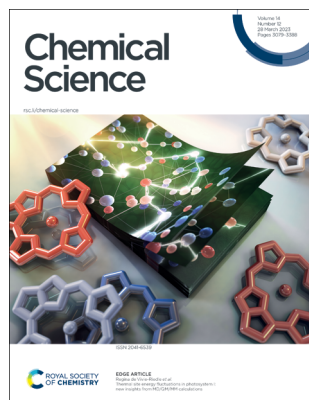


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ISSN 2041-6539 CODEN CSHCBM 14(12) 3079–3388 (2023)



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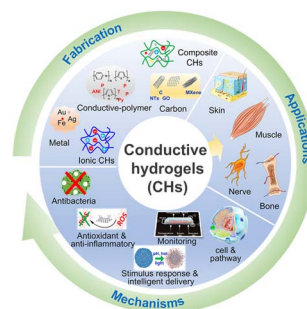
**Inside cover**  
See Shunxi Dong *et al.*, pp. 3132–3139. Image reproduced by permission of Shiyu Wang from *Chem. Sci.*, 2023, 14, 3132.

## REVIEW

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### Conductive hydrogels for tissue repair

Yongping Liang, Lipeng Qiao, Bowen Qiao and Baolin Guo\*

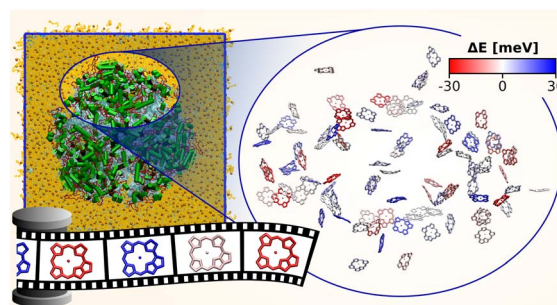


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### Thermal site energy fluctuations in photosystem I: new insights from MD/QM/MM calculations

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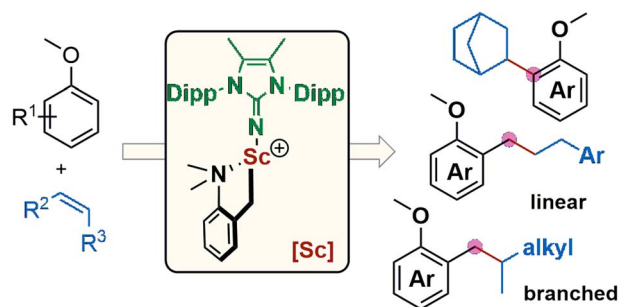
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### Regioselective C–H alkylation of anisoles with olefins by cationic imidazolin-2-iminato scandium(III) alkyl complexes

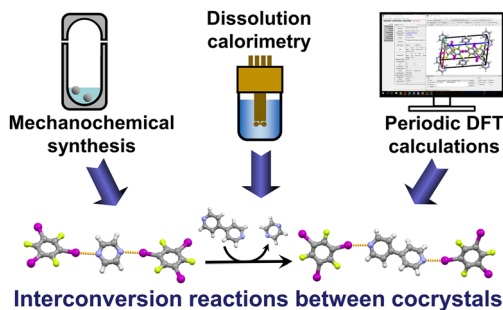
Shiyu Wang, Chenhao Zhu, Lichao Ning, Dawei Li, Xiaoming Feng and Shunxi Dong\*



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### Computational evaluation of halogen-bonded cocrystals enables prediction of their mechanochemical interconversion reactions

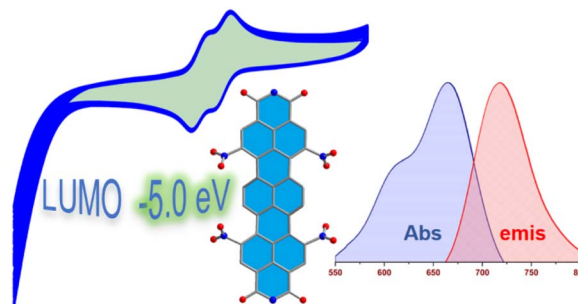
Lavanya Kumar, Katarina Leko, Vinko Nemeč, Damian Trzybiński, Nikola Bregović, Dominik Cinčić and Mihails Arhangelskis\*



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### The deeper it goes, the brighter it glows: NIR emissive nitro-terrylene diimides with deep LUMOs

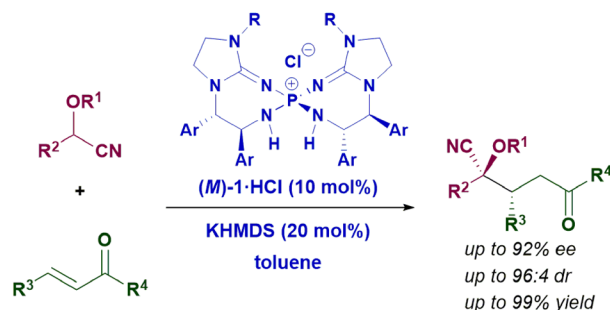
Kundan Singh Mehra, Shivangee Jha, Anila M. Menon, Deepak Chopra and Jeyaraman Sankar\*



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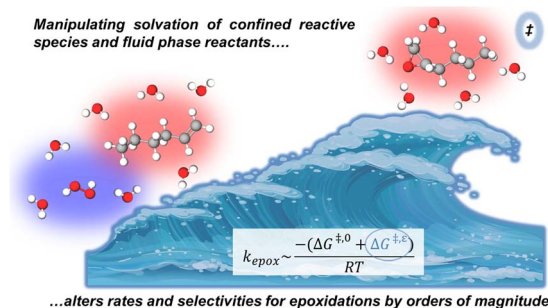
### Enantioselective direct Michael addition of cyanohydrin ether derivatives to enones catalyzed by chiral bis(guanidino)iminophosphorane organosuperbase

Saikat Das, Azusa Kondoh\* and Masahiro Terada\*



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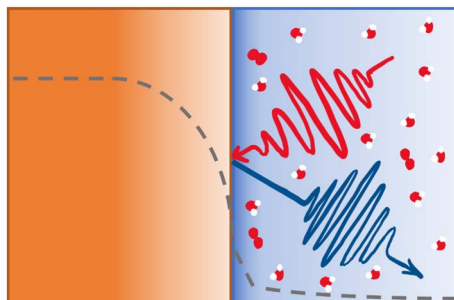
Manipulating solvation of confined reactive species and fluid phase reactants....



### Engineering intraporous solvent environments: effects of aqueous-organic solvent mixtures on competition between zeolite-catalyzed epoxidation and H<sub>2</sub>O<sub>2</sub> decomposition pathways

David S. Potts, Chris Torres, Ohsung Kwon and David W. Flaherty\*

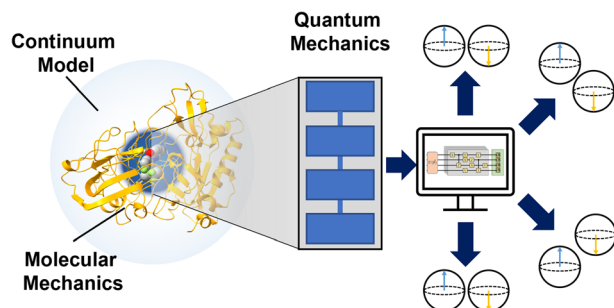
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### Monitoring interfacial electric fields at a hematite electrode during water oxidation

Khezar H. Saeed, Dora-Alicia Garcia Osorio, Chao Li, Liam Banerji, Adrian M. Gardner and Alexander J. Cowan\*

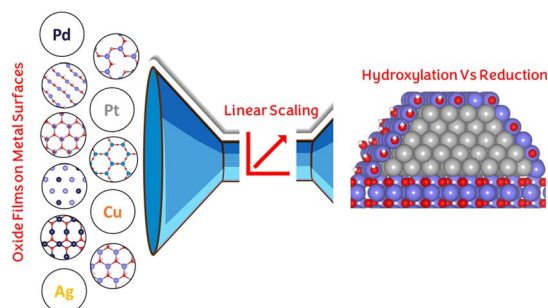
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### Multiscale quantum algorithms for quantum chemistry

Huan Ma, Jie Liu,\* Honghui Shang,\* Yi Fan, Zhenyu Li and Jinlong Yang\*

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### Universal properties of metal-supported oxide films from linear scaling relationships: elucidation of mechanistic origins of strong metal-support interactions

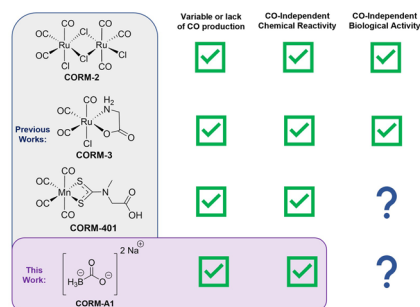
Kaustubh J. Sawant, Zhenhua Zeng and Jeffrey P. Greeley\*



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## Reassessing CORM-A1: redox chemistry and idiosyncratic CO-releasing characteristics of the widely used carbon monoxide donor

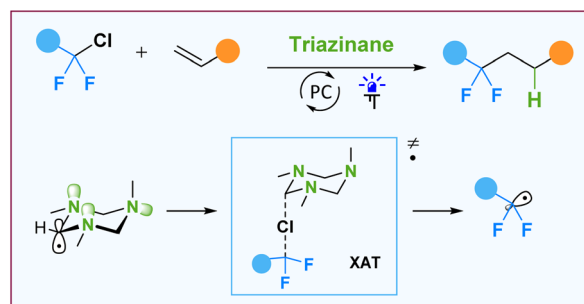
Nicola Bauer, Xiaoxiao Yang, Zhengnan Yuan and Binghe Wang\*



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## Aminals as powerful XAT-reagents: activation of fluorinated alkyl chlorides

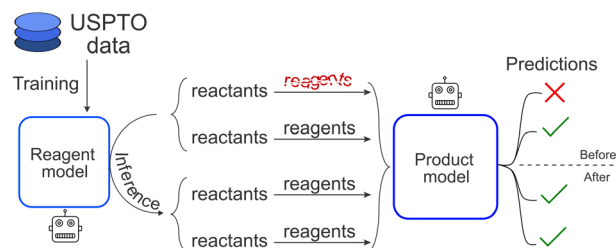
Vladislav S. Kostromitin, Artem O. Sorokin, Vitalij V. Levin and Alexander D. Dilman\*



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## Reagent prediction with a molecular transformer improves reaction data quality

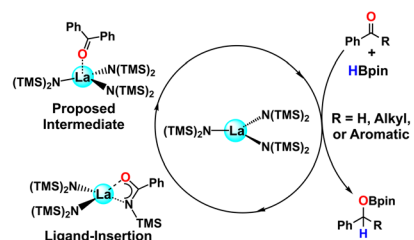
Mikhail Andronov,\* Varvara Voinarovska, Natalia Andronova, Michael Wand, Djork-Arné Clevert and Jürgen Schmidhuber



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## Mechanistic study of homoleptic trisamidolanthanide-catalyzed aldehyde and ketone hydroboration. Chemically non-innocent ligand participation

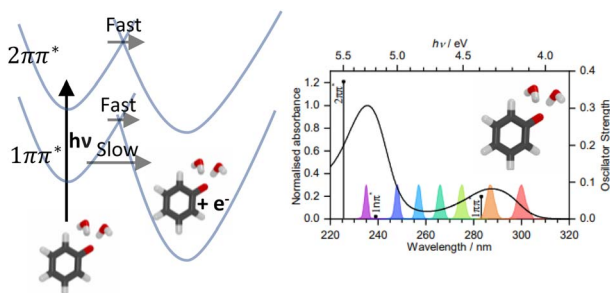
Jacob O. Rothbaum, Alessandro Motta,\* Yosi Kratish\* and Tobin J. Marks\*



- Proposed Intermediate & Deactivated Complexes Isolated
- Multinuclear NMR Stoichiometric & Solid-State Studies
- Experimental Evidence Favoring Ligand-Assisted Mechanism
- DFT Mechanistic Insight into Aldehyde & Ketone Hydroboration



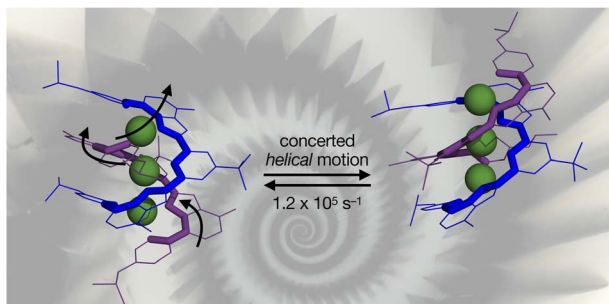
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### Wavelength dependent mechanism of phenolate photooxidation in aqueous solution

Kate Robertson, William G. Fortune, Julia A. Davies, Anton N. Boichenko, Michael S. Scholz, Omri Tau, Anastasia V. Bochenkova and Helen H. Fielding\*

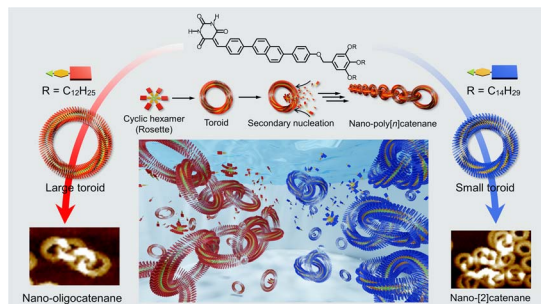
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### Helical fluxionality: numerical frustration drives concerted low-barrier screw motions of a tricopper cluster

Heechan Kim, Juhwan Shin, Seyong Kim and Dongwhan Lee\*

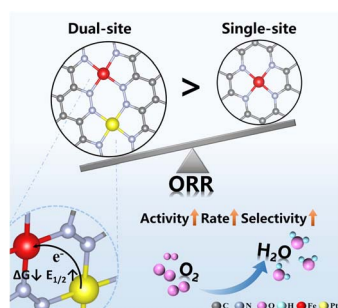
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### Fine-tuning of the size of supramolecular nanotoroids suppresses the subsequent catenation of nano-[2]catenane

Hiroki Itabashi, Sougata Datta, Ryohei Tsukuda, Martin J. Hollamby and Shiki Yagai\*

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### Modulating the electronic structure of atomically dispersed Fe–Pt dual-site catalysts for efficient oxygen reduction reactions

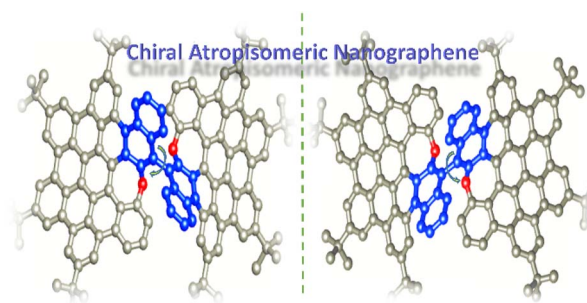
Wei-Shen Song, Mei Wang, Xiao Zhan, Yan-Jie Wang, Dong-Xu Cao, Xian-Meng Song, Zi-Ang Nan, Li Zhang\* and Feng Ru Fan\*



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**BINOL-like atropisomeric chiral nanographene**

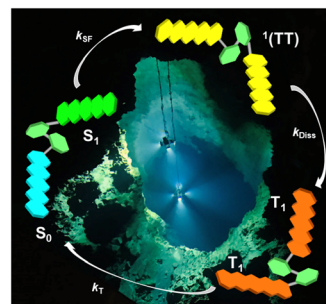
Shengtao Li, Ranran Li, Yi-Kang Zhang, Shutao Wang, Bin Ma, Bin Zhang and Peng An\*



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**Control of intramolecular singlet fission in a pentacene dimer by hydrostatic pressure**

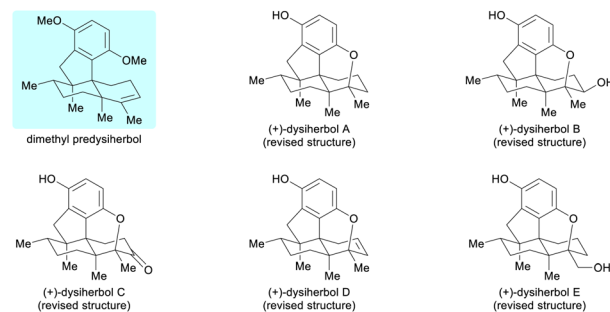
Tomokazu Kinoshita, Shunta Nakamura, Makoto Harada, Taku Hasobe\* and Gaku Fukuhara\*



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**Divergent total synthesis of the revised structures of marine anti-cancer meroterpenoids (+)-dysiherbols A–E**

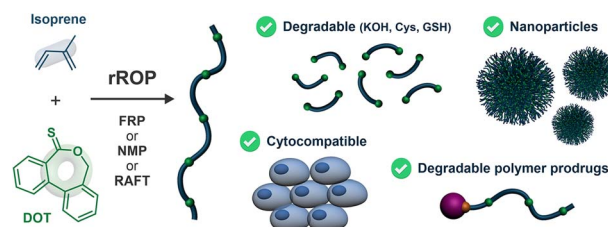
Chuanke Chong, Le Chang, Isabelle Grimm, Qunlong Zhang, Yang Kuang, Bingjian Wang, Jingyi Kang, Wenhui Liu, Julian Baars, Yuanqiang Guo, Hans-Günther Schmalz\* and Zhaoyong Lu\*



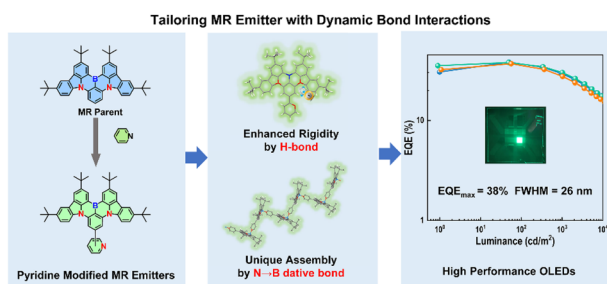
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**Degradable polyisoprene by radical ring-opening polymerization and application to polymer prodrug nanoparticles**

Maëlle Lages, Théo Pesenti, Chen Zhu, Dao Le, Julie Mougin, Yann Guillaneuf and Julien Nicolas\*



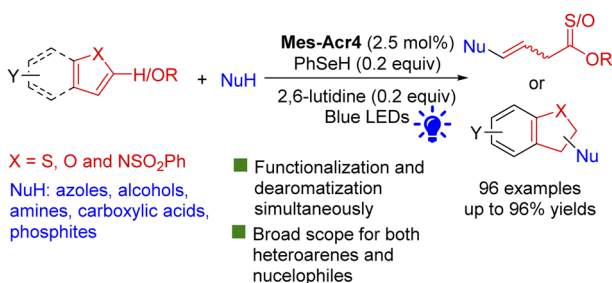
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### Dynamic bond interactions fine-tune the properties of multiple resonance emitters towards highly efficient narrowband green OLEDs

Yang Zou, Mingxin Yu, Jingsheng Miao,\* Taian Huang, Shuokun Liao, Xiaosong Cao and Chuluo Yang

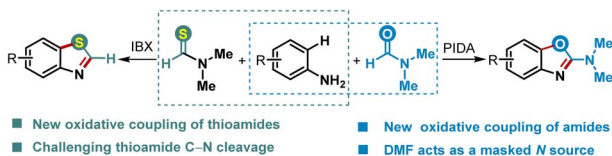
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### Combining photoredox catalysis and hydrogen atom transfer for dearomative functionalization of electron rich heteroarenes

Peng Ji, Xiang Meng, Jing Chen, Feng Gao, Hang Xu and Wei Wang\*

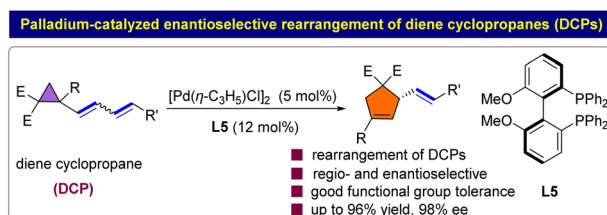
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### Hypervalent iodine-promoted twofold oxidative coupling of amines with amides and thioamides: chemoselective pathway to oxazoles and thiazoles

Jiang Nan,\* Xin Ren, Qiang Yan, Shilei Liu, Jing Wang, Yangmin Ma and Michal Szostak\*

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### Palladium-catalyzed enantioselective rearrangement of dienyl cyclopropanes

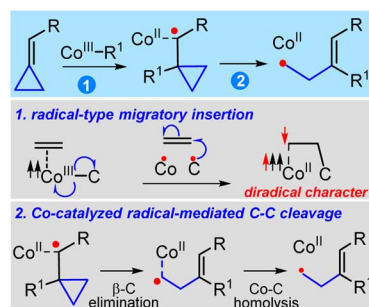
Qi Xu, Chuan-Jun Lu, Chang-Qiu Guo, Jia Feng and Ren-Rong Liu\*



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### Cobalt-catalyzed radical-mediated carbon–carbon scission *via* a radical-type migratory insertion

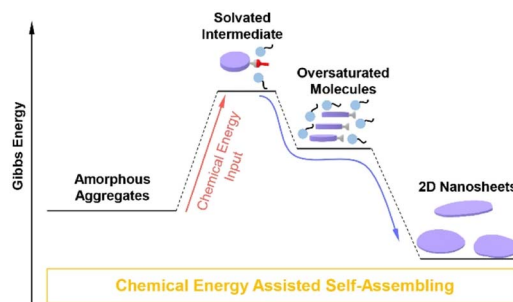
Jian-Biao Liu,\* Xiao-Jun Liu, João C. A. Oliveira, De-Zhan Chen and Lutz Ackermann\*



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### Chemical energy assisted self-assembling of a porphyrin-substituted benzoic acid in complex environments

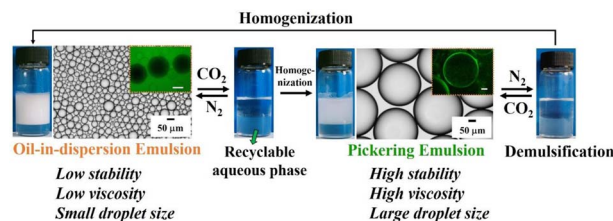
Bingxu Ma, Bowen Pang, Wang Zeng,\* Huimin Fu, Yi Jiang, Shenglin Yao, Yida Yang, Kaisheng Zhu and Wei Zhang\*



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### CO<sub>2</sub>-switchable emulsions with controllable size and viscosity

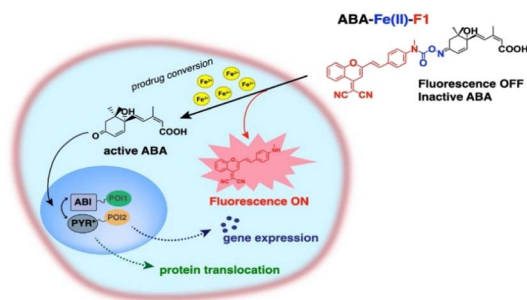
Jianzhong Jiang,\* Huaixin Li and Yao Gu



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### A theranostic abscisic acid-based molecular glue

Jing Chen, Huong T. X. Nguyen, Ming Yang, Fangxun Zeng, Hang Xu, Fu-Sen Liang\* and Wei Wang\*



## CORRECTIONS

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**Correction: Isolation of C1 through C4 derivatives from CO using heteroleptic uranium(III) metallocene aryloxide complexes**

Robert J. Ward, Iker del Rosal, Steven P. Kelley, Laurent Maron\* and Justin R. Walensky\*

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**Correction: Multi-stimuli programmable FRET based RGB absorbing antennae towards ratiometric temperature, pH and multiple metal ion sensing**

Kavita Rani and Sanchita Sengupta\*

