

Journal of Materials Chemistry C

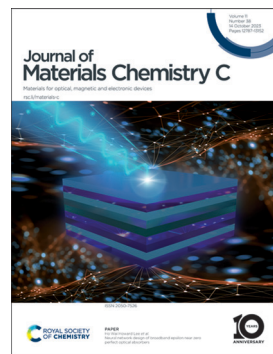
Materials for optical, magnetic and electronic devices

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IN THIS ISSUE

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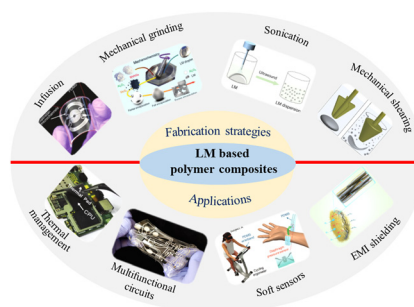
Journal of
Materials Chemistry C
2023 Emerging Investigators

REVIEWS

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A review on thermal and electrical behaviours of liquid metal-based polymer composites

Li-Chuan Jia, Yun-Fei Yue, Jian-Feng Zeng,
Zhi-Xing Wang, Run-Pan Nie,* Ling Xu,
Ding-Xiang Yan* and Zhong-Ming Li



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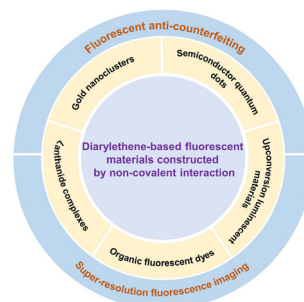


REVIEWS

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Photochromic diarylethene induced fluorescence switching materials constructed by non-covalent interactions

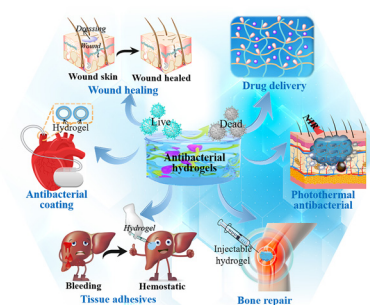
Qing-Feng Li, Longlong Zhang, Mengdan Shen, Jin-Tao Wang,* Lin Jin* and Zhenling Wang*



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Recent progress of antibacterial hydrogel materials for biomedical applications

Qian Wang, Xing Feng, Hong Xu, Guo Guo, Ying Li* and Qilong Zhang*

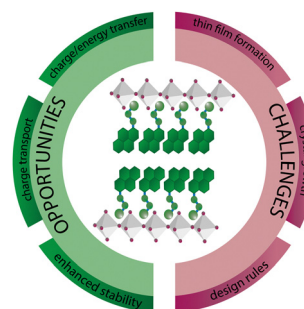


PERSPECTIVE

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2D and quasi-2D hybrid perovskites containing organic cations with an extended conjugated system: opportunities and challenges

Wouter T. M. Van Gompel,* Laurence Lutsen and Dirk Vanderzande

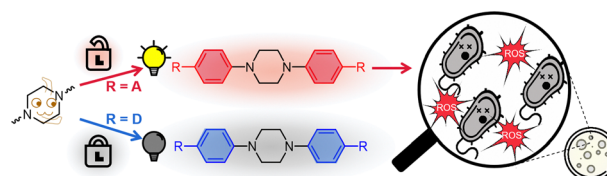


COMMUNICATIONS

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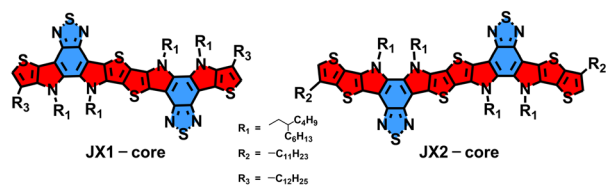
Piperazine: a promising building block for aggregation-induced emission materials

Tuokai Peng and Hui-Qing Peng*



COMMUNICATIONS

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Novel Tandem
Coupling D - A of
Moieties

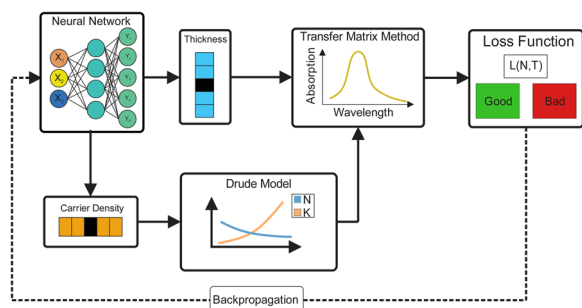
- > S,N-heteroacenes up to Dodecamer
- > NIR - II Absorption

A narrow-bandgap non-fullerene acceptor constructed with an S,N-heteroacene up to a dodecamer in size

Jiaxin Guo, Xinyuan Jia, Xiangjian Cao, Tengfei He, Huazhe Liang, Wendi Shi, Zheng Xu, Ruohan Wang, Yaxiao Guo,* Zhaoyang Yao,* Xiangjian Wan, Guankui Long, Chenxi Li and Yongsheng Chen*

PAPERS

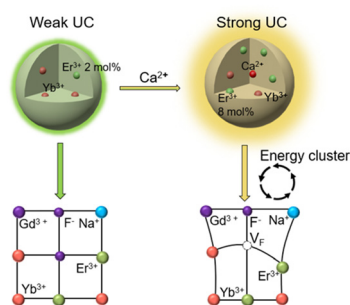
12906



Neural network design of broadband epsilon near zero perfect optical absorbers

David Dang, Aleksei Anopchenko, Sudip Gurung, Zoey Liu, Xuguo Zhou and Ho Wai Howard Lee*

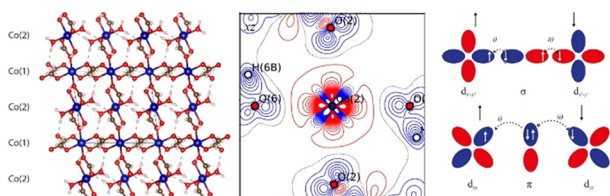
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Enhancing upconversion *via* constructing local energy clusters in lanthanide-doped fluoride nanoparticles

Haolin Yang, Anshuo Zhang, Hai Guo,* Denghao Li, Shiqing Xu* and Lei Lei*

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Elucidating the superexchange mechanisms in magnetic coordination polymer $[Co(HCOO)_2(H_2O)_2]_{\infty}$ through chemical bonding analysis

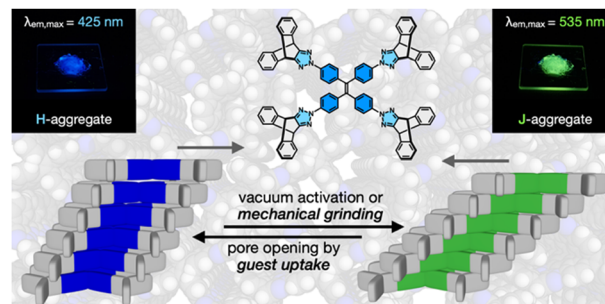
Thomas Bjørn Egede Grønbech, Lennard Krause, Davide Ceresoli* and Bo Brummerstedt Iversen*



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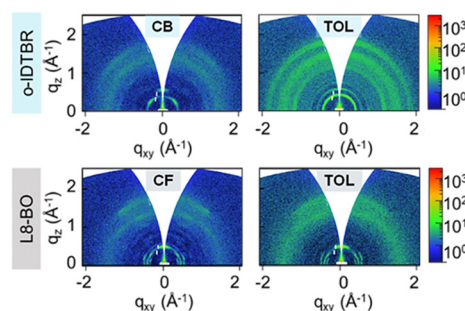
Hongsik Kim, Hyejin Yoo, Jin Yeong Kim and Dongwhan Lee*



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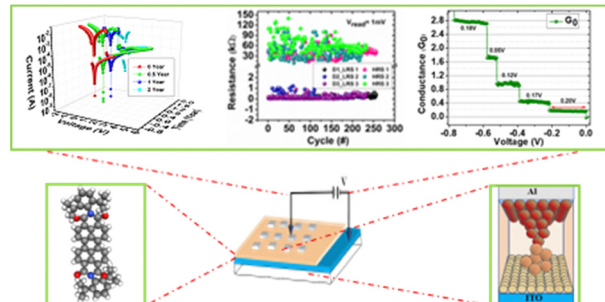
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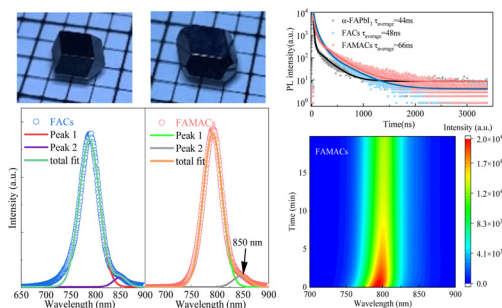
Arti Bisht, Nitish Saini, Komal Bhardwaj, Rachana Kumar and Ajeet Kumar*



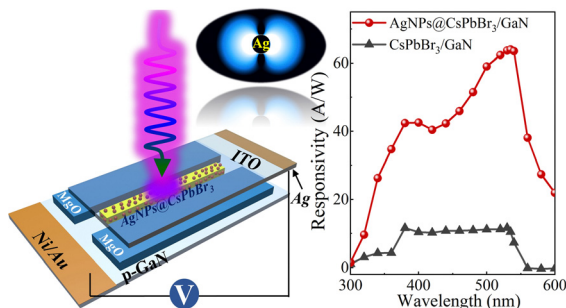
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Synergistic enhancement of the optoelectronic performance and stability of MA and Cs in FA_xMA_yCs_{1-x-y}PbI_zBr_{3-z} single crystals

Kaiyu Wang, Feitong Chen, Qing Yao, Jie Zhang, Hailing Zhu, Weiwei Zhang, Xiaoyuan Zhan, Shenglai Wang* and Jianxu Ding*



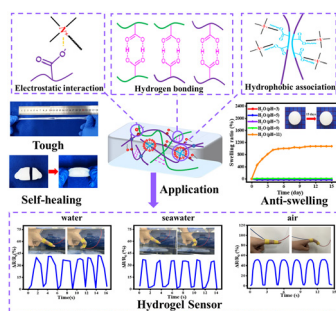
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Plasmon-enhanced photoresponse and stability of a CsPbBr₃ microwire/GaN heterojunction photodetector with surface-modified Ag nanoparticles

Chengxin Lin, Peng Wan, Bingwang Yang, Daning Shi, Caixia Kan* and Mingming Jiang*

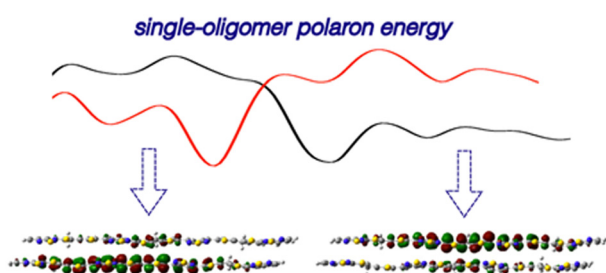
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Anti-swelling hydrogels based on surfactant-polymer interactions for underwater sensing with excellent mechanical properties

Yue Cai, Kaizhen Wan, Qihui Chen, Maochun Hong, Zhao-Xi Zhou* and Heqing Fu*

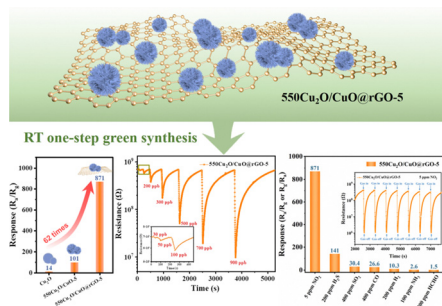
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Fabian Bauch, Chuan-Ding Dong* and Stefan Schumacher

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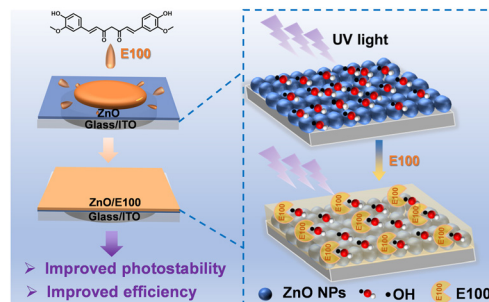
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Simultaneous improvement in efficiency and photostability of organic solar cells by modifying the ZnO electron-transport layer with curcumin

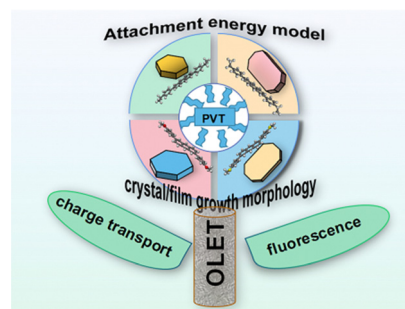
Yue Liu, Hang Yang, Yue Wu, Hongyu Fan, Xiaoxiao Li, Kewei Hu, Chaohua Cui* and Yongfang Li



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The effect of heteroatoms at end groups of anthracene derivatives on the photoelectric properties and crystal/film morphology: a theoretical perspective

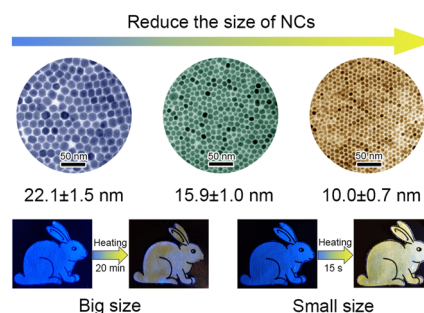
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Phase transition and rapid temperature response of lead-free perovskite Cs–Cu–I nanocrystals enabled by their size

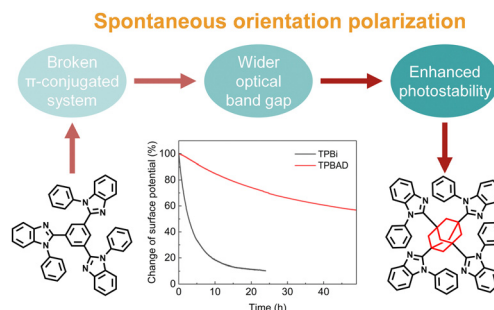
Jie Chen, Yu Li, Zhe Yin,* Shuaibing Wang, Ouyang Lin, Wentao Niu, Feng Teng* and Aiwei Tang*



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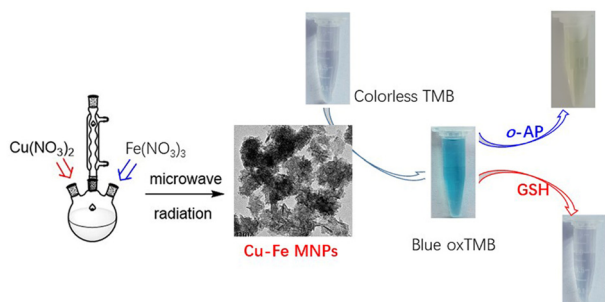
Stable spontaneous orientation polarization by widening the optical band gap with 1,3,5,7-tetrakis(1-phenyl-1H-benzo[d]imidazol-2-yl)-adamantane

Wei-Chih Wang, Kyohei Nakano, Yuya Tanaka, Keisuke Kurihara, Hisao Ishii, Kiyohiro Adachi, Daisuke Hashizume, Chain-Shu Hsu* and Keisuke Tajima*



PAPERS

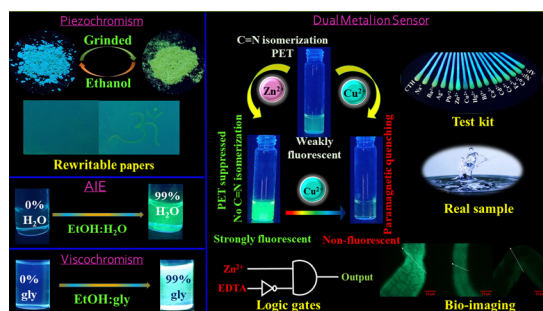
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Peroxidase-like Cu–Fe bimetal oxide mesoporous nanospheres identified for the efficient recognition of toxic *o*-aminophenol and bioactive glutathione

Xuemei Zhou, Lingmin Kong, Junkai Hao, Jing Feng, Shuo Sun, Chuanzhen Zhou, Yanmin Liu, Zhengquan Yan,* Xiao Zhu and Lei Hu*

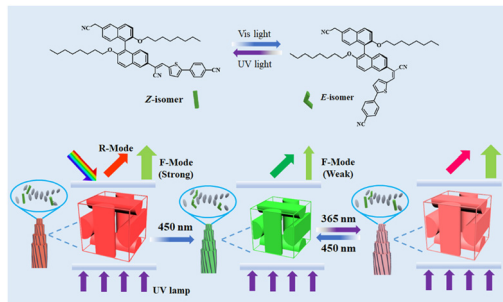
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A multifunctional coumarin-based probe for distinguishable detection of Cu²⁺ and Zn²⁺: its piezochromic, viscochromic and AIE behavior with real sample analysis and bio-imaging applications

Aayoosh Singh, Pranjalee Yadav, Saumya Singh, Pradeep Kumar, S. Srikrishna and Vinod P. Singh*

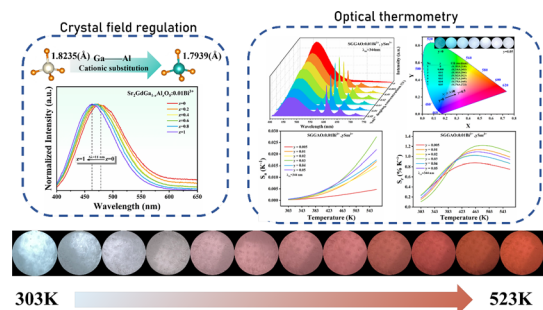
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Simultaneous optical tuning of reflection and fluorescence in a self-organized simple 3D cubic structure by α -cyanodiarylethene-based chiral fluorescence photoswitches

Jingjing Wang, Yanrong He, Shan Li, Qingyan Fan and Jinbao Guo*

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Multicolor tunable Bi³⁺, Sm³⁺ co-doped Sr₂GdGaO₅ phosphor and its application in optical thermometry

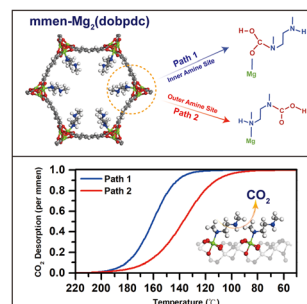
Kangrui Qiang, Yingqiang Yu, Yulong Ye, Liang Liang, Qinan Mao, Yang Ding, Yiwen Zhu, Meijiao Liu and Jiasong Zhong*



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Insights into the capture mechanism of CO₂ by diamine-appended Mg₂(dobpdc): a combined DFT and microkinetic modeling study

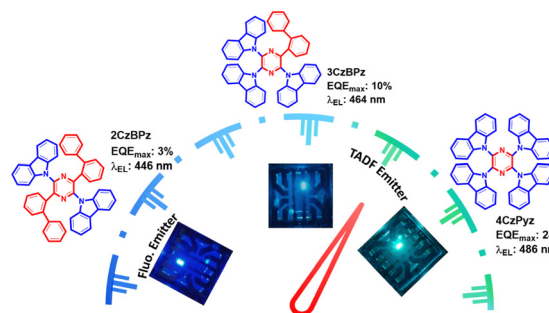
Kuan-Yu Lin, Zhong-Ming Xie, Lu-Sheng Hong and Jyh-Chiang Jiang*



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Tuning the emission and exciton utilization mechanisms of pyrazine-based multi-carbazole emitters and their use in organic light-emitting diodes

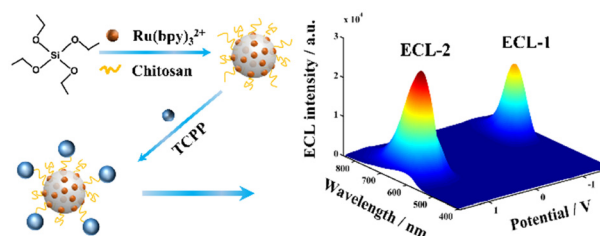
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Tetrakis (4-carboxyphenyl) porphyrin and Ru(bpy)₃²⁺ modified SiO₂ nanospheres for potential and wavelength resolved electrochemiluminescence

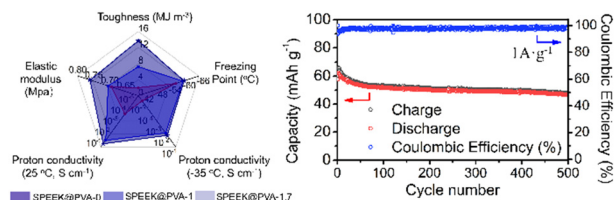
Mingquan Guo, Jiangnan Shu,* Dexin Du, Yisha Wang and Hua Cui*



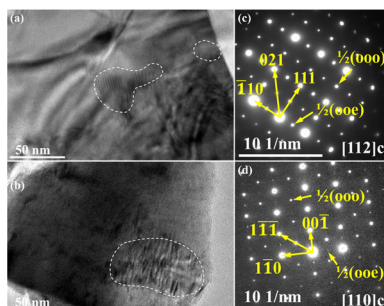
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A freezing-tolerant superior proton conductive hydrogel comprised of sulfonated poly(ether-ether-ketone) and poly(vinyl-alcohol) as a quasi-solid-state electrolyte in a proton battery

Hao Dong, Lin-Lin Wang, Zhi-Rong Feng, Jie Song, Qiao Qiao,* Yu-Ping Wu and Xiao-Ming Ren*



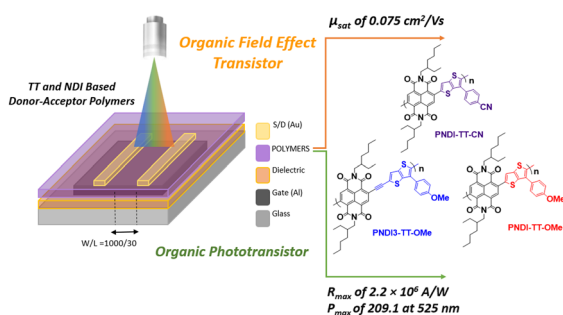
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Energy storage performance of NaNbO_3 lead-free dielectric ceramics by doping $\text{Sr}(\text{Mg}_{1/3}\text{Sb}_{2/3})\text{O}_3$

Qinpeng Dong, Peng Nong, Yue Pan, Dafu Zeng, Mingzhao Xu, Huanfu Zhou, Xu Li* and Xiuli Chen*

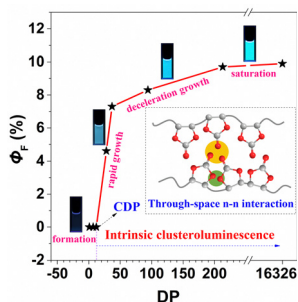
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Synthesis and characterization of naphthalenediimide-thienothiophene-conjugated polymers for OFET and OPT applications

Dilara Gunturkun, Recep Isci, Sheida Faraji, Berkay Sütay, Leszek A. Majewski and Turan Ozturk*

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Polymerization-induced clusteroluminescence of poly(cyclic carbonate)s

Bin Liu,* Genghong Huang, Hu-liang Lu, Kang Chen, Zishan Yan, Ya-Ling Wang, Bo Chu, Fu-de Ren, Yongzhen Yang and Xing-Hong Zhang*

