

Andrei Faraon

List of Publications by Year in descending order

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73
papers

9,542
citations

76294

40
h-index

149623

56
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73
all docs

73
docs citations

73
times ranked

6295
citing authors

#	ARTICLE	IF	CITATIONS
1	Dielectric metasurfaces for complete control of phase and polarization with subwavelength spatial resolution and high transmission. <i>Nature Nanotechnology</i> , 2015, 10, 937-943.	15.6	2,009
2	Subwavelength-thick lenses with high numerical apertures and large efficiency based on high-contrast transmitarrays. <i>Nature Communications</i> , 2015, 6, 7069.	5.8	848
3	MEMS-tunable dielectric metasurface lens. <i>Nature Communications</i> , 2018, 9, 812.	5.8	527
4	A review of dielectric optical metasurfaces for wavefront control. <i>Nanophotonics</i> , 2018, 7, 1041-1068.	2.9	473
5	Miniature optical planar camera based on a wide-angle metasurface doublet corrected for monochromatic aberrations. <i>Nature Communications</i> , 2016, 7, 13682.	5.8	460
6	Multiwavelength polarization-insensitive lenses based on dielectric metasurfaces with meta-molecules. <i>Optica</i> , 2016, 3, 628.	4.8	371
7	Planar metasurface retroreflector. <i>Nature Photonics</i> , 2017, 11, 415-420.	15.6	339
8	Highly tunable elastic dielectric metasurface lenses. <i>Laser and Photonics Reviews</i> , 2016, 10, 1002-1008.	4.4	283
9	Controlling the sign of chromatic dispersion in diffractive optics with dielectric metasurfaces. <i>Optica</i> , 2017, 4, 625.	4.8	259
10	Full-Stokes Imaging Polarimetry Using Dielectric Metasurfaces. <i>ACS Photonics</i> , 2018, 5, 3132-3140.	3.2	247
11	Nanophotonic rare-earth quantum memory with optically controlled retrieval. <i>Science</i> , 2017, 357, 1392-1395.	6.0	221
12	Decoupling optical function and geometrical form using conformal flexible dielectric metasurfaces. <i>Nature Communications</i> , 2016, 7, 11618.	5.8	215
13	Compact folded metasurface spectrometer. <i>Nature Communications</i> , 2018, 9, 4196.	5.8	214
14	Wavefront shaping with disorder-engineered metasurfaces. <i>Nature Photonics</i> , 2018, 12, 84-90.	15.6	205
15	Single-shot quantitative phase gradient microscopy using a system of multifunctional metasurfaces. <i>Nature Photonics</i> , 2020, 14, 109-114.	15.6	172
16	Development of Quantum Interconnects (QICs) for Next-Generation Information Technologies. <i>PRX Quantum</i> , 2021, 2, .	3.5	172
17	Multiwavelength metasurfaces through spatial multiplexing. <i>Scientific Reports</i> , 2016, 6, 32803.	1.6	157
18	Orbital Angular Momentum-based Space Division Multiplexing for High-capacity Underwater Optical Communications. <i>Scientific Reports</i> , 2016, 6, 33306.	1.6	156

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19	Control and single-shot readout of an ion embedded in a nanophotonic cavity. <i>Nature</i> , 2020, 580, 201-204.	13.7	138
20	Angle-Multiplexed Metasurfaces: Encoding Independent Wavefronts in a Single Metasurface under Different Illumination Angles. <i>Physical Review X</i> , 2017, 7, .	2.8	135
21	Optically Addressing Single Rare-Earth Ions in a Nanophotonic Cavity. <i>Physical Review Letters</i> , 2018, 121, 183603.	2.9	129
22	Fundamental limits of ultrathin metasurfaces. <i>Scientific Reports</i> , 2017, 7, 43722.	1.6	125
23	Nanophotonic coherent light-matter interfaces based on rare-earth-doped crystals. <i>Nature Communications</i> , 2015, 6, 8206.	5.8	124
24	Multifunctional 2.5D metastructures enabled by adjoint optimization. <i>Optica</i> , 2020, 7, 77.	4.8	111
25	Visible Wavelength Color Filters Using Dielectric Subwavelength Gratings for Backside-Illuminated CMOS Image Sensor Technologies. <i>Nano Letters</i> , 2017, 17, 3159-3164.	4.5	101
26	Removing orientation-induced localization biases in single-molecule microscopy using a broadband metasurface mask. <i>Nature Photonics</i> , 2016, 10, 459-462.	15.6	98
27	Vectorial Holograms with a Dielectric Metasurface: Ultimate Polarization Pattern Generation. <i>ACS Photonics</i> , 2019, 6, 2712-2718.	3.2	89
28	High efficiency double-wavelength dielectric metasurface lenses with dichroic birefringent meta-atoms. <i>Optics Express</i> , 2016, 24, 18468.	1.7	88
29	On-chip coherent microwave-to-optical transduction mediated by ytterbium in YVO4. <i>Nature Communications</i> , 2020, 11, 3266.	5.8	87
30	Multifunctional volumetric meta-optics for color and polarization image sensors. <i>Optica</i> , 2020, 7, 280.	4.8	85
31	Two-Photon Microscopy with a Double-Wavelength Metasurface Objective Lens. <i>Nano Letters</i> , 2018, 18, 4943-4948.	4.5	77
32	Wide bandwidth and high resolution planar filter array based on DBR-metasurface-DBR structures. <i>Optics Express</i> , 2016, 24, 11677.	1.7	62
33	High-Speed, Phase-Dominant Spatial Light Modulation with Silicon-Based Active Resonant Antennas. <i>ACS Photonics</i> , 2018, 5, 1711-1717.	3.2	62
34	Hyperspectral Imager with Folded Metasurface Optics. <i>ACS Photonics</i> , 2019, 6, 2161-2167.	3.2	58
35	Quantum photonic networks in diamond. <i>MRS Bulletin</i> , 2013, 38, 144-148.	1.7	54
36	Interfacing broadband photonic qubits to on-chip cavity-protected rare-earth ensembles. <i>Nature Communications</i> , 2017, 8, 14107.	5.8	54

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37	Nanophotonic Quantum Storage at Telecommunication Wavelength. <i>Physical Review Applied</i> , 2019, 12, .	1.5	46
38	Nuclear spin-wave quantum register for a solid-state qubit. <i>Nature</i> , 2022, 602, 408-413.	13.7	46
39	Computational complex optical field imaging using a designed metasurface diffuser. <i>Optica</i> , 2018, 5, 924.	4.8	44
40	Multifunctional on-chip storage at telecommunication wavelength for quantum networks. <i>Optica</i> , 2021, 8, 114.	4.8	43
41	High quality factor nanophotonic resonators in bulk rare-earth doped crystals. <i>Optics Express</i> , 2016, 24, 536.	1.7	39
42	Increasing efficiency of high numerical aperture metasurfaces using the grating averaging technique. <i>Scientific Reports</i> , 2020, 10, 7124.	1.6	39
43	Characterization of $\langle \text{mml:math} \rangle$ $\langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:mi} \rangle \text{Yb} \langle \text{mml:mi} \rangle \langle \text{mml:none} \rangle$ $\langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle + \langle \text{mml:mo} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mprescripts} \rangle$ $\langle \text{mml:none} \rangle$ $\langle \text{mml:mn} \rangle 171 \langle \text{mml:mn} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{YVO} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 4 \langle \text{mml:mn} \rangle$ for photonic quantum technologies. <i>Physical Review B</i> , 2018, 98, .	1.1	38
44	Wide-angular-range and high-resolution beam steering by a metasurface-coupled phased array. <i>Optics Letters</i> , 2018, 43, 5255.	1.7	33
45	Nano-electromechanical Tuning of Dual-Mode Resonant Dielectric Metasurfaces for Dynamic Amplitude and Phase Modulation. <i>Nano Letters</i> , 2021, 21, 2817-2823.	4.5	24
46	High resolution on-chip optical filter array based on double subwavelength grating reflectors. <i>Optics Express</i> , 2015, 23, 29848.	1.7	23
47	Metasurface-generated complex 3-dimensional optical fields for interference lithography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 21379-21384.	3.3	22
48	Coupling erbium dopants in yttrium orthosilicate to silicon photonic resonators and waveguides. <i>Optics Express</i> , 2017, 25, 2863.	1.7	21
49	Fabrication of Single Crystal Gallium Phosphide Thin Films on Glass. <i>Scientific Reports</i> , 2017, 7, 4643.	1.6	20
50	NEMS-Tunable Dielectric Chiral Metasurfaces. <i>ACS Photonics</i> , 2021, 8, 2980-2986.	3.2	20
51	Nondestructive photon detection using a single rare-earth ion coupled to a photonic cavity. <i>Physical Review A</i> , 2016, 94, .	1.0	18
52	Highly tunable elastic dielectric metasurface lenses (<i>Laser Photonics Rev.</i> 10(6)/2016). <i>Laser and Photonics Reviews</i> , 2016, 10, 1062-1062.	4.4	12
53	Characterization of $\langle \text{mml:math} \rangle$ $\langle \text{mml:mrow} \rangle \langle \text{mml:msup} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Er} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mathvariant} = \text{"normal"} \rangle \text{O} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 4 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ for microwave to optical transduction. <i>Physical Review B</i> , 2021, 104, .	1.1	10
54	Controlling rare-earth ions in a nanophotonic resonator using the ac Stark shift. <i>Physical Review A</i> , 2018, 97, .	1.0	9

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55	Probing strong coupling between a microwave cavity and a spin ensemble with Raman heterodyne spectroscopy. <i>Physical Review B</i> , 2021, 103, .	1.1	7
56	Mechanically reconfigurable multi-functional meta-optics studied at microwave frequencies. <i>Scientific Reports</i> , 2021, 11, 11145.	1.6	6
57	Increasing efficiency of high-NA metasurface lenses (Conference Presentation). , 2017, , .		5
58	Metasurface-based compact light engine for AR headsets. , 2019, , .		4
59	Dispersionless metasurfaces using dispersive meta-atoms. , 2016, , .		2
60	Gallium phosphide photonic crystal nanocavities in the visible. , 2008, , .		1
61	Flat and conformal optics with dielectric metasurfaces. , 2017, , .		1
62	MEMS-tunable dielectric metasurface lens. , 2018, , .		1
63	Folded Dielectric Metasurface Platform for Compact Optical Systems. , 2019, , .		1
64	Applications of wavefront control using nano-post based dielectric metasurfaces. , 2020, , 175-194.		1
65	Cascaded Multifunctional Metasurfaces for Single-shot Quantitative Phase Gradient Microscopy. , 2020, , .		1
66	Dielectric metasurfaces with independent angular control. , 2017, , .		0
67	Dispersion-controlled diffractive devices with dielectric metasurfaces. , 2017, , .		0
68	A nanophotonic platform integrating quantum memories and single rare-earth ions. , 2018, , .		0
69	On-chip Microwave to Optical Transduction Using Rare Earth Doped Materials. , 2021, , .		0
70	Mechanically Reconfigurable Multi-Functional Meta-Optics. , 2021, , .		0
71	Conformal and tunable optical dielectric metasurfaces based on flexible stretchable substrates. , 2016, , .		0
72	Computational holographic camera with a dielectric metasurface diffuser. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
73	Miniaturized folded metasurface hyperspectral imager. , 2019, , .		0