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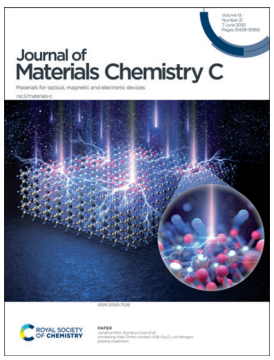

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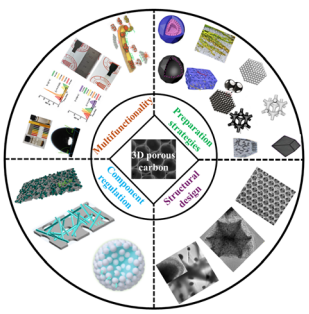
Jun Chen,* Shiyue Wu,* Xingwang Hou, Wei Song, Qingyun Guanxu, Ziqiang Xu, Kaili Jin, Yao Yang and Haoran Zhang



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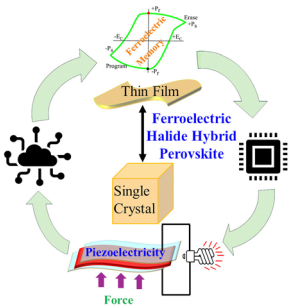
Ferroelectric polarization in 2D halide hybrid perovskites: influence on bulk crystals, thin films, and applications

Raja Sekhar Muddam and Lethy Krishnan Jagadamma*



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REVIEWS

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Comprehensive survey of plasmonic nano-dendrites: from fabrication to surface-enhanced Raman scattering (SERS) applications

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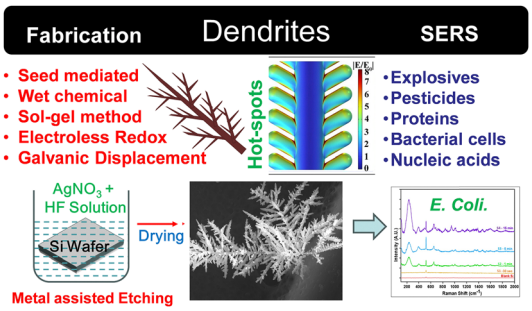

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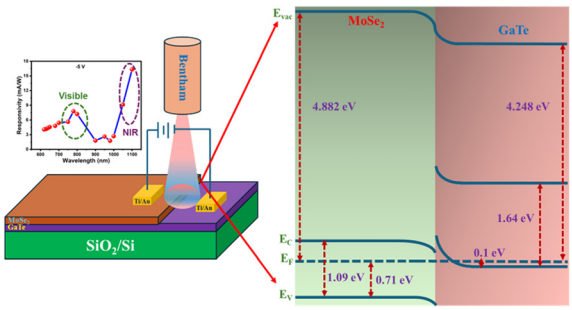
Scalable MBE growth of $MoSe_2$/GaTe van der Waals heterostructure for high-speed vis-NIR photodetection

Santanu Kandar, Kamlesh Bhatt, Shivansh Tiwari, Nahid Chaudhary, Taslim Khan, Ashok Kapoor and Rajendra Singh*



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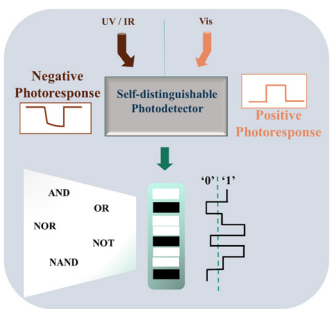
A self-powered bi-directional SnS_2/SnSe heterostructure for an all-in-one optoelectronic logic device

Preeti Goswami, Pukhraj Prajapat, Pargam Vashishtha, Preetam Singh and Govind Gupta*



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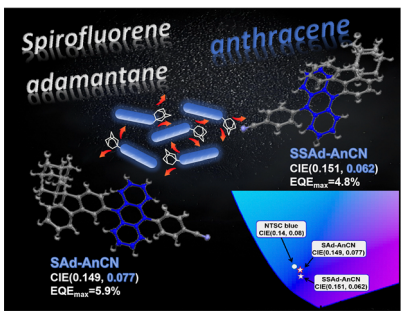
Zhichao Mao, Ruicheng Wang, Congcong Kai, Jie Hu, Yanping Huo, WenCheng Chen, Hai Bi* and Shaomin Ji*



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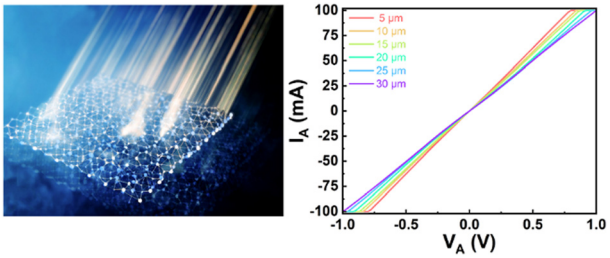

Annealing-free Ohmic contact of β-Ga_2O_3 *via* nitrogen plasma treatment

Junghun Kim, Hyoung Woo Kim, Woong Choi, Jihyun Kim and Dongryul Lee*

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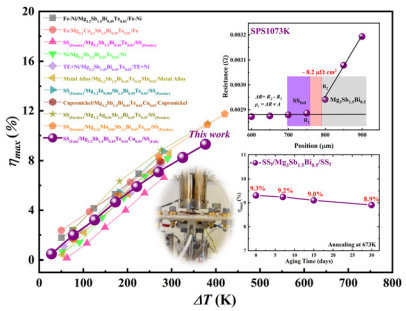

Process optimization of contact interface layer for maximizing the performance of $Mg_3(Sb,Bi)_2$ based thermoelectric compounds

Muhammad Fasih Aamir, Raju Chetty,* Jayachandran Babu and Takao Mori*

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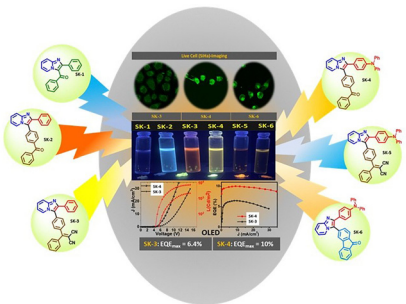

Balancing the molecular twist and conformational rigidity in imidazo[1,2-*a*]pyridines to achieve dual-state emissive (DSE) luminogens for applications in OLEDs and cell-imaging

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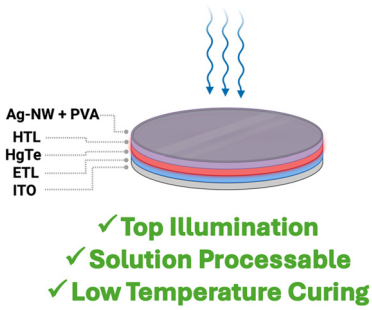

Plenty of room at the top: exploiting nanowire – polymer synergies in transparent electrodes for infrared imagers

Shlok J. Paul, Håvard Mølnås, Steven L. Farrell, Nitika Parashar, Elisa Riedo and Ayaskanta Sahu*

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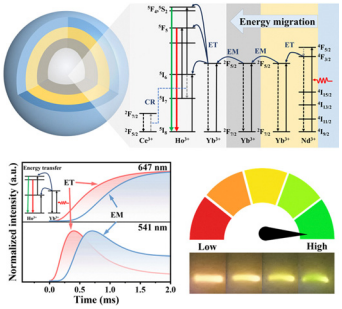
808 nm laser excited upconverting hydrophilized fluid velocimetric probe with a record sensitivity

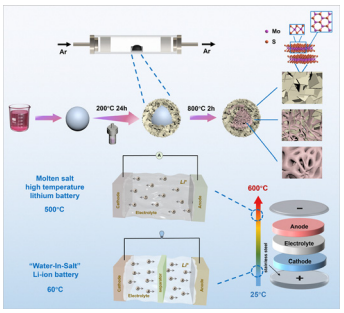
Linke Zhang, Shijie Hu, Xubin Fu,* Nianfeng Zhang, Feng Huang,* Tao Pang, Hai Huang,* An Xie and Daqin Chen*



10611

Intermediate- and high-temperature Li batteries with enhanced performance enabled by a hollow C-MoS_2 nanosphere electrode

Ting Quan, Xiaoyu Wei, Binchao Shi, Xinya Bu, Qi Xia and Yanli Zhu*



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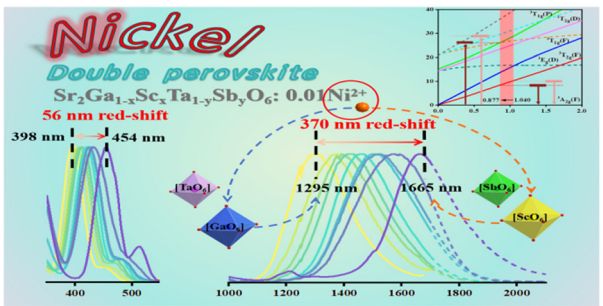
Super-wide-range tunable emission across NIR-II and NIR-III achieved by B-site cation co-substitution in Ni^{2+}-doped double perovskites for NIR light sources

Yifu Zhuo, Yaping Niu, Fugen Wu,* Jie Li, Yun Wang, Qi Zhang, Yun Teng, Xiaozhu Xie, Huafeng Dong and Zhongfei Mu*



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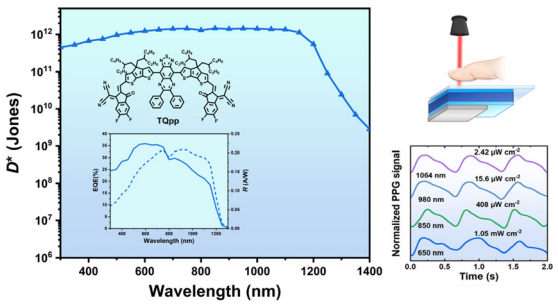
Exploration of a proquinoidal [1,2,5]thiadiazolo-[3,4-*g*]quinoxaline-based small molecule acceptor toward high-sensitivity shortwave infrared photodetection

Weiqi Zhang, Qingxia Liu, Liu Yuan,* Hanwen Zhang, Jiaqi Wang, Yang Wang,* Yunxiang Deng, Yunhong Huang, Yadong Jiang and Huiling Tai*



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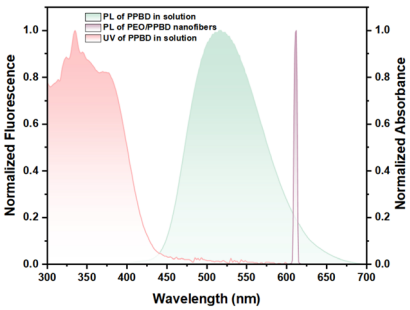

A highly sensitive fluorescent nanofiber sensor functionalized with small organic molecules for specific analyte detection

Leqin Cheng, Yunqi Tao, Jie Chen, Xiaohan Zhu, Zhonglin Wei, Ding Zhou, Yuewei Zhang* and Xue Yu*

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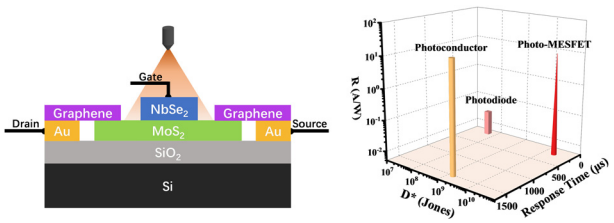

Photo-driven all-2D van der Waals metal–semiconductor field-effect transistors for high-performance photodetection

Chunyu Li, Zhiming Wu,* Meiyu He, Chaoyi Zhang, Silu Peng, Jiayue Han, Laijiang Wei, Xiang Dong, Jun Gou,* Jun Wang* and Yadong Jiang

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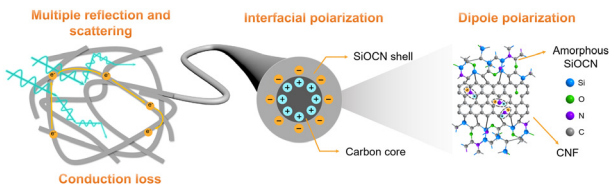

A core–shell carbon–ceramic fibrous aerogel derived from aramid-polysilsesquioxane for broadband electromagnetic wave absorption

Weiquan Huang, Yihang Yang, Huiyuan Gu, Wenjing Yu* and Gaofeng Shao*

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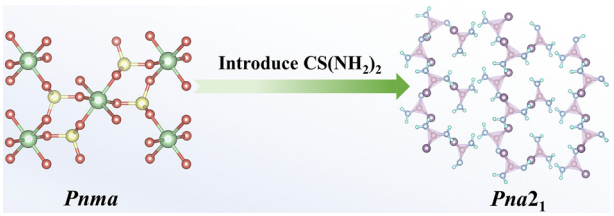

Structure modulation by cationic modification of sulfates using planar $CS(NH_2)_2$

Qinghe Li, Hanxiang Mi, Lilin Yang, Hongyuan Sha, Dongling Yang, Zujian Wang,* Rongbing Su, Bin Su and Chao He*

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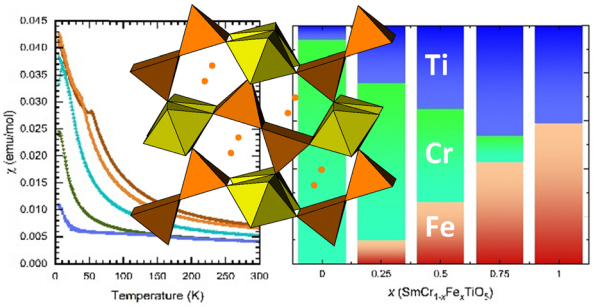
Cationic disorder effect on the structural and magnetic properties in $SmCr_{1-x}Fe_xTiO_5$

Christine Martin,* Juan P. Bolletta, Balazs Kobzi, François Fauth, Vivian Nassif, Emmanuelle Suard, Alexander I. Kurbakov, Samuel Jouen, Virginie Nachbaur and Antoine Maignan



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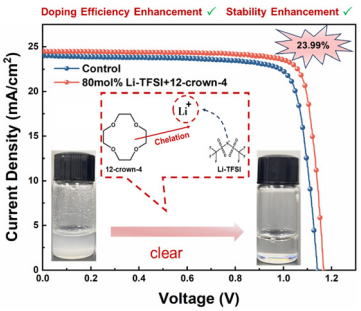
Increasing the Li-TFSI doping concentration in Spiro-OMeTAD enables efficient and stable perovskite solar cells

Zhongquan Wan,* Runmin Wei, Shaoliang Jiang, Yuanxi Wang, Haomiao Yin, Huaibiao Zeng, Muhammad Azam, Junsheng Luo* and Chunyang Jia*



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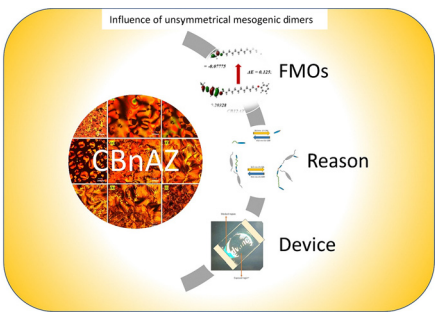
Systematic investigation on unsymmetrical mesogenic cyanobiphenyl dimers towards optical storage devices: synthesis, mesomorphic, photo switching and DFT studies

Mahima Rabari, Vasundhara Hegde, Gurumurthy Hegde* and A. K. Prajapati*



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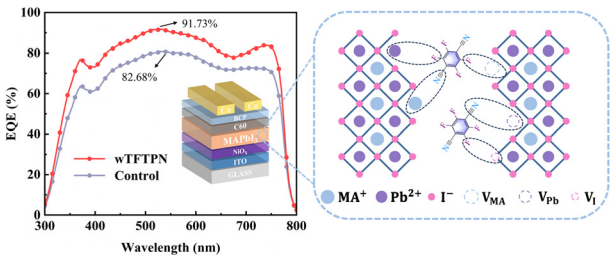
Passivation of defects by tetrafluoroterephthalonitrile introduced into $MAPbI_3$ for high-performance perovskite photodetectors

Yuanhao Li, Yukun Wang,* Zuhuan Lu, Zongming Yu, Tianyi Zhang and Wenhong Sun*



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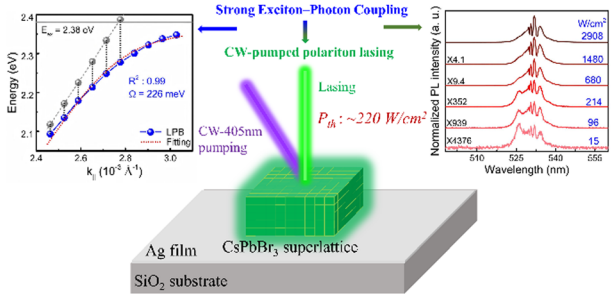

Hybrid $CsPbBr_3$ superlattice/Ag microcavity enabling strong exciton–photon coupling for low-threshold continuous-wave pumped polariton lasing

Zhenxu Lin, Rui Huang,* Shulei Li,* Mingcheng Panmai, Yi Zhang, Haixia Wu, Jie Song, Zewen Lin, Hongliang Li and Sheng Lan*

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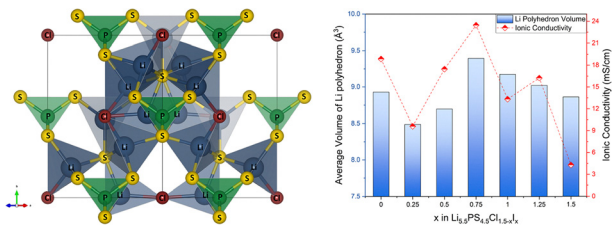

Iodide substituted halide-rich lithium argyrodite solid electrolytes with improved performance for all solid-state batteries

Adwitiya Rao, Jacob Rempel, Ming Jiang, Parvin Adeli, Chae-Ho Yim, Mohamed Houache, Yaser Abu-Lebdeh and Chandra Veer Singh*

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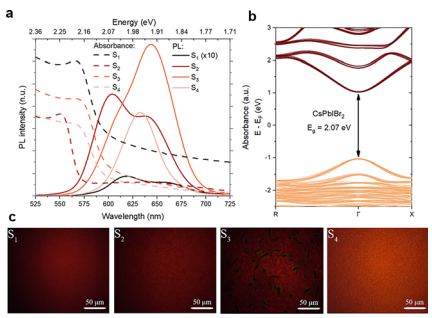

Suppression of phase segregation in red $CsPbIBr_2$-based perovskite LECs/LEDs: impact of Mn doping, crystallization control, and grain passivation

Andrei S. Toikka,* Ramazan Kenesbay, Maria Baeva, Dmitry M. Mitin, Maria Sandzhieva, Aleksandr Goltaev, Vladimir Fedorov, Alexander Pavlov, Dmitry Gets, Ivan Mukhin and Sergei Makarov

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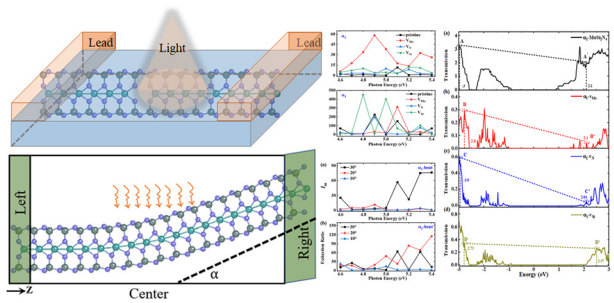

Largely enhanced bulk photovoltaic effects in a two-dimensional $MoSi_2N_4$ monolayer photodetector by vacancy-doping and bending-increased device asymmetry

Tingting Duan, Yongsheng Yao, Juexian Cao and Xiaolin Wei*

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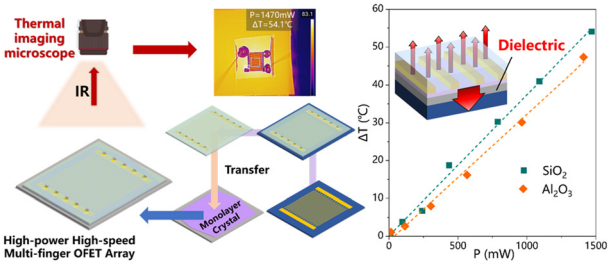
A significant self-heating effect in high-power high-speed organic field-effect transistor arrays

Boxin Hao, Qingkai Chen, Shu Zhang, Yang Li, Boyu Peng* and Hanying Li*



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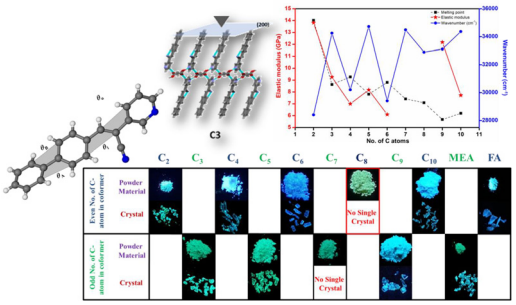
Odd–even effect controls twist-elasticity of an organic fluorophore in cocrystals prepared using mechanochemistry

Nabadeep Kalita, Poonam Deka, Ishita Ghosh, Kalyan Jyoti Kalita, Ashish Gogoi, C. Malla Reddy* and Ranjit Thakuria*



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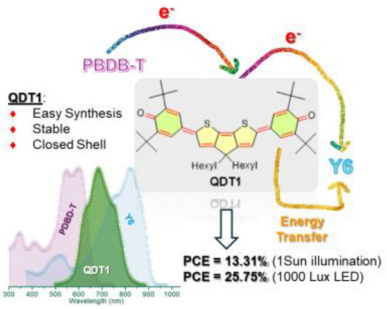
A simple medium-bandgap quinoidal A–D–A non-fullerene acceptor for ternary organic solar cells

Shyam Shankar S., María Privado, Pilar de la Cruz,* Fernando Langa* and Ganesh D. Sharma*



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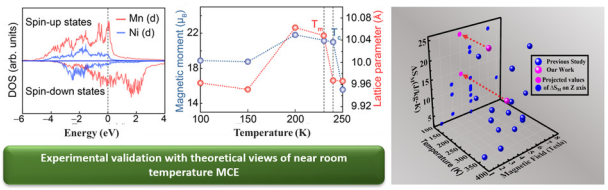
Magnetocaloric effect in Mn-rich Heusler-derived alloys for room temperature-based applications

Nishant Tiwari, Subhendu Mishra, Suman Sarkar, Saikat Talapatra, Mithun Palit, Manas Paliwal,* Abhishek K. Singh* and Chandra Sekhar Tiwary*



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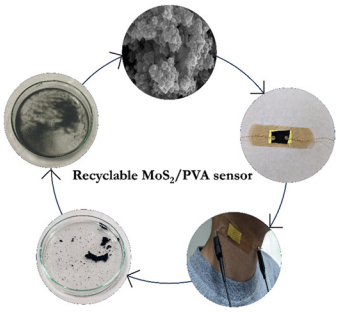

Highly transient and recyclable MoS_2/PVA pressure sensor for sustainable healthcare and consumer electronic applications

Naveen Bokka, Nongthombam Joychandra Singh, Chandra Sekhar Reddy Kolli and Parikshit Sahatiya*

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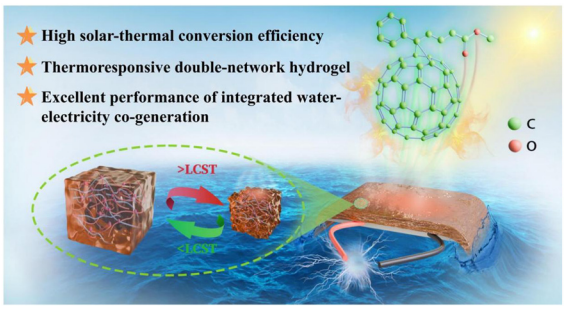

Highly efficient solar-thermal thermoresponsive hydrogel based on a fullerene derivative for water purification and energy harvesting

Zuoyu Wang, Nanxi Jin,* Lin Lu, Shuqing Ao, Yingyuan Zhang, Shuo Qi and Tao Jia*

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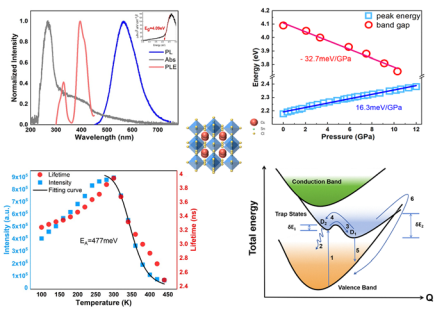

Deep trap state emission in vacancy-ordered double perovskite Cs_2SnCl_6 microcrystals

Chao Tan, Weilong Liu,* Wenzhuo Li, Hongbo Qi, Xiaojun Zhu, Zhongfang Ji, Jian Cheng, Wenzhi Wu* and Qingxin Yang*

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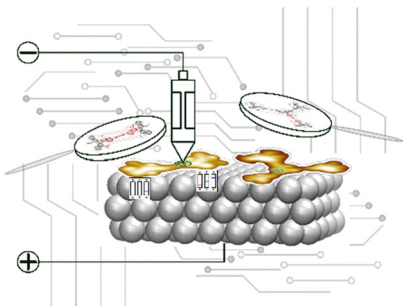

Synthesis, electronic properties and on-surface switching behaviour of triazatruxene dimers and tetramers

Lars Vogelsang, Tobias Birk, Fabian Kostrzewa, Niklas Bauch, Gabriel Maier, Jonas Rendler, Michael Linseis, Mikhail Fonin* and Rainer F. Winter*

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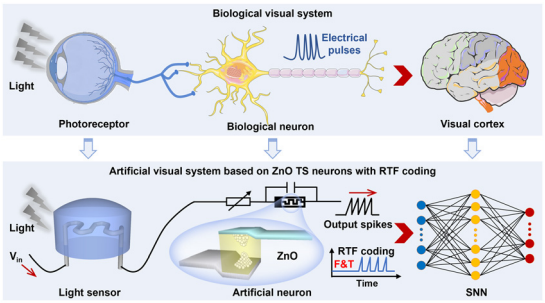
An artificial visual perception system based on ZnO threshold switching neurons with integrated rate and time-to-first-spike coding

Liang Wang, Le Zhang, Shuaibin Hua, Puli Gan, Qiuyun Fu* and Xin Guo*



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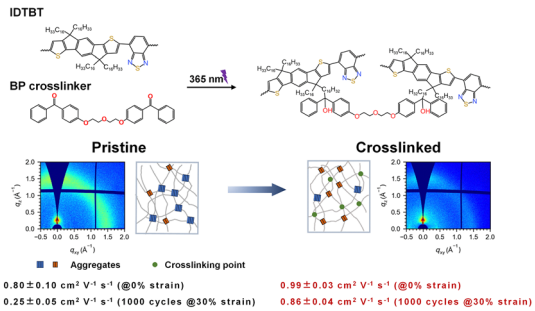
Short-range aggregation regulation of conjugated polymers: high mobility and cyclic tensile stability driven by chemical crosslinking

Rui Chen, Yiting Liu, Teng Li, Zhongxiang Peng, Hongxiang Li, Sichao Huang, Zicheng Ding,* Xiaozheng Duan,* Yuan-Qiu-Qiang Yi* and Yanchun Han*



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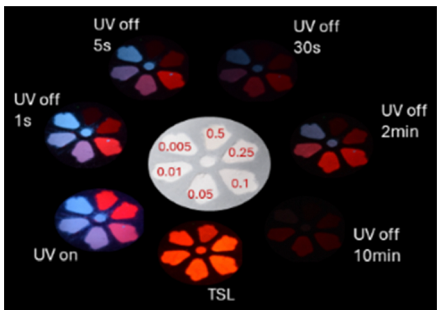
Dynamic and multimodal luminescence of Mn^{2+}-doped $Mg_4Ga_8Ge_2O_{20}$ persistent phosphor for anti-counterfeiting applications

Guna Doke,* Pavels Rodionovs, Andris Antuzevics, Jekabs Cirulis, Guna Krieke, Meldra Kemere, Aldona Beganskiene and Aleksej Zarkov



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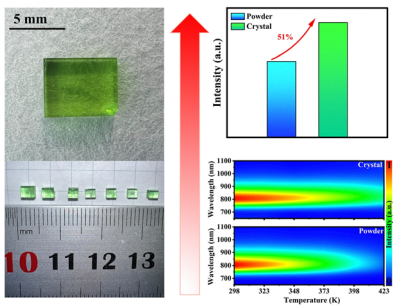
Single crystal Cr^{3+}-doped NIR phosphor: enhanced luminescence intensity and improved thermal stability

Peng Wang, Lei Zhong, Yingyuan Chen, Yuefei Xiang, Jing Yan, Chunyan Jiang,* Lei Zhou* and Mingmei Wu*



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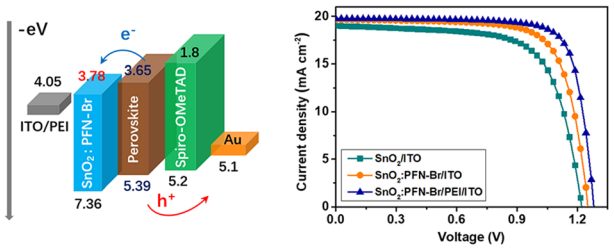
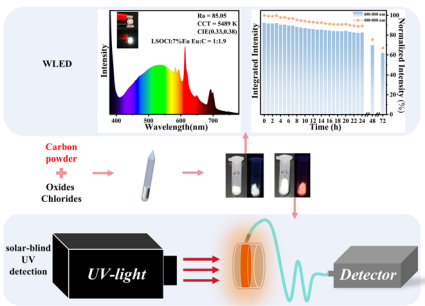


Management of interfacial energy band alignment in wide-bandgap perovskite solar cells for performance improvement

Zhihai Liu,* Lei Wang, Jiqu Han, Hao Zhao, Ren Sheng and Ping Chen*

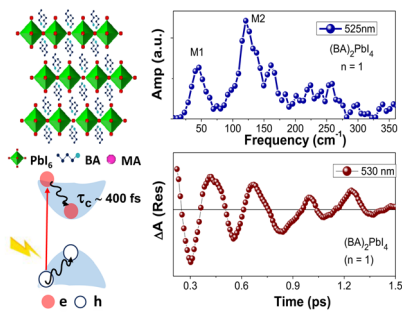
10899



Carbon-modulated reduction synthesis of dual-valent Eu-doped $La_3Si_2O_8Cl$ phosphors: single-matrix white LEDs and high-resolution solar-blind UV detection

Xinhan Chen, Gaofan Chen, Ya-Nan Feng, Lizhen Zhang,* Yan Yu and Lingyun Li*

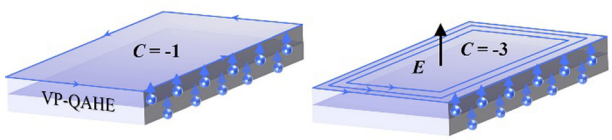
10906



Hot carrier cooling and direct observation of electron–phonon coupling in two-dimensional butylammonium lead iodide perovskites

Vanga Ravali, Ram Ratan, E. Siva Subramaniam Iyer and Tufan Ghosh*

10916



Electric control of Chern number in valley-polarized quantum anomalous Hall insulators

Xiaoyu Wang, Yan Liang* and Pei Zhao*

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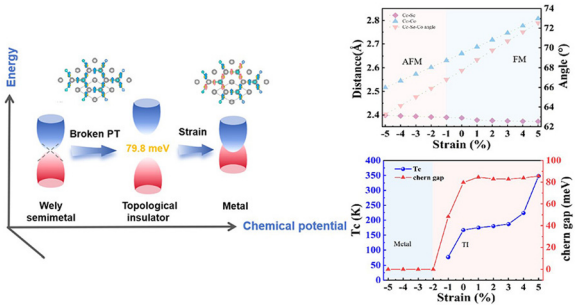
Tuning the magnetic state and topological transition of monolayer Kagome Co_3Pb_3SSe with large magnetic anisotropy

Yating Li, Wenzhe Zhou,* Chuyu Li, Xianjuan He and Fangping Ouyang*



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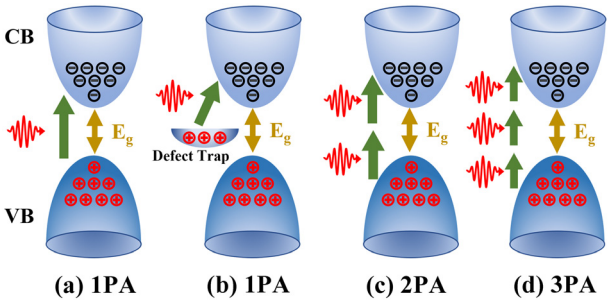
Investigation of nonlinear optical properties in GaN nanoparticles and nanosheets spanning deep ultraviolet to near-infrared wavelengths

Zhixin Wu, Guowei Liu, Xuezhi Zhao, Hongkai Ren, Boyao Li, Junjie Huang and Jinghua Sun*



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Polymorphism-induced multi-functional crystal photonics achieved by a highly luminescent benzofuranyl molecule having a tetrafluorophenylene core

Takumi Matsuo* and Shotaro Hayashi*