

Journal of Materials Chemistry C

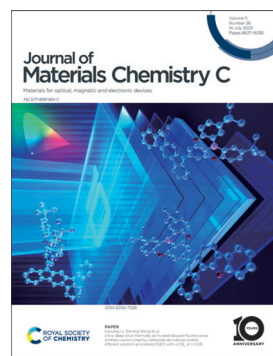
Materials for optical, magnetic and electronic devices

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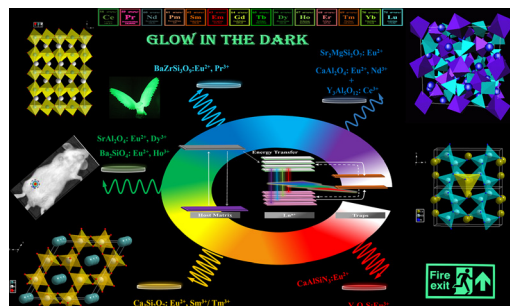
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REVIEWS

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

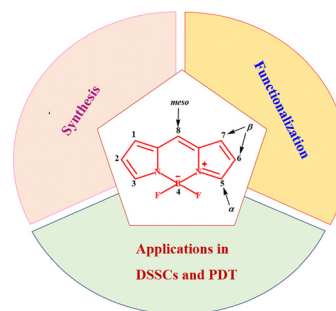
Sivakumar Vaidyanathan*



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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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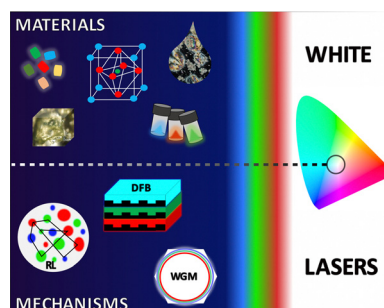


REVIEWS

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White lasing – materials, design and applications

Alina Szukalska and Jaroslaw Mysliwiec*

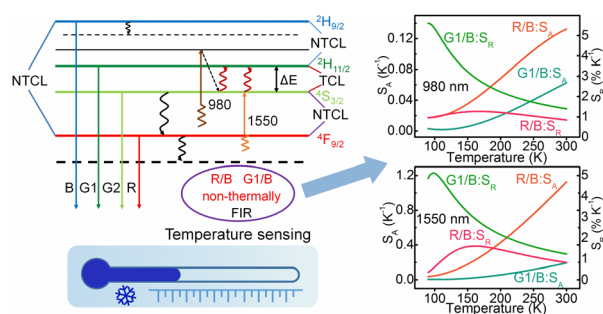


COMMUNICATION

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Ultra-high sensitivity upconversion low temperature sensors *via* manipulating the non-thermally coupled levels of Er³⁺ ions

Weitao Ying, Jingyi He, Xuemei Fan, Shiqing Xu,* Jianmin Gu* and Shimin Liu*

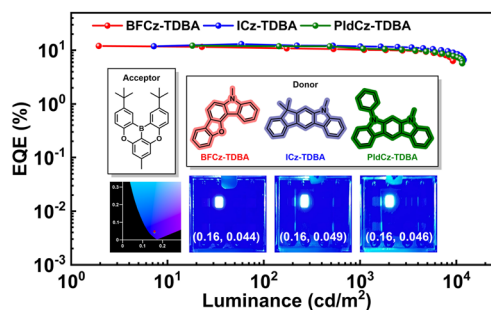


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Ultra-deep-blue thermally activated delayed fluorescence emitters constructed by carbazole derivatives enable efficient solution-processed OLED with a CIE_y of < 0.05

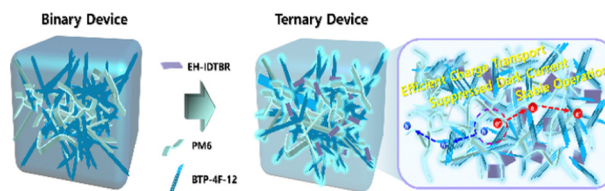
Bo Chen, Chuanxin Liao, Dewang Li,* Hongli Liu and Shirong Wang*



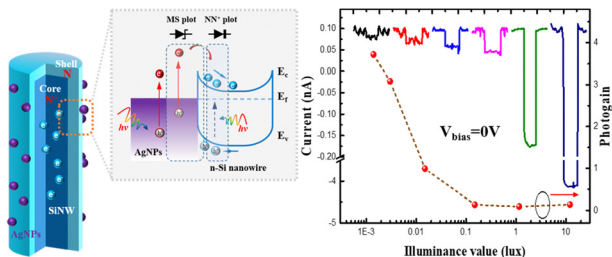
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Eco-compatible solvent-processed high energy level offset ternary strategy for efficient organic photodetecting and photovoltaic applications

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



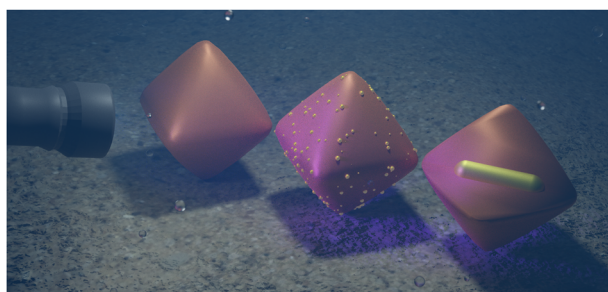
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A high-performance broadband double-junction photodetector based on silicon nanowire arrays wrapped by silver nanoparticles for low-light imaging

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

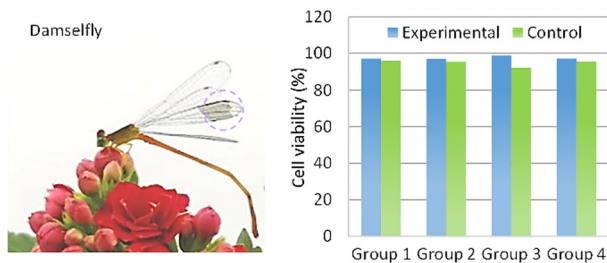
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Position of gold dictates the photophysical and photocatalytic properties of Cu₂O in Cu₂O/Au multicompartment nanoparticles

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

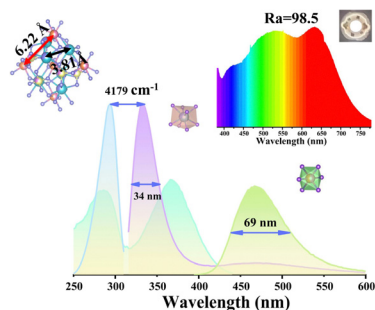
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Edible polysaccharide-based ultraflexible organic transistors for nutritive electronics

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

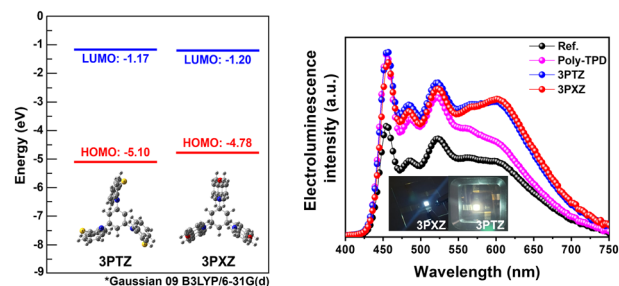
Xiudi Wu, Xibao Zhang, Yonghui Xu, Shuwen Yin, Chuansheng Zhong, Liang Zhou* and Hongpeng You*



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

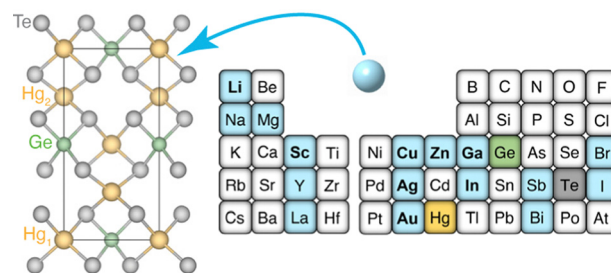
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Extrinsic doping of Hg_2GeTe_4 in the face of defect compensation and phase competition

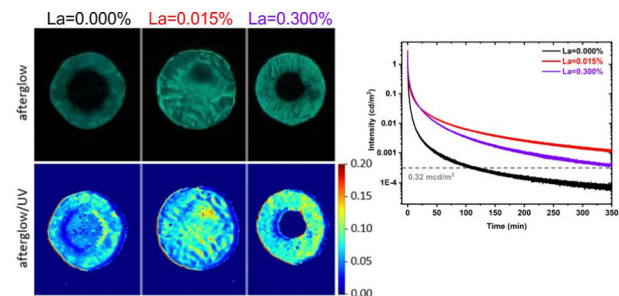
Claire E. Porter,* Jiaying Qu,* Kamil Cielski, Elif Ertekin and Eric S. Toberer



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Towards deliberate design of persistent phosphors: a study of La–Ga admixing in LuAG:Ce crystals to engineer elemental homogeneity and carrier trap depths

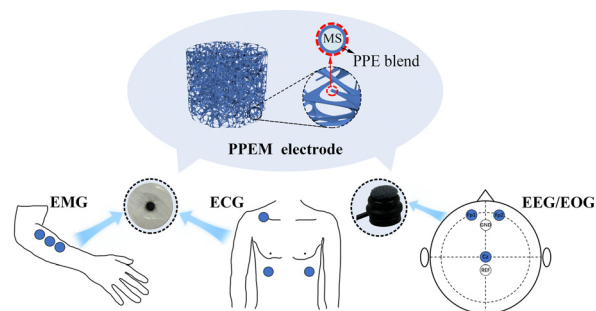
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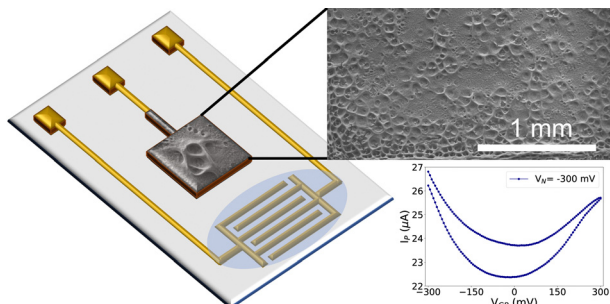
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A reversible gel-free electrode for continuous noninvasive electrophysiological signal monitoring

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



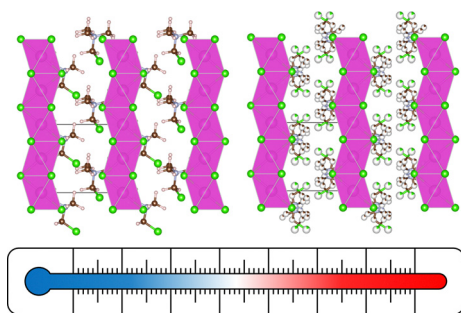
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Cu-modified electrolyte-gated transistors based on reduced graphene oxide

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

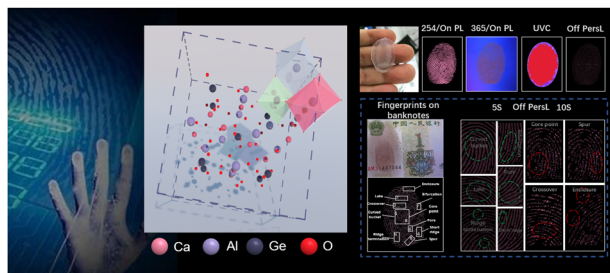
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Models of orientational disorder in hybrid organic–inorganic piezoelectric materials

Kasper Tolborg* and Aron Walsh*

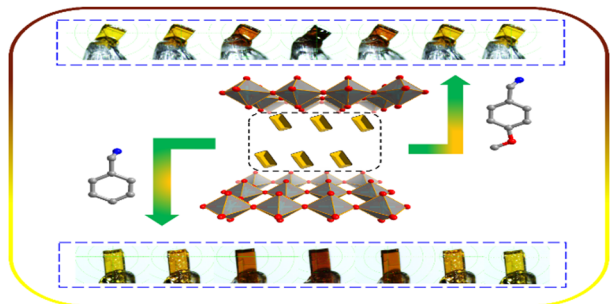
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Achieving multicolour and multimodal luminescence in $\text{Ca}_3\text{Al}_2\text{Ge}_3\text{O}_{12}:\text{Bi}^{3+}/\text{Ln}^{3+}$ ($\text{Ln} = \text{Tb}, \text{Eu}, \text{Sm}, \text{and Dy}$) persistent phosphors for multiple applications

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

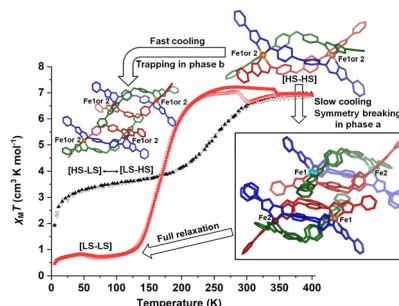
Gele Teri, Qiang-Qiang Jia, Qing-Feng Luo, Hao-Fei Ni, Da-Wei Fu* and Qiang Guo*



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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

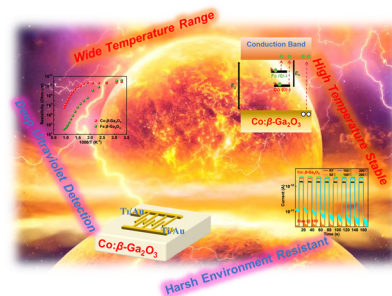
Matthew J. Wallis, Alexander R. Craze, Hikaru Zenno, Ryuya Tokunaga, Takahiro Taira, Hyunsung Min, Mohan M. Bhadbhade, Saroj Kumar Bhattacharyya, Ruoming Tian, Anne M. Rich, Shinya Hayami, Jack K. Clegg, Christopher E. Marjo, Leonard F. Lindoy and Feng Li*



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

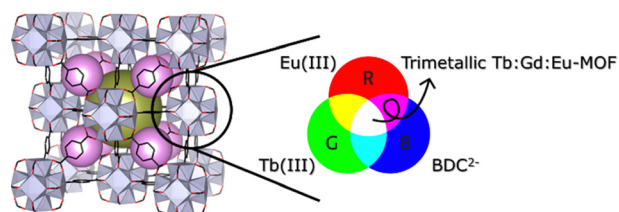
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Tuning the rare-earth UiO-66 metal-organic framework platform for white light emission

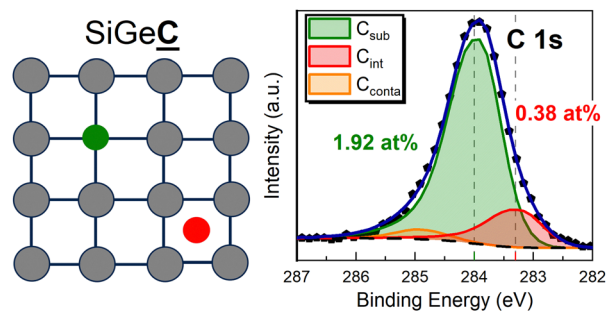
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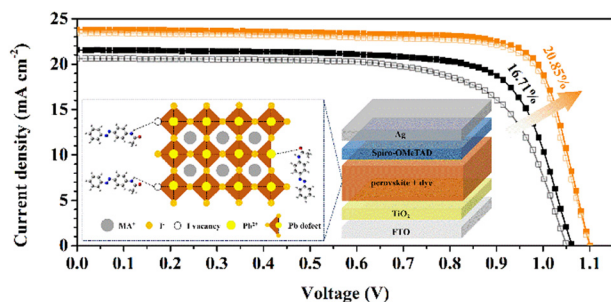
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Quantification of substitutional and interstitial carbon in thin SiGeC films using in-line X-ray-photoelectron spectroscopy

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



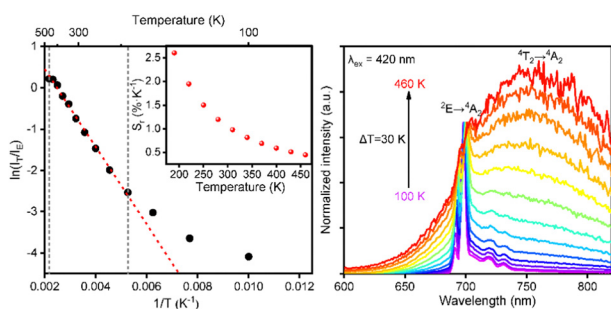
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A novel azo dye molecule enables defect passivation and crystallization toward efficient perovskite solar cells

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

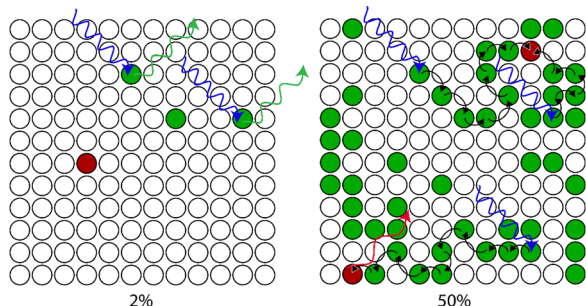
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A reliable and stable ratiometric luminescence thermometer based on dual near-infrared emission in a Cr³⁺-doped LaSr₂Ga₁₁O₂₀ phosphor

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

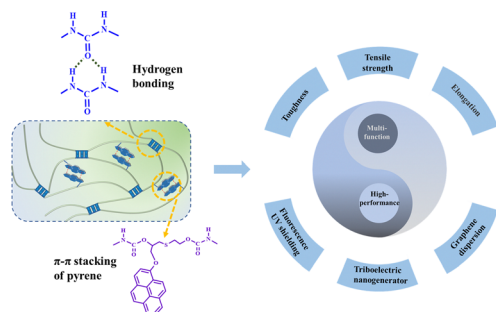
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Understanding enormous redshifts in highly concentrated Mn²⁺ phosphors

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

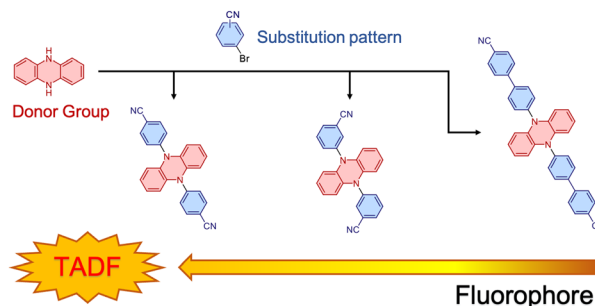
Zheng Yuan, Jun Yan, Feng Gao, Jue Cheng* and Junying Zhang*



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Molecular design of phenazine-5,10-diyl-dibenzonitriles and the impact on their thermally activated delayed fluorescence properties

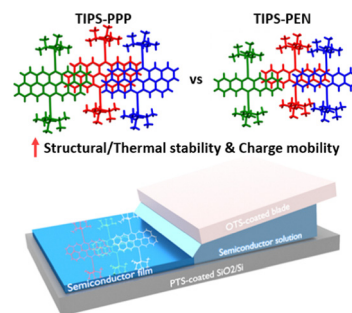
Dietrich Püschel, Julia Wiefemann, Simon Hédé, Tobias Heinen, Leo Pfeifer, Oliver Weingart,* Markus Suta,* Thomas J. J. Müller* and Christoph Janiak*



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Shear-aligned large-area organic semiconductor crystals through extended π - π interaction

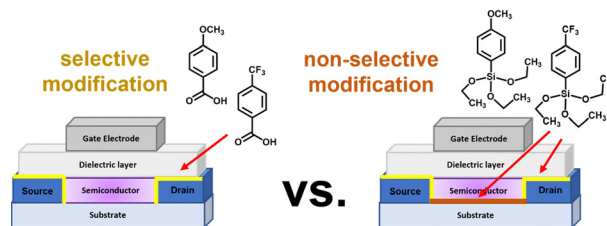
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Selective and non-selective modification of electrodes in organic thin film transistors by self-assembled monolayers

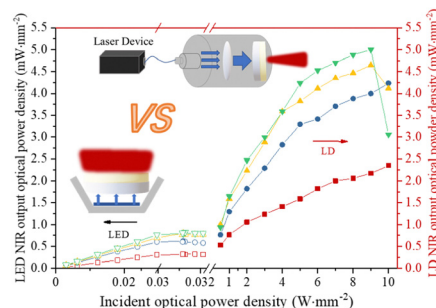
Meng-Tieh Liu, Cheng-Yu Chi, Michael Zharnikov* and Yian Tai*



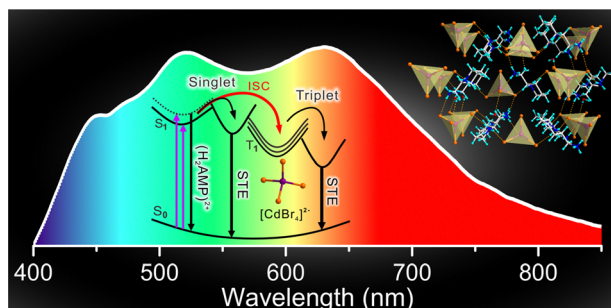
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Laser-driven NIR light source based on MgO:Cr³⁺,Ni²⁺ phosphor-in-glass film for NIR spectroscopy application

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



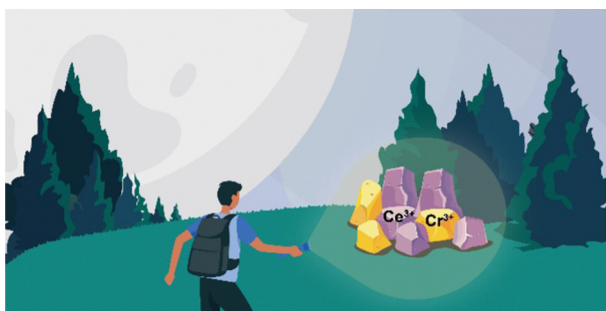
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Singlet exciton and singlet/triplet self-trapped excitons for ultra-broadband white-light emission in a zero-dimensional cadmium bromide hybrid

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 Sr₆Sc₂Al₄O₁₅:Cr³⁺ for near-infrared LEDs

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

