Andrei Faraon

List of Publications by Year
in descending order

73 papers	9,542 citations	87401 40 h-index	169272 56 g-index
73 all docs	73 docs citations	73 times ranked	7371 citing authors

#	Article	IF	Citations
1	Nuclear spin-wave quantum register for a solid-state qubit. Nature, 2022, 602, 408-413.	13.7	46
2	On-chip Microwave to Optical Transduction Using Rare Earth Doped Materials. , 2021, , .		0
3	Development of Quantum Interconnects (QuICs) for Next-Generation Information Technologies. PRX Quantum, 2021, 2, .	3.5	172
4	Nano-electromechanical Tuning of Dual-Mode Resonant Dielectric Metasurfaces for Dynamic Amplitude and Phase Modulation. Nano Letters, 2021, 21, 2817-2823.	4.5	24
5	Mechanically reconfigurable multi-functional meta-optics studied at microwave frequencies. Scientific Reports, 2021, 11, 11145.	1.6	6
6	Probing strong coupling between a microwave cavity and a spin ensemble with Raman heterodyne spectroscopy. Physical Review B, 2021, 103, .	1.1	7
7	Characterization of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msup><mml:mrow><mml:mi>Er</mml:mi></mml:mrow><mml:mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math> for microwave to optical transduction. Physical Review B, 2021, 104, .	1.1	10
8	NEMS-Tunable Dielectric Chiral Metasurfaces. ACS Photonics, 2021, 8, 2980-2986.	3.2	20
9	Multifunctional on-chip storage at telecommunication wavelength for quantum networks. Optica, 2021, 8, 114.	4.8	43
10	Mechanically Reconfigurable Multi-Functional Meta-Optics. , 2021, , .		0
11	Applications of wavefront control using nano-post based dielectric metasurfaces. , 2020, , 175-194.		1
12	Single-shot quantitative phase gradient microscopy using a system of multifunctional metasurfaces. Nature Photonics, 2020, 14, 109-114.	15.6	172
13	Control and single-shot readout of an ion embedded in a nanophotonic cavity. Nature, 2020, 580, 201-204.	13.7	138
14	On-chip coherent microwave-to-optical transduction mediated by ytterbium in YVO4. Nature Communications, 2020, 11, 3266.	5.8	87
15	Increasing efficiency of high numerical aperture metasurfaces using the grating averaging technique. Scientific Reports, 2020, 10, 7124.	1.6	39
16	Multifunctional 2.5D metastructures enabled by adjoint optimization. Optica, 2020, 7, 77.	4.8	111
17	Multifunctional volumetric meta-optics for color and polarization image sensors. Optica, 2020, 7, 280.	4.8	85
18	Cascaded Multifunctional Metasurfaces for Single-shot Quantitative Phase Gradient Microscopy. , 2020, , .		1

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19	Hyperspectral Imager with Folded Metasurface Optics. ACS Photonics, 2019, 6, 2161-2167.	3.2	58
20	Nanophotonic Quantum Storage at Telecommunication Wavelength. Physical Review Applied, 2019, 12, .	1.5	46
21	Vectorial Holograms with a Dielectric Metasurface: Ultimate Polarization Pattern Generation. ACS Photonics, 2019, 6, 2712-2718.	3.2	89
22	Folded Dielectric Metasurface Platform for Compact Optical Systems. , 2019, , .		1
23	Metasurface-generated complex 3-dimensional optical fields for interference lithography. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21379-21384.	3.3	22
24	Metasurface-based compact light engine for AR headsets. , 2019, , .		4
25	Computational holographic camera with a dielectric metasurface diffuser. , 2019, , .		0
26	Miniaturized folded metasurface hyperspectral imager. , 2019, , .		0
27	MEMS-tunable dielectric metasurface lens. Nature Communications, 2018, 9, 812.	5.8	527
28	Wavefront shaping with disorder-engineered metasurfaces. Nature Photonics, 2018, 12, 84-90.	15.6	205
29	High-Speed, Phase-Dominant Spatial Light Modulation with Silicon-Based Active Resonant Antennas. ACS Photonics, 2018, 5, 1711-1717.	3.2	62
30	Compact folded metasurface spectrometer. Nature Communications, 2018, 9, 4196.	5.8	214
31	Optically Addressing Single Rare-Earth Ions in a Nanophotonic Cavity. Physical Review Letters, 2018, 121, 183603.	2.9	129
32	A review of dielectric optical metasurfaces for wavefront control. Nanophotonics, 2018, 7, 1041-1068.	2.9	473
33	Characterization of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi>Yb</mml:mi><mml:none /><mml:mrow><mml:mn>3</mml:mn><mml:mo>+</mml:mo></mml:mrow><mml:mprescripts /><mml:none /><mml:mn>171</mml:mn></mml:mmultiscripts><mml:mo>:</mml:mo><mml:msub><mml:mi>YVO</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math> for photonic quantum technologies. Physical Review B, 2018, 98, .	1.1	38
34	Controlling rare-earth ions in a nanophotonic resonator using the ac Stark shift. Physical Review A, 2018, 97, .	1.0	9
35	Computational complex optical field imaging using a designed metasurface diffuser. Optica, 2018, 5, 924.	4.8	44
36	A nanophotonic platform integrating quantum memories and single rare-earth ions. , 2018, , .		0

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37	Full-Stokes Imaging Polarimetry Using Dielectric Metasurfaces. ACS Photonics, 2018, 5, 3132-3140.	3.2	247
38	Two-Photon Microscopy with a Double-Wavelength Metasurface Objective Lens. Nano Letters, 2018, 18, 4943-4948.	4.5	77
39	MEMS-tunable dielectric metasurface lens. , 2018, , .		1
40	Wide-angular-range and high-resolution beam steering by a metasurface-coupled phased array. Optics Letters, 2018, 43, 5255.	1.7	33
41	Interfacing broadband photonic qubits to on-chip cavity-protected rare-earth ensembles. Nature Communications, 2017, 8, 14107.	5.8	54
42	Increasing efficiency of high-NA metasurface lenses (Conference Presentation). , 2017, , .		5
43	Planar metasurface retroreflector. Nature Photonics, 2017, 11, 415-420.	15.6	339
44	Visible Wavelength Color Filters Using Dielectric Subwavelength Gratings for Backside-Illuminated CMOS Image Sensor Technologies. Nano Letters, 2017, 17, 3159-3164.	4.5	101
45	Fundamental limits of ultrathin metasurfaces. Scientific Reports, 2017, 7, 43722.	1.6	125
46	Nanophotonic rare-earth quantum memory with optically controlled retrieval. Science, 2017, 357, 1392-1395.	6.0	221
47	Controlling the sign of chromatic dispersion in diffractive optics with dielectric metasurfaces. Optica, 2017, 4, 625.	4.8	259
48	Angle-Multiplexed Metasurfaces: Encoding Independent Wavefronts in a Single Metasurface under Different Illumination Angles. Physical Review X, 2017, 7, .	2.8	135
49	Fabrication of Single Crystal Gallium Phosphide Thin Films on Glass. Scientific Reports, 2017, 7, 4643.	1.6	20
50	Flat and conformal optics with dielectric metasurfaces. , 2017, , .		1
51	Coupling erbium dopants in yttrium orthosilicate to silicon photonic resonators and waveguides. Optics Express, 2017, 25, 2863.	1.7	21
52	Dielectric metasurfaces with independent angular control. , 2017, , .		0
53	Dispersion-controlled diffractive devices with dielectric metasurfaces. , 2017, , .		0
54	High quality factor nanophotonic resonators in bulk rare-earth doped crystals. Optics Express, 2016, 24, 536.	1.7	39

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55	Orbital Angular Momentum-based Space Division Multiplexing for High-capacity Underwater Optical Communications. Scientific Reports, 2016, 6, 33306.	1.6	156
56	Miniature optical planar camera based on a wide-angle metasurface doublet corrected for monochromatic aberrations. Nature Communications, 2016, 7, 13682.	5.8	460
57	Removing orientation-induced localization biases in single-molecule microscopy using a broadband metasurface mask. Nature Photonics, 2016, 10, 459-462.	15.6	98
58	Nondestructive photon detection using a single rare-earth ion coupled to a photonic cavity. Physical Review A, 2016, 94, .	1.0	18
59	High efficiency double-wavelength dielectric metasurface lenses with dichroic birefringent meta-atoms. Optics Express, 2016, 24, 18468.	1.7	88
60	Decoupling optical function and geometrical form using conformal flexible dielectric metasurfaces. Nature Communications, 2016, 7, 11618.	5.8	215
61	Highly tunable elastic dielectric metasurface lenses (Laser Photonics Rev. 10(6)/2016). Laser and Photonics Reviews, 2016, 10, 1062-1062.	4.4	12
62	Multiwavelength metasurfaces through spatial multiplexing. Scientific Reports, 2016, 6, 32803.	1.6	157
63	Highly tunable elastic dielectric metasurface lenses. Laser and Photonics Reviews, 2016, 10, 1002-1008.	4.4	283
64	Wide bandwidth and high resolution planar filter array based on DBR-metasurface-DBR structures. Optics Express, 2016, 24, 11677.	1.7	62
65	Multiwavelength polarization-insensitive lenses based on dielectric metasurfaces with meta-molecules. Optica, 2016, 3, 628.	4.8	371
66	Dispersionless metasurfaces using dispersive meta-atoms. , 2016, , .		2
67	Conformai and tunable optical dielectric metasurfaces based on flexible stretchable substrates. , 2016, , .		0
68	High resolution on-chip optical filter array based on double subwavelength grating reflectors. Optics Express, 2015, 23, 29848.	1.7	23
69	Subwavelength-thick lenses with high numerical apertures and large efficiency based on high-contrast transmitarrays. Nature Communications, 2015, 6, 7069.	5.8	848
70	Nanophotonic coherent lightâ€“matter interfaces based on rare-earth-doped crystals. Nature Communications, 2015, 6, 8206.	5.8	124
71	Dielectric metasurfaces for complete control of phase and polarization with subwavelength spatial resolution and high transmission. Nature Nanotechnology, 2015, 10, 937-943.	15.6	2,009
72	Quantum photonic networks in diamond. MRS Bulletin, 2013, 38, 144-148.	1.7	54

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73	Gallium phosphide photonic crystal nanocavities in the visible. , 2008, , .		1