

Journal of Materials Chemistry C

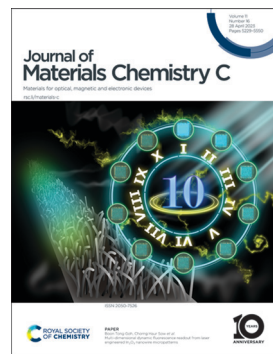
Materials for optical, magnetic and electronic devices

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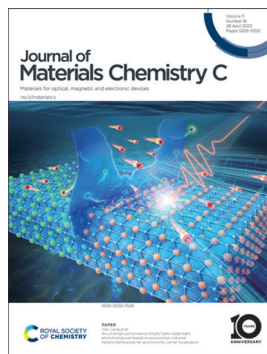
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ISSN 2050-7526 CODEN JMCCCC 11(16) 5229–5550 (2023)



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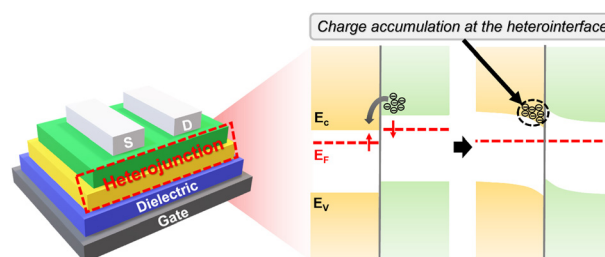
See Hao Jiang *et al.*, pp. 5281–5289. Image reproduced by permission of Hao Jiang from *J. Mater. Chem. C*, 2023, **11**, 5281.

REVIEW

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Heterojunction oxide thin film transistors: a review of recent advances

Juhyeok Lee and Dae Sung Chung*

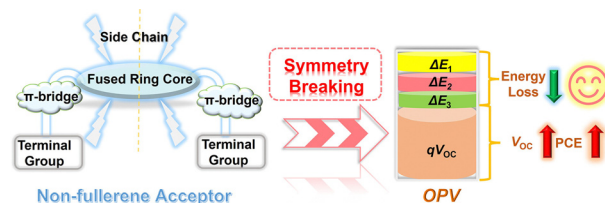


PERSPECTIVE

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Symmetry breaking: an efficient structure design of nonfullerene acceptors to reduce the energy loss in organic solar cells

Tianyi Liu, Hui Zheng, Xinyu Yu, Shengwei Shi,*
Yinhua Zhou and Zhong'an Li*



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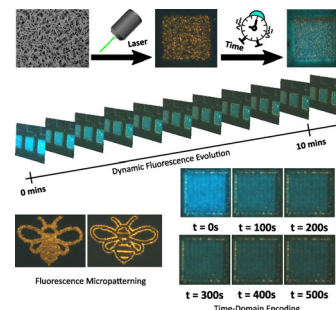


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Multi-dimensional dynamic fluorescence readout from laser engineered In_2O_3 nanowire micropatterns

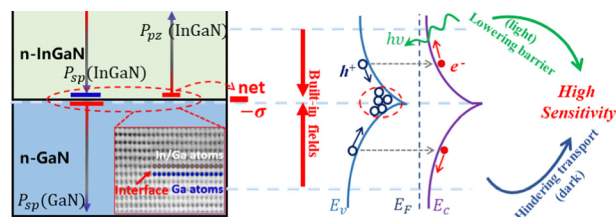
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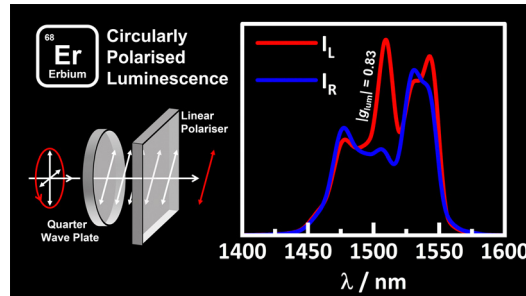
Zesheng Lv, Supeng Zhang, Gang Wang and Hao Jiang*



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Intense 1400–1600 nm circularly polarised luminescence from homo- and heteroleptic chiral erbium complexes

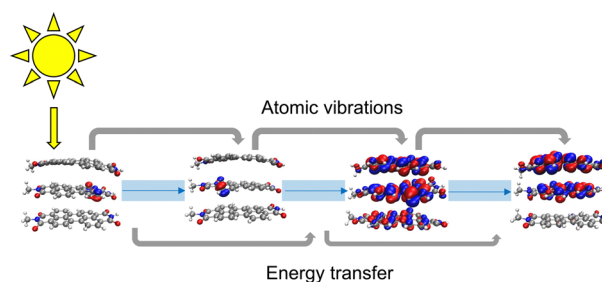
Oliver G. Willis, Andrea Pucci, Enrico Cavalli, Francesco Zinna* and Lorenzo Di Bari*



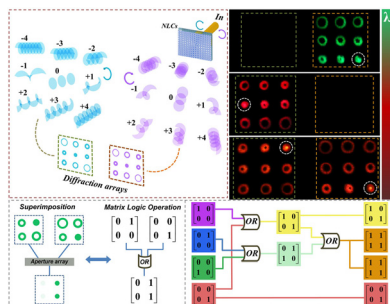
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The impact of stacking and phonon environment on energy transfer in organic chromophores: computational insights

Aliya Mukazhanova, Hassiel Negrin-Yuvero, Victor M. Freixas, Sergei Tretiak, Sebastian Fernandez-Alberti and Sahar Sharifzadeh*



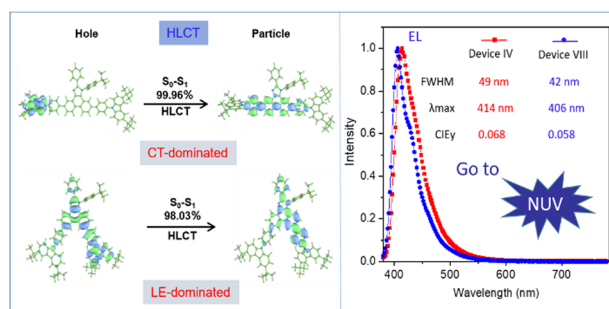
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Wavelength-adaptive optical angular momentum recognizer *via* programmable soft materials

Pei-Zhi Sun, Xiao-Qian Wang, Yi-Fei Wang, Cong-Long Yuan, Dong Shen and Zhi-Gang Zheng*

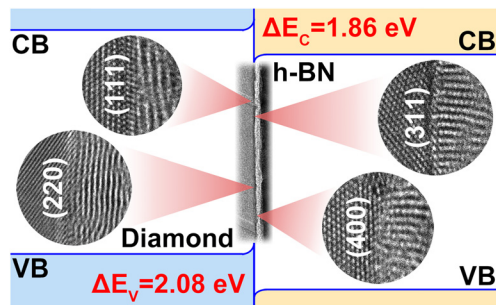
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Donor-acceptor-donor molecules for high performance near ultraviolet organic light-emitting diodes *via* hybridized local and charge-transfer processes

Xianhui Wang, Zhangshan Liu, Sinuo Geng, Ziting Zhong, Huihui Li, Xin Jiang Feng,* Zujin Zhao* and Hua Lu*

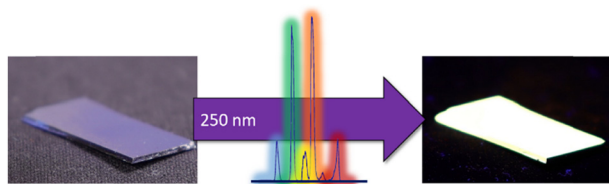
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The interface microstructure and band alignment of hexagonal boron nitride/diamond heterojunctions

Jingren Chen, Ran Tao, Gaokai Wang, Zhigang Yin, Libin Zeng, Xinxin Yu, Siyu Zhang, Yun Wu,* Zhonghui Li and Xingwang Zhang*

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White-light emitting multi-lanthanide terephthalate thin films by atomic/molecular layer deposition

Amr Ghazy, Mika Lastusaari and Maarit Karppinen*

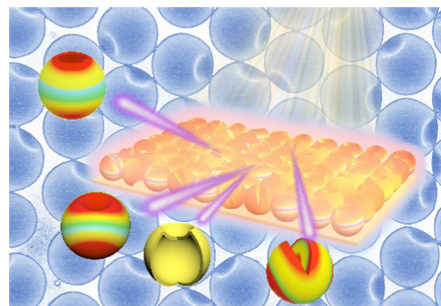


PAPERS

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Broadband near-perfect optical absorbers fabricated with complete spherical platinum shells with and without induced symmetry broken cracks using a simple colloidal route

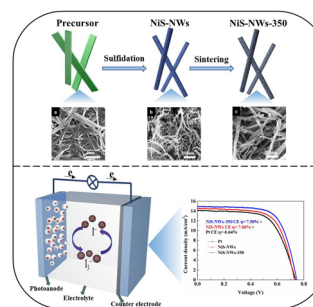
Xiaoyu Liu, Ming Fu,* Zhengjie Guo, Caixia Li, Zheli Wu, Dawei He and Yongsheng Wang



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Facile synthesis of NiS nanowires via ion exchange reaction as an efficient counter electrode for dye-sensitized solar cells

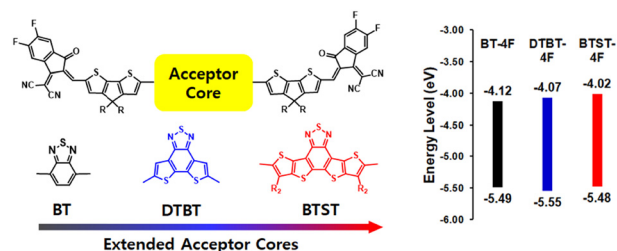
Zhe Fan, Xu Chen, Xiaoqing Shi, Qiwei Jiang* and Yang Zhang*



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Tuning the LUMO levels of non-fullerene acceptors via extension of π -conjugated cores for organic solar cells

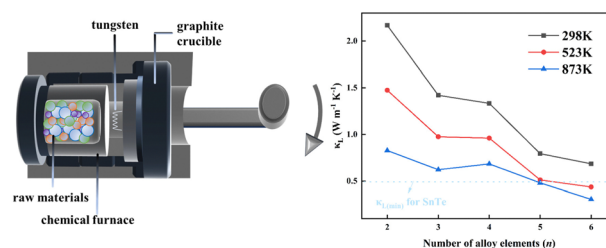
Kyu Chan Song, Byeong Jin Kim, Woong Sung, Se Gyo Han, Sein Chung, Jaewon Lee* and Kilwon Cho*



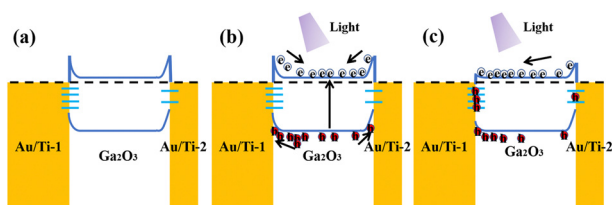
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Fast fabrication of SnTe via a non-equilibrium method and enhanced thermoelectric properties by medium-entropy engineering

Haojian Su, Yemao Han, Liancheng Xie, Mingyue Jiang, Zekun Wang, Zhicong Miao, Guoqiang Liu, Min Zhou,* Rongjin Huang* and Laifeng Li



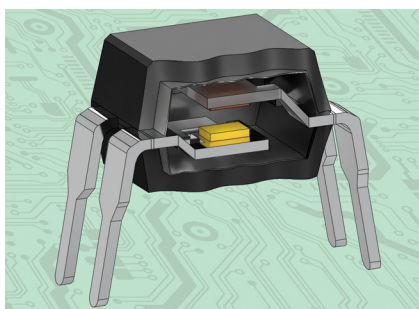
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Tailoring photodetection performance of self-powered Ga₂O₃ UV solar-blind photodetectors through asymmetric electrodes

Keyun Gu, Zilong Zhang,* Haofei Huang, Ke Tang, Jian Huang,* Meiyong Liao and Linjun Wang

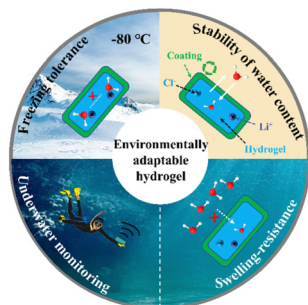
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Developing efficient small molecule-based organic photo-couplers by optimizing the cathode interfacial layer in the photodetector

Richie Estrada, Dian Luo, Chih-Chien Lee, Johan Iskandar, Sajal Biring, Nurul Ridho Al Amin, Abdul Khalik Akbar, Chih-Hsin Chen, Chang-Wei Yu, Tran My Dung Pham and Shun-Wei Liu*

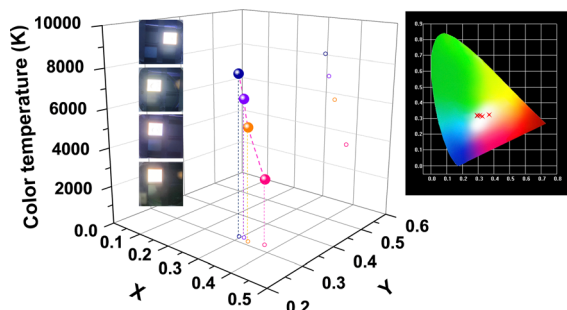
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A novel environment-tolerant hydrogel via a combination effect of a polyurethane coating and hygroscopic salt for underwater monitoring

Xiaobin Li, Fuping Bian, Jun Shi,* Ending Zhang, Chenguang Kong, Jianrong Ren and Kun Wu

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Single-component electroluminescent white light-emitting diodes based on zinc oxide quantum dots with high color rendition and tunable correlated color temperature

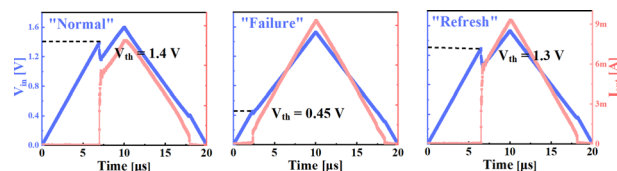
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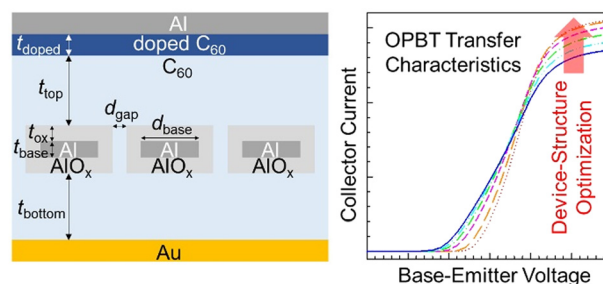
Lun Wang, Zixuan Liu, Zhuoran Zhang, Jiangxi Chen, Jinyu Wen, Ruizhe Zhao, Hao Tong* and Xiangshui Miao



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Vertical organic transistors with a permeable base: from fundamentals to performance prediction

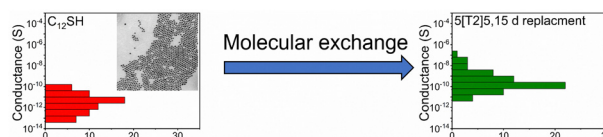
Hyuna Lee, Kyung-Geun Lim* and Chang-Hyun Kim*



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Ordered arrays of gold nanoparticles crosslinked by dithioacetate linkers for molecular devices

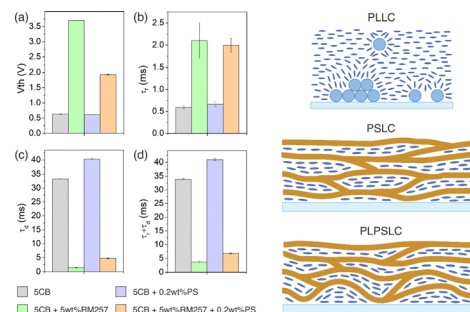
Maryana Asaad,* Andrea Vezzoli, Abdalghani Daaoub, Joanna Borowiec, Eugenia Pyurbeeva, Hatef Sadeghi, Sara Sangtarash, Simon J. Higgins and Jan A. Mol



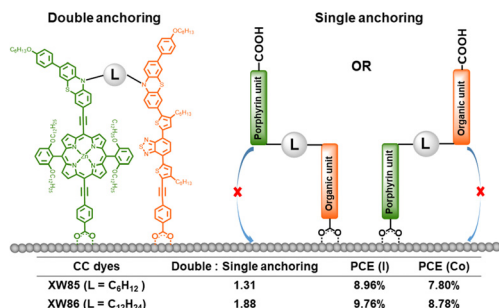
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Electro-optic properties of polystyrene particle-laden polymer-stabilized liquid crystals

Alexandra Gruzdenko and Ingo Dierking*



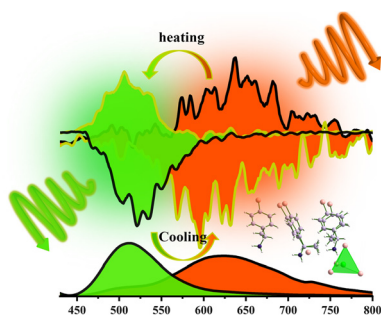
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Solar cells sensitized by donor-linked concerted companion dyes

Jiaxin Luo, Yuqing Wang, Shaojin Shi, Yuankun Wu, Taochun Ma, Leyao Wang, Glib Baryshnikov, Xinyan Wu,* Chengjie Li* and Yongshu Xie*

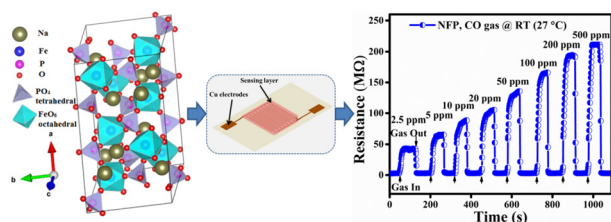
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Dynamic CPL switching realized in chiral Mn-based metal halides with reversible thermochromism

Tianyong Zhang, Huimin Kang, Bin Li, Jin Zhou, Peisheng Zhao, Tianzhe Zhao, Xiaolei Li and Shuang Jiang*

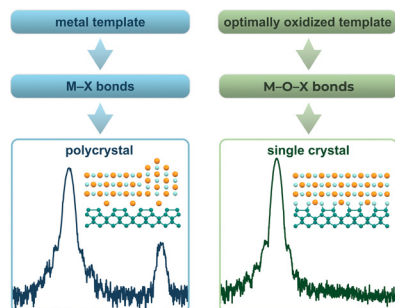
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NASICON-type Na₃Fe₂(PO₄)₃ material for an excellent room temperature CO sensor

Manish Kumar Tiwari, Archana Kanwade, Subhash Chand Yadav, Abhishek Srivastava, Jena Akash Kumar Satrughna and Parasharam M. Shirage*

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Interfacial bond engineering for direct integration of functional oxides with Si and Ge

Dmitry V. Averyanov, Ivan S. Sokolov, Alexander N. Taldenkov, Oleg A. Kondratev, Oleg E. Parfenov, Andrey M. Tokmachev and Vyacheslav G. Storchak*

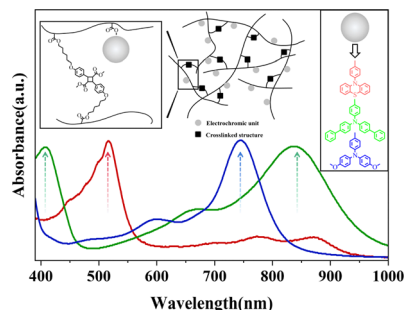


PAPERS

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Highly transparent to red/green/blue photo-crosslinkable polymer for patterned electrochromic device

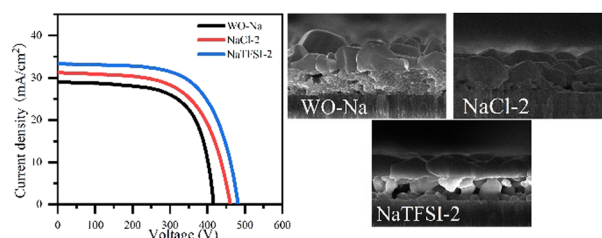
Xiaojing Lv, Xuchen Zhu, Ling Zhang, Mi Ouyang, Minao Xia, Chunyan Liu and Cheng Zhang*



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Improving the crystallization and properties of CZTSSe film by adding NaTFSI in the precursor solution

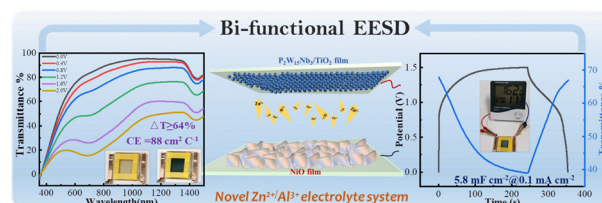
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Reversible $\text{Zn}^{2+}/\text{Al}^{3+}$ intercalation in niobium-substituted polyoxometalates and demonstration of energy storage smart windows

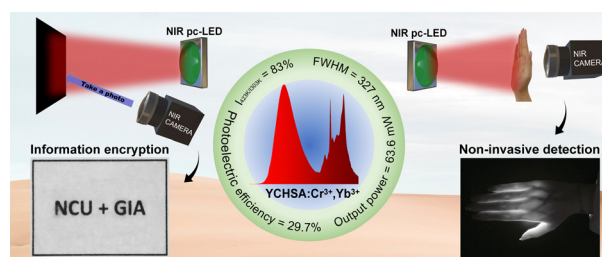
Tong Feng, Huili Guo, Xiaoxiao Xing, Yan Bai,* Dongbin Dang* and Weizhen Zhao*



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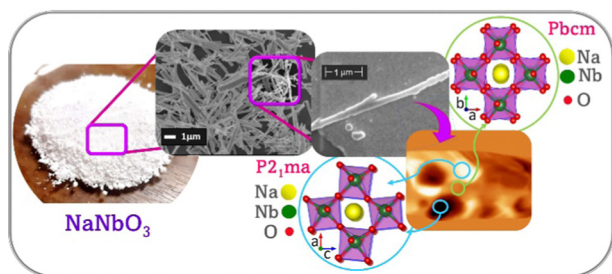
Highly efficient broadband NIR phosphor $\text{Y}_2\text{CaHfScAl}_3\text{O}_{12}:\text{Cr}^{3+}, \text{Yb}^{3+}$ with superior thermal stability for spectroscopy applications

Pengcheng Luo, Dashuai Sun,* Zeyu Lyu, Sida Shen, Zheng Lu, Zhijun Li, Zhihang Yue, Chengliang Lyu and Hongpeng You*



PAPERS

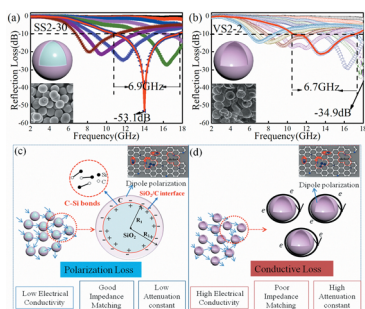
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On the coexistence of ferroelectric and antiferroelectric polymorphs in NaNbO_3 fibers at room temperature

Guilhermina Ferreira Teixeira,* Heitor Secco Seleghini, Wagner Benício Bastos, Natalia Jacomaci, Bojan Stojadinović, Zorana Dohčević-Mitrović, Flavio Colmati, Miguel Angel San-Miguel, Elson Longo and Maria Aparecida Zaghete

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Comparison of the microwave absorption performance of core-shell $\text{SiO}_2\text{@C}$ and hollow carbon nanospheres with different sizes

Lu-Lu Han, Wen-Wen Wu,* Chao Yuan, Zhuo Wang, Xiao-Bin Zhou, Xiao-Ming Chen and Peng Liu*

CORRECTIONS

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Correction: Lanthanide ion doping enabling highly sensitive and stable all-inorganic CsPbI_2Br perovskite photodetectors

Zhiyuan Fang, Nan Ding, Wen Xu,* Tianyuan Wang, Yue Wang, Lu Zi, Junhua Hu, Siyu Lu, Donglei Zhou, Xue Bai and Hongwei Song*

5547

Correction: Heads or tails: investigating the effects of amphiphile features on the distortion of chiral nematic liquid crystal droplets

Lawrence W. Honaker, Jorik Schaap, Dennis Kenbeek, Ernst Miltenburg and Siddharth Deshpande*

