

# Materials Advances

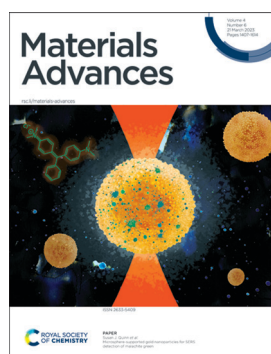
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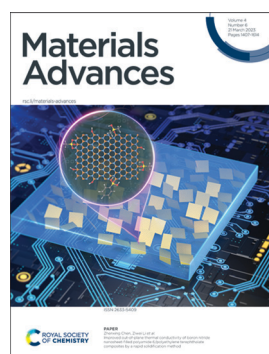
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ISSN 2633-5409 CODEN MAADC9 4(6) 1407-1614 (2023)



### Cover

See Susan J. Quinn *et al.*, pp. 1481–1489.  
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### Inside cover

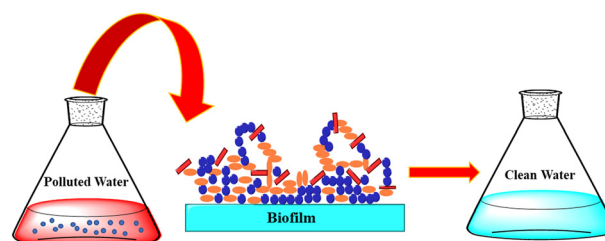
See Zhenxing Chen, Ziwei Li, *et al.*, pp. 1490–1501.  
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## REVIEWS

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### Biofilm-mediated wastewater treatment: a comprehensive review

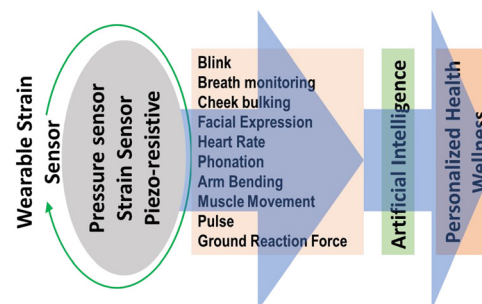
Sonia Saini, Sanjana Tewari, Jaya Dwivedi\* and Vivek Sharma\*



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### Wearable strain sensors: state-of-the-art and future applications

Ashish Yadav,\* Neha Yadav, Yongling Wu, Seeram RamaKrishna and Zheng Hongyu



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Materials Advances (electronic: ISSN 2633-5409) is published 24 times a year by the Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, UK CB4 0WF.

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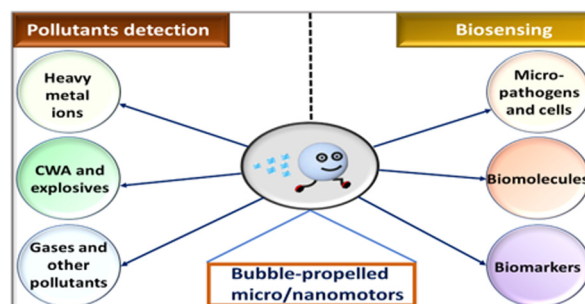


## REVIEWS

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### Bubble-propelled micro/nanomotors: a robust platform for the detection of environmental pollutants and biosensing

Suvendu Kumar Panda, Nomaan Alam Kherani, Srikanta Debata and Dhruv Pratap Singh\*

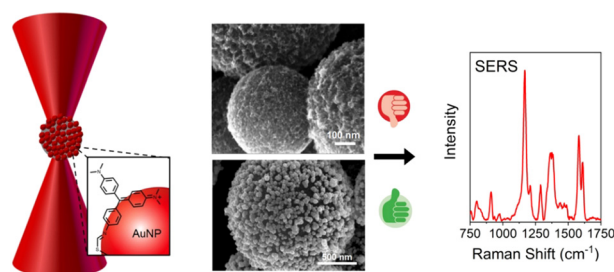


## PAPERS

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### Microsphere-supported gold nanoparticles for SERS detection of malachite green

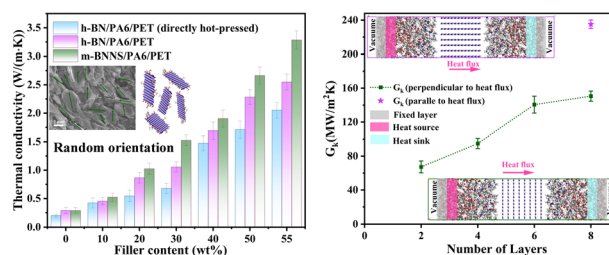
David T. Hinds, Samir A. Belhout, Paula E. Colavita, Andrew D. Ward and Susan J. Quinn\*



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### Improved out-of-plane thermal conductivity of boron nitride nanosheet-filled polyamide 6/polyethylene terephthalate composites by a rapid solidification method

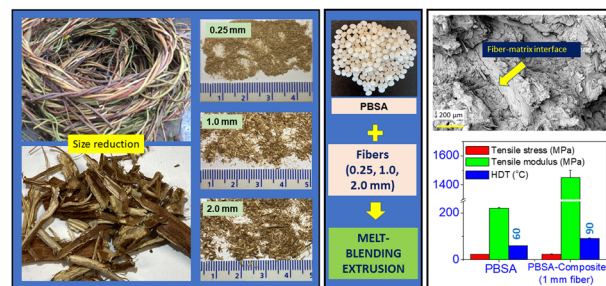
Qingchong Xu, Zhenxing Chen,\* Xinxin Li, Jiaxin Hu, Yanling Liao, Yongfeng Liu, Long Li, Shiyang Wei and Ziwei Li\*



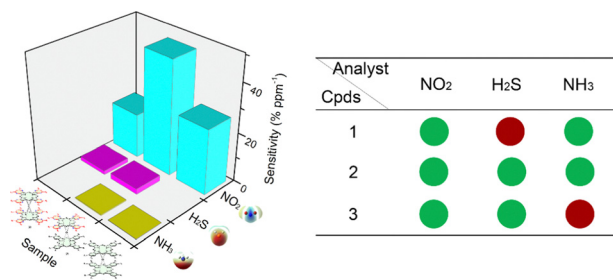
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### Hop natural fiber-reinforced poly(butylene succinate-co-butylene adipate) (PBSA) biodegradable plastics: effect of fiber length on the performance of biocomposites

Nicole Harder, Arturo Rodriguez-Uribe, Michael R. Snowdon, Manjusri Misra\* and Amar K. Mohanty



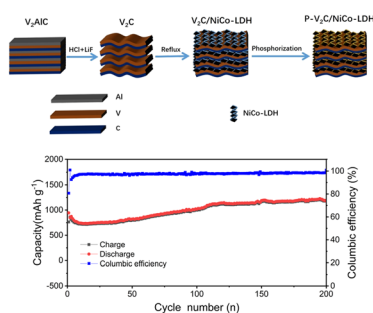
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**Discrimination and detection of NO<sub>2</sub>, NH<sub>3</sub> and H<sub>2</sub>S using sensor array based on three ambipolar sandwich tetradiazepinoporphyrazinato/phthalocyaninato europium double-decker complexes**

Xia Kong, Ekaterina N. Tarakanova, Xiaoli Du, Larisa G. Tomilova and Yanli Chen\*

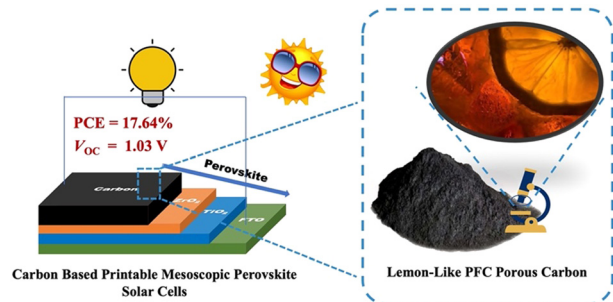
1523



**Constructing P-doped self-assembled V<sub>2</sub>C MXene/NiCo-layered double hydroxide hybrids toward advanced lithium storage**

Xi Guo, Li Li,\* Shuo Wang, Jian Shen, Yanan Xu\* and Bingqiang Cao

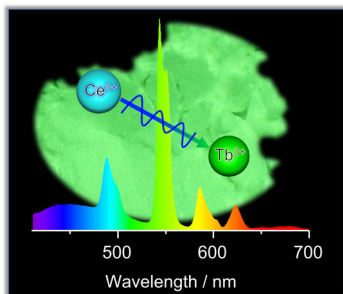
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**EtOH/H<sub>2</sub>O ratio modulation on carbon for high-V<sub>oc</sub> (1.03 V) printable mesoscopic perovskite solar cells without any passivation**

Jie Sheng, Xiaotian Zhu, Xiaoli Xu, Jingshan He, Dun Ma, Jialing Liu and Wenjun Wu\*

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**Near ultraviolet light excitable highly efficient blue-green multicolour warwickite phosphor, ScCaO(BO<sub>3</sub>):Ce<sup>3+</sup>, Tb<sup>3+</sup>**

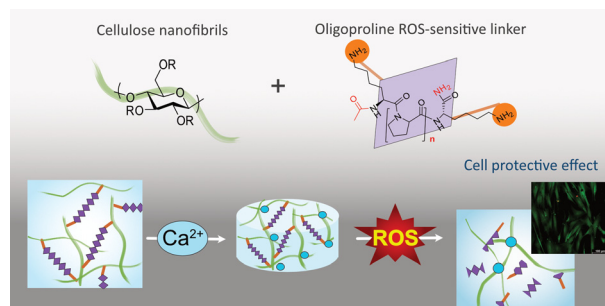
Masato Iwaki,\* Haruto Sato, Mizuki Watanabe,\* Kazuyoshi Uematsu, Mineo Sato and Kenji Toda



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### Functionalization of cellulose nanofibrils to develop novel ROS-sensitive biomaterials

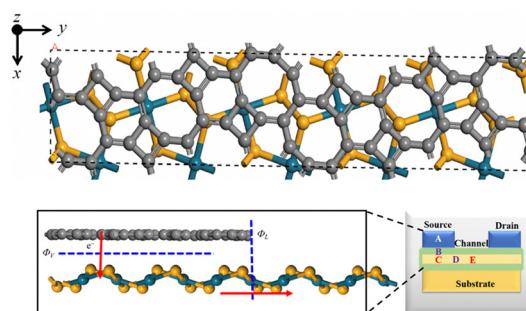
Carlos Palo-Nieto,\* Anna Blasi-Romero, Corine Sandström, David Balgoma, Mikael Hedeland, Maria Strømme and Natalia Ferraz\*



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### The electronic and interfacial properties of a vdW heterostructure composed of penta-PdSe<sub>2</sub> and biphenylene monolayers

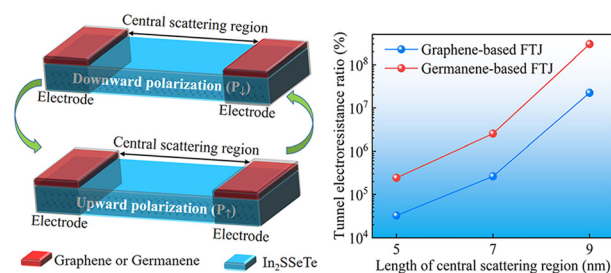
Muhammad Azhar Nazir, Yiheng Shen, Arzoo Hassan and Qian Wang\*



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### The giant tunneling electroresistance effect in monolayer In<sub>2</sub>SSeTe-based lateral ferroelectric tunnel junctions

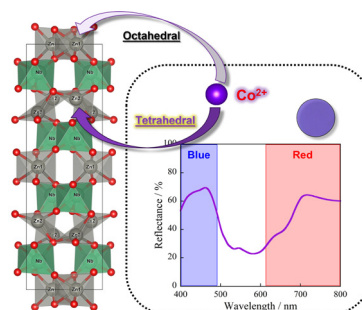
Zhou Cui, Ting Li, Rui Xiong, Cuilian Wen,\* Yinggan Zhang, Jingying Zheng, Bo Wu and Baisheng Sa\*



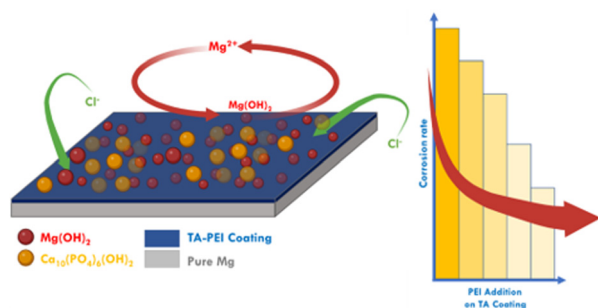
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### A novel inorganic violet pigment based on zinc niobate

Kazuki Ohnishi, Ryohei Oka,\* Yuga Nomura and Toshiyuki Masui\*



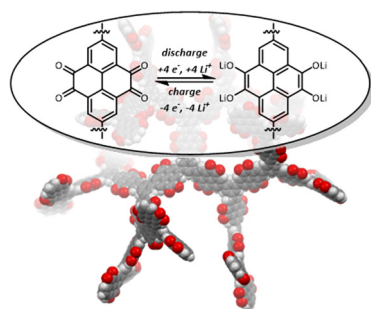
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### Improving magnesium's corrosion resistance through tannic acid–polyethyleneimine coatings for bioresorbable implant applications

Daniel, Michael Leonardo, Safira Meidina Nursatya, Anggraini Barlian, Ekavianity Prajateljista\* and Hermawan Judawisastra\*

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### Redox-active, porous pyrene tetraone dendritic polymers as cathode materials for lithium-ion batteries

Lucas Ueberricke, Felix Mildner, Yuquan Wu, Elisa Thauer, Tom Wickenhäuser, Wen-Shan Zhang, Yana Vaynzof, Sven M. Elbert, Rasmus R. Schröder, Rüdiger Klingeler\* and Michael Mastalerz\*

