Mikhail Y Shalaginov

List of Publications by Year
in descending order

53 papers	2,507 citations	279798 23 h-index	361022 35 g-index
55 all docs	55 docs citations	55 times ranked	2367 citing authors

#	Article	IF	Citations
1	Broadband transparent optical phase change materials for high-performance nonvolatile photonics. Nature Communications, 2019, 10, 4279.	12.8	349
2	Electrically reconfigurable non-volatile metasurface using low-loss optical phase-change material. Nature Nanotechnology, 2021, 16, 661-666.	31.5	298
3	Reconfigurable all-dielectric metalens with diffraction-limited performance. Nature Communications, 2021, 12, 1225.	12.8	221
4	A Deep Learning Approach for Objective-Driven All-Dielectric Metasurface Design. ACS Photonics, 2019, 6, 3196-3207.	6.6	212
5	Ultra-thin high-efficiency mid-infrared transmissive Huygens meta-optics. Nature Communications, 2018, 9, 1481.	12.8	126
6	Ultrabright Room-Temperature Sub-Nanosecond Emission from Single Nitrogen-Vacancy Centers Coupled to Nanopatch Antennas. Nano Letters, 2018, 18, 4837-4844.	9.1	121
7	Single-Element Diffraction-Limited Fisheye Metalens. Nano Letters, 2020, 20, 7429-7437.	9.1	104
8	Enhancement of singleâ€‘photon emission from nitrogenâ€‘vacancy centers with TiN/(Al,Sc)N hyperbolic metamaterial. Laser and Photonics Reviews, 2015, 9, 120-127.	8.7	93
9	Design for quality: reconfigurable flat optics based on active metasurfaces. Nanophotonics, 2020, 9, 3505-3534.	6.0	87
10	Multifunctional Metasurface Design with a Generative Adversarial Network. Advanced Optical Materials, 2021, 9, 2001433.	7.3	78
11	Myths and truths about optical phase change materials: A perspective. Applied Physics Letters, 2021, 118, .	3.3	76
12	Multiâ€‘Level Electroâ€‘Thermal Switching of Optical Phaseâ€‘Change Materials Using Graphene. Advanced Photonics Research, 2021, 2, 2000034.	3.6	75
13	Deep learning modeling approach for metasurfaces with high degrees of freedom. Optics Express, 2020, 28, 31932.	3.4	73
14	Hybrid Plasmonic Bullseye Antennas for Efficient Photon Collection. ACS Photonics, 2018, 5, 692-698.	6.6	59
15	Finite-width plasmonic waveguides with hyperbolic multilayer cladding. Optics Express, 2015, 23, 9681.	3.4	58
16	Plasmonic waveguides cladded by hyperbolic metamaterials. Optics Letters, 2014, 39, 4663.	3.3	56
17	First-Principles Calculations of Structural, Elastic, Electronic, and Optical Properties of Perovskite-type KMgH₃ Crystals: Novel Hydrogen Storage Material. Journal of Physical Chemistry B, 2011, 115, 2836-2841.	2.6	52
18	Lasing Action with Gold Nanorod Hyperbolic Metamaterials. ACS Photonics, 2017, 4, 674-680.	6.6	49

#	Article	IF	Citations
19	Long-range plasmonic waveguides with hyperbolic cladding. Optics Express, 2015, 23, 31109.	3.4	48
20	Ge2Sb2Se5 Glass as High-capacity Promising Lithium-ion Battery Anode. Nano Energy, 2020, 68, 104326.	16.0	38
21	Broadband enhancement of on-chip single-photon extraction via tilted hyperbolic metamaterials. Applied Physics Reviews, 2020, 7, 021403.	11.3	36
22	Deep Convolutional Neural Networks to Predict Mutual Coupling Effects in Metasurfaces. Advanced Optical Materials, 2022, 10, 2102113.	7.3	28
23	Nonlinear Midâ€Infrared Metasurface based on a Phaseâ€Change Material. Laser and Photonics Reviews, 2021, 15, 2000373.	8.7	25
24	Transient Tap Couplers for Wafer-Level Photonic Testing Based on Optical Phase Change Materials. ACS Photonics, 2021, 8, 1903-1908.	6.6	24
25	Design of broadband and wide field-of-view metalenses. Optics Letters, 2021, 46, 5735-5738.	3.3	18
26	Reconfigurable Parfocal Zoom Metalens. Advanced Optical Materials, 2022, 10, .	7.3	18
27	Superconducting detector for visible and near-infrared quantum emitters [Invited]. Optical Materials Express, 2017, 7, 513.	3.0	17
28	Understanding aging in chalcogenide glass thin films using precision resonant cavity refractometry. Optical Materials Express, 2019, 9, 2252.	3.0	12
29	On-Chip Single-Layer Integration of Diamond Spins with Microwave and Plasmonic Channels. ACS Photonics, 2020, 7, 2018-2026.	6.6	9
30	Enhanced laser action from smart fabrics made with rollable hyperbolic metamaterials. Npj Flexible Electronics, 2020, 4, .	10.7	8
31	Large-area optical metasurface fabrication using nanostencil lithography. Optics Letters, 2021, 46, 2324.	3.3	8
32	All-dielectric Metasurface Designs Enabled by Deep Neural Networks. , 2020, , .		7
33	Electrically-switchable foundry-processed phase change photonic devices. , 2021, , .		5
34	A Transferrable, Adaptable, Free-Standing, and Water-Resistant Hyperbolic Metamaterial. ACS Applied Materials & Interfaces, 2021, 13, 49224-49231.	8.0	3
35	Single-layer Planar Metasurface Lens with >170Â° Field of View. , 2019, , .		3
36	Reshaping light: reconfigurable photonics enabled by broadband low-loss optical phase change materials. , 2019, , .		3

#	Article	IF	Citations
37	Multifunctional Metasurface Design with a Generative Adversarial Network (Advanced Optical) Tj ETQq1 1 0.784314 rgBT /Overlock 10	7.3	1
38	A Deep Learning Approach to Explore the Mutual Coupling Effects in Metasurfaces. , 2021, , .		1
39	Wide Field-of-view Achromatic Metalenses. , 2021, , .		1
40	Dielectric spectroscopic investigation of reversible photo-induced changes in amorphous Ge₂Sb₂Se₅ thin films. Journal of Applied Physics, 2022, 131, 075102.	2.5	1
41	Single-photon source based on NV center in nanodiamond coupled to TiN-based hyperbolic metamaterial. , 2014, , .		0
42	Multilayer Cladding with Hyperbolic Dispersion for Plasmonic Waveguides. , 2015, , .		0
43	Effect of photonic density of states on spin-flip induced fluorescence contrast in diamond nitrogen-vacancy center ensembles (Presentation Recording). Proceedings of SPIE, 2015, , .	0.8	0
44	Nitrogen-vacancy single-photon emission enhanced with nanophotonic structures (Presentation) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 4		0
45	Effect of a hyperbolic metamaterial on radiation patterns of a single-photon source. , 2015, , .		0
46	Subwavelength optics with hyperbolic metamaterials: Waveguides, scattering, and optical topological transitions. , 2016, , .		0
47	Enhanced Multi-Photon Emission from Single NV Center Coupled to Graphene by Laser-Shaping. , 2015, , .		0
48	Massive Parallel Positioning of Nanodiamonds on Nanophotonic Structures. , 2017, , .		0
49	Phase change reconfigurable nanophotonics on a foundry-processed SOI platform. , 2021, , .		0
50	Ge2Sb2Se4Te1 Metasurface for Enhancing Third-Harmonic Generation in the Mid-Infrared. , 2021, , .		0
51	Electrically Reconfigurable Nonvolatile Metasurface based on Phase Change Materials. , 2021, , .		0
52	Understanding wide field-of-view metalenses. , 2022, , .		0
53	Phase change materials: the 'silicon' for analog photonic computing?. , 2022, , .		0