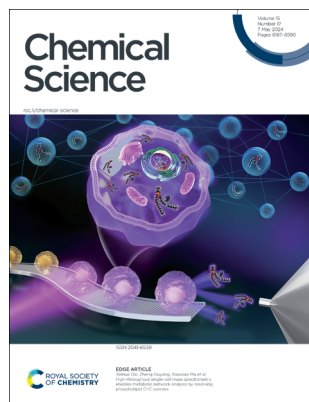


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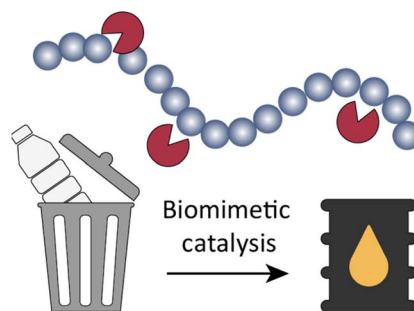
See Xinhua Dai, Zheng Ouyang, Xiaoxiao Ma *et al.*, pp. 6314–6320. Image reproduced by permission of Simin Cheng from *Chem. Sci.*, 2024, 15, 6314.

PERSPECTIVES

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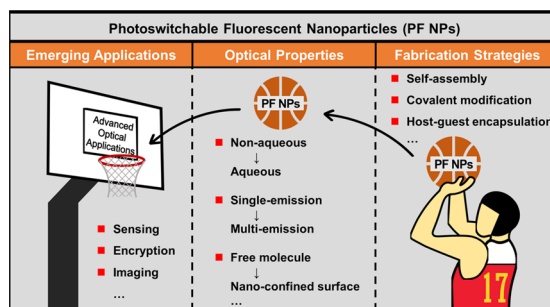
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Photoswitching the fluorescence of nanoparticles for advanced optical applications

Wencheng Zhong and Li Shang*



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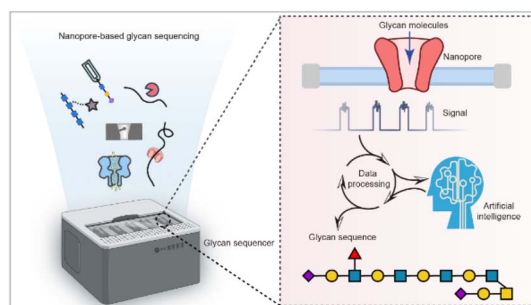
Fundamental questions
Elemental answers



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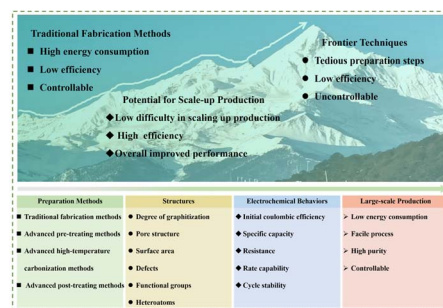
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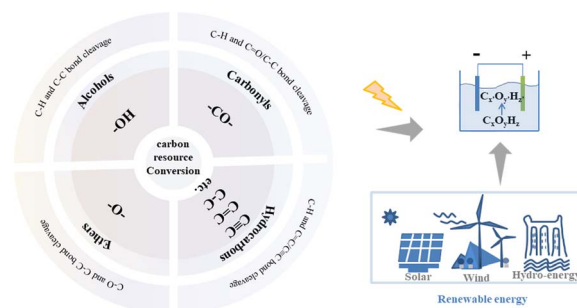
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Electrocatalytic functional group conversion-based carbon resource upgrading

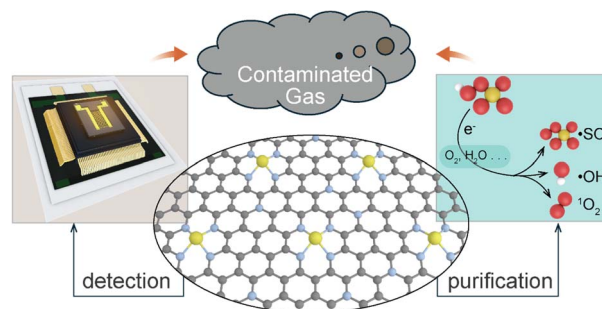
Di Si, Xue Teng, Bingyan Xiong, Lisong Chen* and Jianlin Shi



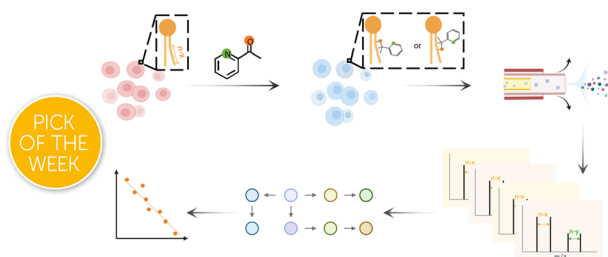
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Emerging single-atom catalysts in the detection and purification of contaminated gases

Lingyue Liu, Ka-Fu Yung,* Hongbin Yang* and Bin Liu*



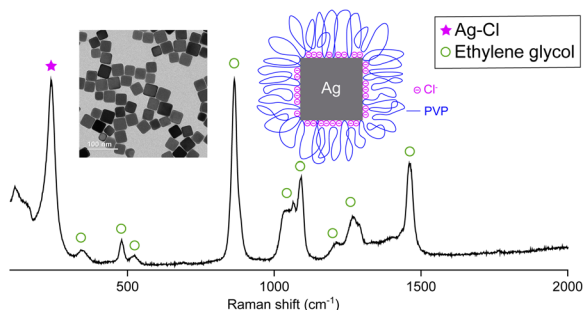
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High-throughput single-cell mass spectrometry enables metabolic network analysis by resolving phospholipid C=C isomers

Simin Cheng, Chenxi Cao, Yao Qian, Huan Yao, Xiaoyun Gong, Xinhua Dai,* Zheng Ouyang* and Xiaoxiao Ma*

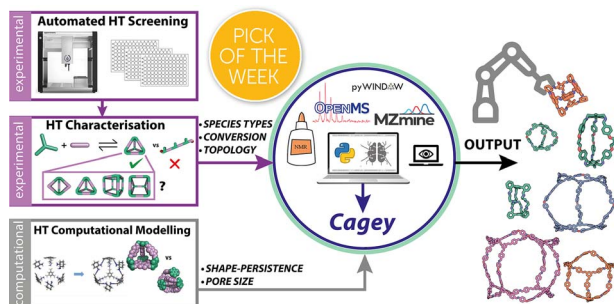
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Seeing is believing: what is on the surface of silver nanocrystals suspended in their original reaction solution

Qijia Huang, Dong Qin and Younan Xia*

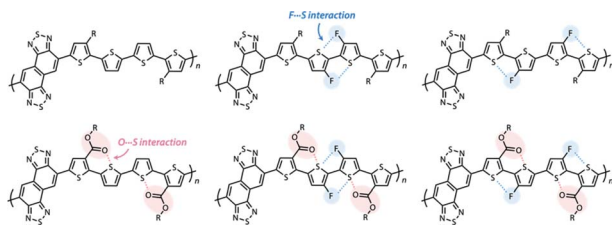
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Manipulating the functionality and structures of π -conjugated polymers utilizing intramolecular noncovalent interactions towards efficient organic photovoltaics

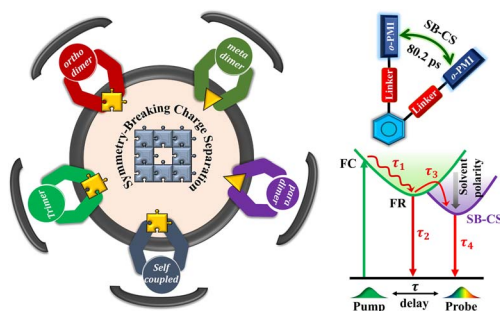
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Ultrafast symmetry-breaking charge separation in Perylenemonoimide-embedded multichromophores: impact of regioisomerism

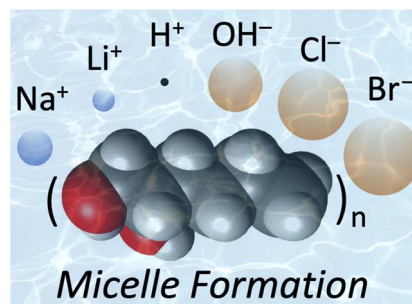
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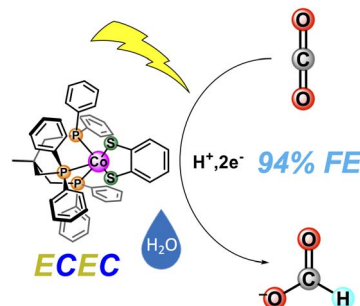
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Electrocatalytic CO₂ reduction to formate by a cobalt phosphino–thiolate complex

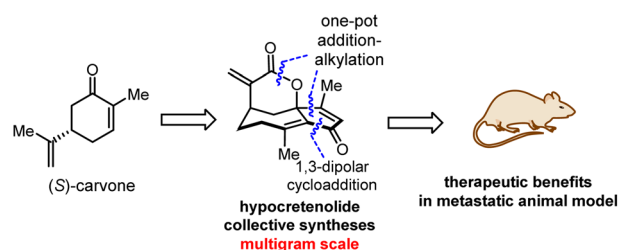
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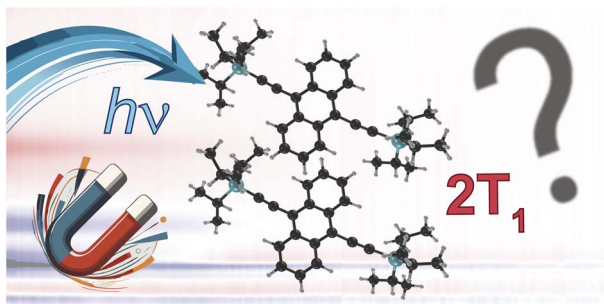
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Hypocretenolides: collective total syntheses and activities toward metastatic colon cancer

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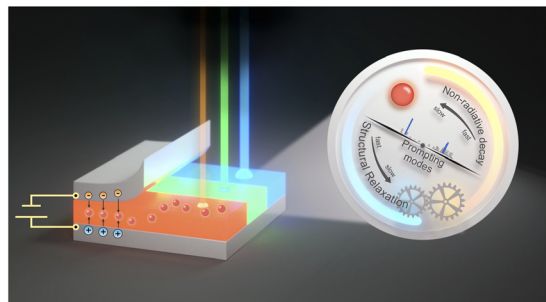
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Singlet fission in TIPS-anthracene thin films

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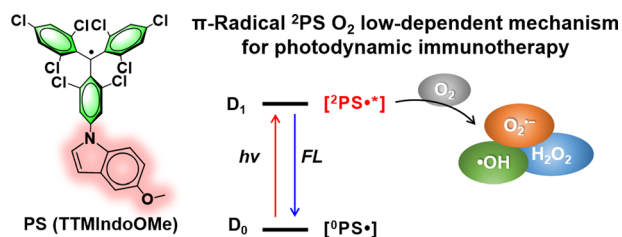
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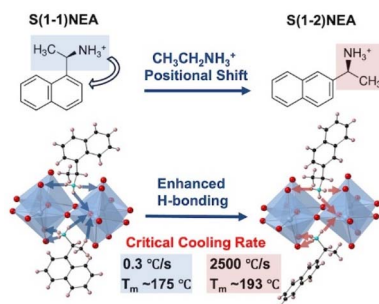
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Fine-tuning of stable organic free-radical photosensitizers for photodynamic immunotherapy

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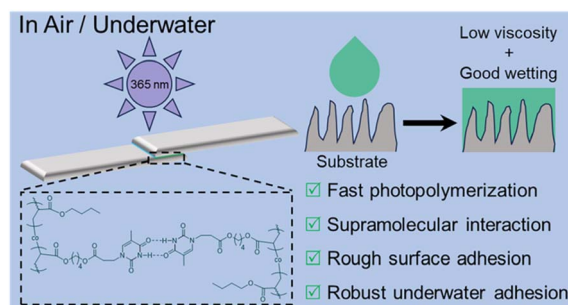
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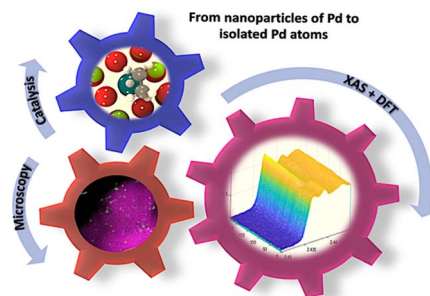
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Dynamic structural evolution of MgO-supported palladium catalysts: from metal to metal oxide nanoparticles to surface then subsurface atomically dispersed cations

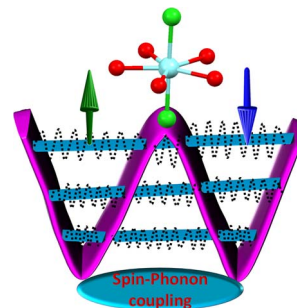
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Unravelling the role of spin–vibrational coupling in designing high-performance pentagonal bipyramidal Dy(III) single ion magnets

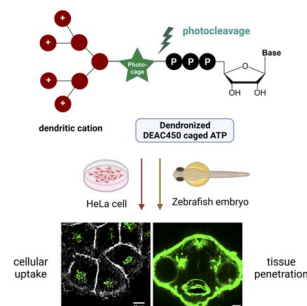
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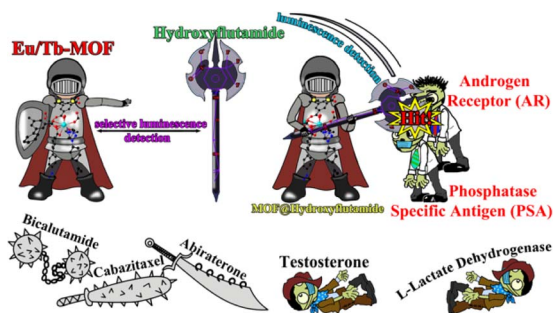
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Intracellular delivery and deep tissue penetration of nucleoside triphosphates using photocleavable covalently bound dendritic polycations

Jiahui Ma, Johanna Wehrle, Dennis Frank, Lina Lorenzen, Christoph Popp, Wolfgang Driever, Robert Grosse and Henning J. Jessen*



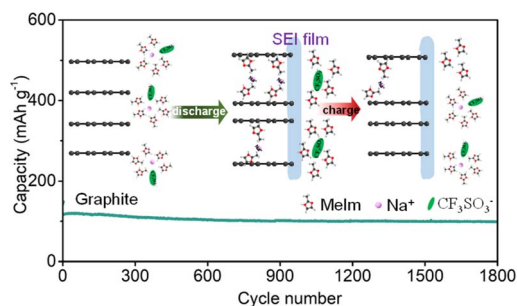
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Lanthanide MOF-based luminescent sensor arrays for the detection of castration-resistant prostate cancer curing drugs and biomarkers

Xinrui Wang, Karuppasamy Gopalsamy, Gilles Clavier, Guillaume Maurin, Bin Ding,* Antoine Tissot* and Christian Serre*

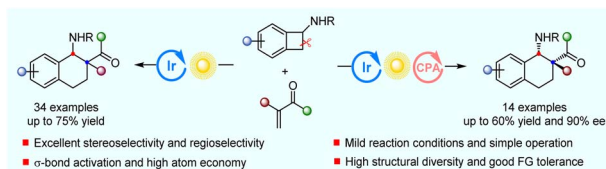
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Revealing the Na storage behavior of graphite anodes in low-concentration imidazole-based electrolytes

Wei Zhao, Chunting Wang, Zhenjie Cheng, Cheng Zheng, Qian Yao, Jun Pan,* Xiaojian Ma* and Jian Yang

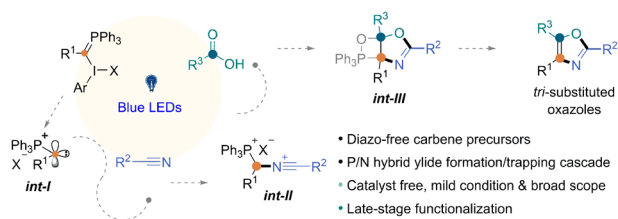
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Visible-light-enabled stereoselective synthesis of functionalized cyclohexylamine derivatives via [4 + 2] cycloadditions

Yi-Nan Lu, Chao Che, Guangjin Zhen, Xin Chang, Xiu-Qin Dong* and Chun-Jiang Wang*

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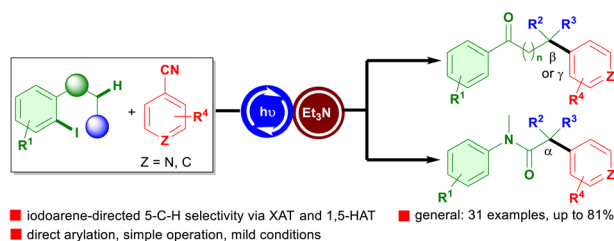
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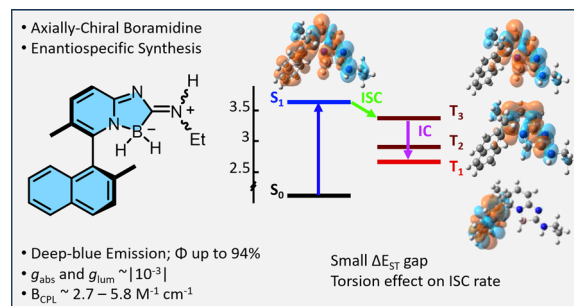
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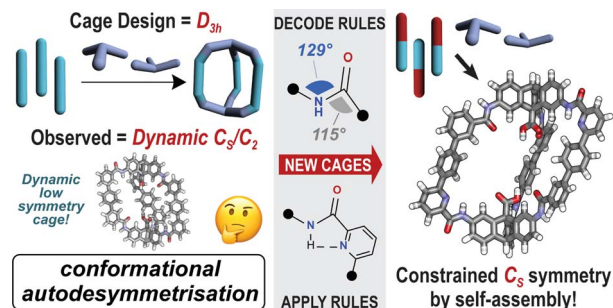
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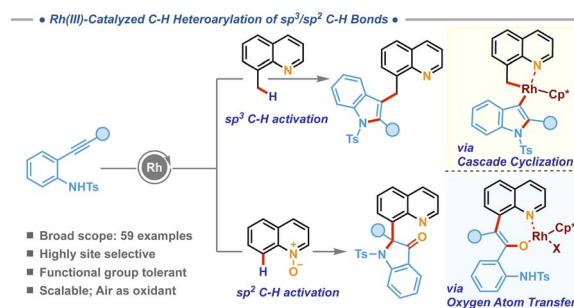
Keith G. Andrews,* Peter N. Horton and Simon J. Coles



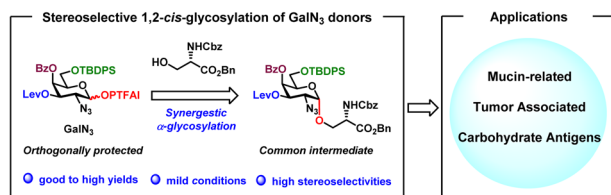
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Rh(III)-catalyzed sp^3/sp^2 -C-H heteroarylations via cascade C-H activation and cyclization

Atul K. Chaturvedi, Rahul K. Shukla and Chandra M. R. Volla*



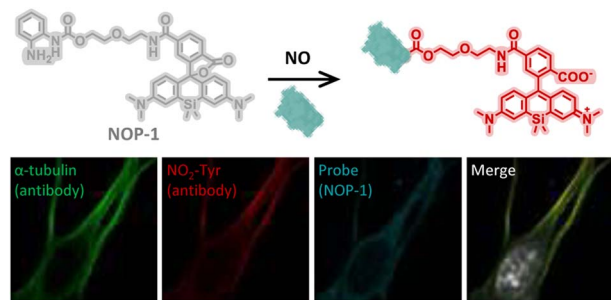
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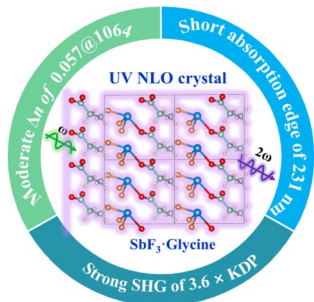
Highly stereoselective α -glycosylation with GalN₃ donors enabled collective synthesis of mucin-related tumor associated carbohydrate antigens

Kunxiu Shou, Yunqin Zhang, Yujie Ji, Bin Liu, Qingli Zhou, Qiang Tan, Fuying Li, Xiufang Wang, Gang Lu* and Guozhi Xiao*

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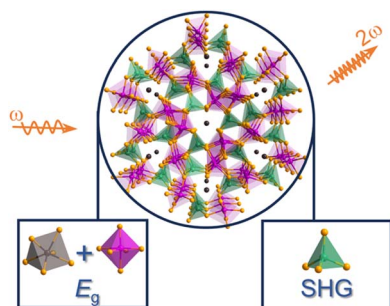
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Hydrogen bonding bolstered head-to-tail ligation of functional chromophores in a 0D SbF₃·glycine adduct for a short-wave ultraviolet nonlinear optical material

Zhiyong Bai, Jihyun Lee, Chun-Li Hu,* Guohong Zou* and Kang Min Ok*

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Wide band gap selenide infrared nonlinear optical materials A^{II}Mg₆Ga₆Se₁₆ with strong SHG responses and high laser-induced damage thresholds

Linan Wang, Dongdong Chu, Zihua Yang, Junjie Li* and Shilie Pan*



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Fine-regulation of gradient gate-opening in nanoporous crystals for sieving separation of ternary C3 hydrocarbons

Shuang Liu, Yuhang Huang, Jingmeng Wan, Jia-Jia Zheng, Rajamani Krishna, Yi Li, Kai Ge,* Jie Tang and Jingui Duan*

