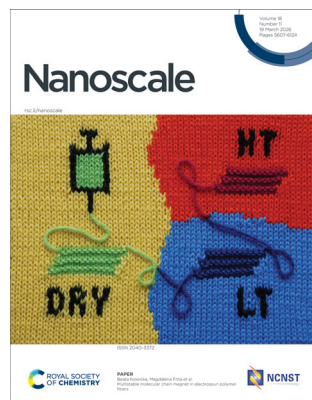


IN THIS ISSUE

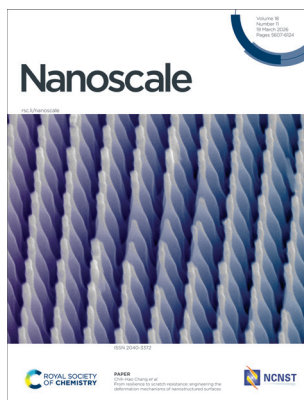
ISSN 2040-3372 CODEN NANOHL 18(11) 5607-6124 (2026)



Cover

See Beata Nowicka, Magdalena Fitta *et al.*, pp. 5754–5768.

Image reproduced by permission of Beata Nowicka from *Nanoscale*, 2026, **18**, 5754.



Inside cover

See Chih-Hao Chang *et al.*, pp. 5769–5780.

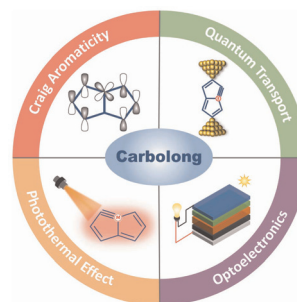
Image reproduced by permission of Chih-Hao Chang from *Nanoscale*, 2026, **18**, 5769.

REVIEWS

5621

Carbolong complexes: an emerging class of metallaromatics for next-generation functional materials

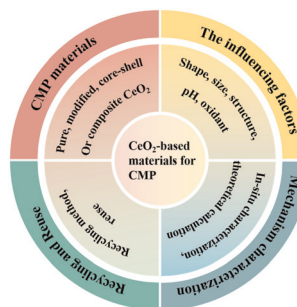
Haixin Zhang, Shiyang Chen,* Haiping Xia and Kun Wang*



5638

Classification, performance and recycling of ceria-based materials used for chemical mechanical polishing

Meiwen Tie, Yifei Wang, Cheng Zhang and Xiubing Huang*



RSC Applied Interfaces

GOLD
OPEN
ACCESS

Interfacial and surface research
with an applied focus

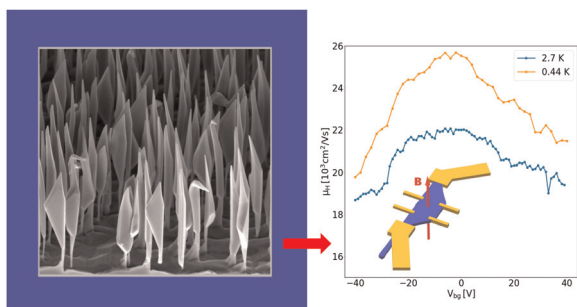
Interdisciplinary and open access

rsc.li/RSCApplInter

Fundamental questions
Elemental answers

COMMUNICATIONS

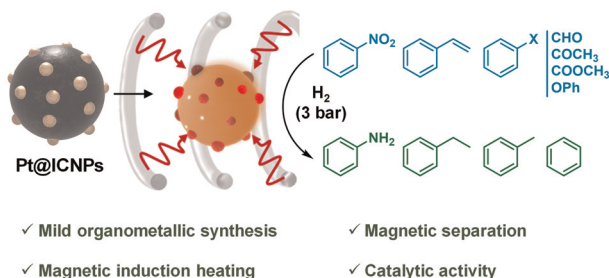
5741



Growth and transport properties of InAsSb nanoflags

Sebastian Serra, Gaurav Shukla, Giada Bucci, Robert Sorodoc, Valentina Zannier, Fabio Beltram, Lucia Sorba* and Stefan Heun*

5749

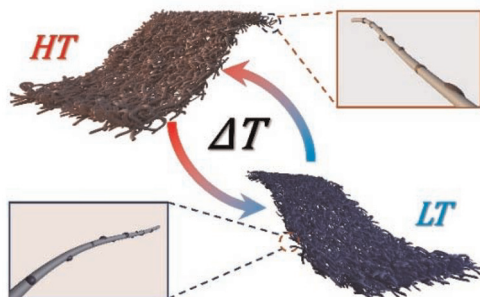


Synthesis and characterization of platinum-decorated iron carbide nanoparticles and their potential for magnetically induced catalysis

Sheng-Hsiang Lin, Oscar Suárez-Riaño, Víctor Varela-Izquierdo, Farzan Shabani, Pier-Francesco Fazzini, Edwin A. Baquero, Simon Tricard, Bruno Chaudret,* Walter Leitner and Alexis Bordet*

PAPERS

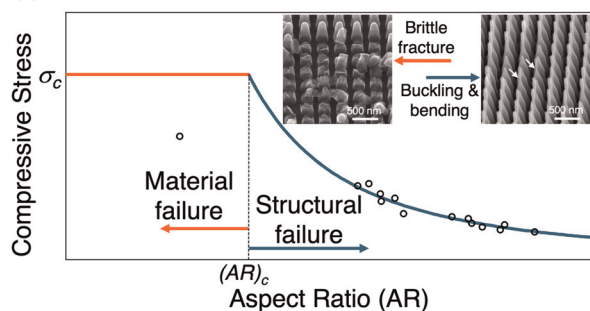
5754



Multistable molecular chain magnet in electrospun polymer fibers

Aleksandra Pacanowska, Gaja Wota, Matgorzata Jasiurkowska-Delaporte, Naveen Kumar Chogondahalli Muniraju, Wojciech Sas, Kamila Komędera, Wojciech Tabiś, Alexey Maximenko, Grzegorz Gazdowicz, Paweł Czaja, Marcin Perzanowski, Marzena Mitura-Nowak, Beata Nowicka* and Magdalena Fitta*

5769



From resilience to scratch resistance: engineering the deformation mechanisms of nanostructured surfaces

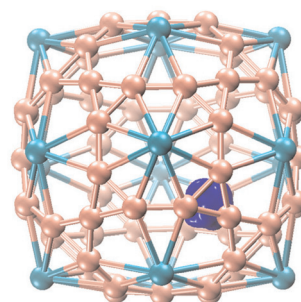
Mehmet Kepenekci, Kun-Chieh Chien, Natalia A. Rueda Guerrero, Kwon Sang Lee and Chih-Hao Chang*



5781

Multi-center bonding and structural integrity in $M_6M_8B_{60}$ ($M = Y, La, \text{ and } Lu$) metallo-borospherenes

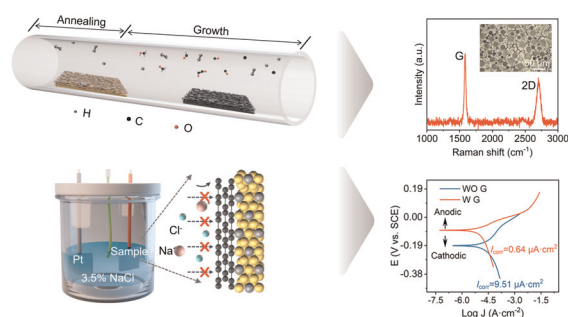
Yi-Sha Chen, Jing-Jing Guo, Peng-Bo Liu, Hui-Yan Zhao,* Jing Wang and Ying Liu*



5791

Low-temperature growth of high-quality multilayer graphene films on porous CuNi alloys for enhanced corrosion resistance

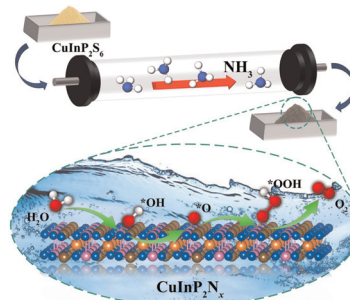
Fan Xie, Fan Xia, Zhangyao Xu, Han Han, Ziqi Wang, Qingda Zhu, Haochuan Chen, Fuchao Yan, Yifan Lian, Jingyu Sun and Jincan Zhang*



5799

Noble-metal-free, atomically thin $CuInP_2N_x$ nanosheets as highly efficient, stable, and low-cost electrocatalysts in acid oxygen evolution reactions

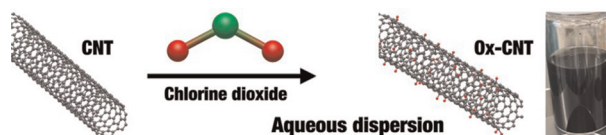
Wentao Hou, Xin Zhou,* Tingting Cheng, Haoqiang Chi, Yongcai Zhang, Chen Zhuang, Yubin Zheng, Xiaohui Zhong,* Zhigang Zou and Yong Zhou*



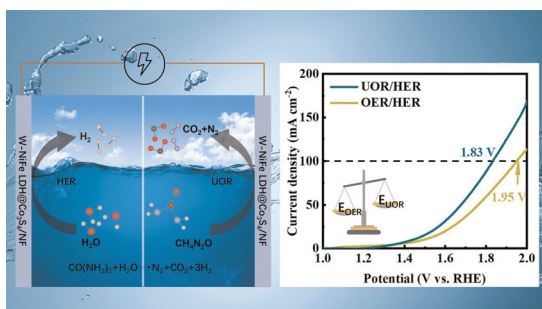
5805

Aqueous dispersion of carbon nanotubes by chlorine dioxide oxidation

Yuki Itabashi, Ai Sunami, Kaoru Maeno, Hiroshi Ueno, Takashi Itoh, Hiroshi Fukumura and Kei Ohkubo*



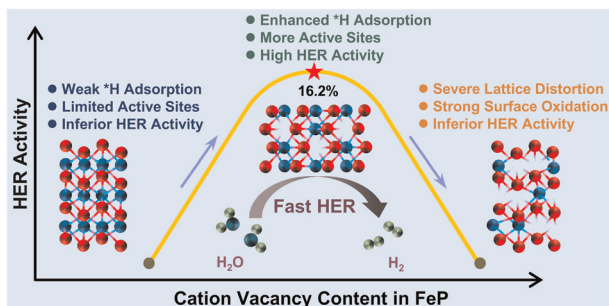
5812



Synergistic W-doping and Co_3S_4 heterostructuring in NiFe LDH for energy-saving hydrogen production via urea-assisted water electrolysis

Zelin Yang, Peng Dai,* Haoran Zhen, Tongtong Jiang,* Kaiwen Wang and Mingzai Wu*

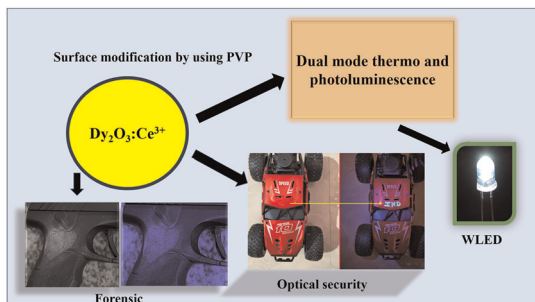
5821



Tunable cation vacancy engineering of FeP toward efficient hydrogen evolution reaction

Zuhao Wang, Jie Gu, Yifan Leng, Long Cheng, Yuan-Yuan Hei,* Chen Chen, Ruting Lin, Zonghua Pu, Hongfang Du* and Liangxu Lin*

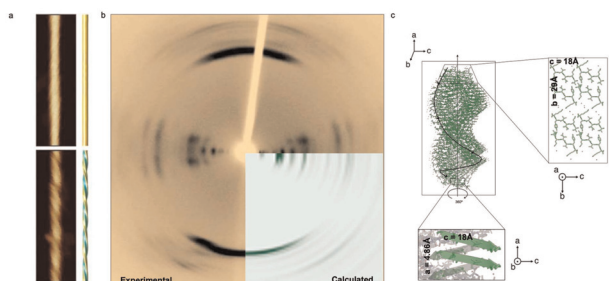
5831



PVP-driven surface engineered Ce^{3+} doped Dy_2O_3 nanoparticles for dual mode thermo and photoluminescence studies in TLD, forensic, anti-counterfeiting, and solid-state lighting applications

Kartik Gopal, D. V. Sunitha* and A. P. Gnana Prakash

5857



The supramolecular architecture of amyloid fibrils formed by a human tau-derived hexapeptide VQIVYK

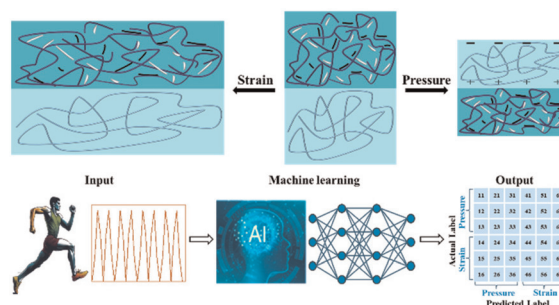
Irene del Mar Fariñas Lucas, Youssra K. Al-Hilaly, Liisa Lutter,* Wei-Feng Xue* and Louise C. Serpell*



5864

Nano-engineered PEDOT(MXene)/PVDF(HFP) bilayer membranes for dual-mode flexible sensing and machine learning-guided signal recognition

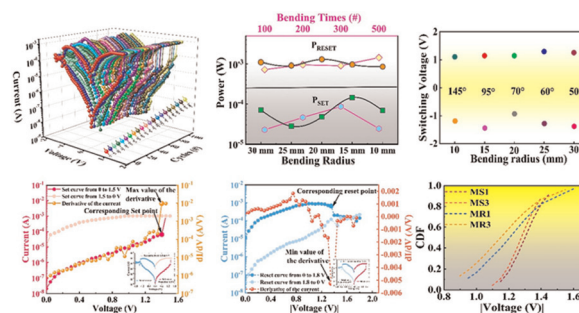
Pingping Wu, Lin Li, Qilin Guo, Sijing Zhang* and Yuanzhen Zhou*



5873

Statistical variability analysis of resistive switching in lead-free double perovskite flexible memristors

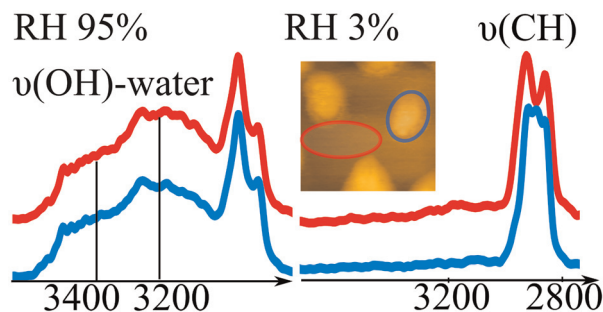
Susmita Das, Prabir Kumar Haldar and Pranab Kumar Sarkar*



5884

A nanoscale view on oligo(ethylene glycol) self-assembled monolayer hydration

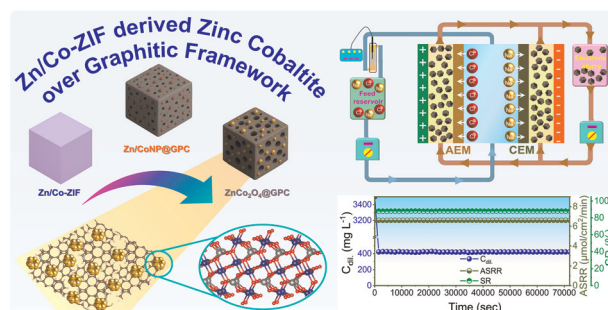
Nafiseh Samiseresht, Anne Jakubek, Petra Ebbinghaus and Martin Rabe*



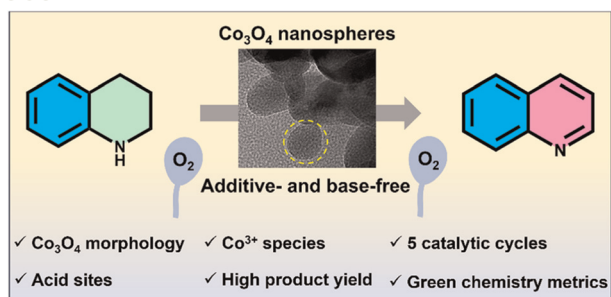
5896

Structurally engineered ZnCo₂O₄ spinel nanoparticles on ZIF-derived hierarchically porous graphitic carbon for high-performance flow capacitive deionization

Swayamprakash Biswal, Biswajit Mishra and Bijay P. Tripathi*



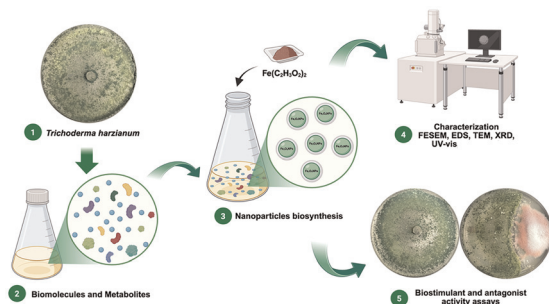
5908



Morphology-dependent catalytic performance of Co₃O₄ nanomaterials in the oxidative dehydrogenation of tetrahydroquinolines

Suresh Babu Putla, Palanivel Subha, Nittan Singh, Putla Sudarsanam* and Pavuluri Srinivasu*

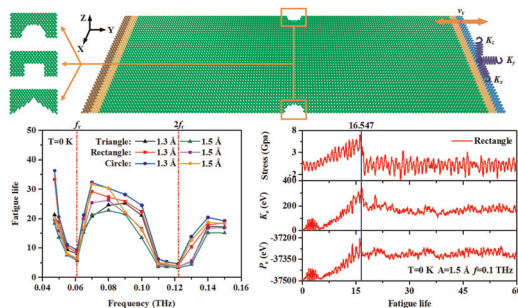
5918



Biosynthesized iron oxide nanoparticles using *Trichoderma harzianum* with applications for phytopathogen control

Erika Armenta-Jaime, Ángeles Alitzel Rivera Román, América R. Vázquez-Olmos, Velma Beri Kimbi Yaah, Satu Ojala, Oscar Arce Cervantes, Andrés Galdámez-Martínez* and Silvia Armenta*

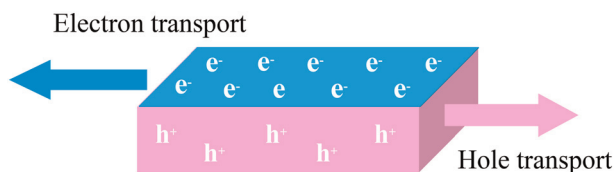
5928



Resonance-induced fatigue characteristics of monolayer black phosphorus with different notch shapes

Yun Dong,* Yuxin Zhang, Futian Yang, Xinyi Tang, Rong Deng, Jinguang Wang and Bo Shi

5941



Spatially separated bipolar transport and surface electron accumulation in tungsten diselenide nanostructures

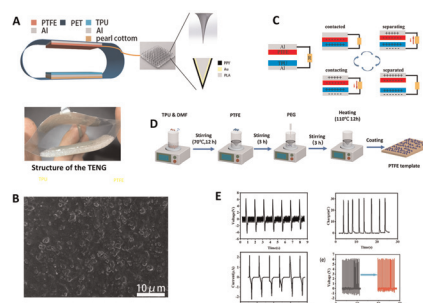
Hemanth Kumar Bangolla, Chi-Yang Chen, Cheng-Maw Cheng, Kuei-Yi Lee, Liang-Chiun Chao, Rajesh Kumar Ulaganathan, Raman Sankar, Abhishek Ghosh and Rwei-San Chen*



5951

Fibroblast growth enhancement and antibiotic-free disinfection *via* microneedles with self-powered electrical stimulations

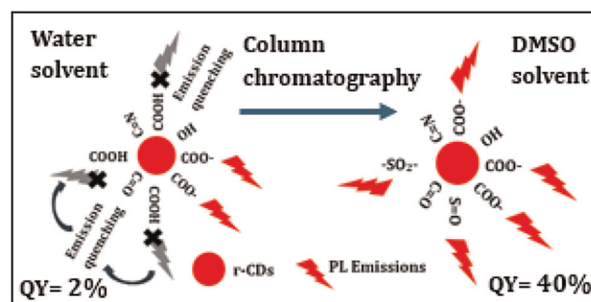
Zheng Wang, Fuqi Lu, Shuting Wang, Xin Wang, Yan Sun, Wenhui Guan, Jianming Dang, Haoxuan Sun, Jiahui Zhang, Qiang Niu, Juqiang Han, Ziyang Ma, Jinjiang Cui, Yunliang Li, Ying Liu,* Meidong Huang,* Liuxin Duan* and Quanda Liu*



5961

Red emissive carbon dots: synergistic interplay between core and surface states

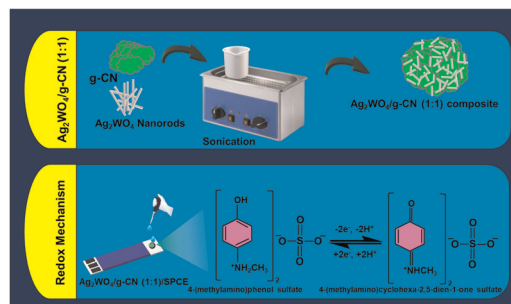
J. Sabayi, S. Hammad, G. Bacher and M. Ghali*



5975

Nanostructured silver tungstate rods decorated on graphitic carbon nitride: an effective electrocatalyst for electrochemical sensing of carcinogenic organic pollutant metol

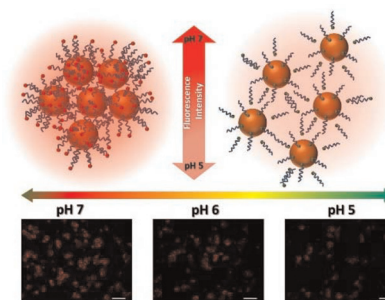
Elaiyappillai Elanthamilan and Sea-Fue Wang*



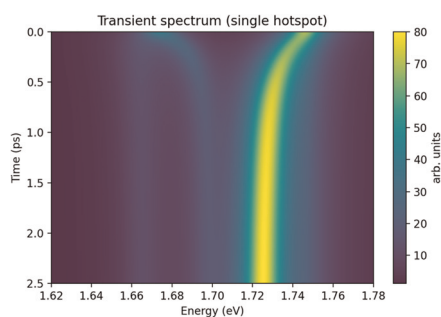
5988

Thiolactone ring dynamics in dimeric lipids enable pH-switchable supramolecular tuning in surface-engineered quantum dots

Pranay Saha, Parikshit Moitra, Sayan Bera, Samrat Das Adhikari, Narayan Pradhan and Santanu Bhattacharya*



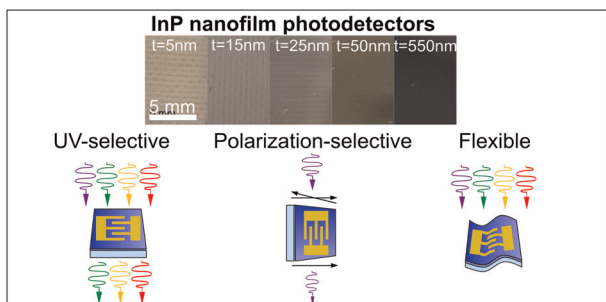
5999



Ultrafast exciton–polaron dynamics in moiré superlattices

Junais Habeeb Mokkath

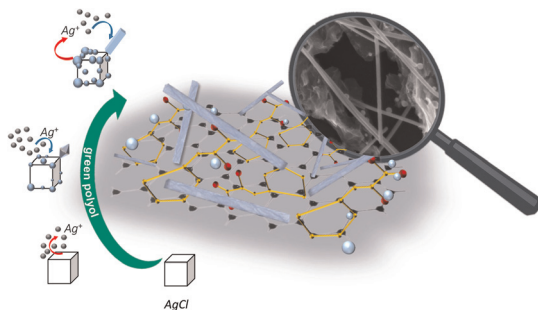
6011



Polarization-selective, tailorable, and flexible InP nanofilm UV photodetectors

Tuomas Haggren,* Wei Wen Wong, Yang Yu, Veda C. Dinesh, Siti Samsuri, Chenglong Xu, Madhu Bhaskaran, Chennupati Jagadish, Lan Fu and Hark Hoe Tan*

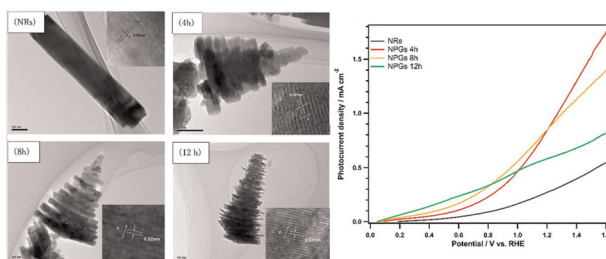
6021



A mild colloidal strategy for controlling the morphology of reduced graphene oxide–Ag nanowire hybrids

Alessio Massaro, Rafique Ahmed Lakho, Adriana Grandolfo, Giuseppe Valerio Bianco, Elisabetta Fanizza, Marinella Striccoli, Roberto Comparelli, Maria Lucia Curri* and Chiara Ingrassio*

6035



Controlling ZnO nanopagoda structure enhances photoelectrochemical water splitting

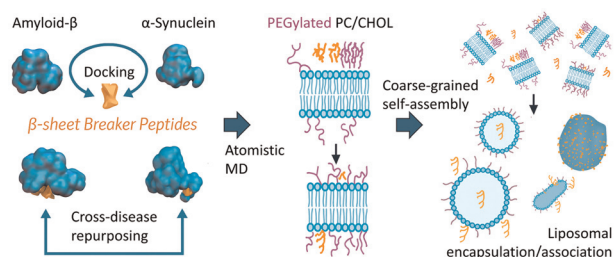
Soshi Mizuno, Rina Watanabe, Marwa Mohamed Abouelela, İrem Nur Gamze Özbilgin, Tohru S. Suzuki, Tetsuo Uchikoshi, Wai Kian Tan, Hiroyuki Muto, Atsunori Matsuda and Go Kawamura*



6044

Modeling β -sheet breaker peptides across multiple resolutions: from neurological targets to liposomal membranes

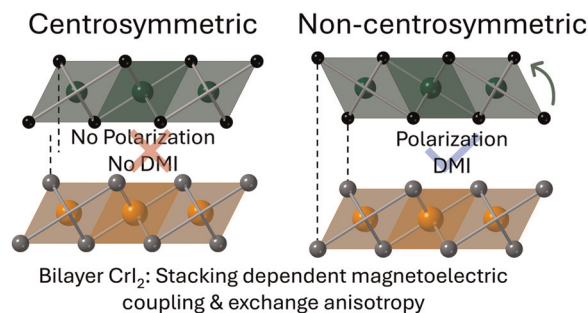
Gulsah Gul



6068

Stacking-controlled magnetic exchange and magnetoelectric coupling in bilayer CrI_2

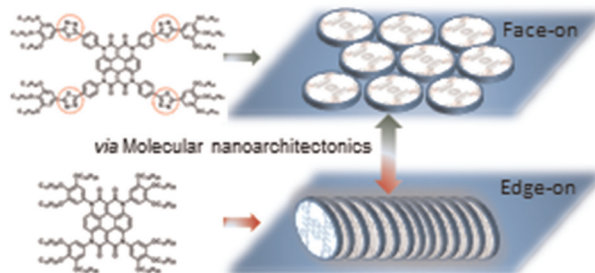
B. Valdés-Toro, I. Ferreira-Araya, R. A. Gallardo and J. W. González*



6080

Precise molecular ordering in discotic monolayers through supramolecular nanoarchitectonics

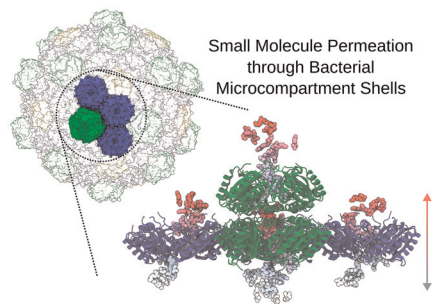
Himangshu Paul, Priyanka Priyadarshani Samal, Nishant Kumar, Ritobrata De, Joydip De, Santanu Kumar Pal, Puneet Mishra* and Alpana Nayak*



6092

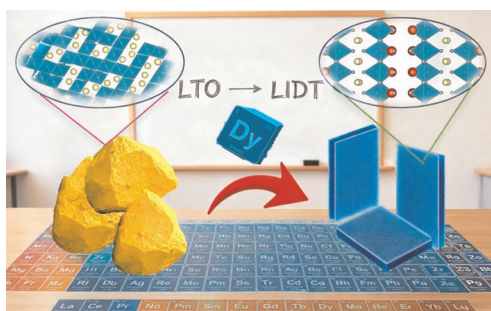
Quantifying selective metabolite transport for the bacterial microcompartment from *Haliangium ochraceum* with molecular dynamics simulations

Neetu S. Yadav, Saad Raza, Yali Wang, Joel F. Landa, Eric L. Hegg, Robert P. Hausinger and Josh V. Vermaas*



PAPERS

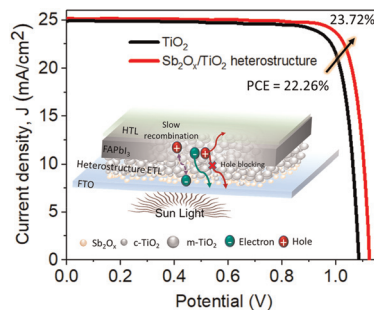
6105



Dysprosium induced structural modulation for reduced working potential and enriched lithium storage sites

Yi Zhu, Peng Li,* Peng Zhao, Yingchun Yan, Qinggang Zhang,* Xinghui Liang, Rongzhou Wang,* Minghui Tan and Mingbo Wu*

6110



Enhanced carrier extraction and photostability in perovskite solar cells via a band-engineered Sb₂O_x/TiO₂ bilayer heterojunction

Nasrin Siraj Lopa, Yuna Choi, Md. Mahbubur Rahman and Tae Woong Kim*

CORRECTION

6122

Correction: Unlocking the loading limit in single-atom photocatalysts via defect-induced metal trapping

Laihao Liu, Yucong Huang, Xiaocang Han, Chuyue Lu, Jingjing Xiong,* Yuqing Qiu, Guanwu Lian, Fangrun Jin, Wenguang Tu, Xiaoxu Zhao, Zhigang Zou and Zhongxin Chen*

