

# Top Cited Papers in 2019

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[Plasmonic enhancement and polarization dependence of nonlinear upconversion emissions from single gold nanorod@SiO<sub>2</sub>@CaF<sub>2</sub>:Yb<sup>3+</sup>,Er<sup>3+</sup> hybrid core-shell-satellite nanostructures](#)

Jijun He, Wei Zheng, Filip Ligmajer, Chi-Fai Chan, Zhiyong Bao, Ka-Leung Wong, Xueyuan Chen, Jianhua Hao, Jiyan Dai, Siu-Fung Yu & Dang Yuan Lei

*Light: Science & Applications* 2017, 6: e16217; doi: 10.1038/lsa.2016.217

[Tomographic flow cytometry by digital holography](#)

Francesco Merola, Pasquale Memmolo, Lisa Miccio, Roberto Savoia, Martina Mugnano, Angelo Fontana, Giuliana D'Ippolito, Angela Sardo, Achille Iolascon, Antonella Gambale & Pietro Ferraro

*Light: Science & Applications* 2017, 6: e16241; doi: 10.1038/lsa.2016.241

[Quantification of light-enhanced ionic transport in lead iodide perovskite thin films and its solar cell applications](#)

Yi-Cheng Zhao, Wen-Ke Zhou, Xu Zhou, Kai-Hui Liu, Da-Peng Yu & Qing Zhao

*Light: Science & Applications* 2017, 6: e16243; doi: 10.1038/lsa.2016.243

[Hybrid remote quantum dot/powder phosphor designs for display backlights](#)

Sofie Abe, Jonas J Joos, Lisa IDJ Martin, Zeger Hens & Philippe F Smet

*Light: Science & Applications* 2017, 6: e16271; doi: 10.1038/lsa.2016.271

[Beam switching and bifocal zoom lensing using active plasmonic metasurfaces](#)

Xinghui Yin, Tobias Steinle, Lingling Huang, Thomas Taubner, Matthias Wuttig, Thomas Zentgraf & Harald Giessen

*Light: Science & Applications* 2017, 6: 17016; doi: 10.1038/lsa.2017.16

[Ultrasensitive broadband phototransistors based on perovskite/organic-semiconductor vertical heterojunctions](#)

Chao Xie, Peng You, Zhike Liu, Li Li & Feng Yan

*Light: Science & Applications* 2017, 6: 17023; doi: 10.1038/lsa.2017.23

[Freeform spectrometer enabling increased compactness](#)

Jacob Reimers, Aaron Bauer, Kevin P Thompson & Jannick P Rolland

*Light: Science & Applications* 2017, 6: 17026; doi: 10.1038/lsa.2017.26

[Optical manipulation from the microscale to the nanoscale: fundamentals, advances and prospects](#)

Dongliang Gao, Weiqiang Ding, Manuel Nieto-Vesperinas, Xumin Ding, Mahdy Rahman, Tianhang Zhang, ChweeTeck Lim & Cheng-Wei Qiu

*Light: Science & Applications* 2017, 6: 17039; doi: 10.1038/lsa.2017.39

[Going beyond the limit of an LCD's color gamut](#)

Hai-Wei Chen, Rui-Dong Zhu, Juan He, Wei Duan, Wei Hu, Yan-Qing Lu, Ming-Chun Li, Seok-Lyul Lee, Ya-Jie Dong & Shin-Tson Wu

*Light: Science & Applications* 2017, 6: 17043; doi: 10.1038/lsa.2017.43

[Integrated sources of photon quantum states based on nonlinear optics](#)

Lucia Caspani, Chunle Xiong, Benjamin J Eggleton, Daniele Bajoni, Marco Liscidini, Matteo Galli, Roberto Morandotti & David J Moss

*Light: Science & Applications* 2017, 6: e17100; doi: 10.1038/lsa.2017.100

[Plasmonic nano-printing: large-area nanoscale energy deposition for efficient surface texturing](#)

Lei Wang, Qi-Dai Chen, Xiao-Wen Cao, Ričardas Buividas, Xuewen Wang, Saulius Juodkazis & Hong-Bo Sun

*Light: Science & Applications* 2017, 6: e17112; doi: 10.1038/lsa.2017.112

## Top Cited Papers in 2019

[Electrons dynamics control by shaping femtosecond laser pulses in micro/nanofabrication: modeling, method, measurement and application](#)

Lan Jiang, An-Dong Wang, Bo Li, Tian-Hong Cui & Yong-Feng Lu

*Light: Science & Applications* 2018, 6: e17134; doi: 10.1038/lsa.2017.134

[Phase recovery and holographic image reconstruction using deep learning in neural networks](#)

Yair Rivenson, Yibo Zhang, Harun Günaydin, Da Teng & Aydogan Ozcan

*Light: Science & Applications* 2018, 7: 17141; doi: 10.1038/lsa.2017.141

[Twisted photons: new quantum perspectives in high dimensions](#)

Manuel Erhard, Robert Fickler, Mario Krenn & Anton Zeilinger

*Light: Science & Applications* 2018, 7: 17146; doi: 10.1038/lsa.2017.146

[Giant intrinsic chiro-optical activity in planar dielectric nanostructures](#)

Alexander Y Zhu, Wei Ting Chen, Aun Zaidi, Yao-Wei Huang, Mohammadreza Khorasaninejad, Vyshakh Sanjeev, Cheng-Wei Qiu & Federico Capasso

*Light: Science & Applications* 2018, 7: 17158; doi: 10.1038/lsa.2017.158

[Liquid crystal display and organic light-emitting diode display: present status and future perspectives](#)

Hai-Wei Chen, Jiun-Haw Lee, Bo-Yen Lin, Stanley Chen & Shin-Tson Wu

*Light: Science & Applications* 2018, 7: 17168; doi: 10.1038/lsa.2017.168

[Boron nitride nanoresonators for phonon-enhanced molecular vibrational spectroscopy at the strong coupling limit](#)

Marta Autore, Peining Li, Irene Dolado, Francisco J Alfaro-Mozaz, Ruben Esteban, Ainhoa Atxabal, Fèlix Casanova, Luis E Hueso, Pablo Alonso-González, Javier Aizpurua, Alexey Y Nikitin, Saül Vélez & Rainer Hillenbrand

*Light: Science & Applications* 2018, 7: 17172; doi: 10.1038/lsa.2017.172

[Bifunctional gap-plasmon metasurfaces for visible light: polarization-controlled unidirectional surface plasmon excitation and beam steering at normal incidence](#)

Fei Ding, Rucha Deshpande & Sergey I Bozhevolnyi

*Light: Science & Applications* 2018, 7: 17178; doi: 10.1038/lsa.2017.178

[Quenching of the red Mn<sup>4+</sup> luminescence in Mn<sup>4+</sup>-doped fluoride LED phosphors](#)

Tim Senden, Relinde J.A. van Dijk-Moes & Andries Meijerink

*Light: Science & Applications* 2018, 7: 8; doi: 10.1038/s41377-018-0013-1

[Plasmonic nanostructure design and characterization via Deep Learning](#)

Itzik Malkiel, Michael Mrejen, Achiya Nagler, Uri Arieli, Lior Wolf & Haim Suchowski

*Light: Science & Applications* 2018, 7: 60; doi: 10.1038/s41377-018-0060-7

[Broadband achromatic dielectric metalenses](#)

Sajan Shrestha, Adam C. Overvig, Ming Lu, Aaron Stein & Nanfang Yu

*Light: Science & Applications* 2018, 7: 85; doi: 10.1038/s41377-018-0078-x

[In vivo theranostics with near-infrared-emitting carbon dots—highly efficient photothermal therapy based on passive targeting after intravenous administration](#)

Xin Bao, Ye Yuan, Jingqin Chen, Bohan Zhang, Di Li, Ding Zhou, Pengtao Jing, Guiying Xu, Yingli Wang, Kateřina Holá, Dezhen Shen, Changfeng Wu, Liang Song, Chengbo Liu, Radek Zbořil & Songnan Qu

*Light: Science & Applications* 2018, 7: 91; doi: 10.1038/s41377-018-0090-1