

Journal of Materials Chemistry C

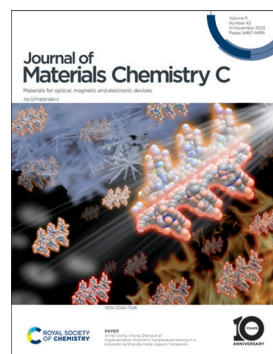
Materials for optical, magnetic and electronic devices

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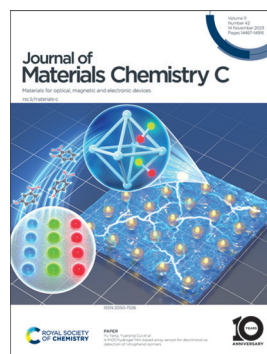
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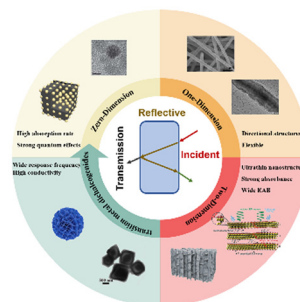
See Yu Yang, Yuanjing Cui *et al.*, pp. 14551–14558. Image reproduced by permission of Yuanjing Cui from *J. Mater. Chem. C*, 2023, **11**, 14551.

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Research status and future perspectives of low dimensional electromagnetic wave absorption materials

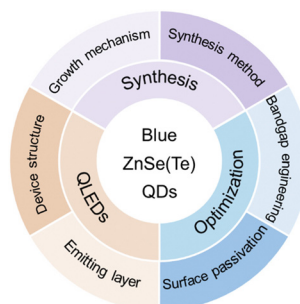
Huaping Xu, Tao Tang, Zengming Man,* Xiaofeng Wu, Haiqiang Zhao, Xiaohui Liang* and Chuanying Li



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Heavy-metal-free blue-emitting ZnSe(Te) quantum dots: synthesis and light-emitting applications

Xiangzhen Deng, Fengjuan Zhang,* Ying Zhang and Huaibin Shen*



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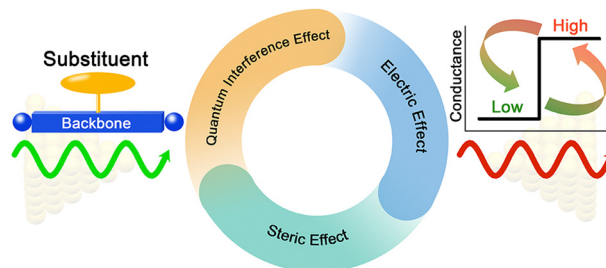


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Recent progress in tuning charge transport in single-molecule junctions by substituents

Fei Chen, Qing-Man Liang, Long-Xing Lin, Qian-Chong Zhang* and Yang Yang*

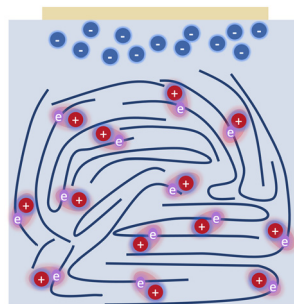


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On the fundamentals of organic mixed ionic/electronic conductors

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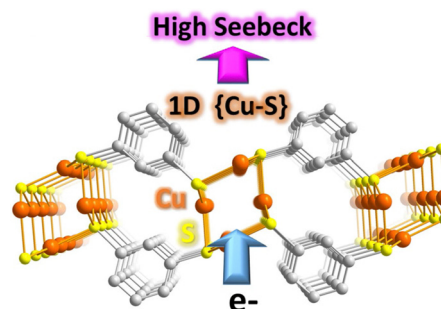


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A p-type semi-conducting copper(I)-1,3-benzenedithiolate 2D coordination polymer with high Seebeck coefficient

Chloé Andrade, Saly Hawila, Ahmad Abdallah, Jean-Luc Rukemampunzi, Adel Mesbah, Nathalie Guillou, Florent Perret, Stefan Wuttke, Thomas Niehaus, Régis Debord, Olivier Boisson, Stéphane Pailhès* and Aude Demessence*

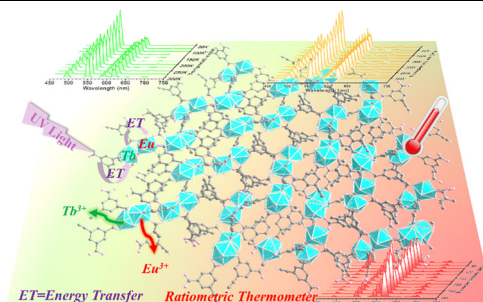


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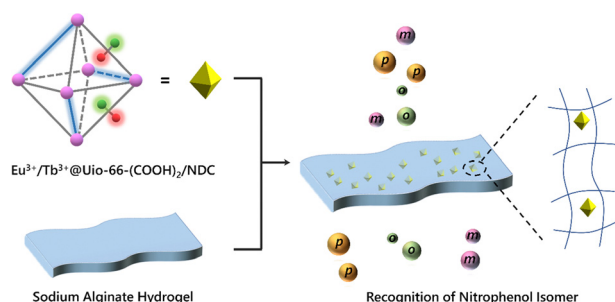
Hypersensitive ratiometric temperature sensing in a bimetallic lanthanide metal-organic framework

Jing-Wen Hu, Xue-Yan Wang, Jun Xu, Xi-Yan Dong* and Chong Zhang*



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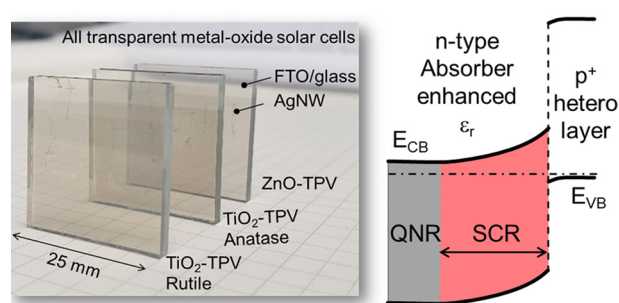
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A MOF/hydrogel film-based array sensor for discriminative detection of nitrophenol isomers

Gaowei Wang, Zhengluan Liao, Ziwei Jiang, Wenqian Cao, Yu Yang,* Guodong Qian and Yuanjing Cui*

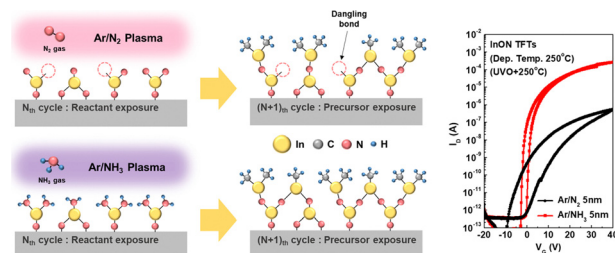
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A study of the optical properties of wide bandgap oxides for a transparent photovoltaics platform

Malkeshkumar Patel, Shuvaraj Ghosh, Jeong Eun Park, Jungeun Song, Dong-Wook Kim* and Joondong Kim*

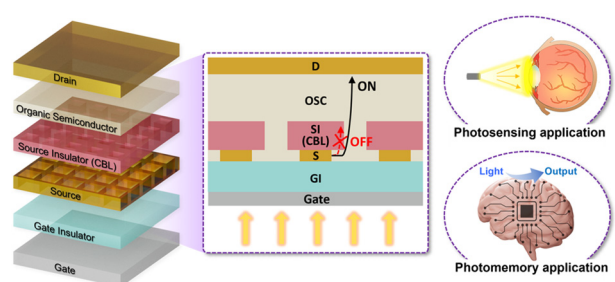
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Hyun-Mo Lee, Hye-Mi Kim, Yoon-Seo Kim and Jin-Seong Park*

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Engineered current path of vertical organic phototransistors for smart optoelectronic applications

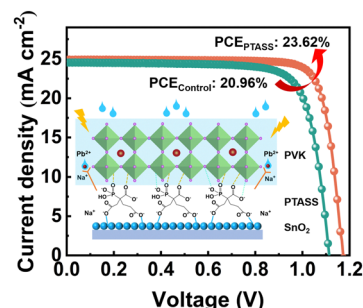
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Simultaneously enhancing the performance of perovskite solar cells and suppressing lead leakage via an interface modification strategy

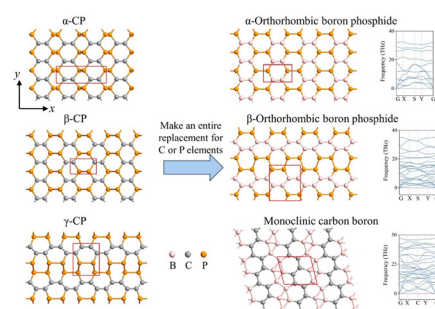
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Theoretical prediction of two-element two-dimensional layered structures and efficient doping engineering on carbon phosphide

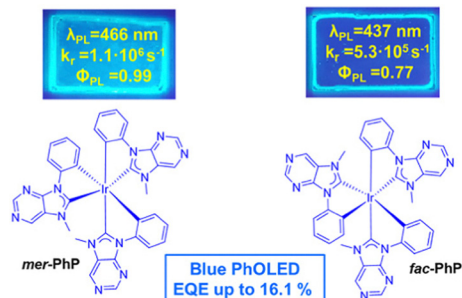
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Homoleptic purine-based NHC iridium(III) complexes for blue OLED application: impact of isomerism on photophysical properties

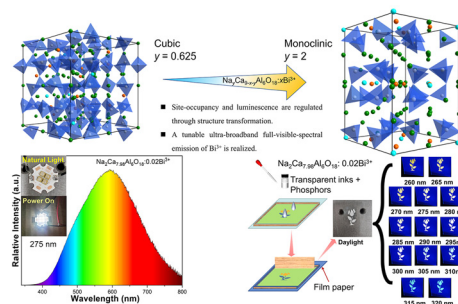
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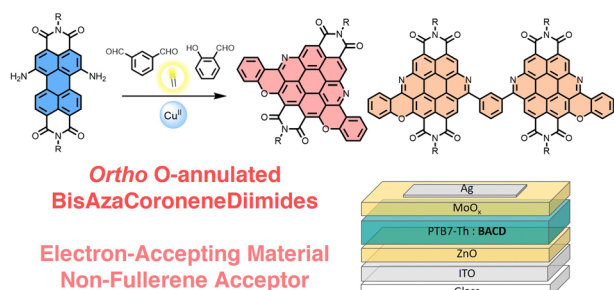
Tunable ultra-broadband full-visible-spectral emission of Bi³⁺-doped aluminate phosphors enabled by structure transformation and site occupancy engineering

Qingfeng Bian, Ge Zhu,* Zhuowei Li, Shanshan Li, Wen Xu, Yan Cong, Ming He, Shuangyu Xin and Bin Dong*



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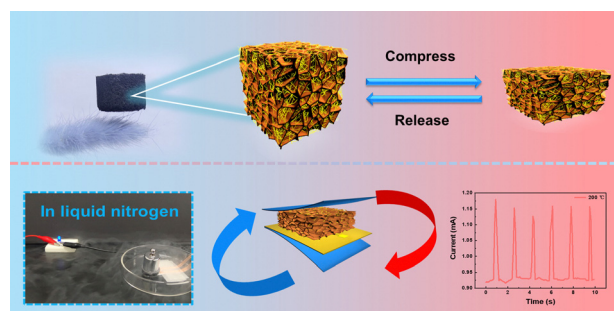
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ortho O-Annulated azabenzannulated perylenediimide and bisazacoronediimide

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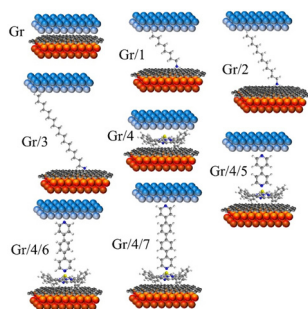
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Lightweight, superelastic, and temperature-resistant rGO/polysulfoneamide-based nanofiber composite aerogel for wearable piezoresistive sensors

Ziwen Wang, Zhen Qin, Biao Zhao, Han Zhu* and Kai Pan*

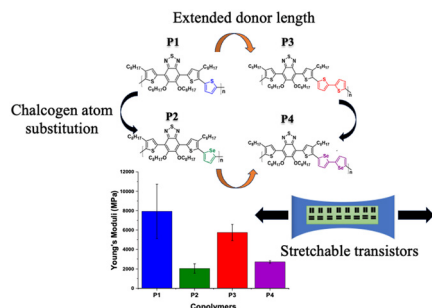
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High Seebeck coefficient from isolated oligo-phenyl arrays on single layered graphene *via* stepwise assembly

Xintai Wang,* Ali Ismael,* Bashayr Alanazi, Alaa Al-Jobory, Junsheng Wang* and Colin J. Lambert*

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Tailoring the mechanical properties of benzothiadiazole-based semiconducting polymers through chalcogen atom substitution

Piumi Kulatunga, Marc Comi, Tiago Carneiro Gomes, Moutasem Seifi, Robabeh Majidzadeh, Mohammed Al-Hashimi* and Simon Rondeau-Gagné*

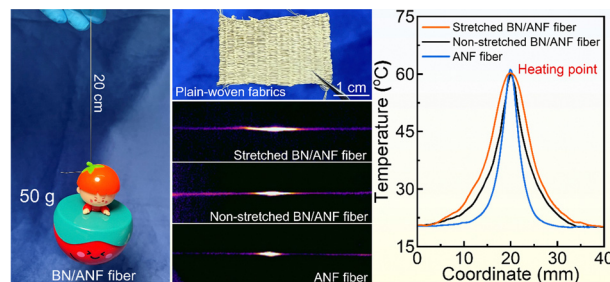


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Intensive and thermally conductive boron nitride/aramid nanofiber composite fibers fabricated *via* a wet spinning technique

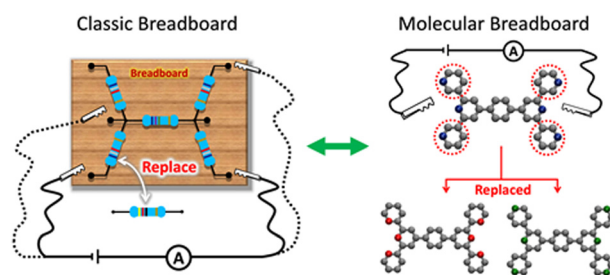
Derui Kong, Jizhen Zhang,* Zihao Hou, Xu Zhao, Ting Ren, Chuang Liu, Jinlong Tao, Na Kong and Yumei Gong*



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A conceptual framework for designing and analyzing complex molecular circuits

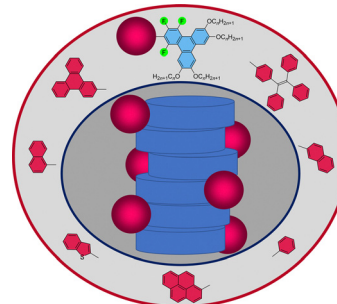
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2-Aryl-1,3,4-trifluoro-6,7,10,11-tetrakis(alkoxy)triphenylene: a remarkable and highly inclusive mesomorphic platform

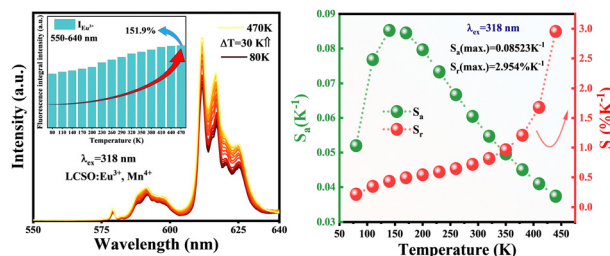
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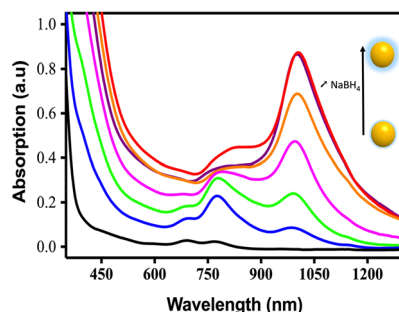
Suitable selection of high-energy state excitation to enhance the thermal stability of Eu^{3+} and the sensitivity of $\text{La}_2\text{CaSnO}_6:\text{Eu}^{3+}, \text{Mn}^{4+}$ temperature measuring materials

Feifei Duan, Lei Wang,* Qiufeng Shi, Haijie Guo, Jianwei Qiao,* Cai'e Cui and Ping Huang



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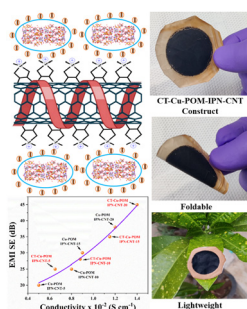
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Enhanced brightness of ultra-small gold nanoparticles in the second biological window through thiol ligand shell control

Walaa Mohammad, K. David Wegner, Clothilde Comby-Zerbino, Vanessa Trouillet, Marina Paris Ogayar, Jean-luc Coll, Riccardo Marin, Daniel Jaque Garcia, Ute Resch-Genger, Rodolphe Antoine* and Xavier Le Guével*

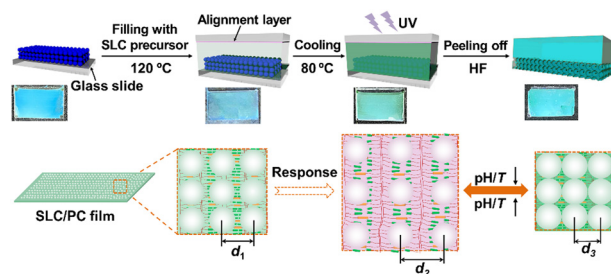
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Molecular metal oxide cluster-soldered interpenetrating polymer network "hosts" carbon nanotube "guest" for green millimeter wave absorption

Kunal Manna,* Ria Sen Gupta, Samir Mandal, Arya Swaminadhan, Soumi Dutta, Ketaki Samanta, Sk Safikul Islam, Amit Malakar and Suryasarathi Bose*

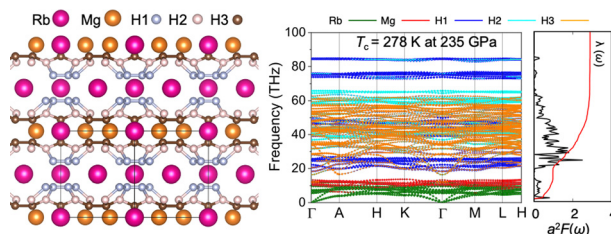
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A supramolecular liquid crystal/photonic crystal composite film with broad diffraction-wavelength shifts/fast responses to pH changes

Runzi Lu, Changjing Cheng, Li Wang, Huiyao Zhang, Hongju Zeng, Yanlin Wang, Jingya Wen, Xingbin Lv, Hairong Yu and Ting Liang*

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High- T_c superconductivity of polyhydride $\text{Rb}_2\text{MgH}_{18}$ with a layered hydrogen structure at high pressure

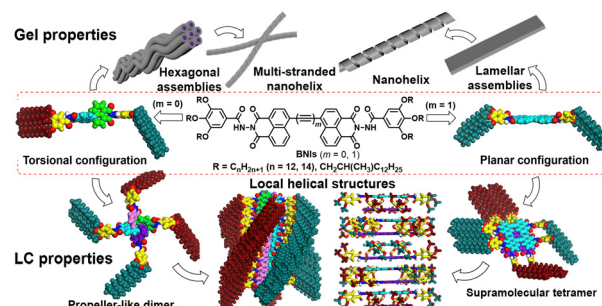
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Local and long-range helical structures of dendronized bisnaphthalimide mesogens with tunable torsional or planar configuration

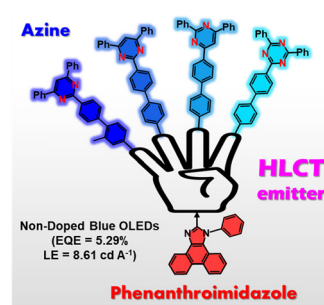
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Rational molecular design of phenanthroimidazole–azine derivatives for efficient non-doped blue organic light-emitting diodes with low-efficiency roll-off

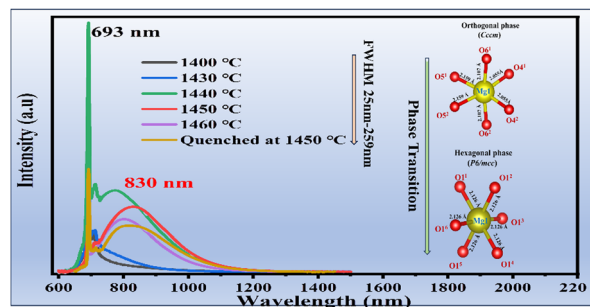
Pongsakorn Chasing, Jakkapan Kumsampao, Pattarapapa Janthakit, Phattananawee Nalaoh, Thidarat Loythaworn, Wijitra Waengdongbung, Praweena Wongkaew, Taweesak Sudyoasuk and Vinich Promarak*



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Broadening of the near-infrared emission band of the $\text{Mg}_2\text{Al}_4\text{Si}_5\text{O}_{18}:\text{Cr}^{3+}$ phosphor for illumination emission applications

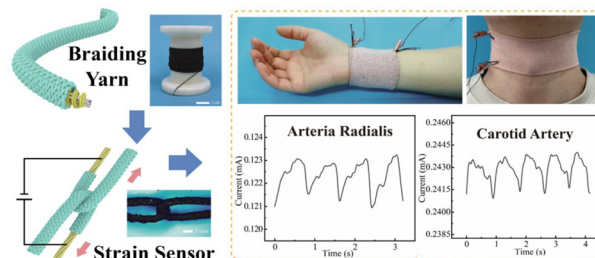
Zhibin Chen, Lehui Liu, Feifei Yuan, Yisheng Huang, Lizhen Zhang* and Zhoubin Lin



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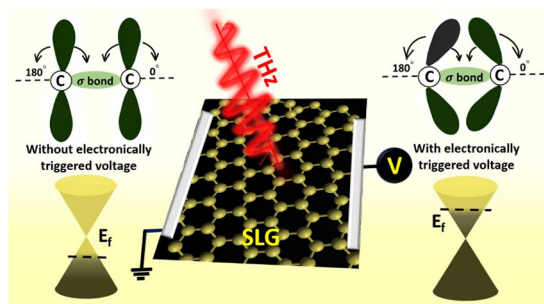
Knotted fiber-based strain sensors with tunable sensitivity and a sensing region for monitoring wearable physiological signals and human motion

Weibing Zhong, Weiwei Liu, Yiming Ke, Kangyu Jia, Xiaojuan Ming, Mufang Li, Dong Wang, Yan Chen* and Haiqing Jiang*



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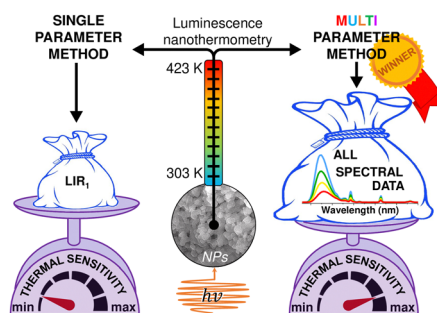
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Electronically triggered tunable terahertz signal observed in LPCVD grown single layer graphene

Saloni Sharma, Shreya Rane, Shubhda Srivastava, Z. A. Ansari, Dibakar Roy Chowdhury and Bipin Kumar Gupta*

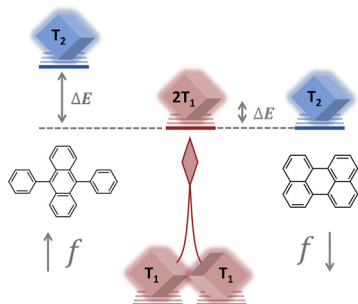
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Single vs. multiparametric luminescence thermometry: the case of Eu^{3+} -doped $\text{Ba}_3(\text{VO}_4)_2$ nanophosphors

Ilya E. Kolesnikov,* Daria V. Mamonova, Mikhail A. Kurochkin, Mikhail A. Khodasevich, Vassily A. Medvedev, Evgenii Yu. Kolesnikov and Alina A. Manshina

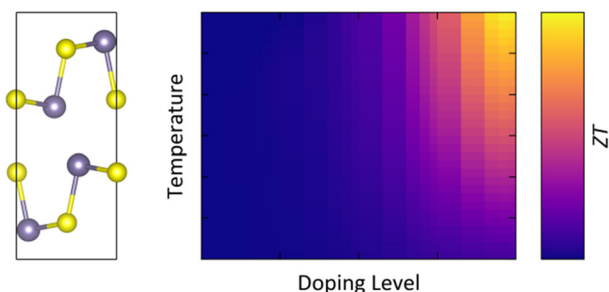
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The statistical probability factor in triplet mediated photon upconversion: a case study with perylene

Lukas Naimovičius, Edvinas Radiunas, Manvydas Dapkevičius, Pankaj Bharmoria, Kasper Moth-Poulsen* and Karolis Kazlauskas*

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Thermoelectric properties of $Pnma$ and $R3m$ GeS and GeSe

Min Zhang, Joseph M. Flitcroft, Sophie K. Guillemot and Jonathan M. Skelton*

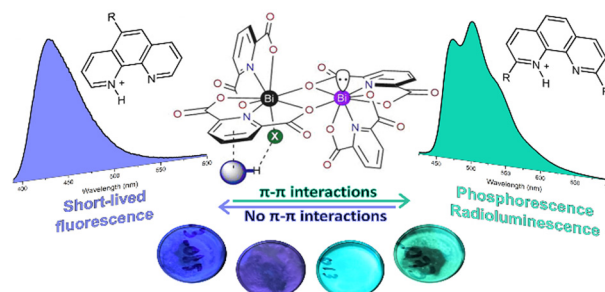


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Back in bismuth: controlling triplet energy transfer, phosphorescence, and radioluminescence via supramolecular interactions

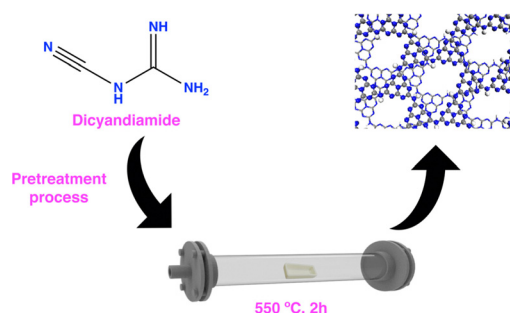
Alexander C. Marwitz, Aaron D. Nicholas, Rajani Thapa Magar, Anuj K. Dutta, Joel Swanson, Tyler Hartman, Jeffery A. Bertke, Jeffrey J. Rack, Luiz G. Jacobsohn and Karah E. Knope*



14865

Optimizing dicyandiamide pretreatment conditions for enhanced structure and electronic properties of polymeric graphitic carbon nitride

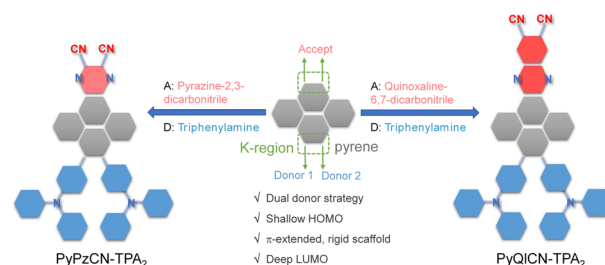
Ganesh Kesavan, Dan C. Sorescu, Zidao Zeng, Faezeh Askari, Yiwen He, Nathaniel L. Rosi and Alexander Star*



14876

Extending rigid electron-deficient skeletons and appending electron-rich units to build high-efficiency red-emitting pyrene-derived TADF materials

Xiang Chang, Kaiyu Lu, Kai Jiang, Bin Ma, Jingwei Huang, Xiangqin Gan, Yu Liu, Juntong Yu* and Weiguo Zhu*

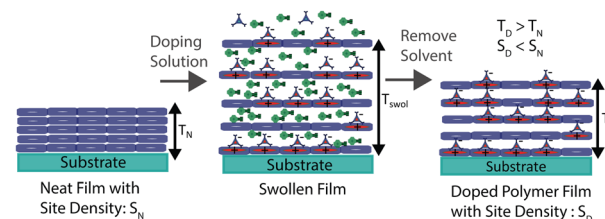


14884

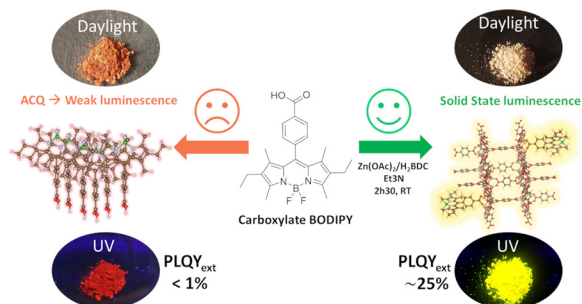
Quantifying polaron densities in sequentially doped conjugated polymers: exploring the upper limits of molecular doping and conductivity

Tucker L. Murrey,* Melissa Berteau-Rainville, Goktug Gonel, Jan Saska, Nikolay E. Shevchenko, Alice S. Ferguson, Rachel M. Talbot, Nichole L. Yacoub, Fengyu Zhang, Antoine Kahn, Mark Mascia, Ingo Salzmänn and Adam J. Moule*

Approaching Maximum Carrier Densities



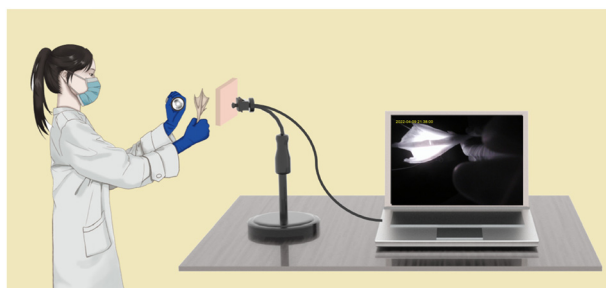
14896



Carboxylate BODIPY integrated in MOF-5: easy preparation and solid-state luminescence

Alexis Tran, Marion Leroux, Clément Michelin, François Réveret, Damien Boyer and Federico Cisnetti*

14906



High-power NIR-II LED of Nd³⁺ doped glass ceramics towards portable imaging

Xiaodie Zhu, Zhaowei Teng, Haitao Tang, Chao Wang, Ya Liu, Songcheng Peng, Zhichao Liu, Shiwen Zhang, Sibao Liu, Xuhui Xu* and Xue Yu*

