Rajesh Menon

List of Publications by Year
in descending order

107	3,541	147801 31	144013 57
papers	citations	h-index	g-index

107	107	107	2669
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An integrated-nanophotonics polarization beamsplitter with 2.4â€‰Ã—â€‰2.4â€…Î¼m2 footprint. Nature Photonics, 2015, 9, 378-382.	31.4	593
2	Confining Light to Deep Subwavelength Dimensions to Enable Optical Nanopatterning. Science, 2009, 324, 917-921.	12.6	220
3	Imaging with flat optics: metalenses or diffractive lenses?. Optica, 2019, 6, 805.	9.3	195
4	Chromatic-aberration-corrected diffractive lenses for ultra-broadband focusing. Scientific Reports, 2016, 6, 21545.	3.3	148
5	Design and analysis of multi-wavelength diffractive optics. Optics Express, 2012, 20, 2814.	3.4	125
6	Maskless lithography. Materials Today, 2005, 8, 26-33.	14.2	118
7	Broadband imaging with one planar diffractive lens. Scientific Reports, 2018, 8, 2799.	3.3	99
8	Ultra-high-efficiency metamaterial polarizer. Optica, 2014, 1, 356.	9.3	98
9	Photon-sieve lithography. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 342.	1.5	91
10	Extreme-depth-of-focus imaging with a flat lens. Optica, 2020, 7, 214.	9.3	83
11	Absorbance-modulation optical lithography. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 2290.	1.5	69
12	Broadband lightweight flat lenses for long-wave infrared imaging. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21375-21378.	7.1	68
13	Ultra-compact polarization rotation in integrated silicon photonics using digital metamaterials. Optics Express, 2017, 25, 19721.	3.4	67
14	Optimization of periodic nanostructures for enhanced light-trapping in ultra-thin photovoltaics. Optics Express, 2013, 21, 6274.	3.4	56
15	Computational spectrometer based on a broadband diffractive optic. Optics Express, 2014, 22, 14575.	3.4	56
16	Ultra-high-sensitivity color imaging via a transparent diffractive-filter array and computational optics. Optica, 2015, 2, 933.	9.3	56
17	Large-area, high-numerical-aperture multi-level diffractive lens via inverse design. Optica, 2020, 7, 252.	9.3	56
18	Monolithic graded-refractive-index glass-based antireflective coatings: broadband/omnidirectional light harvesting and self-cleaning characteristics. Journal of Materials Chemistry C, 2015, 3, 5440-5449.	5.5	55

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19	Integrated digital metamaterials enables ultra-compact optical diodes. Optics Express, 2015, 23, 10847.	3.4	53
20	Increasing the density of passive photonic-integrated circuits via nanophotonic cloaking. Nature Communications, 2016, 7, 13126.	12.8	52
21	Increased Photovoltaic Power Output via Diffractive Spectrum Separation. Physical Review Letters, 2013, 110, 123901.	7.8	51
22	Zone-plate-array lithography: A low-cost complement or competitor to scanning-electron-beam lithography. Microelectronic Engineering, 2006, 83, 956-961.	2.4	46
23	Synthesizing broadband propagation-invariant space-time wave packets using transmissive phase plates. Optics Express, 2018, 26, 13628.	3.4	46
24	Non-diffracting broadband incoherent spaceâ€"time fields. Optica, 2019, 6, 598.	9.3	43
25	Broadband space-time wave packets propagating 70â€‰â€‰m. Optics Letters, 2019, 44, 2073.	3.3	40
26	Experimental characterization of focusing by high-numerical-aperture zone plates. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 567.	1.5	37
27	Far-Field Generation of Localized Light Fields using Absorbance Modulation. Physical Review Letters, 2007, 98, 043905.	7.8	37
28	Lithographic patterning and confocal imaging with zone plates. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 2881.	1.6	36
29	Computational multispectral video imaging [Invited]. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2018, 35, 189.	1.5	35
30	An ultra-small three dimensional computational microscope. Applied Physics Letters, 2014, 105, .	3.3	34
31	Deep-brain imaging via epi-fluorescence Computational Cannula Microscopy. Scientific Reports, 2017, 7, 44791.	3.3	33
32	Ultra-thin near infrared camera enabled by a flat multi-level diffractive lens. Optics Letters, 2019, 44, 5450.	3.3	33
33	Single flat lens enabling imaging in the short-wave infra-red (SWIR) band. OSA Continuum, 2019, 2, 2968.	1.8	33
34	Lensless photography with only an image sensor. Applied Optics, 2017, 56, 6450.	1.8	32
35	Full-color, large area, transmissive holograms enabled by multi-level diffractive optics. Scientific Reports, 2017, 7, 5789.	3.3	31
36	A new class of multiâ€bandgap highâ€efficiency photovoltaics enabled by broadband diffractive optics. Progress in Photovoltaics: Research and Applications, 2015, 23, 1073-1079.	8.1	29

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37	Immersion zone-plate-array lithography. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 2657.	1.6	28
38	Inverse-designed achromatic flat lens enabling imaging across the visible and near-infrared with diameter > 3â€‰mm and NA = 0.3. Applied Physics Letters, 2020, 117, .	3.3	28
39	Full-color video and still imaging using two flat lenses. Optics Express, 2018, 26, 26866.	3.4	28
40	Design of diffractive lenses that generate optical nulls without phase singularities. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2009, 26, 297.	1.5	27
41	Computational spectroscopy via singular-value decomposition and regularization. Optics Express, 2014, 22, 21541.	3.4	27
42	Breaking the Far-Field Diffraction Limit in Optical Nanopatterning via Repeated Photochemical and Electrochemical Transitions in Photochromic Molecules. Physical Review Letters, 2011, 107, 205501.	7.8	26
43	Imaging from the visible to the longwave infrared wavelengths via an inverse-designed flat lens. Optics Express, 2021, 29, 20715.	3.4	23
44	Diffractive lens design for optimized focusing. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2014, 31, B27.	1.5	21
45	Fabrication of spiral-phase diffractive elements using scanning-electron-beam lithography. Journal of Vacuum Science & Technology B, 2007, 25, 2068.	1.3	19
46	Enhancing photovoltaic output power by 3-band spectrum-splitting and concentration using a diffractive micro-optic. Optics Express, 2014, 22, A1519.	3.4	19
47	Computational imaging enables a â€œsee-throughâ€• lens-less camera. Optics Express, 2018, 26, 22826.	3.4	19
48	Cannula-based computational fluorescence microscopy. Applied Physics Letters, 2015, 106, .	3.3	18
49	Learning Wavefront Coding for Extended Depth of Field Imaging. IEEE Transactions on Image Processing, 2021, 30, 3307-3320.	9.8	18
50	Multi-plane, multi-band image projection via broadband diffractive optics. Applied Optics, 2020, 59, 38.	1.8	15
51	Hyper-spectral imaging in scanning-confocal-fluorescence microscopy using a novel broadband diffractive optic. Optics Communications, 2014, 324, 73-80.	2.1	14
52	Visible and near-infrared programmable multi-level diffractive lenses with phase change material Sb₂S₃. Optics Express, 2022, 30, 6808.	3.4	14
53	Reduction of focal-spot size using dichromats in absorbance modulation. Optics Letters, 2008, 33, 2916.	3.3	13
54	Optical microlithography on oblique and multiplane surfaces using diffractive phase masks. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2015, 14, 023507.	0.9	13

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55	Unique prospects of phase change material Sb₂Se₃ for ultra-compact reconfigurable nanophotonic devices. Optical Materials Express, 2021, 11, 3007.	3.0	13
56	Spatial-frequency multiplication via absorbance modulation. Applied Physics Letters, 2007, 91, .	3.3	12
57	Parallel scanning-optical nanoscopy with optically confined probes. Optics Express, 2010, 18, 16014.	3.4	11
58	Subwavelength nanopatterning of photochromic diarylethene films. Applied Physics Letters, 2012, 100, 183103.	3.3	11
59	Machine learning enables design of on-chip integrated silicon T-junctions with footprint of 1.2ÂÎ¼mÃ—1.2Î¼m. Nano Communication Networks, 2020, 25, 100312.	2.9	11
60	Reverse-absorbance-modulation-optical lithography for optical nanopatterning at low light levels. AIP Advances, 2016, 6, 065312.	1.3	10
61	Replication of diffractive-optical arrays via photocurable nanoimprint lithography. Journal of Vacuum Science & Technology B, 2006, 24, 2960.	1.3	9
62	A comprehensive simulation model of the performance of photochromic films in absorbance-modulation-optical-lithography. AIP Advances, 2016, 6, .	1.3	9
63	Numerical analysis of computational-cannula microscopy. Applied Optics, 2017, 56, D1.	2.1	9
64	Monolithic all-silicon flat lens for broadband LWIR imaging. Optics Letters, 2021, 46, 4069.	3.3	8
65	Broadband point-spread function engineering via a freeform diffractive microlens array. Optics Express, 2022, 30, 1967.	3.4	8
66	Scan-less machine-learning-enabled incoherent microscopy for minimally-invasive deep-brain imaging. Optics Express, 2022, 30, 1546.	3.4	8
67	Improved localization accuracy in stochastic super-resolution fluorescence microscopy by K-factor image deshadowing. Biomedical Optics Express, 2014, 5, 244.	2.9	7
68	Free-form broadband flat lenses for visible imaging. OSA Continuum, 2021, 4, 491.	1.8	7
69	Parametric control of a diffractive axicon beam rider. Optics Letters, 2021, 46, 5141.	3.3	7
70	Computational cannula microscopy of neurons using neural networks. Optics Letters, 2020, 45, 2111.	3.3	7
71	Super-resolution imaging with an achromatic multi-level diffractive microlens array. Optics Letters, 2020, 45, 6158.	3.3	7
72	Nanopatterning of diarylethene films via selective dissolution of one photoisomer. Applied Physics Letters, 2013, 103, .	3.3	6

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73	Mid-infrared diffraction-free space-time wave packets. OSA Continuum, 2020, 3, 420.	1.8	6
74	Needle-based deep-neural-network camera. Applied Optics, 2021, 60, B135.	1.8	5
75	3D computational cannula fluorescence microscopy enabled by artificial neural networks. Optics Express, 2020, 28, 32342.	3.4	5
76	Machine-learning enables image reconstruction and classification in a â€œsee-throughâ€•camera. OSA Continuum, 2020, 3, 401.	1.8	5
77	Bijective-constrained cycle-consistent deep learning for optics-free imaging and classification. Optica, 2022, 9, 26.	9.3	5
78	High-NA Chromatic-aberration-corrected Diffractive Lens for Broadband Focusing. , 2017, , .		4
79	Precisely Localizing Wavelength Sensitive Point-Spread Functions Engineered With a Silicon Oxide Phase Plate. Microscopy and Microanalysis, 2018, 24, 1364-1365.	0.4	4
80	Patterning via optical-saturable transformations: A review and simple simulation model. Applied Physics Letters, 2014, 105, 193105.	3.3	3
81	Imaging across an Unlimited Bandwidth: is it possible?. , 2020, , .		3
82	Optics-free imaging of complex, non-sparse and color QR-codes with deep neural networks. OSA Continuum, 2020, 3, 2423.	1.8	3
83	Metalenses or diffractive lenses for imaging?. , 2019, , .		3
84	Fast imaging in cannula microscope using orthogonal matching pursuit. , 2015, , .		2
85	A Proposed Method for Optimizing the Spectral Discernibility of Engineered Point-spread Functions for Localization Microscopy. Microscopy and Microanalysis, 2019, 25, 1232-1233.	0.4	2
86	Large-area, high-numerical-aperture multi-level diffractive lens via inverse design: reply. Optica, 2021, 8, 1011.	9.3	2
87	P-27: Diffractive Color Splitter for High-Efficiency Liquid-Crystal Displays. Digest of Technical Papers SID International Symposium, 2015, 46, 1234-1236.	0.3	1
88	Reply to 'On nanostructured silicon success'. Nature Photonics, 2016, 10, 143-143.	31.4	1
89	Ammonia optical gas sensing based on graphene-covered silicon microring resonators: A design space exploration. Microelectronics Journal, 2021, 111, 105041.	2.0	1
90	Snapshot High-resolution Hyper-spectral Imager based on an Ultra-thin Diffractive Filter. , 2016, , .		1

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91	Flat Lenses for Ultra-lightweight Longwave-Infrared Broadband Imaging. , 2019, , .		1
92	Image processing for super-resolution localization in fluorescence microscopy. , 2013, , .		0
93	Collimated backlight for displays and micro-projectors. , 2014, , .		0
94	Multi-Level Diffractive Lenses for Real-Time Long-Wave IR Imaging. , 2019, , .		0
95	Achromatic Broadband Visible Imaging with a 10cm Flat Lens. , 2021, , .		0
96	Free-form Broadband Flat Lens for F-Number and Numerical Aperture Decoupling. , 2021, , .		0
97	Circumventing the far-field diffraction limit in optical nanopatterning. , 2013, , .		0
98	Exploiting photochromism for optical nanopatterning. , 2014, , .		0
99	Patterning via Optical Saturable Transitions - Fabrication and Characterization. Journal of Visualized Experiments, 2014, , .	0.3	0
100	Computational Single-shot Hyper-spectral Imaging based on a Microstructured Diffractive Optic. , 2016, , .		0
101	Full-color, multi-plane image projection with mobile-phone flashlight & a multi-level diffractive hologram. , 2019, , .		0
102	Achromatic Broadband Diffractive Lenses for Focusing and Imaging in LWIR. , 2019, , .		0
103	Single Flat lens enables Extreme Depth of Focus Imaging. , 2020, , .		0
104	Inverse Designed Flat Optics with Diffractive Lenses. , 2020, , .		0
105	Versatile Diffractive Flat Optics. Optics and Photonics News, 2020, 31, 43.	0.5	0
106	Large-Area Ultra-Broadband Achromatic Flat Lens for Imaging in the SWIR. , 2020, , .		0
107	Ultra-thin Near-infrared Camera via Single Flat lens for Wide-angle Imaging. , 2020, , .		0