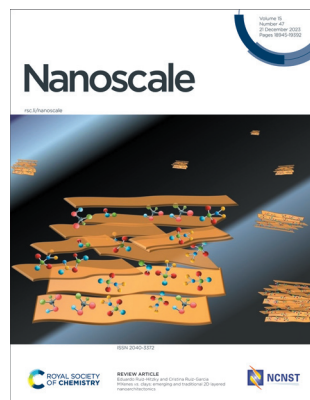


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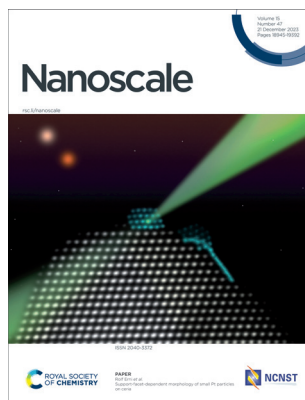
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See Eduardo Ruiz-Hitzky and Cristina Ruiz-Garcia, pp. 18959–18979.

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Inside cover

See Rolf Erni *et al.*, pp. 19091–19098.

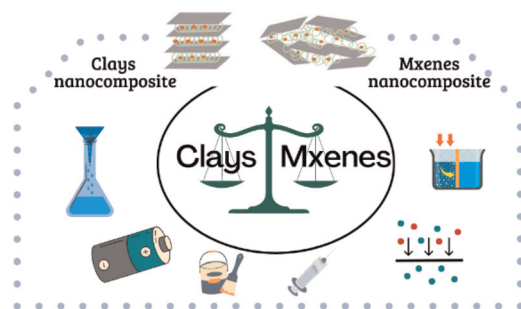
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MXenes vs. clays: emerging and traditional 2D layered nanoarchitectonics

Eduardo Ruiz-Hitzky* and Cristina Ruiz-Garcia

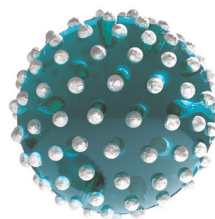


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Liquid marbles: review of recent progress in physical properties, formation techniques, and lab-in-a-marble applications in microreactors and biosensors

Mizuki Tenjimbayashi,* Timothée Mouterde,* Pritam Kumar Roy and Koichiro Uto

Liquid Marble: Comprehensive Review of Recent Progress



- ✓ **Physical Properties**
 - Droplet vs Liquid marble
 - Mechanical stability
 - Adhesion and friction
 - Shape evolution
 - Evaporation-induced effects
- ✓ **Formation techniques**
 - Formation processes
 - Conceptual variations
 - Liquid marble-templated material design
- ✓ **Lab-in-a-Marble Applications**
 - Microreactors
 - Biosensors



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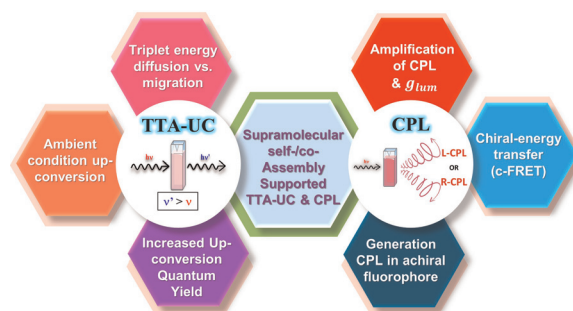


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A supramolecular assembly-based strategy towards the generation and amplification of photon up-conversion and circularly polarized luminescence

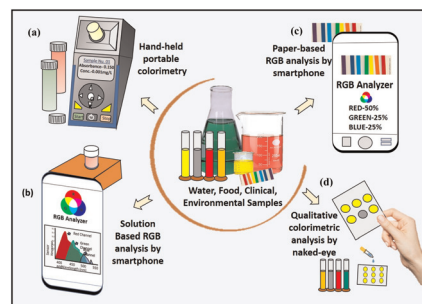
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Progress in the design of portable colorimetric chemical sensing devices

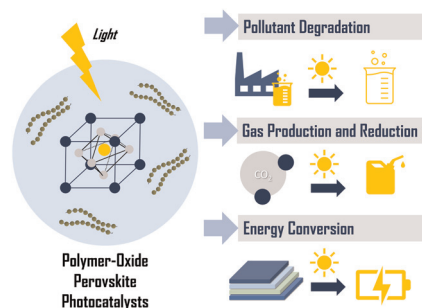
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Polymer-enhanced perovskite oxide-based photocatalysts: a review

Gregory Soon How Thien, Kah-Yoong Chan,* Ab Rahman Marlinda and Boon Kar Yap

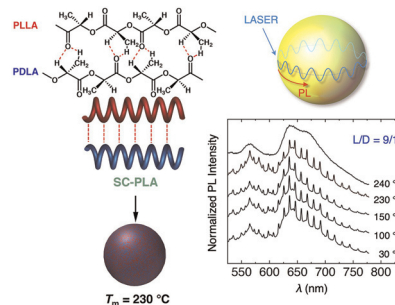


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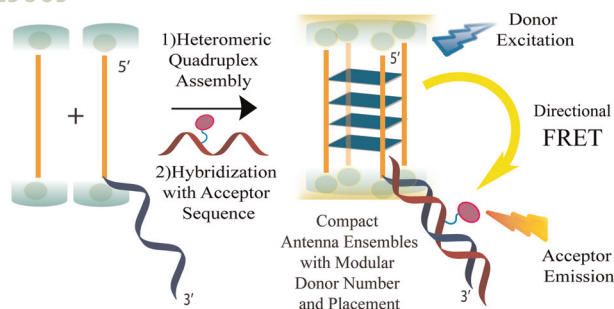
Poly(lactic acid) stereocomplex microspheres as thermally tolerant optical resonators

Suhaman, Wey Yih Heah, Hiroshi Yamagishi and Yohei Yamamoto*



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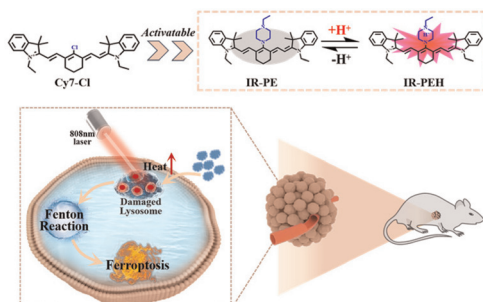
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Heteromeric guanosine (G)-quadruplex derived antenna modules with directional energy transfer

Mohammad Amin Zarandi, Pravin Pathak, Noah Beltrami, Jada N. Walker, Fengqi Zhang, Jennifer S. Brodbelt, Russell Schmehl and Janarthanan Jayawickramarajah*

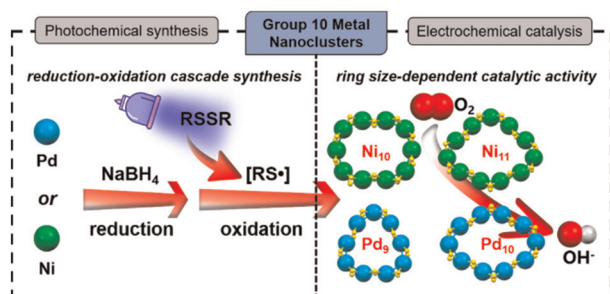
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Zhiwei Zhang, Jingjing Xiang, Lijiao Guan, Pu Chen, Changzhong Li, Chunlei Guo, Yan Hu,* Saipeng Huang,* Lintao Cai* and Ping Gong*

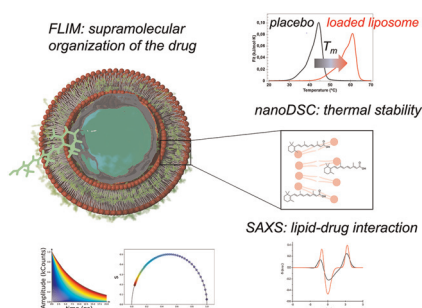
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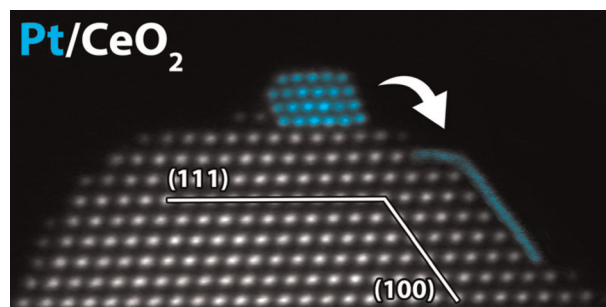


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Support-facet-dependent morphology of small Pt particles on ceria

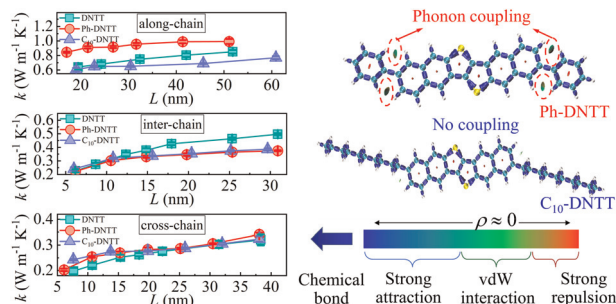
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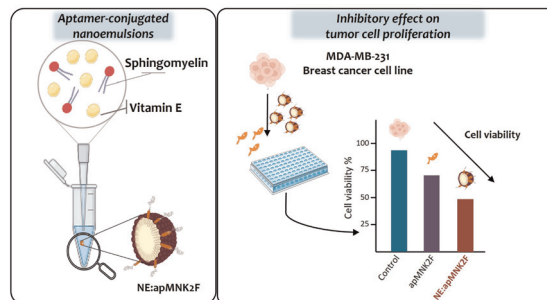
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Chemical conjugation of aptamer–sphingomyelin nanosystems and their potential as inhibitors of tumour cell proliferation in breast cancer cells

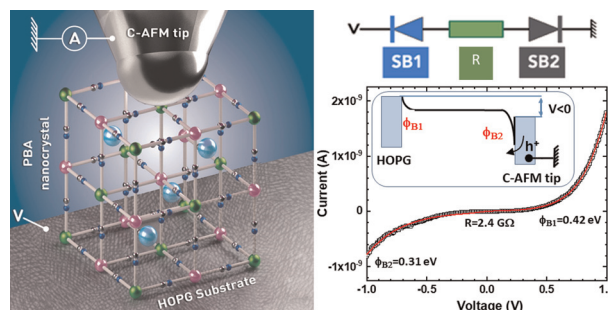
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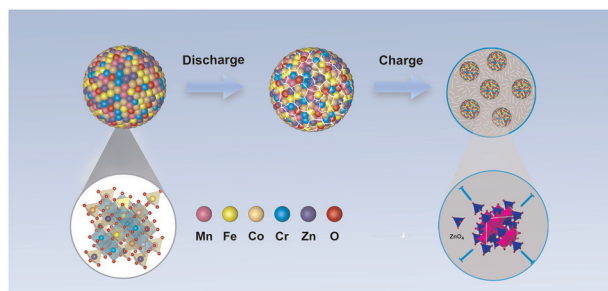
Electronic properties of single Prussian Blue Analog nanocrystals determined by conductive-AFM

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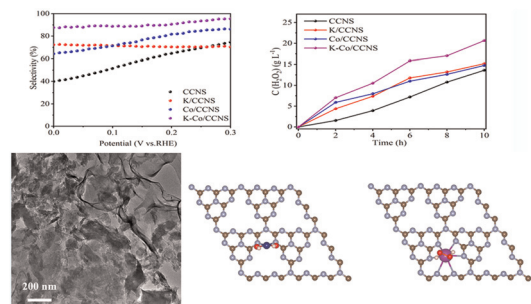
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The elemental pegging effect in locally ordered nanocrystallites of high-entropy oxide enables superior lithium storage

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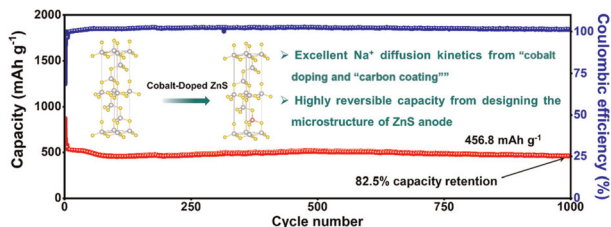
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Electrochemical production of hydrogen peroxide by non-noble metal-doped g-C₃N₄ under a neutral electrolyte

Ying Wang, Hongcen Yang, Niandi Lu, Di Wang, Kun Zhu, Zhixia Wang, Lianshan Mou, Yan Zhang, Yawei Zhao, Kun Tao, Fei Ma* and Shanglong Peng*

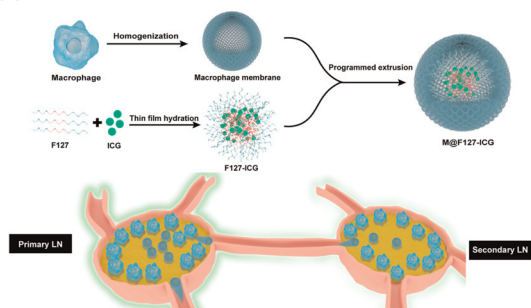
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A cobalt-doped hollow ZnS polyhedra@porous carbon shell composite for high-rate sodium-ion batteries

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Biomimetic nanoplatform with selectively positioned indocyanine green for accurate sentinel lymph node imaging

Wenjing Cheng, Xiangbai Wu, Shi Yu, Chengwei Zhang, Yinhong Song, Xinzhi Li and Xiang Yu*

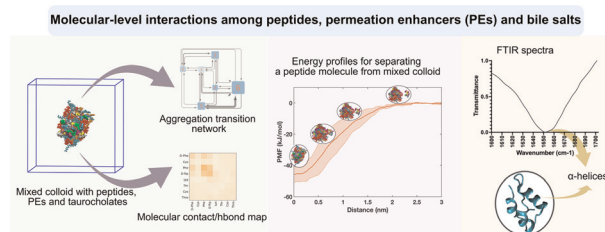


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Revealing the interaction between peptide drugs and permeation enhancers in the presence of intestinal bile salts

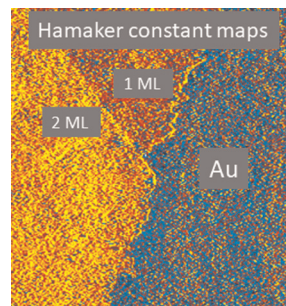
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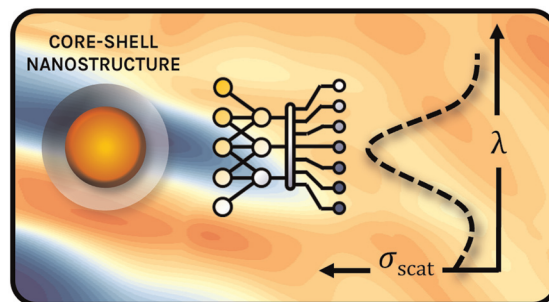
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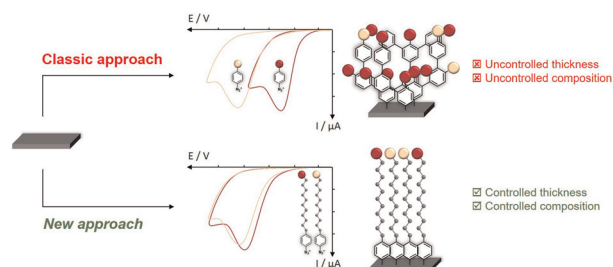
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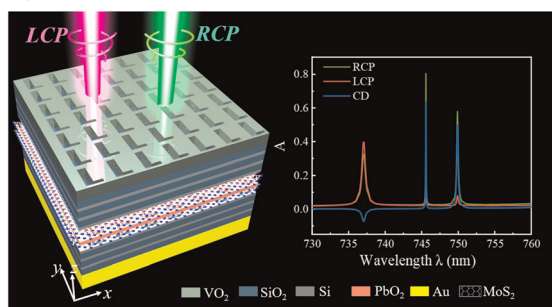
An innovative method for controlled synthesis of bicomponent monolayer films obtained by reduction of diazonium

Julien Billon, Anna Omelchuk, Viacheslav Shkirskiy, Sylvie Dabos-Seignon, Olivier Alévêque, Eric Levillain, Tony Breton and Christelle Gautier*



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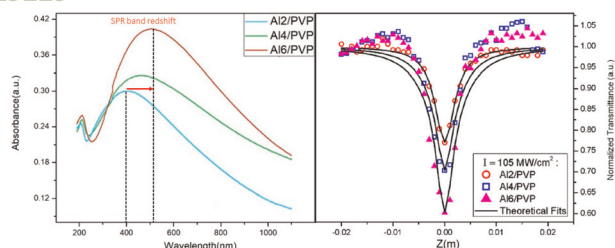
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Yongkai Wang,* Jialin Sun, Zhiduo Li, Qingyan Han, Wei Gao, Lipeng Zhu, Jun Dong and Zhongyue Zhang*

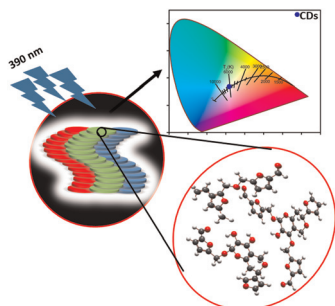
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Controlled plasmon-induced nonlinear absorption and optical limiting in Al/PVP composite nanofibers

Bekir Asilcan Ünlü, Serife Akkoyun,* Ahmet Karatay,* Aytunc Ates and Ayhan Elmali

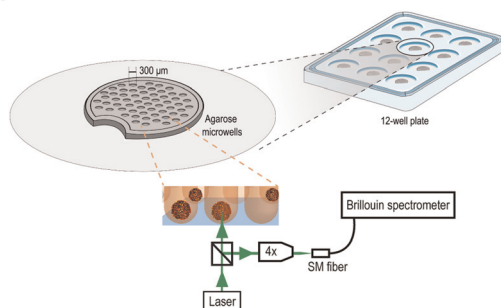
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Md. Abdus Salam Shaik, Dipanjan Samanta, Ankit Kumar Sharma, Manisha Shaw, Sayan Prodhan, Rajarshi Basu, Imran Mondal, Shailab Singh, Prasanta Kumar Dutta and Amita Pathak*

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Giulia Guerriero, Alexis Viel, Veronica Feltri, Alice Balboni, Guqi Yan, Sylvain Monnier, Giovanna Lollo* and Thomas Dehoux*

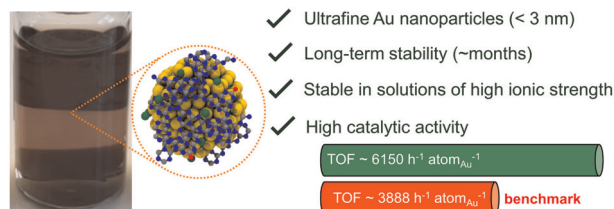


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Water-soluble ionic carbon nitride as unconventional stabilizer for highly catalytically active ultrafine gold nanoparticles

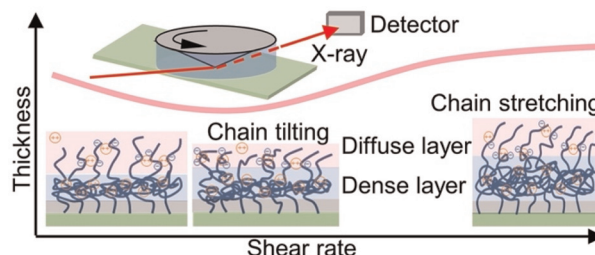
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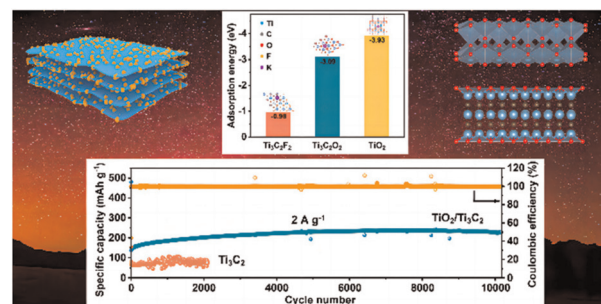
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In situ construction of a hierarchical TiO₂/Ti₃C₂ hybrid via water steam etching for high-performance potassium-ion batteries

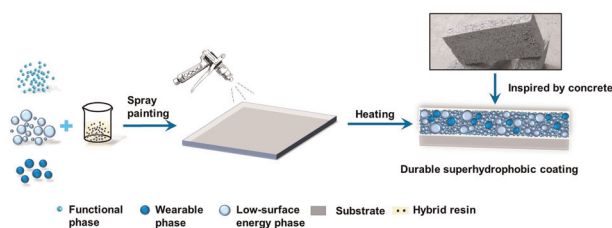
Tengfei Li, Lu Wang,* Junwen Duan, Zifeng Liu, Dan Zhou, Chang Xue* and Zhubing Xiao*



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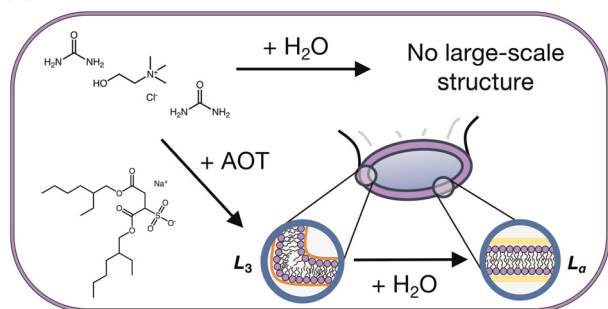
A highly robust, concrete-inspired superhydrophobic nanocomposite coating

Wu Binrui, Qin Qiong, Jiao Xuan, Xu Dong, Ke li, Sheng Liping,* Cui Xin, Zhao Qizhi, Fu Feiyan* and Yi Xian*



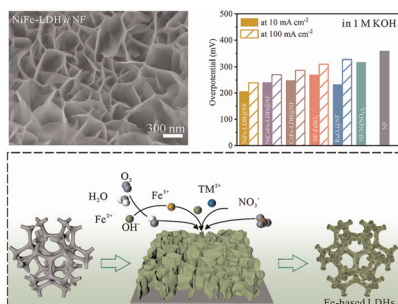
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**Evidence for an L_3 phase in ternary deep eutectics: composition-induced L_3 -to- L_α transition of AOT**

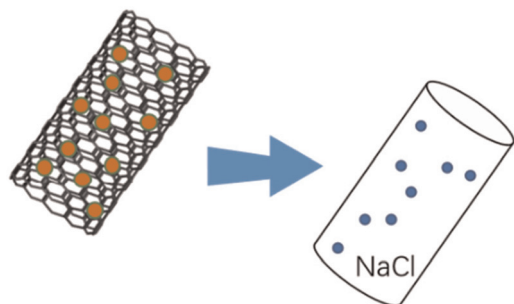
Oliver S. Hammond,* Naomi S. Elstone, James Douch, Peixun Li and Karen J. Edler

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**A moderate method for *in situ* growing Fe-based LDHs on Ni foam for catalyzing the oxygen evolution reaction**

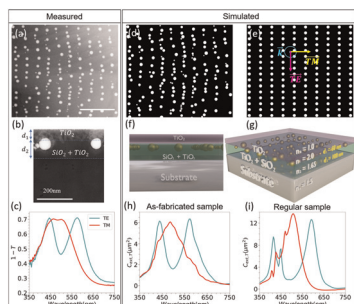
Yanqi Liu, Chenghao Zhang, Qingsong Cai, Jianmin Zhang* and Zongmin Zheng*

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**Switchable NaCl cages via a MWCNTs/Ni[Fe(CN)₆]₂ nanocomposite for high performance desalination**

Ze-Qin Yang, Wei-Bin Zhang,* Kang Yang, Bi Chen, Yi Yin, Jia-Jun Li, Jing-Lei Yang, Yue Gao and Xue-Jing Ma*

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**Hybridization between plasmonic and photonic modes in laser-induced self-organized quasi-random plasmonic metasurfaces**

Van Doan Le, Yaya Lefkir and Nathalie Destouches*

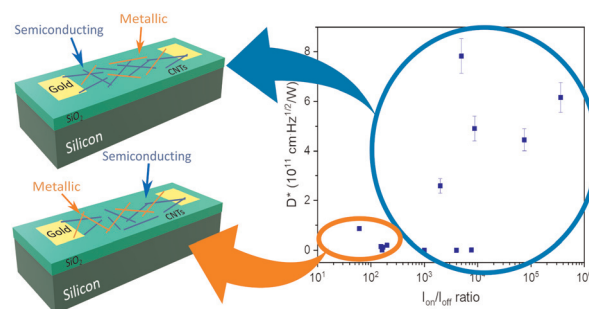


PAPERS

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Photogating interfacial effects in carbon nanotube-based transistors on a Si/SiO₂ substrate toward highly sensitive photodetection

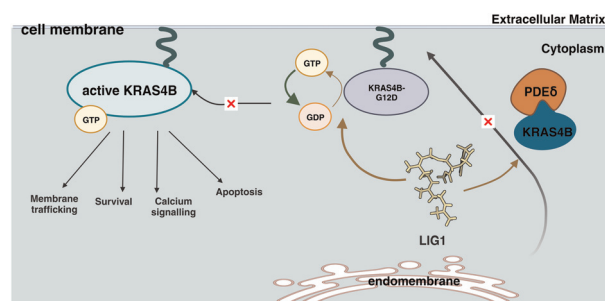
Svetlana I. Serebrennikova, Daria S. Kopylova, Yuriy G. Gladush, Dmitry V. Krasnikov, Sakellaris Mailis and Albert G. Nasibulin*



19359

In silico design of a lipid-like compound targeting KRAS4B-G12D through non-covalent bonds

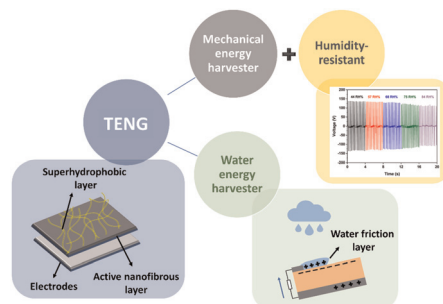
Huixia Lu,* Zheyao Hu, Jordi Faraudo and Jordi Martí*



19369

Flexible, humidity- and contamination-resistant superhydrophobic MXene-based electrospun triboelectric nanogenerators for distributed energy harvesting applications

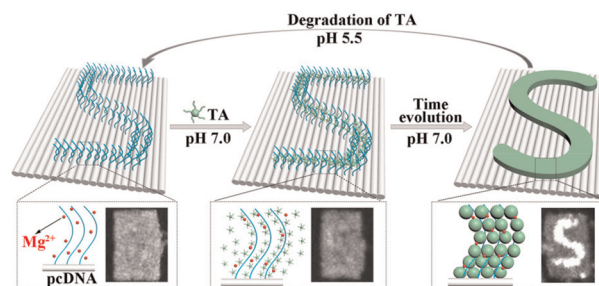
Sagar Sardana, Vaishali Sharma, Kevin Gurbani Beepat, Davinder Pal Sharma, Amit Kumar Chawla and Aman Mahajan*



19381

The controllable patterning of tannic acid on DNA origami

Yuanyuan Luo, Liqiong Niu, Pengyan Hao, Xiaoya Sun, Yongxi Zhao and Na Wu*



CORRECTION

19389

Correction: Considerable slowdown of short DNA fragment translocation across a protein nanopore using pH-induced generation of enthalpic traps inside the permeation pathway

Loredana Mereuta, Alina Asandei, Ioan Andricioaei, Jonggwan Park, Yoonkyung Park* and Tudor Luchian*

