

Outstanding Papers in 2022

[Augmented reality and virtual reality displays: emerging technologies and future perspectives](#)

Jianghao Xiong, En-Lin Hsiang, Ziqian He, Tao Zhan & Shin-Tson Wu

Light: Science & Applications 2021, **10**: 216; doi: 10.1038/s41377-021-00658-8

[Thermally stable and highly efficient red-emitting Eu³⁺-doped Cs₃GdGe₃O₉ phosphors for WLEDs: non-concentration quenching and negative thermal expansion](#)

Peipei Dang, Guogang Li, Xiaohan Yun, Qianqian Zhang, Dongjie Liu, Hongzhou Lian, Mengmeng Shang & Jun Lin

Light: Science & Applications 2021, **10**: 29; doi: 10.1038/s41377-021-00469-x

[Spin-decoupled metasurface for simultaneous detection of spin and orbital angular momenta via momentum transformation](#)

Yinghui Guo, Shicong Zhang, Mingbo Pu, Qiong He, Jinjin Jin, Mingfeng Xu, Yaxin Zhang, Ping Gao & Xiangang Luo

Light: Science & Applications 2021, **10**: 63; doi: 10.1038/s41377-021-00497-7

[High-performance quasi-2D perovskite light-emitting diodes: from materials to devices](#)

Li Zhang, Changjiu Sun, Tingwei He, Yuanzhi Jiang, Junli Wei, Yanmin Huang & Mingjian Yuan

Light: Science & Applications 2021, **10**: 61; doi: 10.1038/s41377-021-00501-0

[Polarisation optics for biomedical and clinical applications: a review](#)

Chao He, Honghui He, Jintao Chang, Binguo Chen, Hui Ma & Martin J. Booth

Light: Science & Applications 2021, **10**: 194; doi: 10.1038/s41377-021-00639-x

[Interlayer exciton formation, relaxation, and transport in TMD van der Waals heterostructures](#)

Ying Jiang, Shula Chen, Weihao Zheng, Biyuan Zheng & Anlian Pan

Light: Science & Applications 2021, **10**: 72; doi: 10.1038/s41377-021-00500-1

[Progress on AlGaIn-based solar-blind ultraviolet photodetectors and focal plane arrays](#)

Qing Cai, Haifan You, Hui Guo, Jin Wang, Bin Liu, Zili Xie, Dunjun Chen, Hai Lu, Youdou Zheng & Rong Zhang

Light: Science & Applications 2021, **10**: 94; doi: 10.1038/s41377-021-00527-4

[Silicon/2D-material photodetectors: from near-infrared to mid-infrared](#)

Chaoyue Liu, Jingshu Guo, Laiwen Yu, Jiang Li, Ming Zhang, Huan Li, Yaocheng Shi & Daoxin Dai

Light: Science & Applications 2021, **10**: 123; doi: 10.1038/s41377-021-00551-4

[Plasmonic tweezers: for nanoscale optical trapping and beyond](#)

Yuquan Zhang, Changjun Min, Xiujie Dou, Xianyou Wang, Hendrik Paul Urbach, Michael G. Somekh & Xiaocong Yuan

Light: Science & Applications 2021, **10**: 59; doi: 10.1038/s41377-021-00474-0

[Review of biosensing with whispering-gallery mode lasers](#)

Nikita Toropov, Gema Cabello, Mariana P. Serrano, Rithvik R. Gutha, Matías Rafti & Frank Vollmer

Light: Science & Applications 2021, **10**: 42; doi: 10.1038/s41377-021-00471-3