

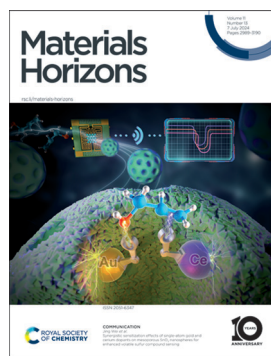
Materials Horizons

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IN THIS ISSUE

ISSN 2051-6347 CODEN MHAOAL 11(13) 2989-3190 (2024)



Cover

See Jing Wei *et al.*, pp. 3038–3047. Image reproduced by permission of Jing Wei from *Mater. Horiz.*, 2024, 11, 3038.



Inside cover

See Seunghwa Ryu *et al.*, pp. 3048–3065. Image reproduced by permission of Seunghwa Ryu from *Mater. Horiz.*, 2024, 11, 3048.

EDITORIAL

2997

Materials Horizons Emerging Investigator Series: Dr Sahnawaz Ahmed, National Institute of Pharmaceutical Education and Research (NIPER) Kolkata, India

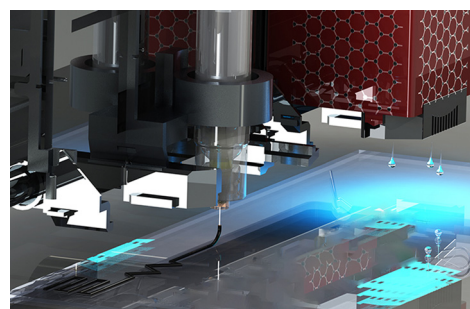


COMMENTARY

2999

A reflection on “Formation and processability of liquid crystalline dispersions of graphene oxide”

Ali R. Jalili* and Gordon Wallace*



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Fundamental questions
Elemental answers

OPINION

3005

Better nanoscience through open, collaborative, and critical discussions

Nathanne Cristina Vilela Rost, Maha Said, Mustafa Gharib, Raphaël Lévy and Federico Boem*

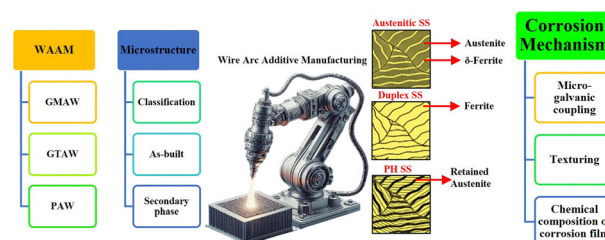


REVIEW

3011

Corrosion response of steels fabricated through arc directed energy deposition additive manufacturing: a review

Khashayar Morshed-Behbahani* and Ali Nasiri*

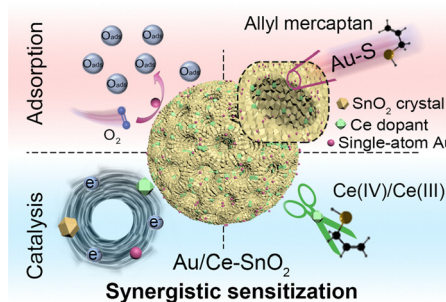


COMMUNICATIONS

3038

Synergistic sensitization effects of single-atom gold and cerium dopants on mesoporous SnO₂ nanospheres for enhanced volatile sulfur compound sensing

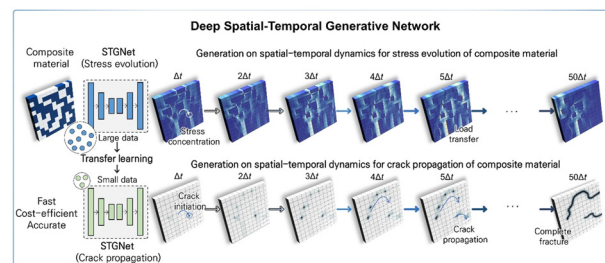
Ping Li, Zizheng Wang, Youyou Feng, Bingxi Feng, Dong Cheng and Jing Wei*



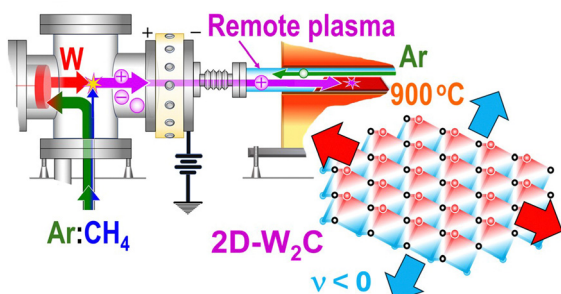
3048

Deep generative spatiotemporal learning for integrating fracture mechanics in composite materials: inverse design, discovery, and optimization

Donggeun Park, Jaemin Lee, Hugon Lee, Grace X. Gu and Seunghwa Ryu*



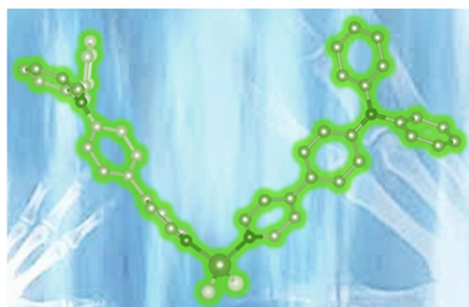
3066



Giant auxetic behavior in remote-plasma synthesized few-layer tungsten semicarbide

Noah B. Stoeck, Farman Ullah and Giovanni Fanchini*

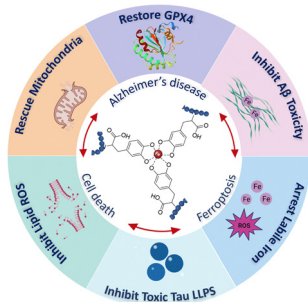
3076



Aggregation-induced emission organic metal halide complex for X-ray scintillation

Tunde Blessed Shonde, He Liu, Oluwadara Joshua Olasupo, Alexander Bouchard, Sara Bouchard, Annaliese Franklin, Xinsong Lin, Luis M. Stand and Biwu Ma*

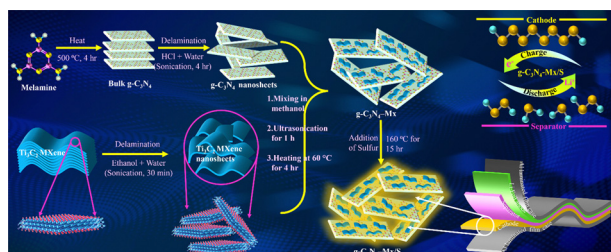
3082



Polycatechols inhibit ferroptosis and modulate tau liquid–liquid phase separation to mitigate Alzheimer's disease

Hariharan Moorthy, Madhu Ramesh, Dikshaa Padhi, Prayasee Baruah and Thimmaiah Govindaraju*

3090



Advancing lithium–sulfur battery efficiency: utilizing a 2D/2D g-C₃N₄@MXene heterostructure to enhance sulfur evolution reactions and regulate polysulfides under lean electrolyte conditions

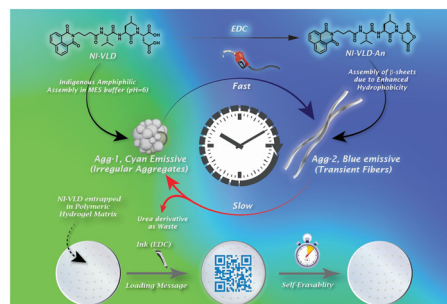
Vijay K. Tomer,* Otavio Augusto Titton Dias, Abdelaziz M. Gouda, Ritu Malik* and Mohini Sain*



3104

Chemically fueled dynamic switching between assembly-encoded emissions

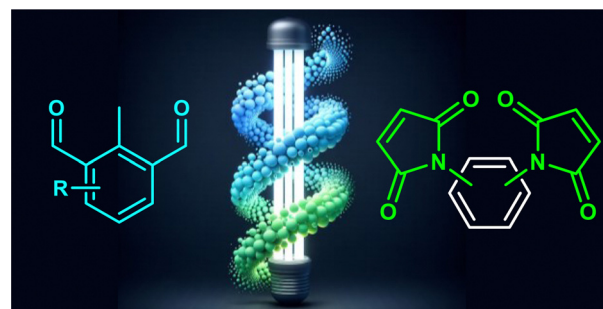
Manirul Islam, Malay Kumar Baroi, Basab Kanti Das, Aanchal Kumari, Krishnendu Das* and Sahnawaz Ahmed*



3115

Photo-induced synthesis of polymeric nanoparticles and chemiluminescent degradable materials via flow chemistry

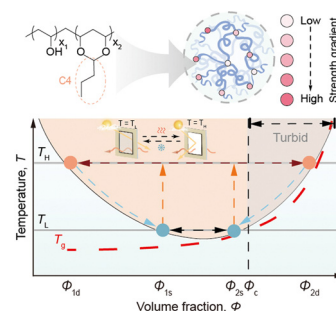
Joshua O. Holloway, Laura Delafresnaye,* Emily M. Cameron, Jochen A. Kammerer and Christopher Barner-Kowollik*



3127

Engineering a polyvinyl butyral hydrogel as a thermochromic interlayer for energy-saving windows

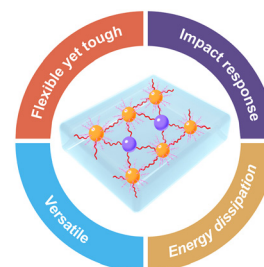
Zequn Lin, Zican Yang and Liang Gao*



3143

Intelligent anti-impact elastomers by precisely tailoring the topology of modular polymer networks

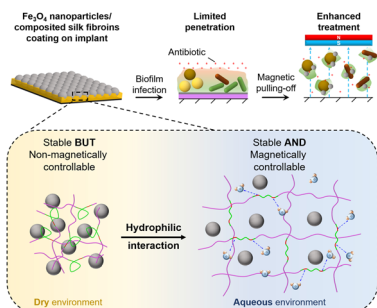
Jianfeng Cheng, Xianhua Yao, Zhipeng Zhang, Yizhong Tan, Nan Hu, Chunfeng Ma* and Guangzhao Zhang*



Modular construction strategy for intelligent anti-impact elastomer



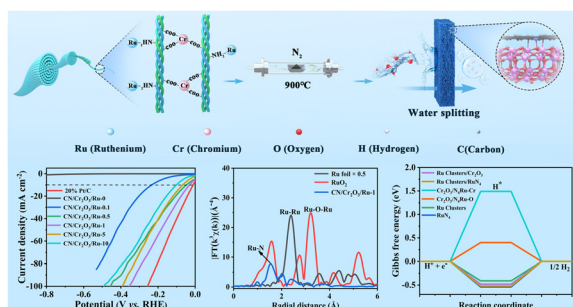
3157



Composited silk fibroins ensured adhesion stability and magnetic controllability of Fe₃O₄-nanoparticle coating on implant for biofilm treatment

Kecheng Quan, Zhinan Mao, Yupu Lu, Yu Qin, Shuren Wang, Chunhao Yu, Xuewei Bi, Hao Tang, Xiaoxiang Ren, Dafu Chen,* Yan Cheng, Yong Wang,* Yufeng Zheng* and Dandan Xia*

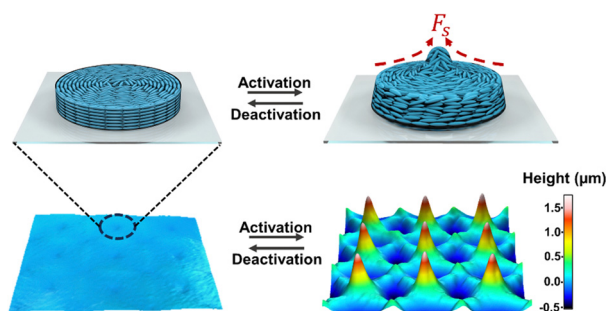
3166



Atomic-scale Ru anchored on chromium-shavings as a precursor for a pH-universal hydrogen evolution reaction electrocatalyst

Qingxin Han,* Qiangqiang Lu, Xuechuan Wang, Chao Wei, Xiaoyu Guan,* Luming Chen, Xiao Wang and Ji Li*

3178



Transforming patterned defects into dynamic poly-regional topographies in liquid crystal oligomers

Yuxin You, Youssef M. Golestani, Dirk J. Broer, Tinghong Yang, Guofu Zhou, Robin L. B. Selinger,* Dong Yuan* and Danqing Liu*

3187

Correction: Thermoelectric nanowires for dense 3D printed architectures

Danwei Zhang,* Jayanthi Ramiah, Mehmet Cagirici, Kivanc Saglik, Samantha Faye Duran Solco, Jing Cao,* Jianwei Xu* and Ady Suwardi*

