# ChemComm

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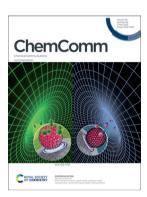
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#### Inside cover

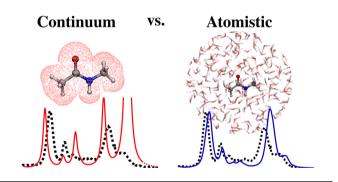
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Continuum vs. atomistic approaches to computational spectroscopy of solvated systems

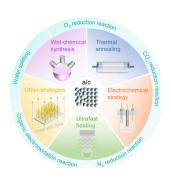
Tommaso Giovannini and Chiara Cappelli\*



#### 5661

Amorphous/crystalline heterophase electrocatalysts: synthesis, applications and perspectives

Zhichao Gong, Jingjing Liu, Gonglan Ye\* and Huilong Fei\*



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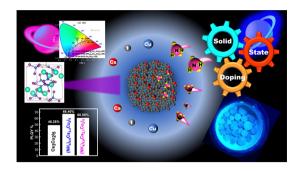
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Deciphering the roles of ammonium doping for lead-free  $(NH_4)_xCs_{3-x}Cu_2I_5$  perovskites to regulate the photoelectronic properties

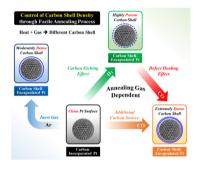
Zeyao Xu, Linqin Jiang,\* Hao Xiong, Jiansen Wen, Ping Li, Lingyan Lin, Bo Wu, Aijun Yang and Yu Qiu\*



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Fine-tuning of ultrathin carbon shells coated on metal nanoparticles: carbon etching and defect healing effects

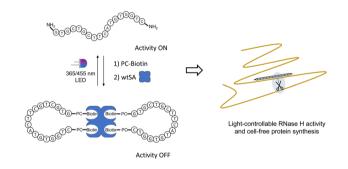
Jiho Min, Keonwoo Ko, Yunjin Kim, Sreya Roy Chowdhury, A. Anto Jeffery, Sourabh S. Chougule and Namgee Jung\*



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Handcuffed antisense oligonucleotides for light-controlled cell-free expression

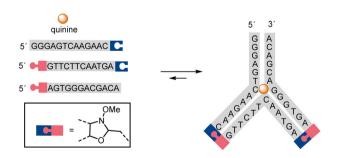
Denis Hartmann and Michael J. Booth\*



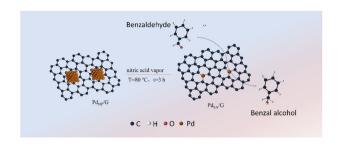
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Assembly of split aptamers by dynamic pH-responsive covalent ligation

Aapo Aho and Pasi Virta\*



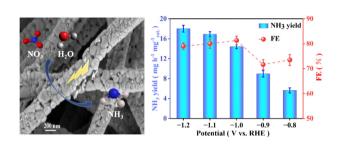
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# Palladium single-atom catalysts synthesized by a gas-assisted redispersion strategy for efficient benzaldehyde hydrogenation

Lini Yang, Ling Li, Shuai Qin, Jingwang Zhang, Yue Wang, Xuetao Qin, Xiangbin Cai, Jiangyong Diao and Hongyang Liu\*

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# Efficient electrocatalytic reduction of nitrate to ammonia over fibrous SmCoO<sub>3</sub> under ambient conditions

Peiji Hu, Songjie Hu, Hongting Du, Qian Liu, Haoran Guo,\* Ke Ma\* and Tingshuai Li\*

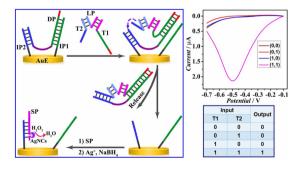
### 5701



# Magnetization of amorphous FeOOH chrysanthemum-like nanosheets under ambient conditions

Yan Si, Siyu Shi, Jingyun Jing, Yun Bai and Qian Wang\*

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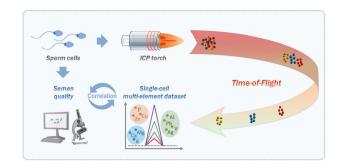
# An amplified logic gate driven by in situ synthesis of silver nanoclusters for identification of biomarkers

Hui Shen, Zhimin Li, Baoting Dou,\* Qiumei Feng and Po Wang\*

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## Single-cell multi-element analysis reveals element distribution pattern in human sperm

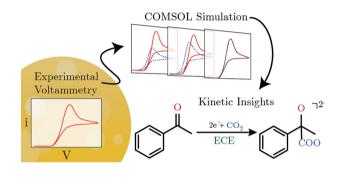
Xiangwei Tian, Xun Li, Nian Liu, Wenbin Cui, Lingna Zheng, Yingying Guo, Yanwei Liu, Ligang Hu, Meng Wang,\* Yong Liang, Yongguang Yin,\* Yong Cai, Guibin Jiang and Lei Jin\*



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# Distinguishing the mechanism of electrochemical carboxylation in CO2 eXpanded Electrolytes

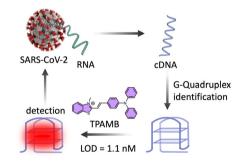
Matthew A. Stalcup, Christian K. Nilles, Bala Subramaniam,\* James D. Blakemore\* and Kevin C. Leonard\*



### 5717

# Coronavirus genomic cDNA derived G-quadruplex as a selective target for fluorometric detection

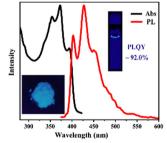
Sumon Pratihar, Mohamed Nabeel Mattath and Thimmaiah Govindaraju\*



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# Ultrabright blue-light-emitting cesium bromide quantum dots for white LEDs

Tianfeng Li, Mengdi Qiao, Xingyi He, Rui Zhu, Xia Ran, Xiaojuan Wang,\* Yu Jia and Lijun Guo\*



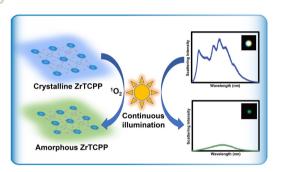


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# Azofuran activation for annulative rearrangement enabled by gold(ı)/Brønsted acid relay catalysis

Qian Rao, Yin Zhang, Yin-Ping Liu, Bo Jiang,\* Xiang Wang, Shu-Jiang Tu\* and Wen-Juan Hao\*

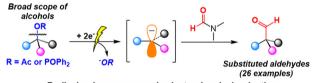
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# Visual identification of <sup>1</sup>O<sub>2</sub>-induced crystal structure transformation of single Zr-MOF by dark-field microscopy

Yue Xu, Qian Li, Wei He, Chang Ping Yang, Peng Fei Gao,\* Yuan Fang Li\* and Cheng Zhi Huang\*

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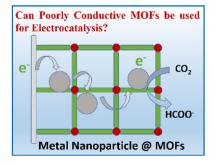


### Radical-polar crossover via electrochemical reduction

# Electroreductive formylation of activated alcohols via radical-polar crossover

Jungtaek Kang, Heyjin Cho and Hyunwoo Kim\*

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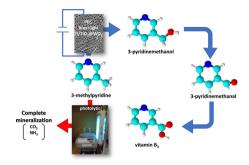
# Why can poorly conductive Bi@UiO-MOF catalyze CO<sub>2</sub> electroreduction?

Xinru He, Ying Guo, Jingzheng Zhang, Shuangli Yang, Jiawei Chen, Shurong Li, Shunji Xie, Ye Wang and Cheng Wang\*

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Selective photoelectrocatalytic oxidation of 3-methylpyridine to vitamin B<sub>3</sub> by WO<sub>3</sub> decorated nanotube-structured TiO<sub>2</sub>

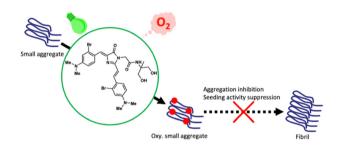
Sıdıka Çetinkaya, Levent Özcan, Oğuzhan Alagöz, Leonardo Palmisano and Sedat Yurdakal\*



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# Attenuation of $\alpha$ -synuclein aggregation by catalytic photo-oxygenation

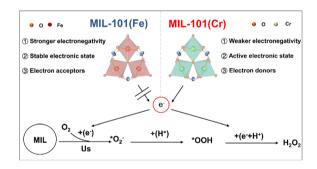
Atsushi Iwai, Reito Nakamura, Ikumi Tomizawa, Harunobu Mitsunuma, Yukiko Hori, Taisuke Tomita, Youhei Sohma\* and Motomu Kanai\*



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# Modulating the metal center in MIL-101 for the piezoelectric catalytic synthesis of hydrogen peroxide

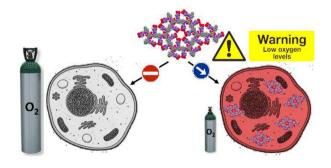
Yatai Li, Zhi Li, Xuecong Lin, Hao Lv and Mingshan Zhu\*



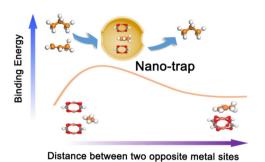
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# Nitroreductase-sensitive fluorescent covalent organic framework for tumor hypoxia imaging in cells

Tina Skorjanc,\* Dinesh Shetty,\* Sushil Kumar, Damjan Makuc, Gregor Mali, Janez Volavšek, Martina Bergant Marušič and Matjaz Valant



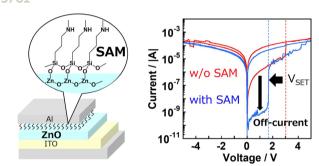
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# Design of a MOF-based nano-trap for the efficient separation of propane from propylene

Hua Zhu, Yue Wang, Xin Wang, Zi-Wen Fan, Hui-Fang Wang,\* Zheng Niu\* and Jian-Ping Lang\*

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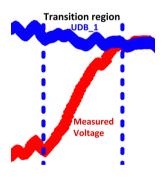


Control of the resistive switching voltage and reduction of the high-resistive-state current of zinc oxide by self-assembled monolayers

Masahiro Nakano.\* Hiroki Matsui, Sae Nakagawa. Jiaxun You, Md. Shahiduzzaman, Makoto Karakawa and Tetsuya Taima

### COMMENT

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Comment on "Carbon content drives high temperature superconductivity in a carbonaceous sulfur hydride below 100 GPa" by G. A. Smith, I. E. Collings, E. Snider, D. Smith, S. Petitgirard, J. S. Smith, M. White, E. Jones, P. Ellison, K. V. Lawler, R. P. Dias and A. Salamat, Chem. Commun., 2022, 58, 9064

J. E. Hirsch

### **COMMUNICATIONS**

5771



N-Heterocyclic carbene catalyzed desymmetrization of diols: access to enantioenriched oxindoles having a C3-quaternary stereocenter

Sourav Dutta, Arka Porey and Joyram Guin\*

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# Intermolecular proton transfer from flavonol to human serum albumin triggers a red-shifted ratiometric fluorescence response

Zhongyong Xu, Mingyuan Zhang, Zihao Chen, Yutian Zhao, Lei Wang, Xiaoqiang Chen, Bin Liu\* and Xiaojun Peng



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# Intelligent convolution neural network-assisted SERS to realize highly accurate identification of six pathogenic Vibrio

Hui Yu, Zhilan Yang, Shiying Fu, Yuejiao Zhang, Rajapandiyan Panneerselvamc, Baoqiang Li, Lin Zhang,\* Zehui Chen,\* Xin Wang\* and Jianfeng Li\*

