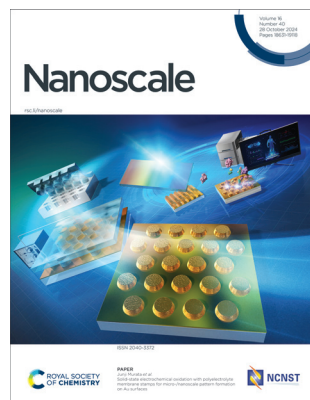


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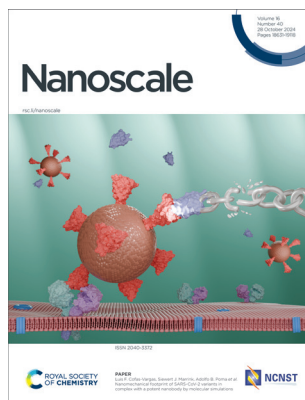
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Cover

See Junji Murata *et al.*, pp. 18811–18823.

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Inside cover

See Luis F. Cofas-Vargas, Siewert J. Marrink, Adolfo B. Poma *et al.*, pp. 18824–18834.

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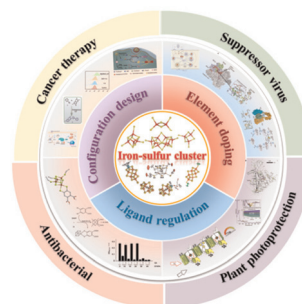
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Atomic-level design of biomimetic iron–sulfur clusters for biocatalysis

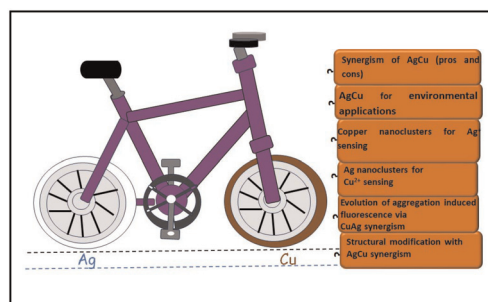
Sufei Zhou, Di Liu, Kelong Fan, Haile Liu* and Xiao-Dong Zhang*



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Synergism between copper and silver nanoclusters induces fascinating structural modifications, properties, and applications

Priyanka Sharma, Mainak Ganguly* and Ankita Doi



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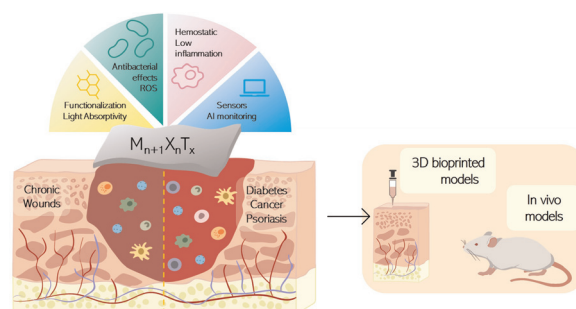
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Advanced approaches in skin wound healing – a review on the multifunctional properties of MXenes in therapy and sensing

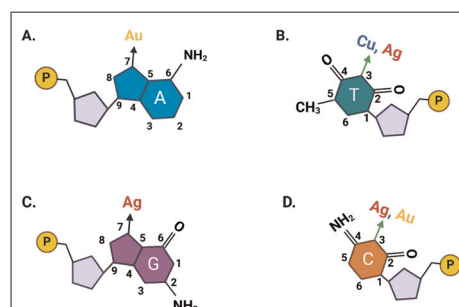
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DNA-templated fluorescent metal nanoclusters and their illuminating applications

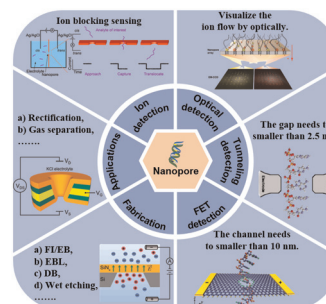
Ashwin Rajeev and Dhiraj Bhatia*



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Nanopore-based sensors for DNA sequencing: a review

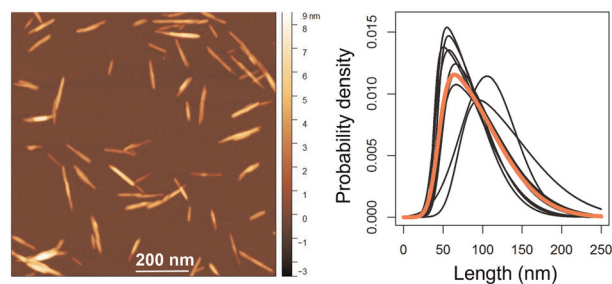
Jiangtao Wei, Hao Hong, Xing Wang, Xin Lei, Minjie Ye and Zewen Liu*



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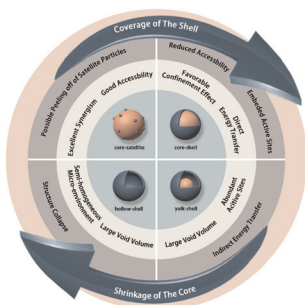
Cellulose nanomaterial metrology: microscopy measurements

Linda J. Johnston



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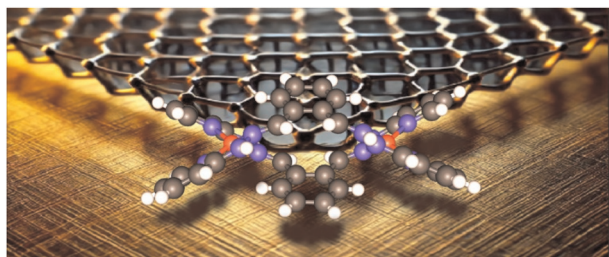


Structural engineering in hierarchical nanoarchitectures of metal–organic frameworks and their derivatives

Tianzhu Mao, Hongchuan Fu and Kui Shen*

COMMUNICATION

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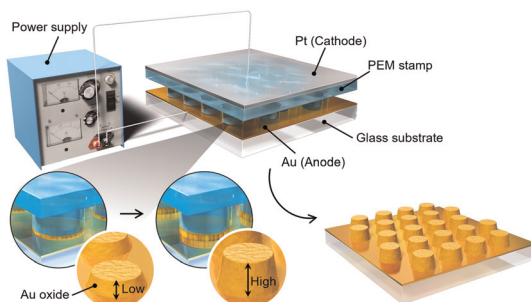


Functionalisation of graphite and thermally reduced graphene oxide with bis-hydrazone copper(I) nitrate salt

Piotr W. Zabierowski,* Lukáš Děkanovský, Vlastimil Mazánek, Maciej Hodorowicz and Zdeněk Sofer*

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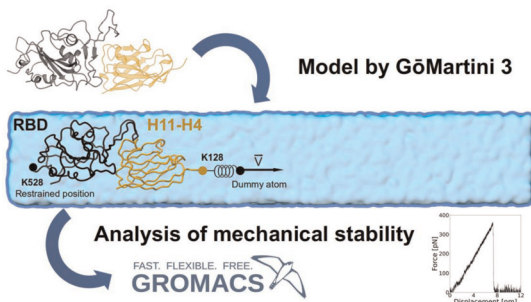
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Solid-state electrochemical oxidation with polyelectrolyte membrane stamps for micro-/nanoscale pattern formation on Au surfaces

Tatsuya Fujii, Atsuki Tsuji, Masaru Takizawa and Junji Murata*

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Nanomechanical footprint of SARS-CoV-2 variants in complex with a potent nanobody by molecular simulations

Luis F. Cofas-Vargas,* Gustavo E. Olivos-Ramirez, Mateusz Chwastyk, Rodrigo A. Moreira, Joseph L. Baker, Siewert J. Marrink* and Adolfo B. Poma*

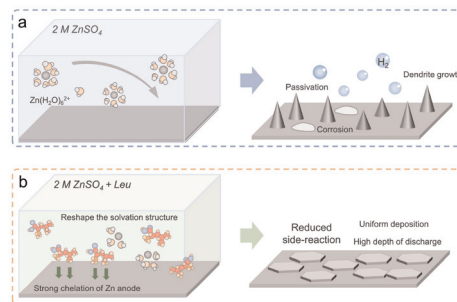


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Guiding uniform Zn deposition with a multifunctional additive for highly utilized Zn anodes

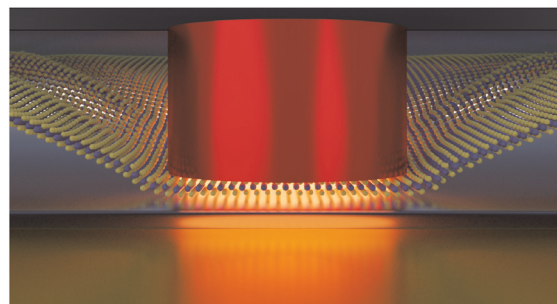
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Photoluminescence modal splitting *via* strong coupling in hybrid Au/WS₂/GaP nanoparticle-on-mirror cavities

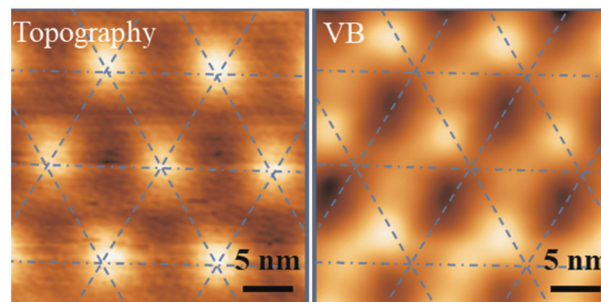
Merve Gülmüş, Thomas Possmayer, Benjamin Tilmann, Paul Butler, Ian D. Sharp, Leonardo de S. Menezes, Stefan A. Maier and Luca Sortino*



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Visualizing localized nematic states in twisted double bilayer graphene

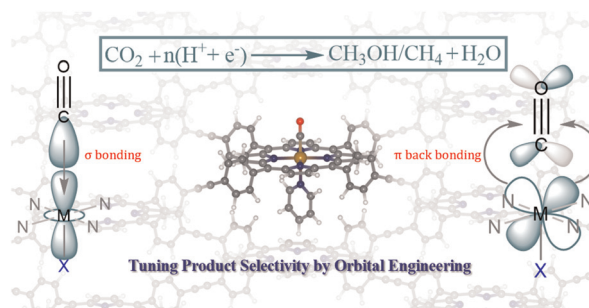
Zhen-Yu Wang, Jia-Jun Ma, Qianqian Chen, Kefan Wu, Shuigang Xu, Qing Dai, Zheng Zhu, Jindong Ren,* Hong-Jun Gao and Xiao Lin*



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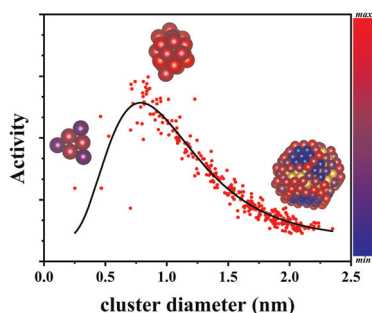
Tuning the product selectivity of single-atom catalysts for CO₂ reduction beyond CO formation by orbital engineering

Vasanthapandiyan Mari and Naiwrit Karmodak*



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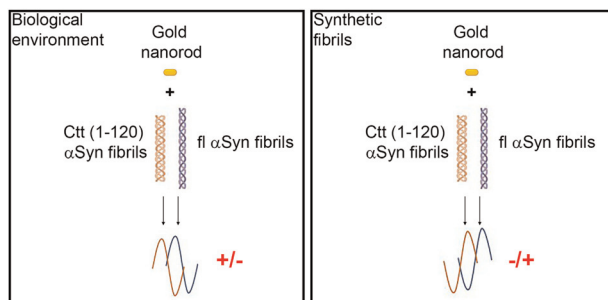
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Size-dependent catalytic activity for CO oxidation over sub-nano-Au clusters

Yuqi Wang, Haoxiang Xu,* Jiqin Zhu* and Daojian Cheng*

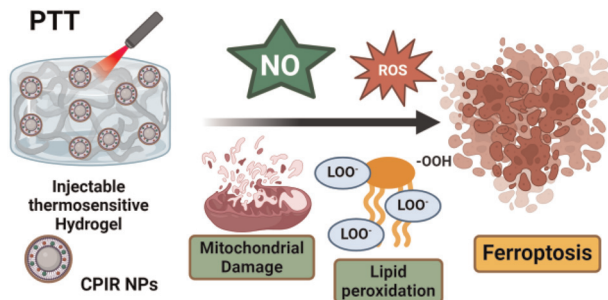
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Nanorod-associated plasmonic circular dichroism monitors the handedness and composition of α -synuclein fibrils from Parkinson's disease models and post-mortem brain

Francesca Longhena, Rihab Boujebene, Viviana Brembati, Michele Sandre, Luigi Bubacco, Sergio Abbate, Giovanna Longhi* and Arianna Bellucci*

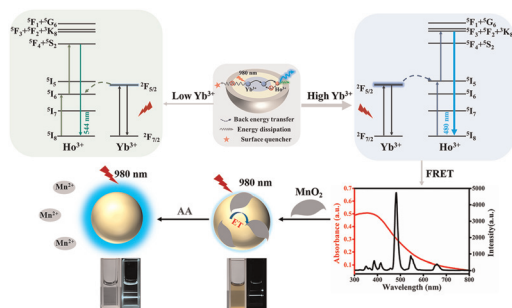
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In situ thermosensitive $\text{H}_2\text{O}_2/\text{NO}$ self-sufficient hydrogel for photothermal ferroptosis of triple-negative breast cancer

Sri Amruthaa Sankaranarayanan, Kalyani Eswar, Rupali Srivastava, Ajinkya Madhukar Thanekar, Mounika Gubige, Veeresh Bantal and Aravind Kumar Rengan*

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Blue emission-dominated $\text{NaYbF}_4@\text{NaYF}_4:2\% \text{Ho}@\text{NaYF}_4$ upconversion nanoparticles for detecting ascorbic acid

Pengli Wang, Jiaxin Li, Yujiao Zhang, Dan Xiao and Cuisong Zhou*

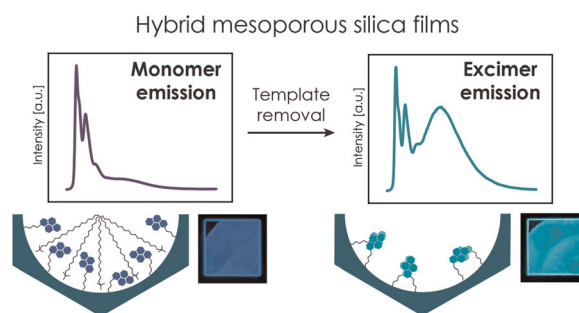


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Pyrene monomer–excimer dynamics to reveal molecular organization in mesoporous hybrid silica films

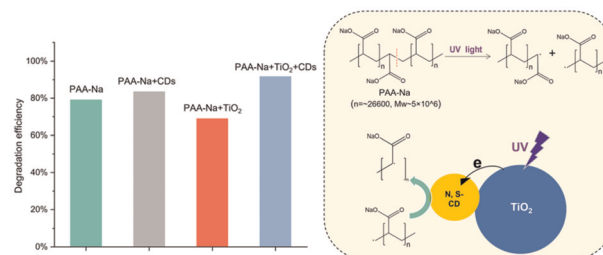
Jakub Kusz, Cédric Boissiere,* Yann Bretonnière, Clément Sanchez and Stéphane Parola*



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Improved photodegradation of a superabsorbent via carbon dots as electron transfer stations

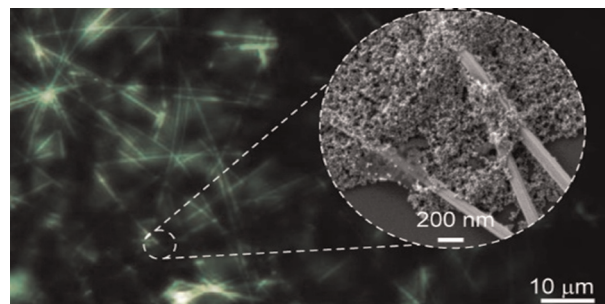
Shuxin Sui, Fengjiao Zhao,* Tianfu Zhang, Zhen Chen and Hongming Yin*



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Localized three-photon upconversion enhancement in silver nanowire networks and its effect in thermal sensing

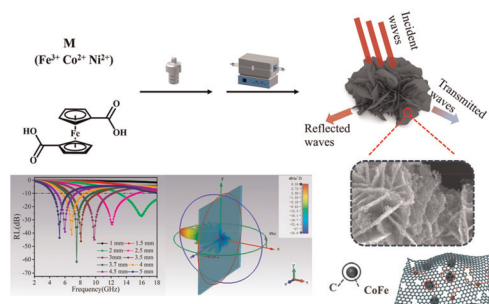
Eduardo D. Martínez,* Luiz H. A. R. Ferreira, Albano N. Carneiro Neto, Carlos D. S. Brites and Luís D. Carlos



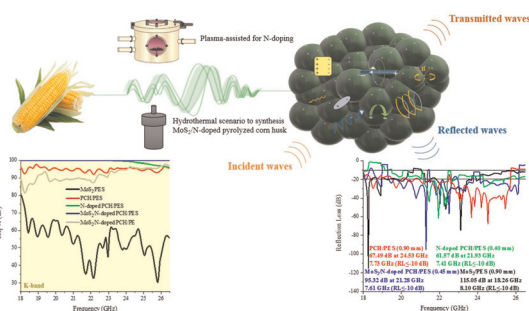
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Fabrication of flower-like CoFe/C composites derived from ferrocene-based metal–organic frameworks: an *in situ* growth strategy toward high-efficiency electromagnetic wave absorption

Xueling Wang, Xuan Zhang, Jiaqi Lu and Zhiliang Liu*



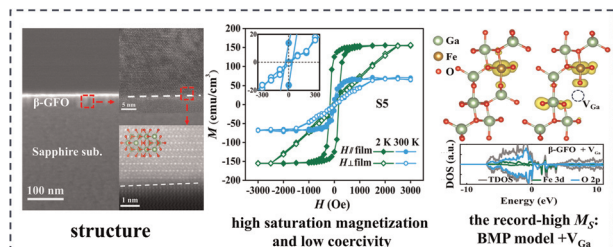
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Plasma-assisted doping of pyrolyzed corn husk strengthened by MoS₂/polyethersulfone for fascinating microwave absorbing/shielding and energy saving properties

Hassan Rezaei, Fereshteh Soltani-Mohammadi, Haniyeh Dogari, Hossein Ghafuri* and Reza Peymanfar*

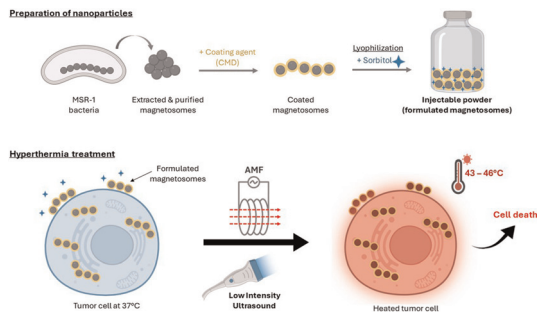
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Room-temperature ferromagnetic semiconductor Fe-doped β -Ga₂O₃ thin films with high saturation magnetization and low coercivity

Dan Gong, Xi Zhang,* Xu Dai, Yongjia Tan, Yong Peng and Gang Xiang*

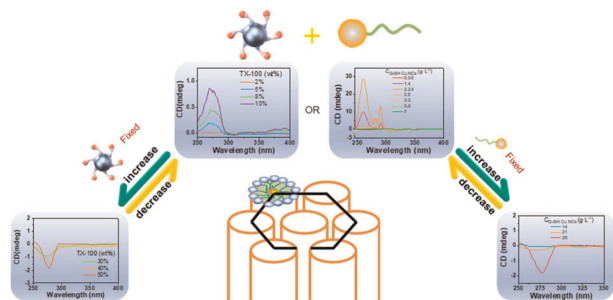
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Stable pharmaceutical composition of cryo-protected non-pyrogenic isotonic chains of magnetosomes for efficient tumor cell destruction at 45 ± 1 °C under alternating magnetic field or ultrasound application

Tieu Ngoc Nguyen, Imène Chebbi, Raphaël Le Fèvre, François Guyot and Edouard Alphandéry*

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Liquid crystal-mediated self-assembly of copper nanoclusters with induced circular dichroism and amplified circularly polarized luminescence

Shulin Li, Ning Feng, Mengdi Sun, Yuxiang Sha, Xia Xin,* Hui Zhao and Hongguang Li*

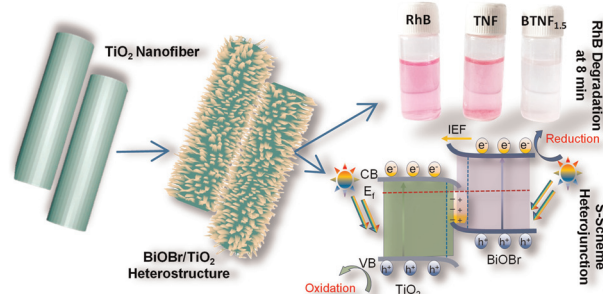


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Unveiling efficient S-scheme charge carrier transfer in hierarchical BiOBr/TiO₂ heterojunction photocatalysts

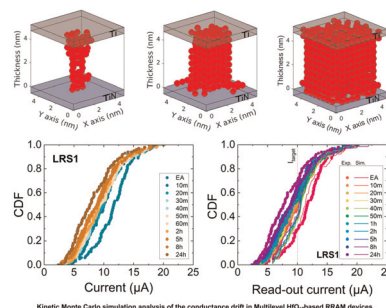
Pooja P. Sarngan, Sheethal Sasi, Prateekshita Mukherjee, Koushik Mitra, Yuvaraj Sivalingam, Anita Swami, Uttam Kumar Ghorai and Debabrata Sarkar*



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Kinetic Monte Carlo simulation analysis of the conductance drift in Multilevel HfO₂-based RRAM devices

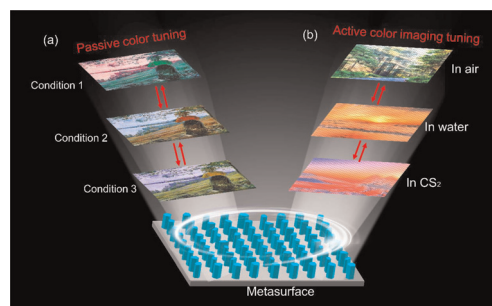
D. Maldonado, A. Baroni, S. Aldana, K. Dorai Swamy Reddy, S. Pechmann, C. Wenger, J. B. Roldán* and E. Pérez



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Deep learning-assisted inverse design of metasurfaces for active color image tuning

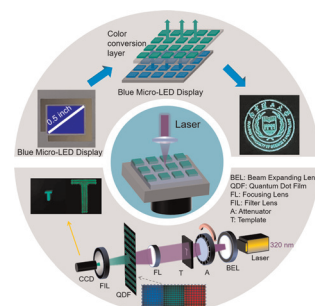
Qiang Weng and Yanjun Bao*



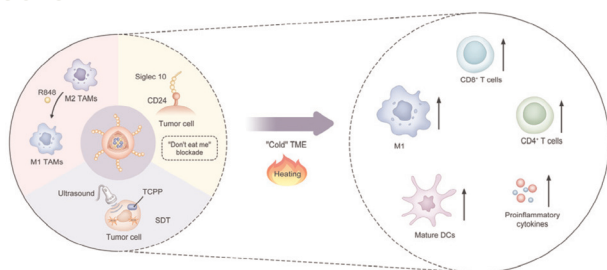
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Continuous wave laser fabrication of small pitch/size perovskite pixels realizes high-resolution color conversion micro-LED displays

Teng Ma, Jun Chen,* Ziyi Chen, Run Wang, Jinning Hu, Weishu Guo, Rongqiu Lv, Xiaoting Wang, Rongrong Xu, Qianxi Yin, Jiancheng Lai, Botao Ji, Hengyang Xiang, Zhenhua Li* and Haibo Zeng*



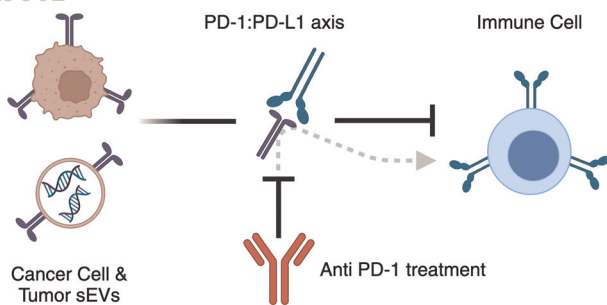
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Engineering macrophage membrane-camouflaged nanoplateforms with enhanced macrophage function for mediating sonodynamic therapy of ovarian cancer

Xiaofei Wang, Hongling Wang, Yansheng Li, Zhihong Sun, Jie Liu, Chengming Sun* and Xiaoli Cao*

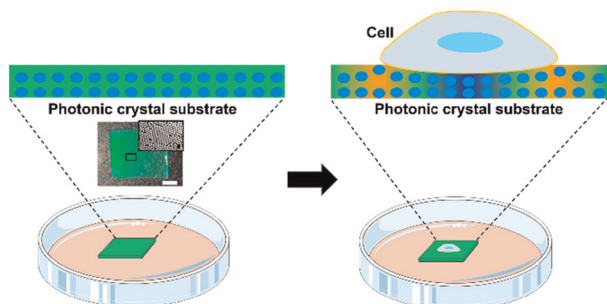
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Investigating nano-sized tumor-derived extracellular vesicles in enhancing anti-PD-1 immunotherapy

Hesam Abouali, Michelle Przedborski, Mohammad Kohandel* and Mahla Poudineh*

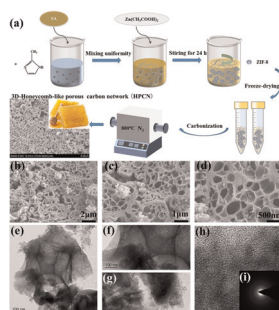
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Visualizing and quantifying dynamic cellular forces with photonic crystal hydrogels

Jiankang Zhou, Ying Zhang,* Yifu Fu, Qiwei Li, Jiajia Zhang, Xiaojiang Liu* and Zhongze Gu*

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Controllable construction of a 3D-honeycomb-like porous carbon network as a high-performance cathode for promoting Zn-ion storage capability

Qian Li, Tongde Wang, Tie Shu, Xiaoyi Pan and Yousheng Tao*



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Multiscale study of the chiral self-assembly of cellulose nanocrystals during the frontal ultrafiltration process

Samuel Mandin, Lorenzo Metilli, Mohamed Karrouch, Didier Blèsès, Christine Lancelon-Pin, Pierre Sailler, William Chèvremont, Erwan Paineau, Jean-Luc Putaux, Nicolas Hengl, Bruno Jean and Frédéric Pignon*

