

Journal of Materials Chemistry C

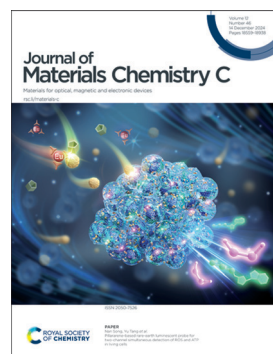
Materials for optical, magnetic and electronic devices

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IN THIS ISSUE

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Cover

See Nan Song, Yu Tang *et al.*, pp. 18651-18659.

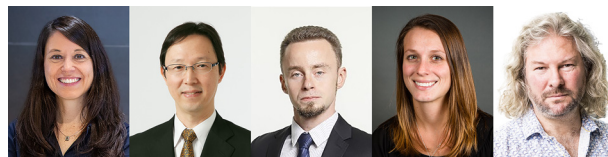
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EDITORIAL

18572

Photon upconversion materials collection

Eva Hemmer, Nobuo Kimizuka, Łukasz Marciniak, Lea Nienhaus and Timothy Schmidt

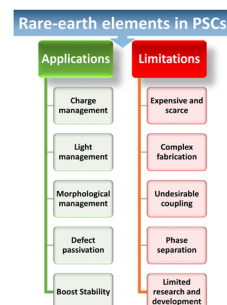


REVIEWS

18575

Tuning the performance of PSCs using rare-earth elements

Sajid Sajid, Salem Alzahmi,* Nouar Tabet, Mohammad Y. Al-Haik, Mahmoud Abdel-Hafiez, Yousef Haik and Ihab M. Obaidat*



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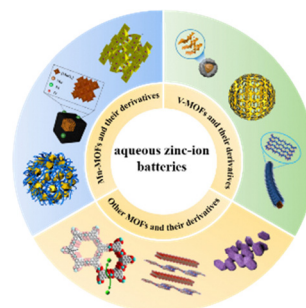
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REVIEWS

18591

Application of metal organic frameworks (MOFs) and their derivatives in the cathode materials of aqueous zinc-ion batteries

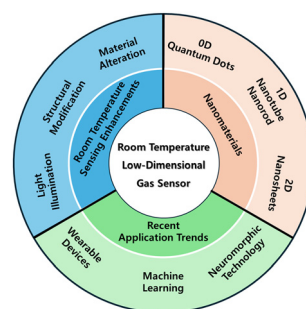
Pingchun Guo,* Shisong Ouyang, Hedong Jiang, Jiake Li, Hua Zhu and Yanxiang Wang



18609

Room-temperature gas sensors based on low-dimensional nanomaterials

Young-Woo Jang, Jeong-Wan Jo, Sung Kyu Park* and Jaehyun Kim*

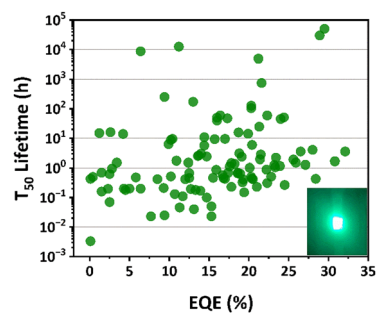


PERSPECTIVE

18628

Has the perovskite LED stability problem been solved?

Muhammad Umair Ali, Atta Ur Rehman and Aleksandra B. Djurišić*

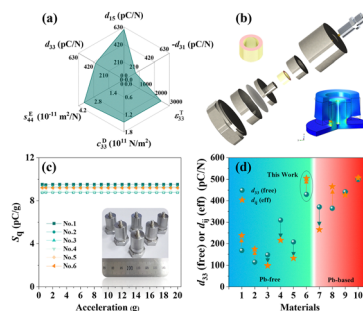


COMMUNICATION

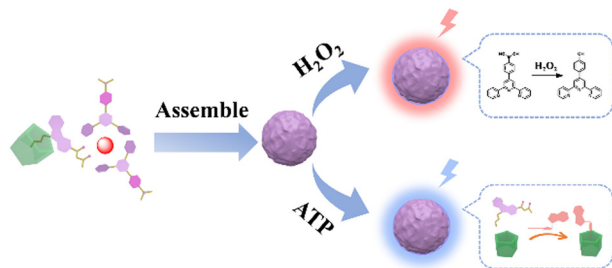
18639

Shear-structured piezoelectric accelerometers based on KNN lead-free ceramics for vibration monitoring

Yi Ding, Yu Wang, Wenbin Liu, Yongqi Pan, Ping Yang, Dechao Meng,* Ting Zheng* and Jiagang Wu*



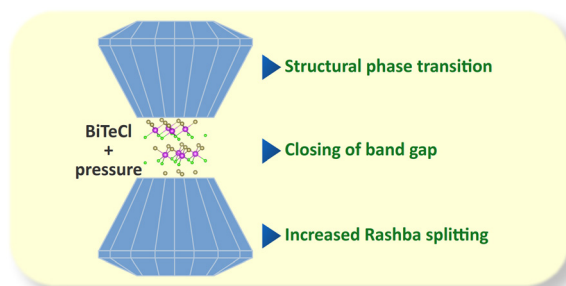
18651



Pillararene-based rare-earth luminescent probe for two-channel simultaneous detection of ROS and ATP in living cells

Shanshan Bao, Yanan Guo, Dandan Lv, Congcong Wang, Yao Kou, Yuchen Yang, Nan Song* and Yu Tang*

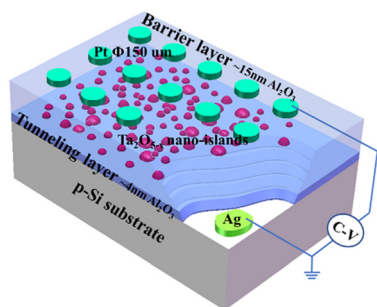
18660



Rashba asymmetric topological insulator BiTeCl under compression: equation of state, vibrational features and electronic properties

E. Bandiello,* H. H. Osman, J. A. Sans, P. Rodríguez-Hernández, A. Muñoz, J. González-Platas, C. Popescu, E. Greenberg, V. Prakapenka, C. Drasar, A. H. Romero and F. J. Manjón*

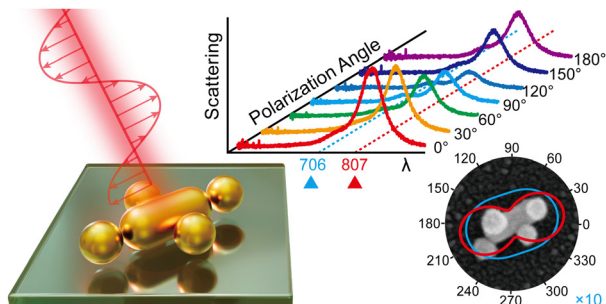
18676



Atomic layer-deposited Ta₂O_{5-x} nano-islands for charge trapping memory devices

Song Sun, Li Gao, Ping Han, Lin Zhu, Wei-Min Li and Ai-Dong Li*

18683



Polarization-dependent plasmon coupling between Au nanorods and Au nanospheres in core-satellite nanoassemblies

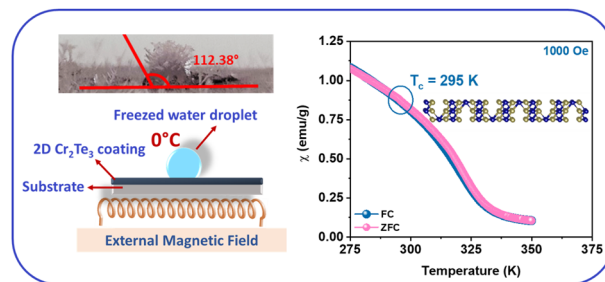
Ina Jeong, Seokhyun Yun and Sangwoon Yoon*



18691

Non-thermal magnetic deicing using two-dimensional chromium telluride

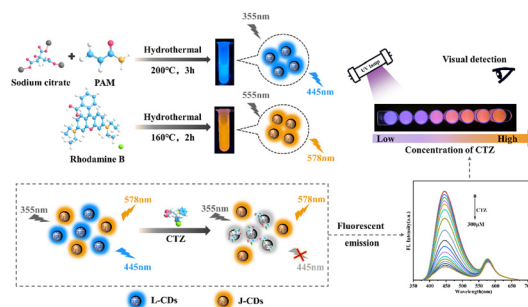
Chinmayee Chowde Gowda, Alexey Kartsev,*
Nishant Tiwari, Alexander A. Safronov, Prafull Pandey,
Ajit K. Roy, Pulickel M. Ajayan, Douglas S. Galvão* and
Chandra Sekhar Tiwary*



18704

A dual-emission ratiometric fluorescent sensor L/J-CDs with specific response to cetirizine hydrochloride in environmental water samples

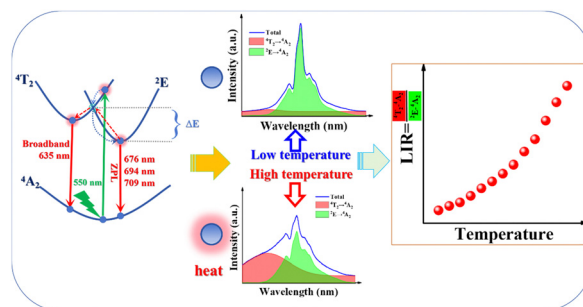
Zhixiang Li, Juandi Li, Jingjing Chen, Shuaijing Du* and
Yingxiang Du*



18716

Enhancement of ${}^4T_2 \rightarrow {}^4A_2$ with temperature via energy transfer of the optical thermometer $Mg_5Al_7O_{16}:Cr^{3+}$

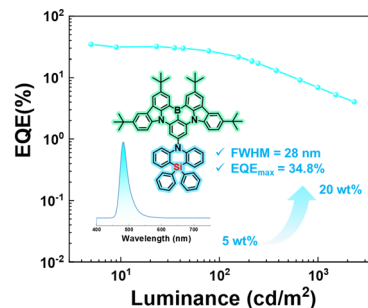
Yang Wei, Ye Jin,* Yifei Chen, Weixin Hu,
Chongzhou Wang, Zhihui Zhang, Fancheng Meng,
Fuxiang Huang, Li Ma, Xiao-jun Wang and Haishen Ren



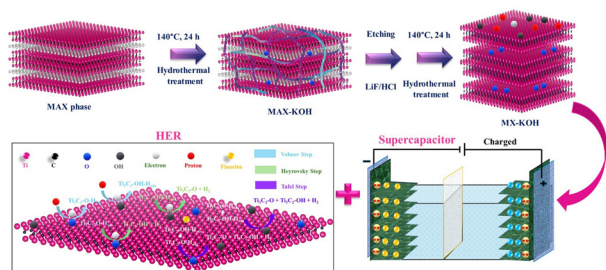
18725

Silicon-based peripheral steric donor modifications for a high-efficiency multi-resonance thermally activated delayed fluorescence emitter

Hai-Tian Yuan, Yue-Jian Yang, Zhe-Hong Yu, Qi Zheng,
Hong-Yan Yan, Yu Wang, Dong-Ying Zhou,*
Liang-Sheng Liao and Zuo-Quan Jiang*



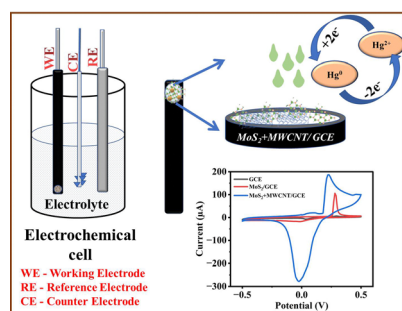
18732



Supercapacitors with enhanced energy storage and hydrogen evolution reaction performance via sequential alkali-modified MXenes

Sunil Kumar,* Syed Muhammad Zain Mehdi, Muzahir Ali, Sung Ryul Choi, Seojeong Yoo, Minwook Kim, Muhammad Suleman, Tej Singh and Yongho Seo*

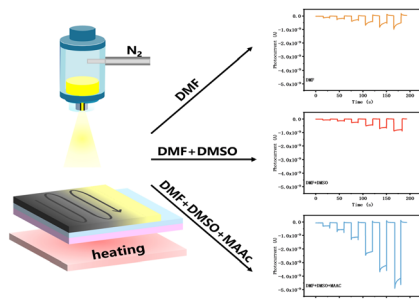
18746



MoS₂@MWCNT modified glassy carbon electrode for electrochemical mercury(II) ion sensors

Jai Mishra, Nipun Sharma, Sumit Kumar, Chayan Das, Amit Kumar, Monika Kwoka, Satyajit Sahu and Mahesh Kumar*

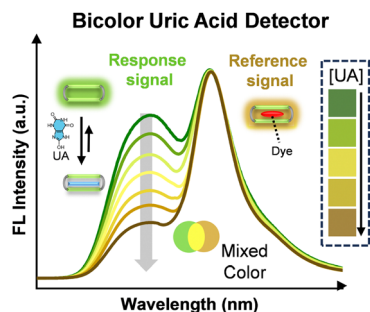
18757



Enhanced sensitivity in self-powered Dion–Jacobson perovskite X-ray detectors via a ternary-solvent-ink approach

Liting Tao, Li Ding, Yuyang Li, Hui Liu, Meiping Gao, Deren Yang and Yanjun Fang*

18765



Tetracationic macrocycles form highly stable inclusion complexes with uric acid enabling solution-phase and paper-strip bicolor colorimetric detection of hyperuricemia

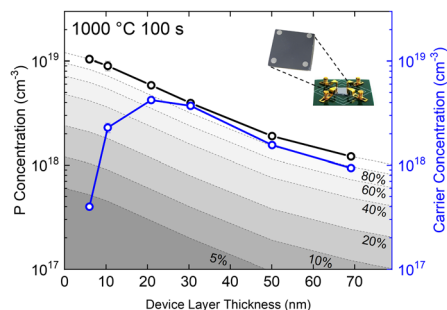
Jian-Da Sun, Jiangshan Zhang, Sheng-Yi Zhuang, Hui Wang, Wei Zhou, Zhan-Ting Li* and Dan-Wei Zhang*



18772

Donor incomplete ionization and mobility enhancement in ultra-thin silicon-on-insulator films doped by phosphorus end-terminated polymers

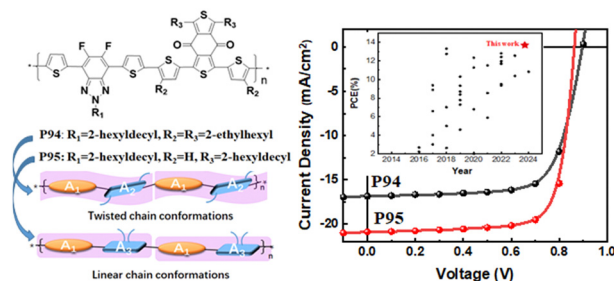
Andrea Pulici, Stefano Kuschlan, Gabriele Seguni, Marco De Michielis, Riccardo Chiarcos, Michele Laus, Marco Fanciulli and Michele Perego*



18779

Chain conformation and aggregation structure regulation of an efficient acceptor–acceptor type photovoltaic polymer

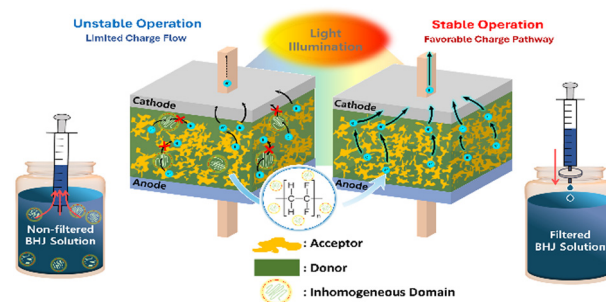
Xiaoman Gui, Jianling Ni, Han Shen, Bing Zheng, Shisong Sun, Panfeng Gao and Lijun Huo*



18788

Homogeneous bulk heterojunction domains with continuous charge pathway via hydrophobic membrane filtration for stable photo and dark current operations

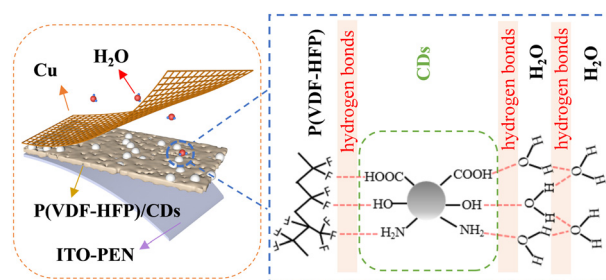
Hyunguk Park, Jihyun Lim, Byung Gi Kim, Woongsik Jang and Dong Hwan Wang*



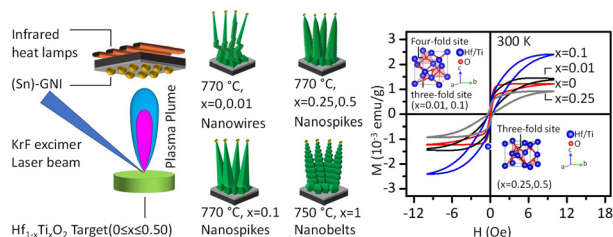
18800

Hydrophilic carbon quantum dots assisting porous P(VDF–HFP) film for self-powered humidity sensing with high sensitivity and low hysteresis

Ping Huang, Shunjian Xu,* Lei Liu, Kai Fu, Haiyan Fu, Kaixin Shao, Qi Huang, Zonghu Xiao, Jianhua Huang and Hong Jin



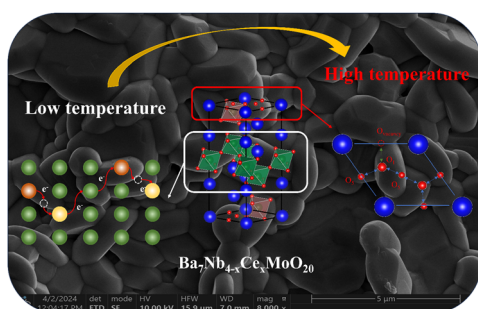
18807



Novel single-crystalline $\text{Hf}_{1-x}\text{Ti}_x\text{O}_2$ 1D nanostructures with room-temperature ferromagnetism

Mahdi Beedel, Joseph Palathinkal Thomas, Hanieh Farkhondeh, Lei Zhang, Nina F. Heinig and Kam Tong Leung*

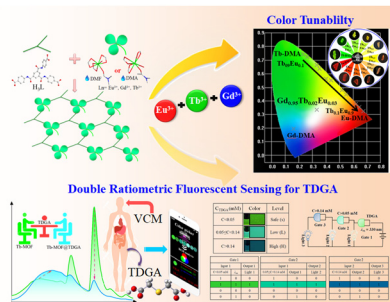
18819



$\text{Ba}_7\text{Nb}_{4-x}\text{Ce}_x\text{MoO}_{20}$: structural and electrical property studies of a novel NTC thermal ceramic

Jinyang Li, Wenye Deng, Yan Xue, Ni Ai, Kai Ding, Xianghui Chen, Weiwei Meng, Pengjun Zhao, Aimin Chang and Yongxin Xie*

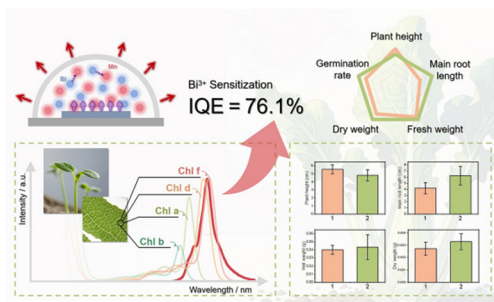
18829



Amide-functionalized lanthanide metal–organic frameworks: smart double ratiometric fluorescence sensing of thiodiglycolic acid and tunable luminescence

Xu Zhang, Jiahui Yu, Xin Li, Chengqi Jiao,* Yanyu Zhu,* Hanwen Zheng and Zhengang Sun*

18840



Efficient sensitization of rare-earth-free Mn^{4+} -activated antimonate phosphor: enabling intense far-red emission for agricultural lighting

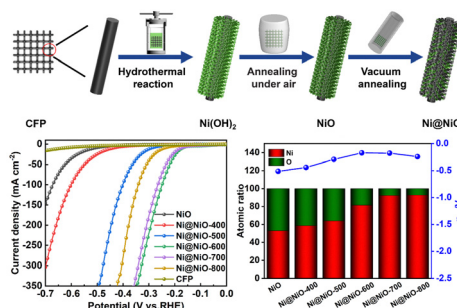
Ziyao Wang,* Yang Li, Xinyao Yang, Baochen Wang, Ruiyu Mi and Yangai Liu*



18849

In situ controllable construction of Ni@NiO Schottky heterojunctions for electrocatalytic hydrogen evolution

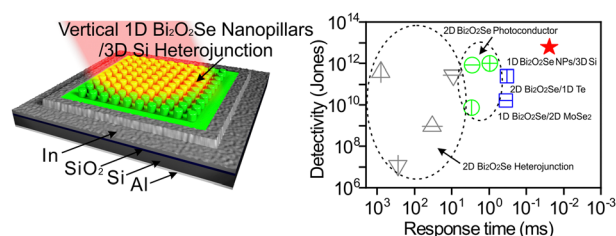
Rui Li, Ziyi Pu, Rongxiu Zhou, Yuanzhi Li, Yexiong Huang, Shuaiqi Li, Jie Yang,* Dingke Zhang* and Mingyu Pi*



18856

Mixed-dimensional vertical Bi₂O₂Se nanopillars/Si heterojunctions with the light confinement effect for high-performance photodetection

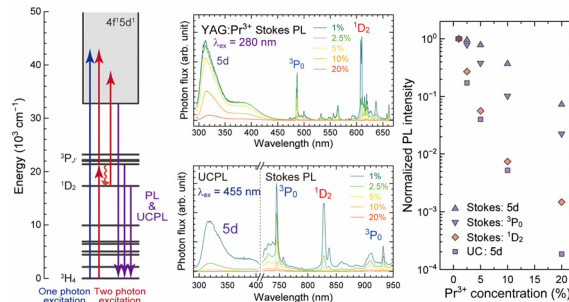
Zhibin Shao,* Ming Wu, Kai Wu, Xingxing Hong, Lei Wang, Jiangfeng Gong, Meng Xu, Ke Li, Cheng Zhang and Hong Wang*



18865

Concentration quenching behavior of Stokes and upconversion luminescence for Pr³⁺-doped Y₃Al₅O₁₂

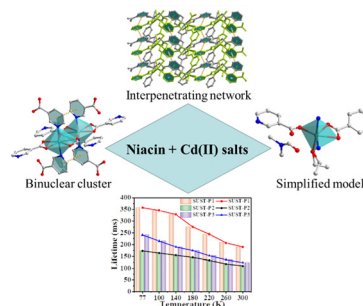
Yuuki Kitagawa,* Hitomi Nakamura and Kenji Shinozaki



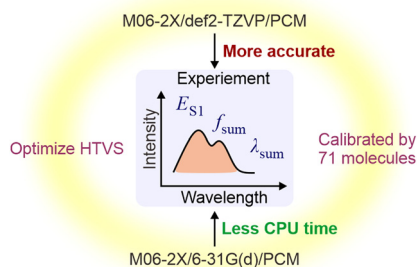
18877

Ultralong room temperature phosphorescence in Cd-MOFs regulated by the multimode coordination configuration of niacin ligand

Zheng Wang, Chen-Qi Li, Jia-Yu Zhu, Xin-Qi Chen, Meng-Yang Li and Dan Wang*



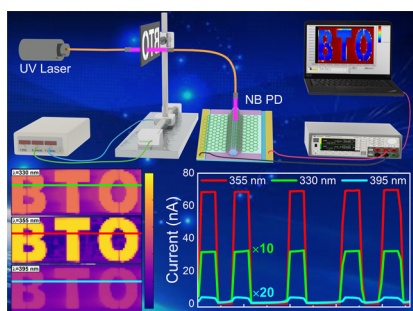
18886



Calibration of several first excited state properties for organic molecules through systematic comparison of TDDFT with experimental spectra

Xia Wu,* Xiaoyu Xie* and Alessandro Troisi*

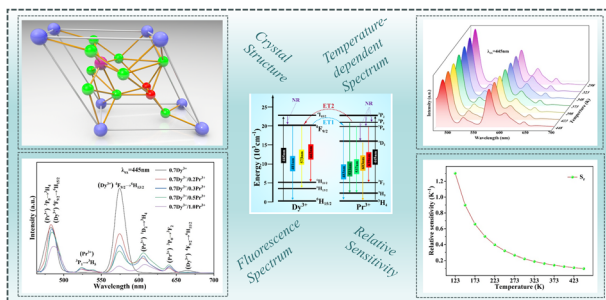
18893



A power-free, filter-free and high-performance narrowband ZnO/BaTiO₃/GaN heterojunction-based ultraviolet photodetector obtained by synergetic plasmonic and ferroelectric effects

Kai Tang, Shulin Sha, Maosheng Liu, Mengxin Yu, Peng Wan, Caixia Kan, Daning Shi* and Mingming Jiang

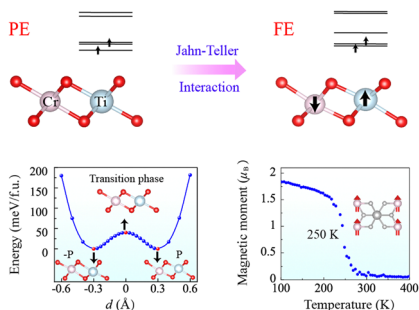
18905



Highly sensitive temperature sensing of Na(Y_{1.5}Na_{0.5})F₆ glass-ceramics based on Dy³⁺/Pr³⁺ energy transfer

Kaikai Ren, Di Wei, Xinyi Cai, Liang Ke, Junyi Ying, Chaohui Fu and Yuepin Zhang*

18917



Ferroelectric–ferromagnetic multiferroicity driven by 3d-electrons in a TiCrO₄ monolayer

Haojin Wang, Haitao Liu and Yuanchang Li*

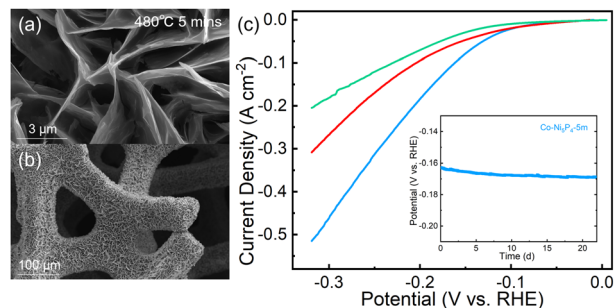


PAPERS

18925

Fast synthesis of nickel phosphide nanosheets for ultra-stable hydrogen evolution in seawater splitting

Weiwu Chen, Feng Lin, Chong Wang, Zhiming M. Wang and Zhaojun Qin*



CORRECTION

18934

Correction: Effective strategies for current boosting in a mesa-shaped In–Ga–Zn–O vertical-channel thin-film transistor with a short-channel length of 40 nm

Chae-Eun Oh, Young-Ha Kwon, Nak-Jin Seong, Kyu-Jeong Choi and Sung-Min Yoon*

