

Journal of Materials Chemistry C

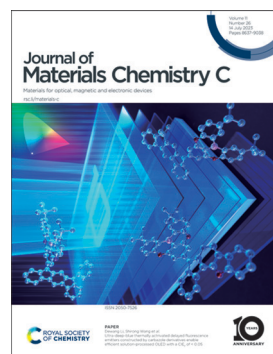
Materials for optical, magnetic and electronic devices

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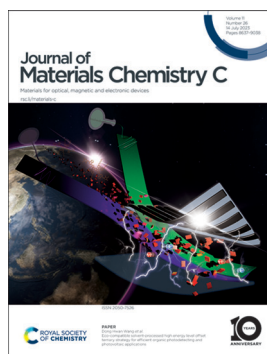
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ISSN 2050-7526 CODEN JMCCCC 11(26) 8637–9038 (2023)



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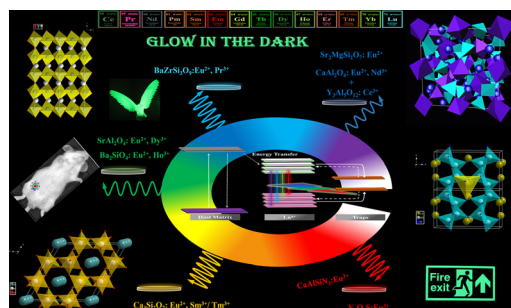
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REVIEWS

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Recent progress on lanthanide-based long persistent phosphors: an overview

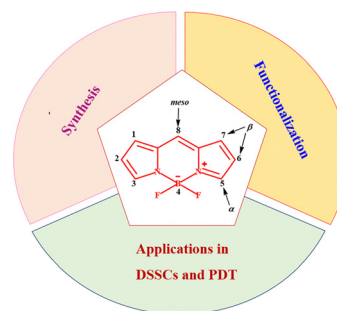
Sivakumar Vaidyanathan*



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Design, synthesis and functionalization of BODIPY dyes: applications in dye-sensitized solar cells (DSSCs) and photodynamic therapy (PDT)

Indresh Singh Yadav and Rajneesh Misra*



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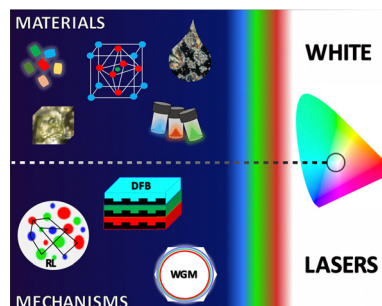


REVIEWS

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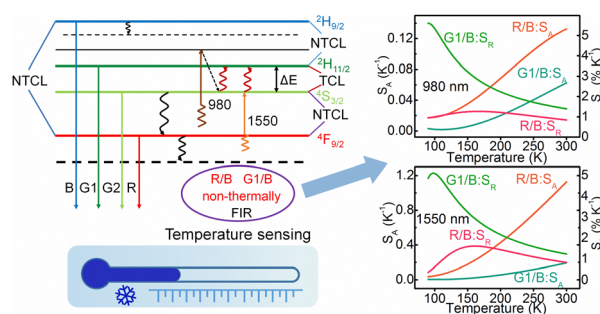
White lasing – materials, design and applications

Alina Szukalska and Jaroslaw Mysliwiec*



COMMUNICATION

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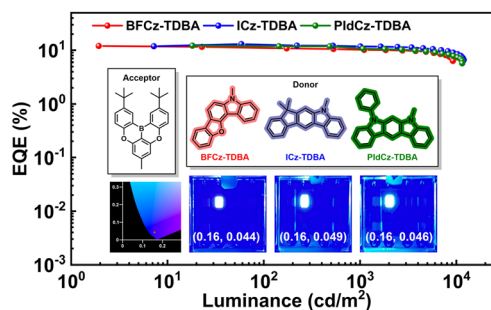
Ultrahigh sensitivity upconversion low temperature sensors *via* manipulating the non-thermally coupled levels of Er^{3+} ionsWeitao Ying, Jingyi He, Xuemei Fan, Shiqing Xu,*
Jianmin Gu* and Shimin Liu*

PAPERS

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Ultra-deep-blue thermally activated delayed fluorescence emitters constructed by carbazole derivatives enable efficient solution-processed OLED with a CIE_y of < 0.05

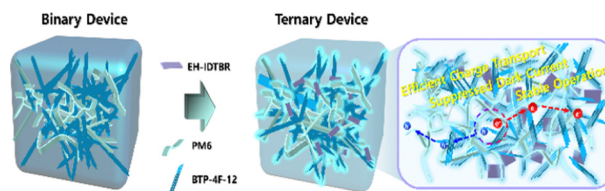
Bo Chen, Chuanxin Liao, Dewang Li,* Hongli Liu and Shirong Wang*



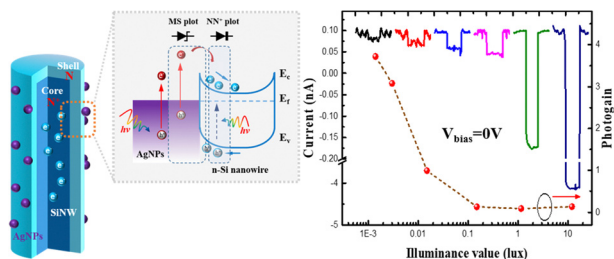
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Eco-compatible solvent-processed high energy level offset ternary strategy for efficient organic photodetecting and photovoltaic applications

Min Soo Kim, Woongsik Jang, Byung Gi Kim and Dong Hwan Wang*



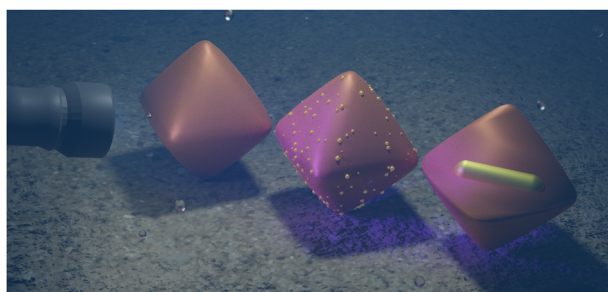
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A high-performance broadband double-junction photodetector based on silicon nanowire arrays wrapped by silver nanoparticles for low-light imaging

Yuting Huang, Haifeng Liang,* Yingli Zhang, Shujing Yin, Xuyang Li, Changlong Cai, Weiguo Liu and Tiantian Jia

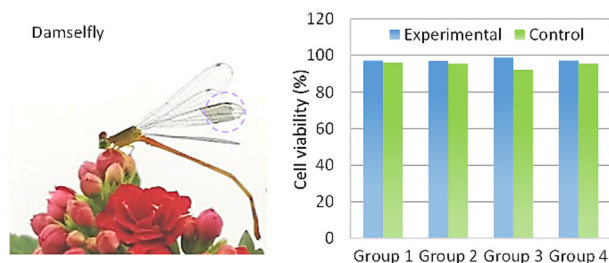
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Position of gold dictates the photophysical and photocatalytic properties of Cu₂O in Cu₂O/Au multicomponent nanoparticles

Dávid Kovács, András Deák, György Z. Radnóczy, Zsolt E. Horváth, Attila Sulyok, Róbert Schiller, Ottó Czömpöly and Dániel Zámbo*

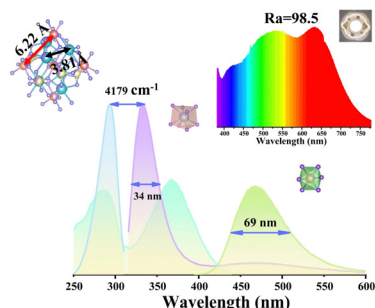
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Edible polysaccharide-based ultraflexible organic transistors for nutritive electronics

Yahan Yang, Baoying Sun, Xiaoli Zhao,* Hongyan Yu, Bin Wang, Juntong Li, Yanhong Tong, Qingxin Tang* and Yichun Liu

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Novel highly efficient Bi³⁺-activated phosphors for warm WLEDs

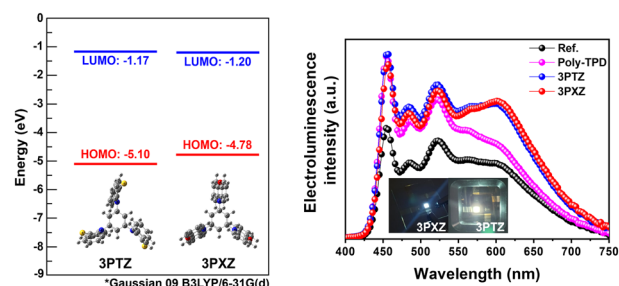
Xiudi Wu, Xibao Zhang, Yonghui Xu, Shuwen Yin, Chuansheng Zhong, Liang Zhou* and Hongpeng You*



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3PTZ and 3PXZ small molecular hole-transporting materials in polymer light-emitting diodes

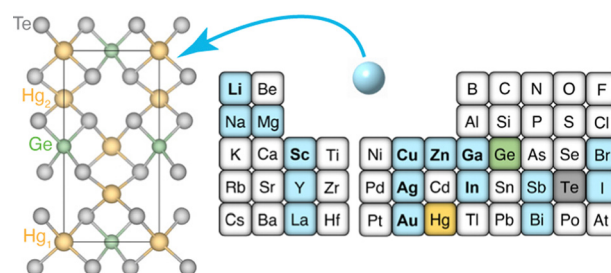
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Extrinsic doping of Hg_2GeTe_4 in the face of defect compensation and phase competition

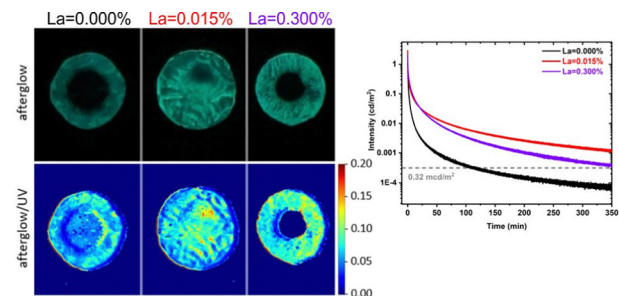
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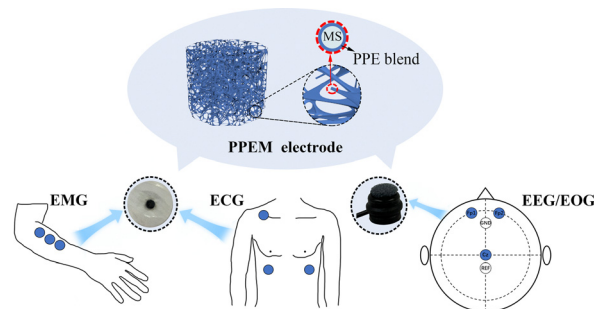
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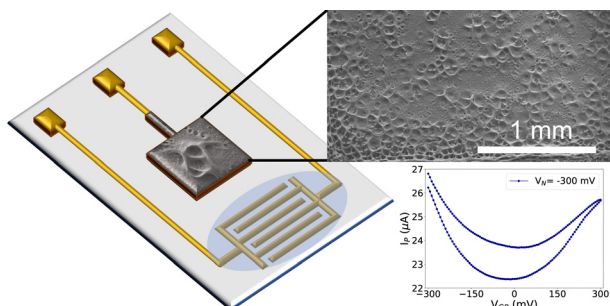
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A reversible gel-free electrode for continuous noninvasive electrophysiological signal monitoring

Qing Liu, Jie Zhou, Liangtao Yang,* Jiajia Xie, Chenhui Guo, Zimo Li, Jun Qi, Shuo Shi, Zhilin Zhang, Hui Yang, Jinlian Hu, Jinglong Wu and Yi Zhang*



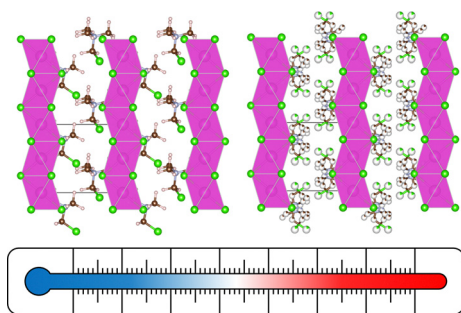
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Cu-modified electrolyte-gated transistors based on reduced graphene oxide

Rafael Cintra Hensel, Nicola Comisso, Marco Musiani, Francesco Sedona, Mauro Sami, Andrea Cester, Nicolò Lago and Stefano Casalini*

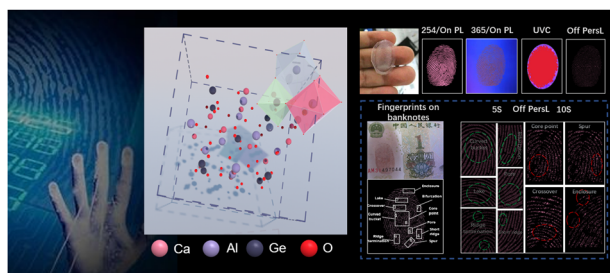
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Models of orientational disorder in hybrid organic–inorganic piezoelectric materials

Kasper Tolborg* and Aron Walsh*

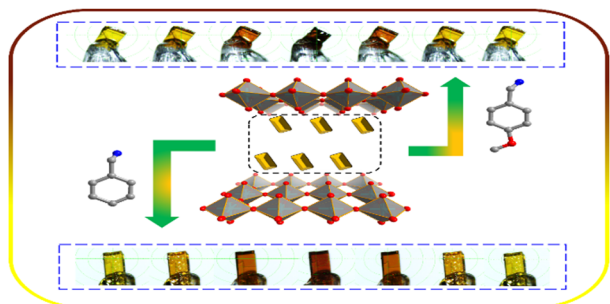
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Achieving multicolour and multimodal luminescence in $\text{Ca}_3\text{Al}_2\text{Ge}_3\text{O}_{12}:\text{Bi}^{3+}/\text{Ln}^{3+}$ ($\text{Ln} = \text{Tb}, \text{Eu}, \text{Sm}, \text{and Dy}$) persistent phosphors for multiple applications

Jiawei Zhang, Zhijun Wang,* Yecheng Zhu, Xiaoxue Huo, Yu Wang, Hao Suo, Leipeng Li and Panlai Li*

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Reversible phase transition and thermochromic response in hybrid copper-based perovskites

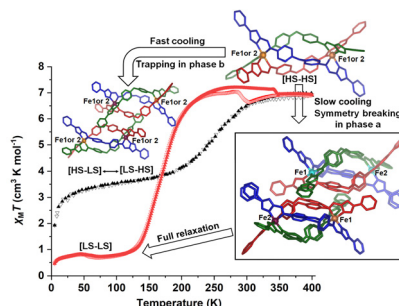
Gele Teri, Qiang-Qiang Jia, Qing-Feng Luo, Hao-Fei Ni, Da-Wei Fu* and Qiang Guo*



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Unique spin crossover pathways differentiated by scan rate in a new dinuclear Fe(II) triple helicate: mechanistic deductions enabled by synchrotron radiation studies

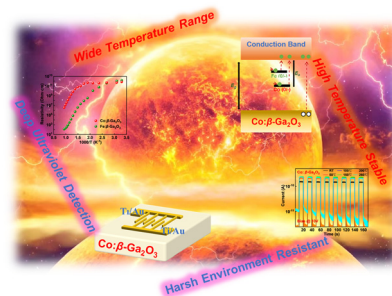
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Solar-blind photodetectors prepared using semi-insulating Co:β-Ga₂O₃ single crystals that are stable over a wide temperature range

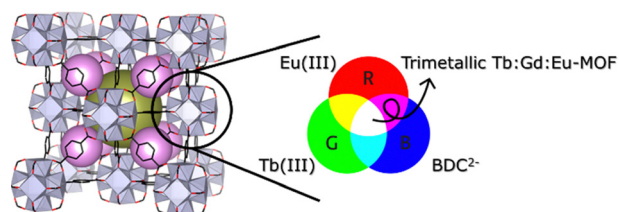
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Tuning the rare-earth UiO-66 metal–organic framework platform for white light emission

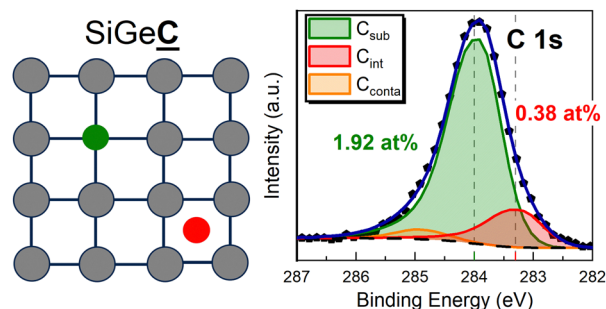
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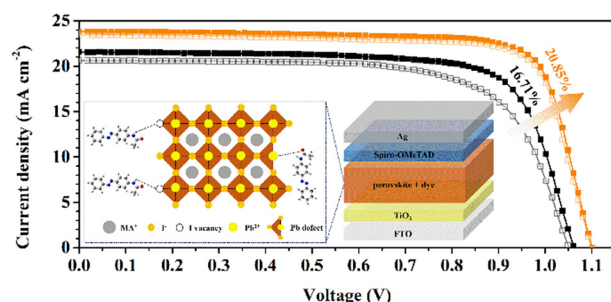
Quantification of substitutional and interstitial carbon in thin SiGeC films using in-line X-ray-photoelectron spectroscopy

Jeremy Vives,* Stephane Verdier, Fabien Deprat, Marvin Frauenrath, Romain Duru, Marc Juhel, Gregory Berthome and Didier Chaussende



PAPERS

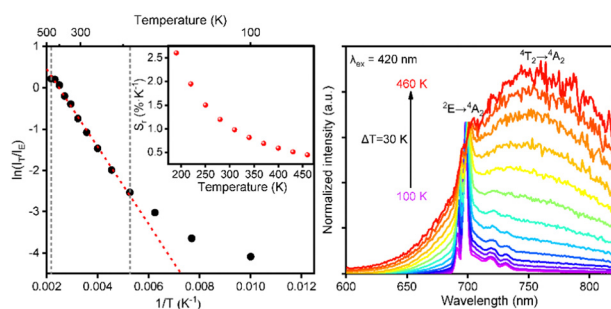
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A novel azo dye molecule enables defect passivation and crystallization toward efficient perovskite solar cells

Ningxia Gu, Ye Feng, Lixin Song,* Pengyun Zhang, Pingfan Du, Lei Ning, Zeyuan Sun, Hua Jiang* and Jie Xiong*

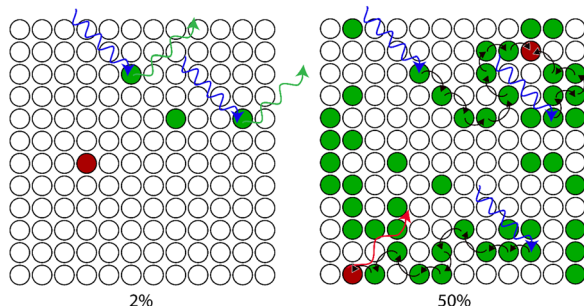
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A reliable and stable ratiometric luminescence thermometer based on dual near-infrared emission in a Cr³⁺-doped LaSr₂Ga₁₁O₂₀ phosphor

Xihui Shan, Michele Back, Dongxun Chen, Shihai Miao, Ruiqi Shi and Yanjie Liang*

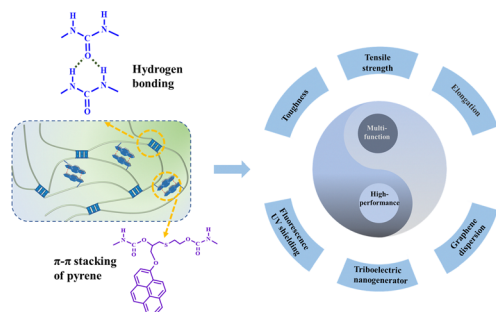
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Understanding enormous redshifts in highly concentrated Mn²⁺ phosphors

Arnoldus J. van Bunningen,* Simon Tobias Keizer and Andries Meijerink*

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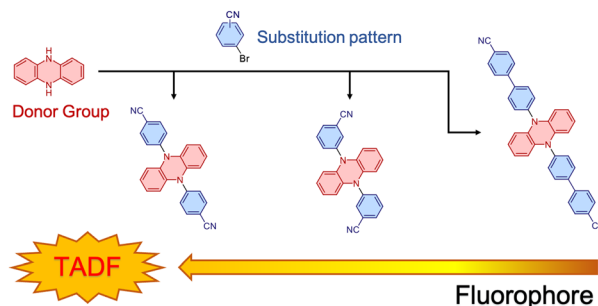


High-performance, fluorescent, UV-shielding, triboelectric, super-flexible polyurea elastomers via strong π - π stacking of pyrene and hydrogen bonding strategies

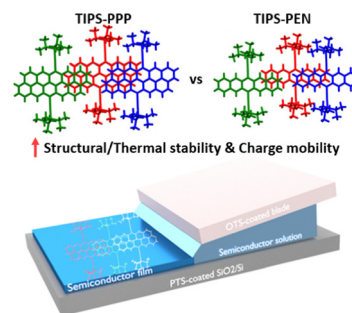
Zheng Yuan, Jun Yan, Feng Gao, Jue Cheng* and Junying Zhang*



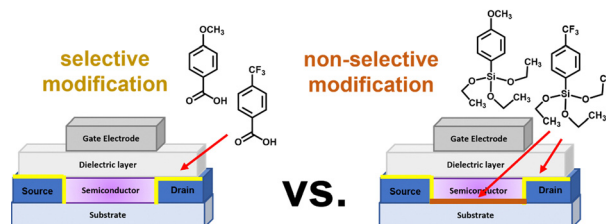
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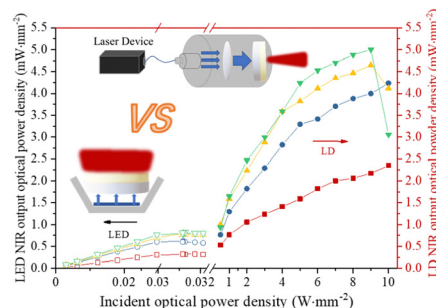
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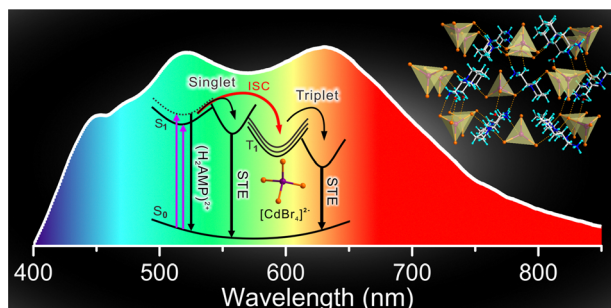
Meng-Tieh Liu, Cheng-Yu Chi, Michael Zharnikov* and
Yian Tai*



Simin Gu, Bomei Liu,* Shuaichen Si and
Jing Wang*



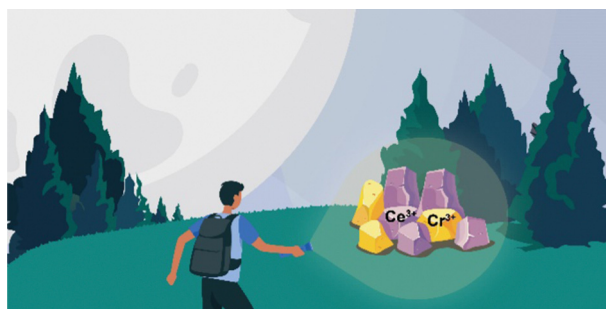
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Singlet exciton and singlet/triplet self-trapped excitons for ultra-broadband white-light emission in a zero-dimensional cadmium bromide hybrid

Huizhi Gao, Zhuoya Lu, Xingxing Zhao, Ke Zhang, Xudong Zhu, Rixin Cheng, Shi-Li Li, Zhikai Qi* and Xian-Ming Zhang*

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Broadband emitting phosphor $\text{Sr}_6\text{Sc}_2\text{Al}_4\text{O}_{15}:\text{Cr}^{3+}$ for near-infrared LEDs

Jinyi Wang, Xudong Wang, Chenjie Zhang, Xinyu Zhang, Tianliang Zhou* and Rong-Jun Xie*

