

Cheng Sun

List of Publications by Year in descending order

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Version: 2024-02-01

141
papers

16,119
citations

46918

47
h-index

17546

121
g-index

143
all docs

143
docs citations

143
times ranked

13821
citing authors

#	ARTICLE	IF	CITATIONS
1	Sub-Diffraction-Limited Optical Imaging with a Silver Superlens. <i>Science</i> , 2005, 308, 534-537.	6.0	3,613
2	Far-Field Optical Hyperlens Magnifying Sub-Diffraction-Limited Objects. <i>Science</i> , 2007, 315, 1686-1686.	6.0	1,895
3	Ultrasonic metamaterials with negative modulus. <i>Nature Materials</i> , 2006, 5, 452-456.	13.3	1,608
4	Optical Negative Refraction in Bulk Metamaterials of Nanowires. <i>Science</i> , 2008, 321, 930-930.	6.0	798
5	Projection micro-stereolithography using digital micro-mirror dynamic mask. <i>Sensors and Actuators A: Physical</i> , 2005, 121, 113-120.	2.0	686
6	Focusing Surface Plasmons with a Plasmonic Lens. <i>Nano Letters</i> , 2005, 5, 1726-1729.	4.5	539
7	Plasmonic Nanolithography. <i>Nano Letters</i> , 2004, 4, 1085-1088.	4.5	536
8	Method for retrieving effective properties of locally resonant acoustic metamaterials. <i>Physical Review B</i> , 2007, 76, .	1.1	398
9	Far-Field Optical Superlens. <i>Nano Letters</i> , 2007, 7, 403-408.	4.5	372
10	Flying plasmonic lens in the near field for high-speed nanolithography. <i>Nature Nanotechnology</i> , 2008, 3, 733-737.	15.6	298
11	Cloaking of Matter Waves. <i>Physical Review Letters</i> , 2008, 100, 123002.	2.9	296
12	Tunable assembly of graphene oxide surfactant sheets: wrinkles, overlaps and impacts on thin film properties. <i>Soft Matter</i> , 2010, 6, 6096.	1.2	206
13	Surface resonant states and superlensing in acoustic metamaterials. <i>Physical Review B</i> , 2007, 75, .	1.1	200
14	Development of optical hyperlens for imaging below the diffraction limit. <i>Optics Express</i> , 2007, 15, 15886.	1.7	192
15	Maskless Plasmonic Lithography at 22-nm Resolution. <i>Scientific Reports</i> , 2011, 1, 175.	1.6	158
16	A transparent broadband ultrasonic detector based on an optical micro-ring resonator for photoacoustic microscopy. <i>Scientific Reports</i> , 2014, 4, 4496.	1.6	158
17	Two-Dimensional Imaging by Far-Field Superlens at Visible Wavelengths. <i>Nano Letters</i> , 2007, 7, 3360-3365.	4.5	148
18	Controlling the Polarization State of Light with a Dispersion-Free Metastructure. <i>Physical Review X</i> , 2014, 4, .	2.8	139

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19	Patterned Growth of Vertically Aligned Organic Nanowire Waveguide Arrays. ACS Nano, 2010, 4, 1630-1636.	7.3	138
20	3D Printing Strong High-Resolution Antioxidant Bioresorbable Vascular Stents. Advanced Materials Technologies, 2016, 1, 1600138.	3.0	138
21	Construction of a chiral metamaterial with a U-shaped resonator assembly. Physical Review B, 2010, 81, .	1.1	129
22	Optical Detection of Ultrasound in Photoacoustic Imaging. IEEE Transactions on Biomedical Engineering, 2017, 64, 4-15.	2.5	121
23	The influences of the material properties on ceramic micro-stereolithography. Sensors and Actuators A: Physical, 2002, 101, 364-370.	2.0	117
24	Flexible Ultrathin Single-Crystalline Perovskite Photodetector. Nano Letters, 2020, 20, 7144-7151.	4.5	117
25	Hiding a Realistic Object Using a Broadband Terahertz Invisibility Cloak. Scientific Reports, 2011, 1, 78.	1.6	113
26	Plasmonic Nearfield Scanning Probe with High Transmission. Nano Letters, 2008, 8, 3041-3045.	4.5	108
27	Design of mechanical metamaterials for simultaneous vibration isolation and energy harvesting. Applied Physics Letters, 2017, 111, .	1.5	105
28	Multiplexed RNAi therapy against brain tumor-initiating cells via lipopolymeric nanoparticle infusion delays glioblastoma progression. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6147-E6156.	3.3	102
29	Realization of optical superlens imaging below the diffraction limit. New Journal of Physics, 2005, 7, 255-255.	1.2	100
30	High-Speed 3D Printing of Millimeter-Size Customized Aspheric Imaging Lenses with Sub 7 nm Surface Roughness. Advanced Materials, 2018, 30, e1705683.	11.1	98
31	Super-resolution spectroscopic microscopy via photon localization. Nature Communications, 2016, 7, 12290.	5.8	91
32	Highly Efficient Light-Trapping Structure Design Inspired By Natural Evolution. Scientific Reports, 2013, 3, 1025.	1.6	83
33	Photoacoustic probe using a microring resonator ultrasonic sensor for endoscopic applications. Optics Letters, 2014, 39, 4372.	1.7	80
34	Isometric multimodal photoacoustic microscopy based on optically transparent micro-ring ultrasonic detection. Optica, 2015, 2, 169.	4.8	79
35	Experimental studies of far-field superlens for sub-diffractive optical imaging. Optics Express, 2007, 15, 6947.	1.7	74
36	Additive Manufacturing of a 3D Terahertz Gradient-Index Lens. Advanced Optical Materials, 2016, 4, 1034-1040.	3.6	73

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37	Rapid fabrication of hierarchically structured supramolecular nanocomposite thin films in one minute. <i>Nature Communications</i> , 2014, 5, 4053.	5.8	72
38	Far-Red Photoactivatable BODIPYs for the Super-Resolution Imaging of Live Cells. <i>Journal of the American Chemical Society</i> , 2018, 140, 12741-12745.	6.6	71
39	Increased stiffness and flow resistance of the inner wall of Schlemm's canal in glaucomatous human eyes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 26555-26563.	3.3	70
40	All Optical Interface for Parallel, Remote, and Spatiotemporal Control of Neuronal Activity. <i>Nano Letters</i> , 2007, 7, 3859-3863.	4.5	67
41	Nanopin Plasmonic Resonator Array and Its Optical Properties. <i>Nano Letters</i> , 2007, 7, 1076-1080.	4.5	67
42	Raman Enhancement Factor of a Single Tunable Nanoplasmonic Resonator. <i>Journal of Physical Chemistry B</i> , 2006, 110, 3964-3968.	1.2	64
43	Midinfrared metamaterials fabricated by nanoimprint lithography. <i>Applied Physics Letters</i> , 2007, 90, 063107.	1.5	64
44	Repurposing Blu-ray movie discs as quasi-random nanoimprinting templates for photon management. <i>Nature Communications</i> , 2014, 5, 5517.	5.8	57
45	Superresolution intrinsic fluorescence imaging of chromatin utilizing native, unmodified nucleic acids for contrast. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 9716-9721.	3.3	56
46	Fabricating customized hydrogel contact lens. <i>Scientific Reports</i> , 2016, 6, 34905.	1.6	56
47	Asymmetric photon transport in organic semiconductor nanowires through electrically controlled exciton diffusion. <i>Science Advances</i> , 2018, 4, eaap9861.	4.7	56
48	Disposable ultrasound-sensing chronic cranial window by soft nanoimprinting lithography. <i>Nature Communications</i> , 2019, 10, 4277.	5.8	52
49	High-speed on-demand 3D printed bioresorbable vascular scaffolds. <i>Materials Today Chemistry</i> , 2018, 7, 25-34.	1.7	50
50	A microfabricated platform probing cytoskeleton dynamics using multidirectional topographical cues. <i>Biomedical Microdevices</i> , 2007, 9, 523-531.	1.4	44
51	Switching the electric and magnetic responses in a metamaterial. <i>Physical Review B</i> , 2009, 80, .	1.1	44
52	3D Printing Customized Optical Lens in Minutes. <i>Advanced Optical Materials</i> , 2020, 8, 1901646.	3.6	41
53	Tuning the far-field superlens: from UV to visible. <i>Optics Express</i> , 2007, 15, 7095.	1.7	40
54	Time-Resolved Single-Step Protease Activity Quantification Using Nanoplasmonic Resonator Sensors. <i>ACS Nano</i> , 2010, 4, 978-984.	7.3	38

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55	Nonreciprocal resonant transmission/reflection based on a one-dimensional photonic crystal adjacent to the magneto-optical metal film. <i>Optics Express</i> , 2013, 21, 28933.	1.7	37
56	Numerical and experimental investigation of light trapping effect of nanostructured diatom frustules. <i>Scientific Reports</i> , 2015, 5, 11977.	1.6	36
57	Characterization and Design of Functional Quasi-Random Nanostructured Materials Using Spectral Density Function. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2017, 139, .	1.7	36
58	The Development of an All-polymer-based Piezoelectric Photocurable Resin for Additive Manufacturing. <i>Procedia CIRP</i> , 2017, 65, 157-162.	1.0	35
59	Quantifying melanin concentration in retinal pigment epithelium using broadband photoacoustic microscopy. <i>Biomedical Optics Express</i> , 2017, 8, 2851.	1.5	35
60	Multicolor super-resolution imaging using spectroscopic single-molecule localization microscopy with optimal spectral dispersion. <i>Applied Optics</i> , 2019, 58, 2248.	0.9	35
61	Near-field Moiré effect mediated by surface plasmon polariton excitation. <i>Optics Letters</i> , 2007, 32, 629.	1.7	34
62	Super-Resolution Imaging by Random Adsorbed Molecule Probes. <i>Nano Letters</i> , 2008, 8, 1159-1162.	4.5	33
63	Subsurface Super-resolution Imaging of Unstained Polymer Nanostructures. <i>Scientific Reports</i> , 2016, 6, 28156.	1.6	31
64	Three-dimensional biplane spectroscopic single-molecule localization microscopy. <i>Optica</i> , 2019, 6, 709.	4.8	28
65	3D printed magnetically-actuating micro-gripper operates in air and water. <i>Additive Manufacturing</i> , 2021, 38, 101834.	1.7	27
66	Theoretical analysis of spectral precision in spectroscopic single-molecule localization microscopy. <i>Review of Scientific Instruments</i> , 2018, 89, 123703.	0.6	26
67	Symmetrically dispersed spectroscopic single-molecule localization microscopy. <i>Light: Science and Applications</i> , 2020, 9, 92.	7.7	26
68	Mechanical Simulation of a Diatom Frustule Structure. <i>Journal of Bionic Engineering</i> , 2015, 12, 98-108.	2.7	25
69	Distinct pathological signatures in human cellular models of myotonic dystrophy subtypes. <i>JCI Insight</i> , 2019, 4, .	2.3	25
70	Design of Non-Deterministic Quasi-random Nanophotonic Structures Using Fourier Space Representations. <i>Scientific Reports</i> , 2017, 7, 3752.	1.6	24
71	Longitudinal deep-brain imaging in mouse using visible-light optical coherence tomography through chronic microprism cranial window. <i>Biomedical Optics Express</i> , 2019, 10, 5235.	1.5	24
72	Quantitative Imaging of Rapidly Decaying Evanescent Fields Using Plasmonic Near-Field Scanning Optical Microscopy. <i>Scientific Reports</i> , 2013, 3, 2803.	1.6	20

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73	Parallel Three-Dimensional Tracking of Quantum Rods Using Polarization-Sensitive Spectroscopic Photon Localization Microscopy. <i>ACS Photonics</i> , 2017, 4, 1747-1752.	3.2	20
74	Topology optimization and fabrication of low frequency vibration energy harvesting microdevices. <i>Smart Materials and Structures</i> , 2015, 24, 025005.	1.8	19
75	Conformal Geometry and Multimaterial Additive Manufacturing through Freeform Transformation of Building Layers. <i>Advanced Materials</i> , 2021, 33, e2005672.	11.1	19
76	Ultrasonic near-field optical microscopy using a plasmonic nanofocusing probe. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	17
77	Rapid 3D Printing Magnetically Active Microstructures with High Solid Loading. <i>Advanced Engineering Materials</i> , 2020, 22, 1900911.	1.6	16
78	Theoretical and experimental studies of distance dependent response of micro-ring resonator-based ultrasonic detectors for photoacoustic microscopy. <i>Journal of Applied Physics</i> , 2014, 116, 144501.	1.1	15
79	Realization of negative refractive index with double-layered H-shaped resonator array. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	14
80	Gigahertz All-Optical Modulation Using Reconfigurable Nanophotonic Metamolecules. <i>Nano Letters</i> , 2016, 16, 7690-7695.	4.5	14
81	Fabrication Speed Optimization for High-resolution 3D-printing of Bioresorbable Vascular Scaffolds. <i>Procedia CIRP</i> , 2017, 65, 131-138.	1.0	14
82	Method for Attaining Dimensionally Accurate Conditions for High-Resolution Three-Dimensional Printing Ceramic Composite Structures Using MicroCLIP Process. <i>Journal of Micro and Nano-Manufacturing</i> , 2019, 7, .	0.8	14
83	Adhesion force of polymeric three-dimensional microstructures fabricated by microstereolithography. <i>Applied Physics Letters</i> , 2002, 81, 3963-3965.	1.5	13
84	Artificial phonon-plasmon polariton at the interface of piezoelectric metamaterials and semiconductors. <i>Physical Review B</i> , 2007, 76, .	1.1	13
85	Super-Resolution Imaging of Self-Assembled Nanocarriers Using Quantitative Spectroscopic Analysis for Cluster Extraction. <i>Langmuir</i> , 2020, 36, 2291-2299.	1.6	13
86	Design, fabrication and characterization of a Far-field Superlens. <i>Solid State Communications</i> , 2008, 146, 202-207.	0.9	12
87	Investigating Single-Molecule Fluorescence Spectral Heterogeneity of Rhodamines Using High-Throughput Single-Molecule Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 3914-3921.	2.1	12
88	Topology optimization for light-trapping structure in solar cells. <i>Structural and Multidisciplinary Optimization</i> , 2014, 50, 367-382.	1.7	11
89	Method to identify and minimize artifacts induced by fluorescent impurities in single-molecule localization microscopy. <i>Journal of Biomedical Optics</i> , 2018, 23, 1.	1.4	11
90	Scalable nanofabrication of U-shaped nanowire resonators with tunable optical magnetism. <i>Optics Express</i> , 2016, 24, 6367.	1.7	10

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91	Lasing-Mode Switch of a Hexagonal ZnO Pyramid Driven by Pressure within a Diamond Anvil Cell. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 610-616.	2.1	10
92	Optical Behaviors of a Microsized Single-Crystal MAPbI ₃ Plate under High Pressure. <i>Journal of Physical Chemistry C</i> , 2019, 123, 30221-30227.	1.5	10
93	Negative group velocity of surface plasmons on thin metallic films. , 2006, 6323, 224.		9
94	Dynamic near-field optical interaction between oscillating nanomechanical structures. <i>Scientific Reports</i> , 2015, 5, 10058.	1.6	9
95	Colposcopic imaging using visible-light optical coherence tomography. <i>Journal of Biomedical Optics</i> , 2017, 22, 056003.	1.4	9
96	Temperature-Dependent Lasing of CsPbI ₃ Triangular Pyramid. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 7056-7061.	2.1	9
97	Maximizing Solar Energy Utilization through Multicriteria Pareto Optimization of Energy Harvesting and Regulating Smart Windows. <i>Cell Reports Physical Science</i> , 2020, 1, 100108.	2.8	9
98	Monolithic dual-wedge prism-based spectroscopic single-molecule localization microscopy. <i>Nanophotonics</i> , 2022, 11, 1527-1535.	2.9	9
99	3D-Printed Electroactive Hydrogel Architectures with Sub-100-µm Resolution Promote Myoblast Viability. <i>Macromolecular Bioscience</i> , 2022, 22, .	2.1	9
100	Optically nonactive assorted helix array with interchangeable magnetic/electric resonance. <i>Applied Physics Letters</i> , 2011, 98, 071901.	1.5	8
101	A realistic design of three-dimensional full cloak at terahertz frequencies. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	8
102	Real-time Functional Analysis of Inertial Microfluidic Devices via Spectral Domain Optical Coherence Tomography. <i>Scientific Reports</i> , 2016, 6, 33250.	1.6	8
103	Microstereolithography of Three-Dimensional Polymeric Springs for Vibration Energy Harvesting. <i>Smart Materials Research</i> , 2012, 2012, 1-9.	0.5	7
104	Scaling the Artificial Polariton Bandgap at Infrared Frequencies Using Indium Tin Oxide Nanorod Arrays. <i>Advanced Optical Materials</i> , 2016, 4, 2077-2084.	3.6	7
105	Bendable disordered metamaterials for broadband terahertz invisibility. <i>Optics Express</i> , 2020, 28, 3552.	1.7	7
106	Design of Plasmonic Racetrack Resonators with a Trench Structure. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 092201.	0.8	7
107	45% Periodicity Reduction in Nanocomposite Thin Films via Rapid Solvent Removal. <i>Macromolecules</i> , 2019, 52, 1803-1809.	2.2	6
108	RainbowSTORM: an open-source ImageJ plug-in for spectroscopic single-molecule localization microscopy (sSMLM) data analysis and image reconstruction. <i>Bioinformatics</i> , 2020, 36, 4972-4974.	1.8	6

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109	A Coupled Electromagnetic and Thermal Model for Picosecond and Nanometer Scale Plasmonic Lithography Process. Journal of Micro and Nano-Manufacturing, 2014, 2, .	0.8	5
110	Rapid 3D Printing Magnetically Active Microstructures with High Solid Loading. Advanced Engineering Materials, 2020, 22, 2070009.	1.6	5
111	Improving spatial precision and field-of-view in wavelength-tagged single-particle tracking using spectroscopic single-molecule localization microscopy. Applied Optics, 2021, 60, 3647.	0.9	5
112	Flying plasmonic lens at near field for high speed nanolithography. Proceedings of SPIE, 2010, , .	0.8	4
113	Design of Plasmonic Racetrack Resonators with a Trench Structure. Japanese Journal of Applied Physics, 2011, 50, 092201.	0.8	4
114	Spectroscopic analysis beyond the diffraction limit. International Journal of Biochemistry and Cell Biology, 2018, 101, 113-117.	1.2	4
115	Sub-10nm Distance Measurements between Fluorophores using Photon Accumulation Enhanced Reconstruction. Advanced Photonics Research, 2020, 1, 2000038.	1.7	4
116	Super-resolution imaging of flat-mounted whole mouse cornea. Experimental Eye Research, 2021, 205, 108499.	1.2	4
117	Optical detection of ultrasound using an apertureless near-field scanning optical microscopy system. AIP Conference Proceedings, 2013, , .	0.3	3
118	Shrinking the camera size. Nature Materials, 2017, 16, 11-12.	13.3	3
119	Lasing Behavior of a Single ZnO Nanowire Resonating in Fabry-Perot Mode under Pressure. Journal of Physical Chemistry C, 2020, 124, 7523-7530.	1.5	3
120	Imaging endocervical mucus anatomy and dynamics in macaque female reproductive track using optical coherence tomography. Quantitative Imaging in Medicine and Surgery, 2015, 5, 40-5.	1.1	3
121	Magnifying Sub-diffraction-limited Objects by an Optical Metamaterials Hyperlens. , 2007, , .		3
122	Surface plasmon beats formed on thin metal films. , 2006, 6323, 215.		2
123	High-throughput 3D printing of customized imaging lens. , 2018, , .		2
124	Plasmonic nearfield scanning optical microscopy. , 2006, , .		1
125	Particle enhanced plasmonic NSOM. , 2007, , .		1
126	A Coupled Electromagnetic and Thermal Model for Picosecond and Nanometer Scale Plasmonic Lithography Process. , 2013, , .		1

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127	Understanding the nanophotonic light-trapping structure of diatom frustule for enhanced solar energy conversion: a theoretical and experimental study. , 2014, , .		1
128	Theoretical and experimental manipulation of plasmon-polariton bandgaps at infrared frequencies in indium-tin-oxide nanorod arrays. , 2016, , .		1
129	Hyperbolic Dispersion via Symmetric and Antisymmetric Orderings of Artificial Magnetic Dipole Array. ACS Photonics, 2018, 5, 4469-4475.	3.2	1
130	3D Printing: Conformal Geometry and Multimaterial Additive Manufacturing through Freeform Transformation of Building Layers (Adv. Mater. 11/2021). Advanced Materials, 2021, 33, 2170082.	11.1	1
131	Bulky Nanowire Metamaterials for Negative Refraction at Broadband Frequencies from Visible to NIR. , 2009, , .		1
132	Optical Silver Superlens Imaging Below the Diffraction Limit. Materials Research Society Symposia Proceedings, 2006, 919, 1.	0.1	0
133	Flying plasmonic lens at near field for high speed nano-lithography. , 2009, , .		0
134	High-speed Near Field Optical recording Using Plasmonic Flying Head. , 2011, , .		0
135	Three-dimensional invisibility cloaks functioning at terahertz frequencies. , 2014, , .		0
136	Engineering the meta-resonances toward functional terahertz devices. , 2015, , .		0
137	3D-printed bioresorbable vascular scaffolds: an important step towards personalizing vascular medical devices?. Expert Review of Precision Medicine and Drug Development, 2017, 2, 145-146.	0.4	0
138	Nanoscale Imaging of Chromatin with Labeled and Label-Free Super-Resolution Microscopy and Partial-Wave Spectroscopy. , 2018, , .		0
139	All Optical platform for Parallel and Spatiotemporal Control of Neuronal Activity. , 2008, , .		0
140	Optical Hyperlens Imaging with Resolution Go Beyond the Conventional Diffraction Limit. , 2009, , .		0
141	Terahertz Invisibility Cloaking. , 2012, , .		0