

# patrice Genevet

## List of Publications by Year in descending order

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Version: 2024-02-01

116  
papers

20,652  
citations

46918

47  
h-index

42291

92  
g-index

120  
all docs

120  
docs citations

120  
times ranked

11401  
citing authors

#	ARTICLE	IF	CITATIONS
1	Light Propagation with Phase Discontinuities: Generalized Laws of Reflection and Refraction. Science, 2011, 334, 333-337.	6.0	7,240
2	Aberration-Free Ultrathin Flat Lenses and Axicons at Telecom Wavelengths Based on Plasmonic Metasurfaces. Nano Letters, 2012, 12, 4932-4936.	4.5	1,528
3	A Broadband, Background-Free Quarter-Wave Plate Based on Plasmonic Metasurfaces. Nano Letters, 2012, 12, 6328-6333.	4.5	1,065
4	Multiwavelength achromatic metasurfaces by dispersive phase compensation. Science, 2015, 347, 1342-1345.	6.0	868
5	Nanometre optical coatings based on strong interference effects in highly absorbing media. Nature Materials, 2013, 12, 20-24.	13.3	841
6	Recent advances in planar optics: from plasmonic to dielectric metasurfaces. Optica, 2017, 4, 139.	4.8	837
7	Broad Electrical Tuning of Graphene-Loaded Plasmonic Antennas. Nano Letters, 2013, 13, 1257-1264.	4.5	558
8	Ultra-thin perfect absorber employing a tunable phase change material. Applied Physics Letters, 2012, 101, .	1.5	519
9	Out-of-Plane Reflection and Refraction of Light by Anisotropic Optical Antenna Metasurfaces with Phase Discontinuities. Nano Letters, 2012, 12, 1702-1706.	4.5	506
10	Ultra-thin plasmonic optical vortex plate based on phase discontinuities. Applied Physics Letters, 2012, 100, .	1.5	451
11	Achromatic Metasurface Lens at Telecommunication Wavelengths. Nano Letters, 2015, 15, 5358-5362.	4.5	367
12	Metasurface orbital angular momentum holography. Nature Communications, 2019, 10, 2986.	5.8	303
13	Independent phase modulation for quadruplex polarization channels enabled by chirality-assisted geometric-phase metasurfaces. Nature Communications, 2020, 11, 4186.	5.8	274
14	Holographic optical metasurfaces: a review of current progress. Reports on Progress in Physics, 2015, 78, 024401.	8.1	263
15	Flat Optics: Controlling Wavefronts With Optical Antenna Metasurfaces. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 4700423-4700423.	1.9	258
16	Holographic detection of the orbital angular momentum of light with plasmonic photodiodes. Nature Communications, 2012, 3, 1278.	5.8	252
17	Nanostructured Holograms for Broadband Manipulation of Vector Beams. Nano Letters, 2013, 13, 4269-4274.	4.5	246
18	Nanophotonics for light detection and ranging technology. Nature Nanotechnology, 2021, 16, 508-524.	15.6	213

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19	Large Enhancement of Nonlinear Optical Phenomena by Plasmonic Nanocavity Gratings. Nano Letters, 2010, 10, 4880-4883.	4.5	207
20	Thermal tuning of mid-infrared plasmonic antenna arrays using a phase change material. Optics Letters, 2013, 38, 368.	1.7	196
21	Cosine-Gauss Plasmon Beam: A Localized Long-Range Nondiffracting Surface Wave. Physical Review Letters, 2012, 109, 093904.	2.9	177
22	Giant birefringence in optical antenna arrays with widely tailorable optical anisotropy. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 12364-12368.	3.3	176
23	Metasurface-integrated vertical cavity surface-emitting lasers for programmable directional lasing emissions. Nature Nanotechnology, 2020, 15, 125-130.	15.6	174
24	Aberrations of flat lenses and aplanatic metasurfaces. Optics Express, 2013, 21, 31530.	1.7	163
25	Vanadium Dioxide as a Natural Disordered Metamaterial: Perfect Thermal Emission and Large Broadband Negative Differential Thermal Emittance. Physical Review X, 2013, 3, .	2.8	136
26	Ptychography retrieval of fully polarized holograms from geometric-phase metasurfaces. Nature Communications, 2020, 11, 2651.	5.8	136
27	Effect of radiation damping on the spectral response of plasmonic components. Optics Express, 2011, 19, 21748.	1.7	129
28	Plasmonic topological metasurface by encircling an exceptional point. Science, 2021, 373, 1133-1137.	6.0	124
29	Controlled steering of Cherenkov surface plasmon wakes with a one-dimensional metamaterial. Nature Nanotechnology, 2015, 10, 804-809.	15.6	119
30	Cavity Soliton Laser Based on Mutually Coupled Semiconductor Microresonators. Physical Review Letters, 2008, 101, 123905.	2.9	118
31	Outfitting Next Generation Displays with Optical Metasurfaces. ACS Photonics, 2018, 5, 3876-3895.	3.2	118
32	Polarization-insensitive 3D conformal-skin metasurface cloak. Light: Science and Applications, 2021, 10, 75.	7.7	111
33	All-optical delay line using semiconductor cavity solitons. Applied Physics Letters, 2008, 92, .	1.5	106
34	Numerical Optimization Methods for Metasurfaces. Laser and Photonics Reviews, 2020, 14, 1900445.	4.4	100
35	Traditional and emerging materials for optical metasurfaces. Nanophotonics, 2017, 6, 452-471.	2.9	97
36	Modeling nanoscale V-shaped antennas for the design of optical phased arrays. Physical Review B, 2012, 85, .	1.1	96

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37	Quantum-Coherence-Enhanced Surface Plasmon Amplification by Stimulated Emission of Radiation. Physical Review Letters, 2013, 111, 043601.	2.9	87
38	Enhancement of absorption and color contrast in ultra-thin highly absorbing optical coatings. Applied Physics Letters, 2013, 103, .	1.5	81
39	Measurement of bound states in the continuum by a detector embedded in a photonic crystal. Light: Science and Applications, 2016, 5, e16147-e16147.	7.7	73
40	Holographic Metalens for Switchable Focusing of Surface Plasmons. Nano Letters, 2015, 15, 3585-3589.	4.5	72
41	Modelling of free-form conformal metasurfaces. Nature Communications, 2018, 9, 3494.	5.8	65
42	Bistable and Addressable Localized Vortices in Semiconductor Lasers. Physical Review Letters, 2010, 104, 223902.	2.9	59
43	Positioning cavity solitons with a phase mask. Applied Physics Letters, 2006, 89, 221111.	1.5	58
44	Bandwidth-unlimited polarization-maintaining metasurfaces. Science Advances, 2021, 7, .	4.7	52
45	Reflection and refraction of light from metasurfaces with phase discontinuities. Journal of Nanophotonics, 2012, 6, 063532.	0.4	50
46	Twisted Focusing of Optical Vortices with Broadband Flat Spiral Zone Plates. Advanced Optical Materials, 2014, 2, 1193-1198.	3.6	50
47	Broadband decoupling of intensity and polarization with vectorial Fourier metasurfaces. Nature Communications, 2021, 12, 3631.	5.8	50
48	Global optimization of metasurface designs using statistical learning methods. Scientific Reports, 2019, 9, 17918.	1.6	42
49	Freestanding dielectric nanohole array metasurface for mid-infrared wavelength applications. Optics Letters, 2017, 42, 2639.	1.7	41
50	Microresonator Defects as Sources of Drifting Cavity Solitons. Physical Review Letters, 2009, 102, 163901.	2.9	37
51	Generation of two-dimensional plasmonic bottle beams. Optics Express, 2013, 21, 10295.	1.7	37
52	An Etching-Free Approach Toward Large-Scale Light-Emitting Metasurfaces. Advanced Optical Materials, 2019, 7, 1801271.	3.6	37
53	Mitigating Chromatic Dispersion with Hybrid Optical Metasurfaces. Advanced Materials, 2019, 31, e1805555.	11.1	37
54	On-Chip Generation of Structured Light Based on Metasurface Optoelectronic Integration. Laser and Photonics Reviews, 2021, 15, 2000385.	4.4	37

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55	Controlling electromagnetic fields at boundaries of arbitrary geometries. <i>Physical Review A</i> , 2016, 94, .	1.0	36
56	Gate-Tunable Emission of Excitonâ€“Plasmon Polaritons in Hybrid MoS <sub>2</sub> -Gap-Mode Metasurfaces. <i>ACS Photonics</i> , 2019, 6, 1594-1601.	3.2	34
57	Backward Phase-Matched Second-Harmonic Generation from Stacked Metasurfaces. <i>Physical Review Letters</i> , 2021, 126, 033901.	2.9	32
58	Space and Time Modulations of Light with Metasurfaces: Recent Progress and Future Prospects. <i>ACS Photonics</i> , 2022, 9, 1458-1482.	3.2	30
59	Multi-wavelength mid-infrared plasmonic antennas with single nanoscale focal point. <i>Optics Express</i> , 2011, 19, 22113.	1.7	29
60	Dipolar modeling and experimental demonstration of multi-beam plasmonic collimators. <i>New Journal of Physics</i> , 2011, 13, 053057.	1.2	29
61	Aberration-corrected large-scale hybrid metalenses. <i>Optica</i> , 2021, 8, 1405.	4.8	28
62	Room Temperature Electrically Driven Ultraviolet Plasmonic Lasers. <i>Advanced Optical Materials</i> , 2019, 7, 1801681.	3.6	27
63	Nonlocality Induced Cherenkov Threshold. <i>Laser and Photonics Reviews</i> , 2020, 14, 2000149.	4.4	27
64	Electrically pumped semiconductor laser with monolithic control of circular polarization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E5623-32.	3.3	25
65	Multiobjective Statistical Learning Optimization of RGB Metalens. <i>ACS Photonics</i> , 2021, 8, 2498-2508.	3.2	25
66	Stationary localized structures and pulsing structures in a cavity soliton laser. <i>Physical Review A</i> , 2009, 79, .	1.0	24
67	Reconfigurable Flat Optics with Programmable Reflection Amplitude Using Lithographyâ€“Free Phaseâ€“Change Material Ultraâ€“Thin Films. <i>Advanced Optical Materials</i> , 2021, 9, 2001291.	3.6	22
68	Metasurface Optical Characterization Using Quadriwave Lateral Shearing Interferometry. <i>ACS Photonics</i> , 2021, 8, 603-613.	3.2	21
69	Broadband mode conversion via gradient index metamaterials. <i>Scientific Reports</i> , 2016, 6, 24529.	1.6	20
70	Anisotropic Surface Plasmon Polariton Generation Using Bimodal V-Antenna Based Metastructures. <i>ACS Photonics</i> , 2017, 4, 22-27.	3.2	20
71	Printing polarization and phase at the optical diffraction limit: near- and far-field optical encryption. <i>Nanophotonics</i> , 2020, 10, 697-704.	2.9	19
72	Mutual coherence of laser solitons in coupled semiconductor resonators. <i>European Physical Journal D</i> , 2010, 59, 109-114.	0.6	16

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73	Long-lifetime coherence in a quantum emitter induced by a metasurface. <i>Physical Review A</i> , 2020, 101, .	1.0	16
74	Optical Phase Transition in Semiconductor Quantum Metamaterials. <i>Physical Review Letters</i> , 2019, 123, 117401.	2.9	15
75	High-power low-divergence tapered quantum cascade lasers with plasmonic collimators. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	14
76	Optimization and uncertainty quantification of gradient index metasurfaces [Invited]. <i>Optical Materials Express</i> , 2019, 9, 892.	1.6	14
77	Breakthroughs in Photonics 2013: Flat Optics: Wavefronts Control With Huygens' Interfaces. <i>IEEE Photonics Journal</i> , 2014, 6, 1-4.	1.0	12
78	Hybrid MoS <sub>2</sub> -gap-mode metasurface photodetectors. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 374001.	1.3	11
79	Multistable monochromatic laser solitons. <i>Physical Review A</i> , 2010, 81, .	1.0	9
80	Enhancement of optical processes in coupled plasmonic nanocavities [Invited]. <i>Applied Optics</i> , 2011, 50, G56.	2.1	9
81	Optimization of metasurfaces under geometrical uncertainty using statistical learning. <i>Optics Express</i> , 2021, 29, 29887.	1.7	8
82	Revealing topological phase in Pancharatnam-Berry metasurfaces using mesoscopic electrodynamics. <i>Nanophotonics</i> , 2020, 9, 4711-4718.	2.9	7
83	Achromatic metasurfaces by dispersive phase compensation. , 2015, , .		5
84	Scattering by lossy anisotropic scatterers: A modal approach. <i>Journal of Applied Physics</i> , 2021, 129, .	1.1	5
85	BIFURCATION DIAGRAM AND CONTROL OF LOCALIZED LASER STRUCTURES. <i>Journal of Nonlinear Optical Physics and Materials</i> , 2012, 21, 1250029.	1.1	4
86	Susceptibility synthesis of arbitrary shaped metasurfaces. <i>Physical Review B</i> , 2022, 106, .	1.1	4
87	Reconstruction of multidimensional nonlinear polarization response of Pancharatnam-Berry metasurfaces. <i>Physical Review B</i> , 2021, 104, .	1.1	3
88	Theoretical description of the transverse localised structures in a face to face VCSEL configuration. <i>European Physical Journal D</i> , 2010, 59, 97-107.	0.6	2
89	Special Issue on "Metasurfaces: Physics and Applications". <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1727.	1.3	2
90	Reconfigurable Flat Optics with Programmable Reflection Amplitude Using Lithography-Free Phase-Change Material Ultra-Thin Films ( <i>Advanced Optical Materials</i> 2/2021). <i>Advanced Optical Materials</i> , 2021, 9, 2170006.	3.6	2

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91	Molding light propagation with phase discontinuities. , 2012, , .		2
92	Achromatic metasurfaces enable multi-wavelength flat optical components: demonstration of a dispersion-less beam deflector. , 2015, , .		1
93	Mid-Infrared Grayscale Metasurface Holograms. Applied Sciences (Switzerland), 2020, 10, 552.	1.3	1
94	Dynamic phase manipulation of vertical-cavity surface-emitting lasers via on-chip integration of microfluidic channels. Optics Express, 2021, 29, 1481.	1.7	1
95	Lens Aberration Correction Using Large Scale Metasurfaces. , 2020, , .		1
96	Vectorial Hologram Based on Pixelated Metasurface. , 2020, , .		1
97	Interplay of external gradients and material defects in the dynamics of semiconductor cavity solitons. , 2007, , .		0
98	Controlling position and motion of cavity solitons. , 2007, , .		0
99	Slow light and all-optical delay lines using cavity solitons in semiconductor lasers. , 2007, , .		0
100	Cavity soliton laser based on two mutually coupled broad area micro-resonators. , 2009, , .		0
101	Clusters of localized structures in cavity soliton laser: Properties of the homoclinic snaking bifurcation diagram.. , 2009, , .		0
102	Localized states, Q-switching and excitability in coupled semiconductor microcavities. , 2011, , .		0
103	Broadband wavefront engineering with optical resonator arrays. , 2012, , .		0
104	Out of plane reflection and refraction of light by plasmonic interfaces with phase discontinuities. , 2012, , .		0
105	Controlled steering and focusing of Surface Plasmons with Metasurfaces. , 2015, , .		0
106	Surface plasmon polariton control with Metasurfaces. , 2015, , .		0
107	From planar to conformable optics with metasurfaces. , 2017, , .		0
108	Gallium Nitride metasurfaces: innovative perspectives and industrially relevant manufacturing processes. , 2018, , .		0

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109	Enhanced Secondâ€Harmonic Generation in a Single Microwire Based on Localized Surface Plasmon. Physica Status Solidi (B): Basic Research, 2019, 256, 1900075.	0.7	0
110	Statistical learning multiobjective optimization for large-scale achromatic metalens at visible regime. , 2021, , .		0
111	Quantum Cascade Lasers with Integrated Multi-Beam Plasmonic Collimators. , 2011, , .		0
112	Negative differential thermal emitter. , 2013, , .		0
113	Localized Laser Structures in Coupled Semiconductor Micro-resonators. , 2013, , .		0
114	Vertical Metasurface integrated Cavity Surface-Emitting Lasers (VMCSELs) for collimated lasing emissions. , 2019, , .		0
115	APPLICATIONS and INTEGRATION OF METASURFACES. , 2021, , .		0
116	Advanced Numerical Modeling Methods for the Characterization and Optimization of Metasurfaces. , 2022, , .		0