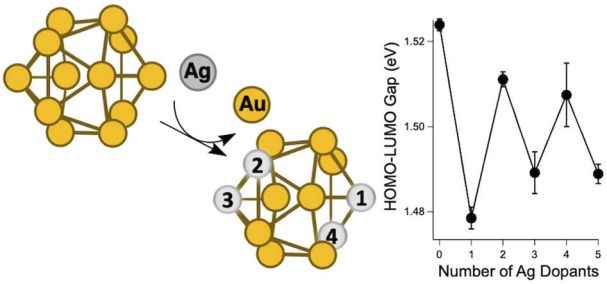

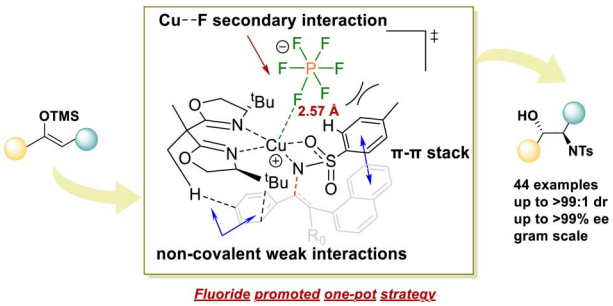

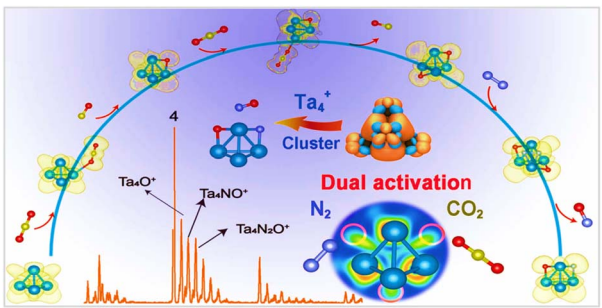

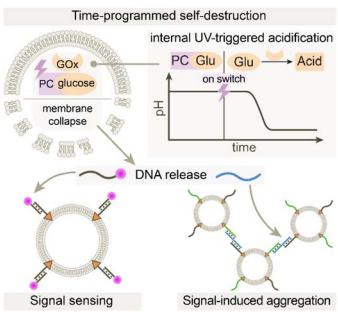

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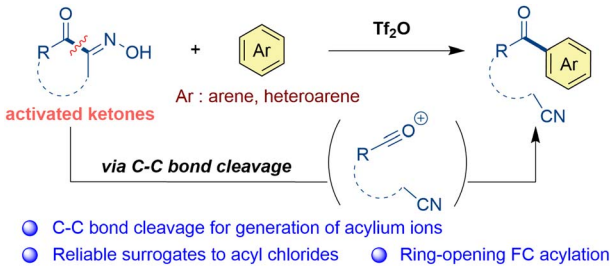
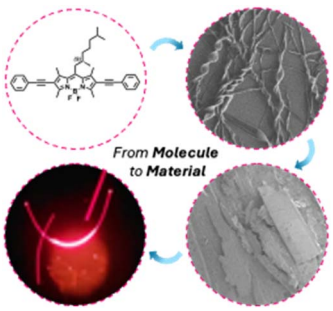


Friedel–Crafts acylation *via* interrupted Beckmann fragmentation of activated ketones

Ye Ji Shin, Eswaran Kamaraj and Hee Nam Lim*



Understanding self-assembly across scales in BODIPY derivatives: from supramolecular aggregation in solution to optical-waveguiding crystalline materials

Marina González-Sánchez, Ana M. Garcia, Jorge S. Valera, Ana M. Rodríguez, Juan Cabanillas-González, Pilar Prieto* and David González-Rodríguez*

CORRECTION

Correction: Alkaline electrocatalytic water oxidation by Fe–Ni nanostructures on porous turbostratic carbon with tailorable metal–metal active sites

Dipankar Saha, Chaoyun Tang, Javed Khan, Pulkit Jain, Cheng-Jie Yang, Chung-Li Dong, Richard F. Webster, Chi-Liang Chen, Zhu Chen, Peng Bai, Richard D. Tilley, Nianqiang Wu* and James J. Watkins*