

# Outstanding Papers in 2021

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## [Mini-LED, Micro-LED and OLED displays: present status and future perspectives](#)

Yuge Huang, En-Lin Hsiang, Ming-Yang Deng and Shin-Tson Wu

*Light: Science & Applications* 2020, **9**: 105; doi: 10.1038/s41377-020-0341-9

## [Ultrafast and broadband photodetectors based on a perovskite/organic bulk heterojunction for large-dynamic-range imaging](#)

Chenglong Li, Hailu Wang, Fang Wang, Tengfei Li, Mengjian Xu, Hao Wang, Zhen Wang, Xiaowei Zhan, Weida Hu and Liang Shen

*Light: Science & Applications* 2020, **9**: 31; doi: 10.1038/s41377-020-0264-5

## [Strategies to approach high performance in Cr<sup>3+</sup>-doped phosphors for high-power NIR-LED light sources](#)

Zhenwei Jia, Chenxu Yuan, Yongfu Liu, Xiao-Jun Wang, Peng Sun, Lei Wang, Haochuan Jiang and Jun Jiang

*Light: Science & Applications* 2020, **9**: 86; doi: 10.1038/s41377-020-0326-8

## [Micro-light-emitting diodes with quantum dots in display technology](#)

Zhaojun Liu, Chun-Ho Lin, Byung-Ryool Hyun, Chin-Wei Sher, Zhijian Lv, Bingqing Luo, Fulong Jiang, Tom Wu, Chih-Hsiang Ho, Hao-Chung Kuo and Jr-Hau He

*Light: Science & Applications* 2020, **9**: 83; doi: 10.1038/s41377-020-0268-1

## [Recent advances in 2D, 3D and higher-order topological photonics](#)

Minkyung Kim, Zubin Jacob and Junsuk Rho

*Light: Science & Applications* 2020, **9**: 130; doi: 10.1038/s41377-020-0331-y

## [Low-dose real-time X-ray imaging with nontoxic double perovskite scintillators](#)

Wenjuan Zhu, Wenbo Ma, Yirong Su, Zeng Chen, Xinya Chen, Yaoguang Ma, Lizhong Bai, Wenge Xiao, Tianyu Liu, Haiming Zhu, Xiaofeng Liu, Huafeng Liu, Xu Liu and Yang (Michael) Yang

*Light: Science & Applications* 2020, **9**: 112; doi: 10.1038/s41377-020-00353-0

## [Ten years of spasers and plasmonic nanolasers](#)

Shaimaa. Azzam<sup>1</sup>, Alexander V. Kildishev, Ren-Min Ma, Cun-Zheng Ning, Rupert Oulton, Vladimir M. Shalaev, Mark I. Stockman, Jia-Lu Xu and Xiang Zhang

*Light: Science & Applications* 2020, **9**: 90; doi: 10.1038/s41377-020-0319-7

## [Low-threshold topological nanolasers based on the second-order corner state](#)

Weixuan Zhang, Xin Xie, Huiming Hao, Jianchen Dang, Shan Xiao, Shushu Shi, Haiqiao Ni, Zhichuan Niu, Can Wang, Kuijuan Jin, Xiangdong Zhang and Xiulai Xu

*Light: Science & Applications* 2020, **9**: 109; doi: 10.1038/s41377-020-00352-1

## [Simple experimental procedures to distinguish photothermal from hot-carrier processes in plasmonics](#)

Guillaume Baffou, Ivan Bordacchini, Andrea Baldi and Romain Quidant

*Light: Science & Applications* 2020, **9**: 108; doi: 10.1038/s41377-020-00345-0

## [Electromagnetic chirality: from fundamentals to nontraditional chiroptical phenomena](#)

Jungho Mun, Minkyung Kim, Younghwan Yang, Trevon Badloe, Jincheng Ni, Yang Chen, Cheng-Wei Qiu and Junsuk Rho

*Light: Science & Applications* 2020, **9**: 139; doi: 10.1038/s41377-020-00367-8

## [Malus-metasurface-assisted polarization multiplexing](#)

Liangui Deng, Juan Deng, Zhiqiang Guan, Jin Tao, Yang Chen, Yan Yang, Daxiao Zhang, Jibo Tang, Zhongyang Li<sup>1</sup>, Zile Li, Shaohua Yu, Guoxing Zheng, Hongxing Xu, Cheng-Wei Qiu and Shuang Zhang

*Light: Science & Applications* 2020, **9**: 101; doi: 10.1038/s41377-020-0327-7

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[High-performance silicon-graphene hybrid plasmonic waveguide photodetectors beyond 1.55  \$\mu\text{m}\$](#)

Jingshu Guo, Jiang Li, Chaoyue Liu, Yanlong Yin, Wenhui Wang, Zhenhua Ni, Zhilei Fu, Hui Yu, Yang Xu, Yaocheng Shi, Yungui Ma, Shiming Gao, Limin Tong and Daoxin Dai

*Light: Science & Applications* 2020, **9**: 29; doi: 10.1038/s41377-020-0263-6

[High-temperature infrared camouflage with efficient thermal management](#)

Huanzheng Zhu, Qiang Li, Chunqi Zheng, Yu Hong, Ziquan Xu, HanWang, Weidong Shen, Sandeep Kaur, Pintu Ghosh and Min Qiu

*Light: Science & Applications* 2020, **9**: 60; doi: 10.1038/s41377-020-0300-5

[Black phosphorus-based photothermal therapy with aCD47-mediated immune checkpoint blockade for enhanced cancer immunotherapy](#)

Zhongjian Xie, Minhua Peng, Ruitao Lu, Xiangying Meng, Weiyuan Liang, Zhongjun Li, Meng Qiu, Bin Zhang, Guohui Nie, Ni Xie, Han Zhang and Paras N. Prasad

*Light: Science & Applications* 2020, **9**: 161; doi: 10.1038/s41377-020-00388-3

[Strain engineering of 2D semiconductors and graphene: from strain fields to band-structure tuning and photonic applications](#)

Zhiwei Peng, Xiaolin Chen, Yulong Fan, David J. Srolovitz and Dangyuan Lei

*Light: Science & Applications* 2020, **9**: 190; doi: 10.1038/s41377-020-00421-5