Light | Science & Applications

ESI Hot Papers in July 2024

1. Advanced liquid crystal devices for augmented reality and virtual reality displays: principles and applications
   Kun Yin, En-Lin Hsiang, Junyu Zou, Yannanqi Li, Zhiyong Yang, Qian Yang, Po-Cheng Lai, Chih-Lung Lin & Shin-Tson Wu
   Light Sci Appl **11**, 161 (2022). DOI: 10.1038/s41377-022-00851-3

2. Dielectric metalens for miniaturized imaging systems: progress and challenges
   Meiyan Pan, Yifei Fu, Mengjie Zheng, Hao Chen, Yujia Zang, Huigao Duan, Qiang Li, Min Qiu & Yueqiang Hu
   Light Sci Appl **11**, 195 (2022). DOI: 10.1038/s41377-022-00885-7

3. Towards higher-dimensional structured light
   Chao He, Yijie Shen & Andrew Forbes
   Light Sci Appl **11**, 205 (2022). DOI: 10.1038/s41377-022-00897-3

4. Liquid crystal-templated chiral nanomaterials: from chiral plasmonics to circularly polarized luminescence
   Xuan Zhang, Yiyi Xu, Cristian Valenzuela, Xinfang Zhang, Ling Wang, Wei Feng & Quan Li
   Light Sci Appl **11**, 223 (2022). DOI: 10.1038/s41377-022-00913-6

5. Formation and fluorescent mechanism of red emissive carbon dots from *o*-phenylenediamine and catechol system
   Pengfei Li, Shanshan Xue, Lu Sun, Xupeng Zong, Li An, Dan Qu, Xiayan Wang & Zaicheng Sun
   Light Sci Appl **11**, 298 (2022). DOI: 10.1038/s41377-022-00984-5

6. Phase-controlled van der Waals growth of wafer-scale 2D $MoTe_2$ layers for integrated high-sensitivity broadband infrared photodetection
   Di Wu, Chenguang Guo, Longhui Zeng, Xiaoyan Ren, Zhifeng Shi, Long Wen, Qin Chen, Meng Zhang, Xin Jian Li, Chong-Xin Shan & Jiansheng Jie
   Light Sci Appl **12**, 5 (2023). DOI: 10.1038/s41377-022-01047-5

7. Integrated metasurfaces for re-envisioning a near-future disruptive optical platform
   Younghwan Yang, Junhwa Seong, Minseok Choi, Junkyeong Park, Gyeongtae Kim, Hongyoon Kim, Junhyeon Jeong, Chunghwan Jung, Joohoon Kim, Gyoseon Jeon, Kyung-il Lee, Dong Hyun Yoon & Junsuk Rho
   Light Sci Appl **12**, 152 (2023). DOI: 10.1038/s41377-023-01169-4

8. Near infrared emissions from both high efficient quantum cutting (173%) and nearly-pure-color upconversion in $NaY(WO_4)_2:Er^{3+}/Yb^{3+}$ with thermal management capability for silicon-based solar cells
   Duan Gao, Baojiu Chen, Xuezhu Sha, Yuhang Zhang, Xin Chen, Li Wang, Xizhen Zhang, Jinsu Zhang, Yongze Cao, Yichao Wang, Lei Li, Xiangping Li, Sai Xu, Hongquan Yu & Lihong Cheng
   Light Sci Appl **13**, 17 (2024). DOI: 10.1038/s41377-023-01365-2