

Journal of Materials Chemistry C

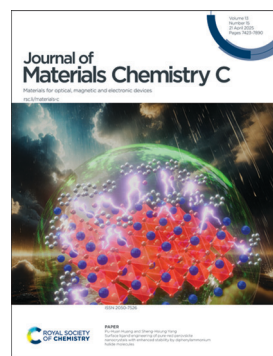
Materials for optical, magnetic and electronic devices

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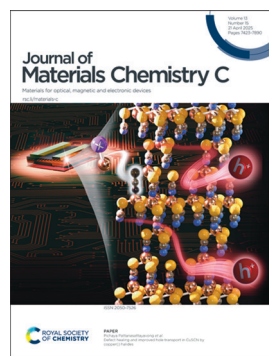
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Cover

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Inside cover

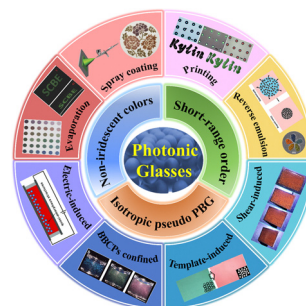
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REVIEW

7438

Quasi-ordered photonic glass materials: fabrication strategies, performance enhancement and applications

Qilin Guo and Changchun Wang*

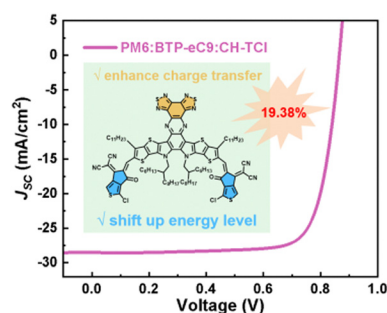


COMMUNICATION

7458

A thiophene end-capped centrally extended acceptor enables organic solar cells with efficiency over 19.3%

Kaihuai Tu, Xue Jiang, Gengsui Tian, Lei Liu, Yao Chen, Peihao Huang, Chen Chen, Hong liang Lei, Tainan Duan* and Zeyun Xiao*



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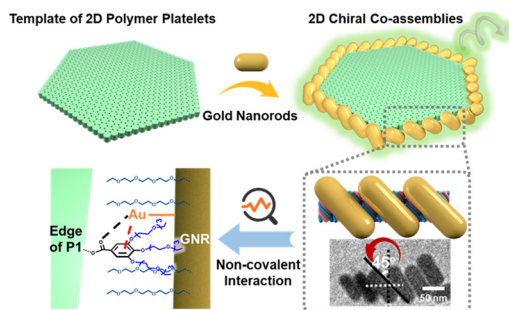
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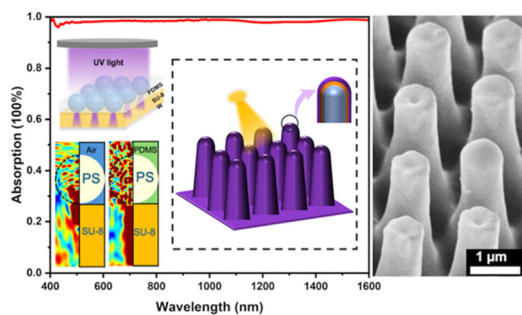
7502



Edge-directed rapid chiral assembly of gold nanorods by 2D hexagonal nanosheets of helical poly(phenylacetylene)s and the synergistic communication of circularly polarized luminescence

Peiyao Yu, Wenjing Zhao, Yihan Huang, Hua Zeng, Xinhua Wan and Jie Zhang*

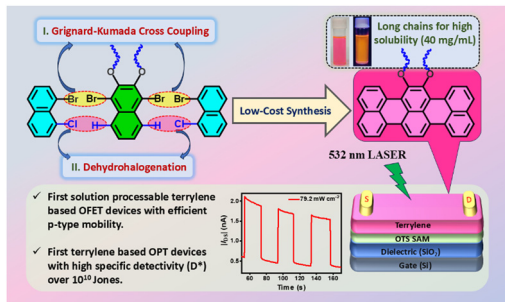
7509



High-aspect-ratio photoresist nanopillar arrays with broadband near-perfect optical absorption performance using PDMS-assisted colloidal lithography

Yuting Zhang, Zhengjie Guo, Gaoxiao Li, Ming Fu,* Xiaoyu Liu, Jiefeng Li, Chenhui Wei, Zheli Wu, Yuanhao Liu, Peixin Chu, Dawei He and Yongsheng Wang

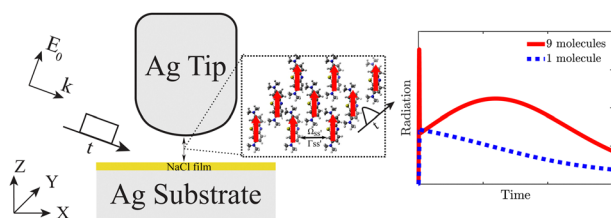
7518



Low-cost synthesis of soluble bay-substituted terrylenes for p-type charge transport and efficient photodetection on field-effect transistors

Chitrak Ghosh, Hayeong Park, Amrita Hazra, Buddhadeb Mondal, Minji Chung, Ullrich Scherf, Joon Hak Oh* and Suman Kalyan Samanta*

7528



Simulations of plasmon-mediated superradiance for molecules in STM-based nanocavity

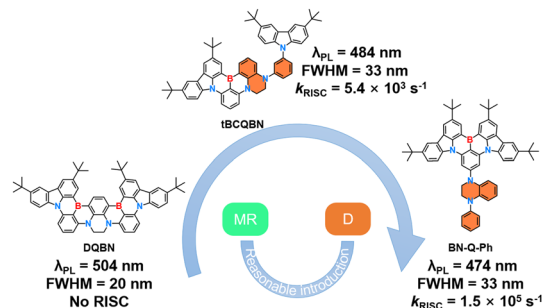
Siyuan Lyu, Yuan Zhang and Luxia Wang*



7537

Enhancing TADF emission and mitigating efficiency roll-off in OLEDs via reasonable tetrahydroquinoxaline-integrated organoboron based emitters

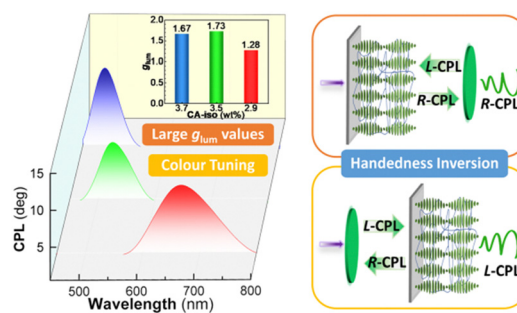
Hongwei Xie, Mengke Li, Zhizhi Li, Zijian Chen, Zhihai Yang, Kunkun Liu and Shi-Jian Su*



7544

Circularly polarized luminescence with large dissymmetry factors based on perovskite and cholesteric liquid crystal polymer network films

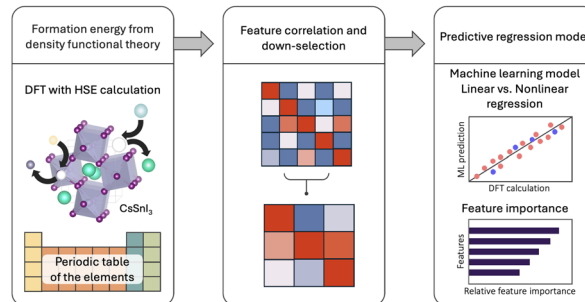
Liting Xu, Huajun Lei, Zongqi Li, Wei Liu,* Yi Li and Yonggang Yang*



7550

Defect formation in CsSnI₃ from density functional theory and machine learning

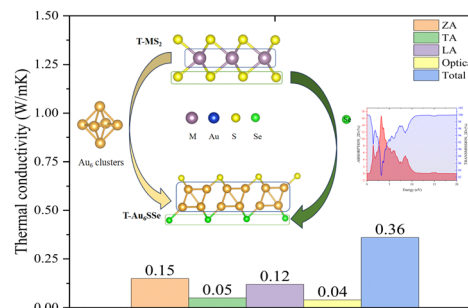
Chadawan Khamdang and Mengen Wang*



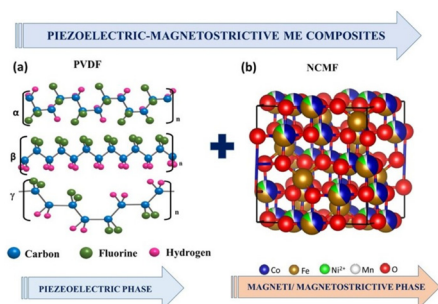
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The thermal transport, optical, and mechanical properties of 1T-Au₆SSe: a first-principles study

Jialu Li, Longji Luo, Pan Zhang, Siyu Gan, Xihao Chen and Ning Wang*



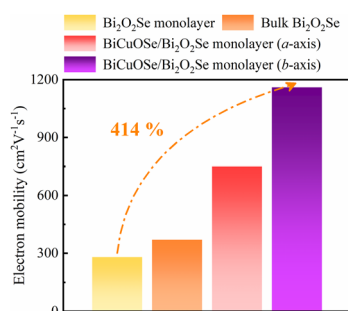
7569



Flexible PVDF–NCMF nanocomposites: a synergistic approach to enhanced magneto-dielectric properties and sensing performance

K. S. Deepa,* S. Premkumar, Suwarna Datar, V. L. Mathe,*
 C. V. Ramana* and Sunit B. Rane*

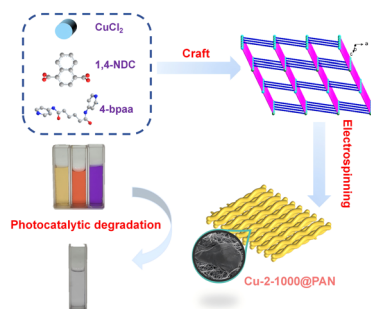
7583



Unique BiCuOSe/Bi₂O₂Se van der Waals monolayer with ultra-high electron mobility

Shan Feng, Wenguang Hu, Hangbo Qi, Zebin Wu,
 Xiaotao Zu, Liang Qiao and Haiyan Xiao*

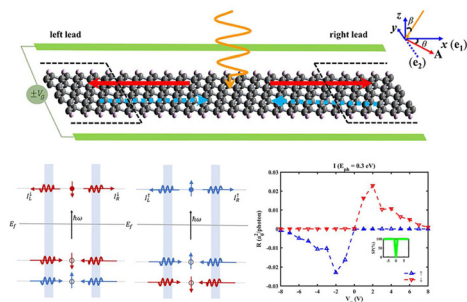
7591



Fabrication of Cu-MOFs derived nanofiber membranes for efficient removal of environmental pollutants

Wen-Ze Li, Fu-Yu Guo, Sheng Qu,* Jing Li, Yi Ru,
 Xiao-Sa Zhang, Yu Liu and Jian Luan*

7603



Bipolar fully spin-polarized photocurrents in zigzag graphene nanoribbons

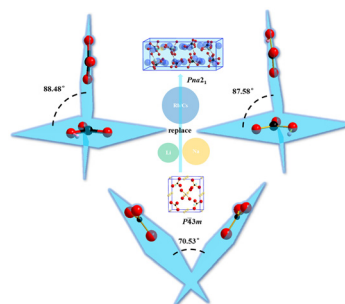
Xinlin Cui,* Yu Song, Yaqing Yang, Liwen Zhang and
 Lei Zhang



7609

$M_3\text{MoO}_4(\text{HCO}_3)$ ($M = \text{Rb}$ and Cs): cation-tuned synthesis of two noncentrosymmetric molybdate-carbonates with isolated $[\text{MoO}_4]$ and $[\text{HCO}_3]$ groups

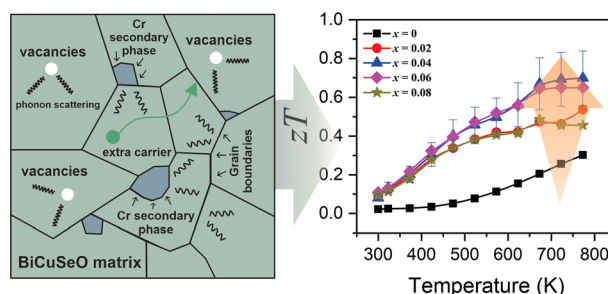
Jianlong Huang, Wenhui Wang, JuanJuan Lu* and Feng Yu*



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High thermoelectric performance of BiCuSeO by optimized carrier concentration and point defect scattering through a Cr-induced compositing effect

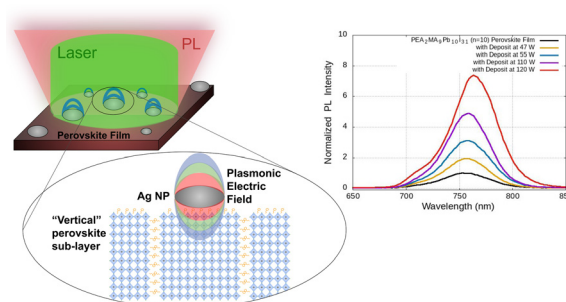
Asep Ridwan Nugraha,* Shamim Sk, Andrei Novitskii, Dedi, Fainan Failamani, Bambang Prijamboedi, Takao Mori and Agustinus Agung Nugroho



7625

Photoluminescence enhancement of quasi-2D perovskite films by plasmonic silver nanoparticles

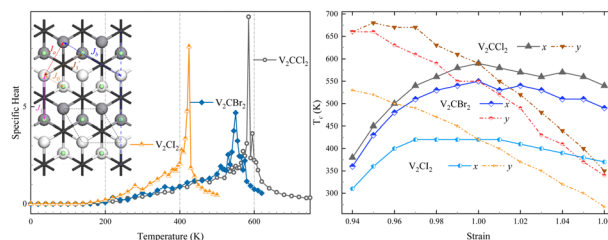
Emmanuel delaCruz-Pina, Carina Pareja-Rivera, Dulce Zugasti-Fernandez, Arturo Rodriguez-Gomez, Diego Solis-Ibarra* and Jorge Alejandro Reyes-Esqueda*



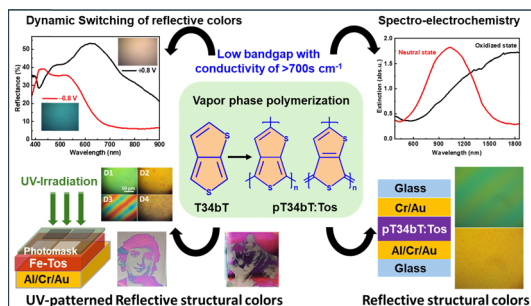
7634

Prediction of room-temperature antiferromagnetism in V_2CT_2 ($T = \text{Cl}, \text{Br}, \text{I}$) MXenes

Kan Luo,* Xianghua Kong, Shiyu Du and Hong Guo*



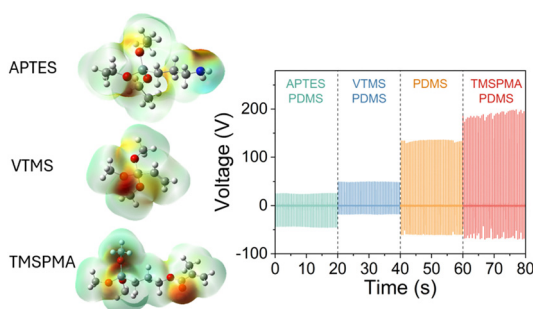
7643



Vapor phase polymerization of thieno-[3,4-*b*]thiophene-tosylate and its application for dynamic structural coloration

Mohammad Shaad Ansari, Stefano Rossi, Giancarlo Cincotti, Renee Kroon and Magnus P. Jonsson*

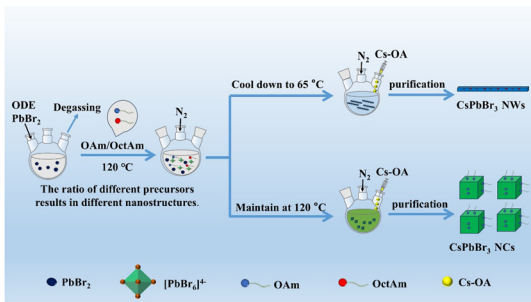
7654



Functionalized PDMS for regulating the triboelectric output of nanogenerators: a study of charge transfer mechanisms

Jiahao Ye, Tianhuai Xu, Liva Germane, Linards Lapcinskis, Andris Šutka and Jin-Chong Tan*

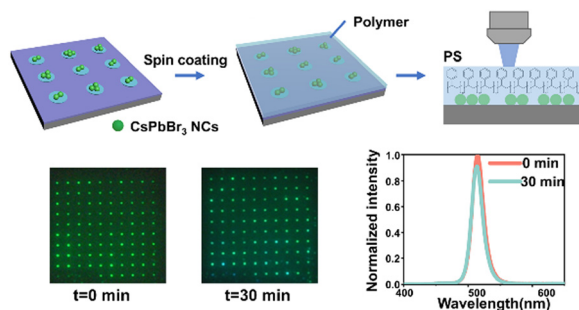
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Optimizing CsPbBr₃ nanowires for high-performance optoelectronics: focusing on blue shift and superfast kinetics through amine-rich synthesis

Junwei Zhou, Xiaohu Zhao, Yuanchen Jiang, Qingyuan Zhou, Yusheng He, Jiaxin Rui, Jianhui Sun and Kai Pan*

7671



Investigating perovskite nanocrystal stability through polymer encapsulation: a nano-array method

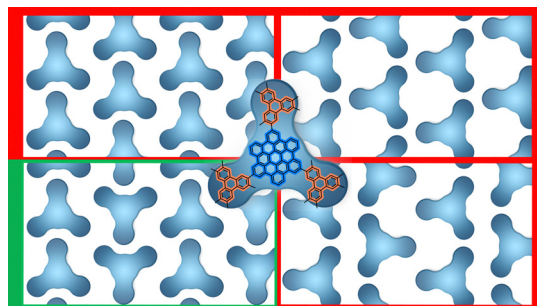
Jiayue Xu, Yuchen Zhang, Shan Liu, Weihua Zhang and Zhenda Lu*



7678

Design and mesomorphism of a triskelion shape-persistent HBC-TP hybrid: 2,8,14-tris(triphenylen-2-yl)hexabenzocoronene

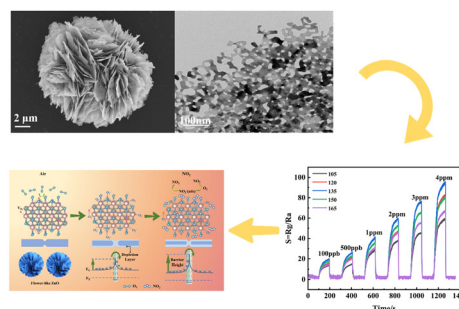
Xue Wu, Hang Lin, Xiao-Yan Bai, Ping Hu, Bi-Qin Wang, Ke-Qing Zhao* and Bertrand Donnio*



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3D flower-like architectures assembled by ZnO porous nanosheets with higher surface area for enhanced lower temperature NO₂ gas sensors

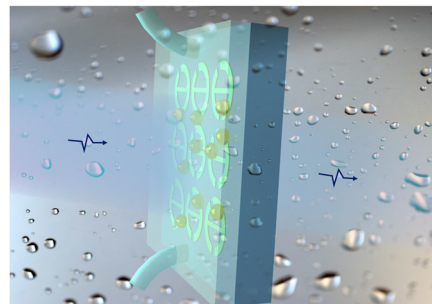
Yaxuan Zhang, Chun Li,* Chunsheng Zhou,* Lihao Lv, Mengyuan Ma, Kaixuan Yao and Lingmin Yu*



7696

Advancing trace liquid detection: colloidal gold-based quasi-BIC metamaterials in terahertz biosensing

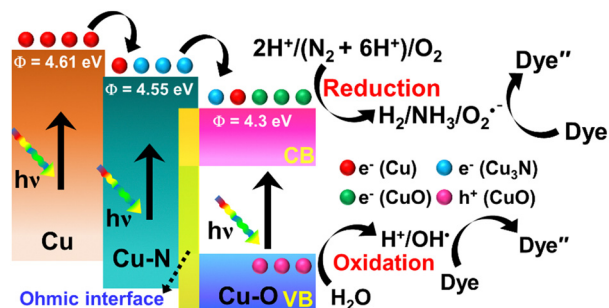
Rui Zhang, Xin Yan, Lanju Liang,* Guifang Wu, Ziqun Wang,* Haiyun Yao, Zhenhua Li, Xiaofei Hu, Shiwu Ma, Huihan Tian and Jie Huang*



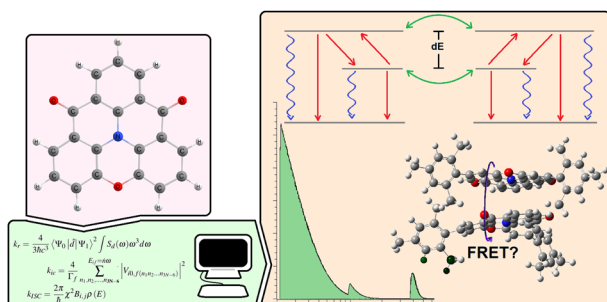
7707

In situ-engineered interfaces in copper oxynitride (Cu_xO_yN_z) systems with synergistic properties for photocatalytic H₂ production and N₂ fixation applications

Mithun Prakash Ravikumar, Toan-Anh Quach, Bharagav Urupalli, Mamatha Kumari Murikinati, Shankar Muthukonda Venkatakrishnan, Trong-On Do and Sakar Mohan*



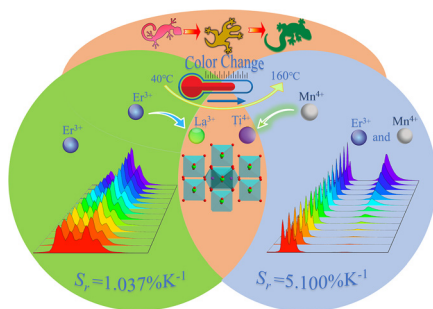
7726



Simulating thermally activated delayed fluorescence exciton dynamics from first principles

Anjay Manian,* Dylan Pryor, Zifei Chen, Wallace W. H. Wong and Salvy P. Russo

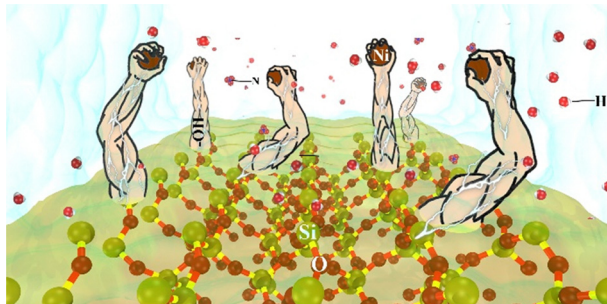
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A new luminescent material $\text{LaTiSbO}_6:\text{Mn}^{4+}/\text{Er}^{3+}$ with high optical temperature sensing sensitivity based on fluorescence intensity ratio

Shen-Long Zhang, Dan Zhao,* Rui-Juan Zhang, Qing-Xia Yao,* Lei Jia and Qiu Zong

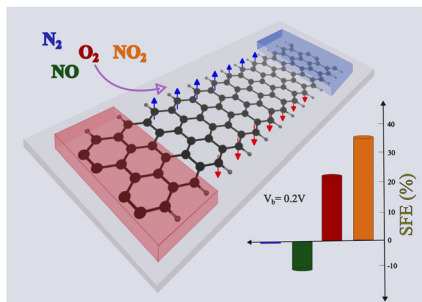
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Molecular perspective: study on the adsorption behavior of Ni^{2+} in solution on [001]-oriented and amorphous SiO_2 surfaces

Chuanzheng Zhang, Zhihong Qin* and Jia Jia

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Quantum spin sensors for open-shell molecules

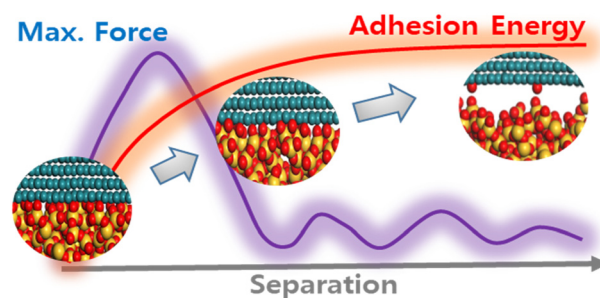
Shahjad Ali and Md. Ehesan Ali*



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Unraveling the adhesion characteristics of ruthenium as an advanced metal interconnect material using machine learning potential

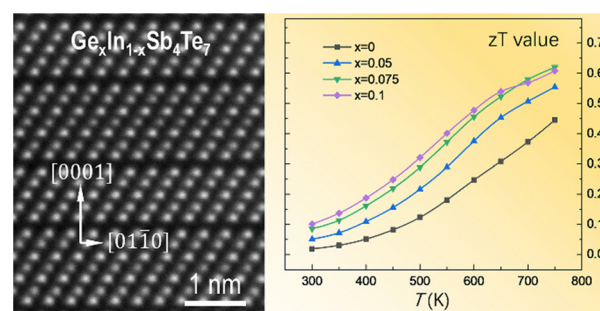
Eunseog Cho,* Won-Joon Son,* Seungmin Lee, Hyeon-Seok Do, Kyoungmin Min* and Dae Sin Kim



7785

Exploring structure and thermoelectric properties of p-type $\text{Ge}_{1-x}\text{In}_x\text{Sb}_4\text{Te}_7$ compounds

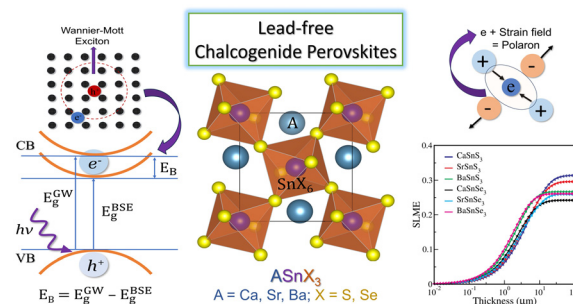
Peng Li, Hu Zhang, Lu Lu,* Wenpeng Jia, Yongli Liu, Weiwei Meng,* Chuanlin Zhang, Weiping Tong and Shao-Bo Mi*



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Post-transition metal Sn-based chalcogenide perovskites: a promising lead-free and transition metal alternative for stable, high-performance photovoltaics

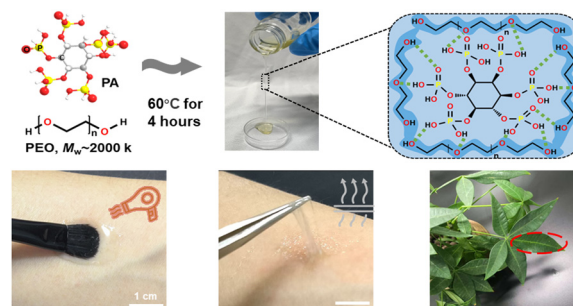
Surajit Adhikari,* Sankhasuvra Das and Priya Johari*



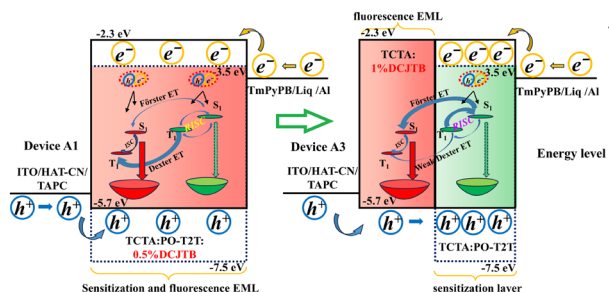
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Breathable, recyclable, and solvent-free conductive films: versatile processing for flexible biointerfaces

Yi Qian, Yuyu Zhang, Jinhao Huang, Qiongya Li, Fusheng Zhang* and Guangyan Qing*



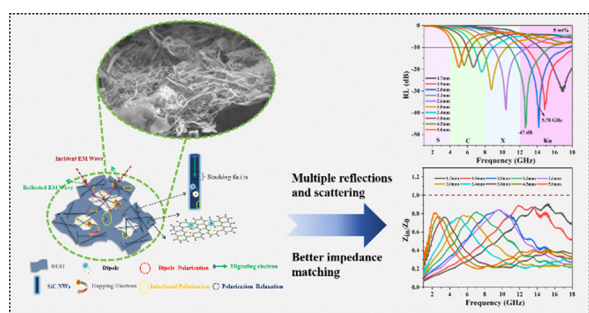
7815



Manipulating the energy transfer path to achieve a high-efficiency red fluorescent OLED by using a novel interface sensitization layer and multiple reverse intersystem crossing (RISC) channels

Guangyuan Wang, Zhiqi Kou,* Zeyu Jia, Zhenyong Guo, Xiangqiong Xie, Ruixing Wanghe and Zhu Ran

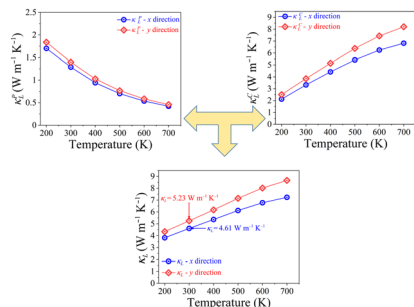
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Preparation of lightweight layered porous SiC nanowires/RGO composites with excellent electromagnetic wave absorption performance

Xue-Ting Li,* Kai Zhang, Jian Wei,* Yan-Bin Zhang, Zhuang Miao, Jia-Yi Hou and Yi Yao

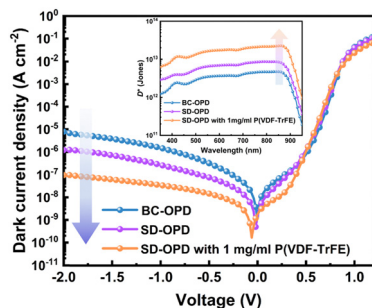
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Theoretical studies on the strong phonon coherence in the type-5 penta-PbN₈ sheet

Asghar Hussain, Chenxin Zhang, Peng-Hu Du, Qiang Sun* and Qian Wang*

7843



Developing an effective strategy to suppress dark current for high-performance planar photodetectors

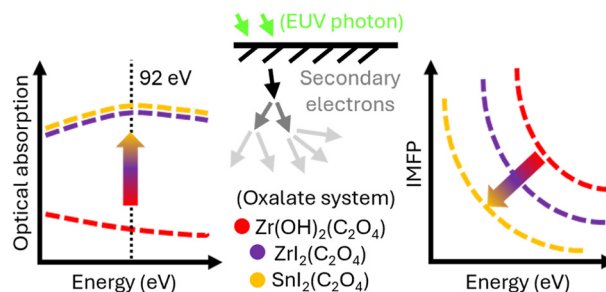
Bin Tang, Mingxin Sun, Tong Liu, Junjie Wang,* Jianxiao Wang, Xiaofei Qu* and Xichang Bao*



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First-principles study of metal and ligand substitution effects on EUV absorption and electron energy loss

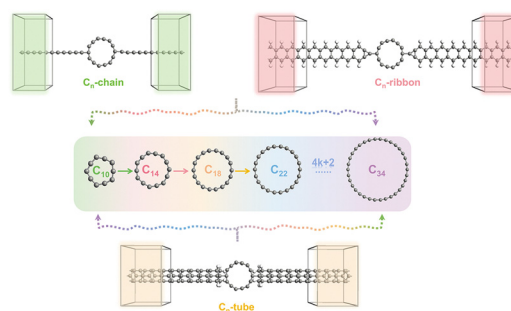
Florian Brette, Vishal Gupta and Geunsiik Lee*



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Negative differential resistance and transport regularity in aromatic cyclo[*n*]carbon-based ($n = 4k + 2$) molecular devices

Junnan Guo, Jie Li, Jian Huang, Wenhui Fang, Lishu Zhang, Weikang Wu* and Hui Li*



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Coplanar angle change inspired liquid polarity sensing based on pyrene bonded graphene nanoribbons

Junan Fang, Jiajing Wang, Jingyin Xu, Yaqin Han, Jiajing Zhang, Huaiyu Ye, Xuefeng He and Yufei Liu*

