

Jiaru Chu

List of Publications by Year in descending order

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79
papers

3,330
citations

117625

34
h-index

161849

54
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79
all docs

79
docs citations

79
times ranked

2709
citing authors

#	ARTICLE	IF	CITATIONS
1	Three-dimensional chiral microstructures fabricated by structured optical vortices in isotropic material. <i>Light: Science and Applications</i> , 2017, 6, e17011-e17011.	16.6	201
2	Multifunctional Janus Microplates Arrays Actuated by Magnetic Fields for Water/Light Switches and Bioinspired Assimilatory Coloration. <i>Advanced Materials</i> , 2019, 31, e1807507.	21.0	144
3	Botanical-Inspired 4D Printing of Hydrogel at the Microscale. <i>Advanced Functional Materials</i> , 2020, 30, 1907377.	14.9	122
4	Efficient nonlinear beam shaping in three-dimensional lithium niobate nonlinear photonic crystals. <i>Nature Communications</i> , 2019, 10, 4193.	12.8	114
5	Environmentally Adaptive Shape-Morphing Microrobots for Localized Cancer Cell Treatment. <i>ACS Nano</i> , 2021, 15, 18048-18059.	14.6	94
6	Multifunctional ultrathin aluminum foil: oil/water separation and particle filtration. <i>Journal of Materials Chemistry A</i> , 2016, 4, 18832-18840.	10.3	92
7	Nanogap Plasmonic Structures Fabricated by Switchable Capillary-Force Driven Self-Assembly for Localized Sensing of Anticancer Medicines with Microfluidic SERS. <i>Advanced Functional Materials</i> , 2020, 30, 1909467.	14.9	91
8	Conical Hollow Microhelices with Superior Swimming Capabilities for Targeted Cargo Delivery. <i>Advanced Materials</i> , 2019, 31, e1808226.	21.0	89
9	Laser printing hierarchical structures with the aid of controlled capillary-driven self-assembly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 6876-6881.	7.1	87
10	Stimuli-Responsive Actuator Fabricated by Dynamic Asymmetric Femtosecond Bessel Beam for <i>In Situ</i> Particle and Cell Manipulation. <i>ACS Nano</i> , 2020, 14, 5233-5242.	14.6	87
11	All-Optical Iontronic Sensing Paper. <i>Advanced Functional Materials</i> , 2019, 29, 1807343.	14.9	85
12	Pitcher plant-bioinspired bubble slippery surface fabricated by femtosecond laser for buoyancy-driven bubble self-transport and efficient gas capture. <i>Nanoscale</i> , 2019, 11, 1370-1378.	5.6	74
13	<i>In Situ</i> Reversible Control between Sliding and Pinning for Diverse Liquids under Ultra-Low Voltage. <i>ACS Nano</i> , 2019, 13, 5742-5752.	14.6	73
14	Bioinspired micro/nanostructured surfaces prepared by femtosecond laser direct writing for multi-functional applications. <i>International Journal of Extreme Manufacturing</i> , 2020, 2, 032002.	12.7	73
15	Switchable Underwater Bubble Wettability on Laser-Induced Titanium Multiscale Micro-/Nanostructures by Vertically Crossed Scanning. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 16867-16873.	8.0	65
16	Femtosecond Mathieu Beams for Rapid Controllable Fabrication of Complex Microcages and Application in Trapping Microobjects. <i>ACS Nano</i> , 2019, 13, 4667-4676.	14.6	63
17	High Performance Bubble Manipulation on Ferrofluid-Infused Laser-Ablated Microstructured Surfaces. <i>Nano Letters</i> , 2020, 20, 5513-5521.	9.1	63
18	Giant Helical Dichroism of Single Chiral Nanostructures with Photonic Orbital Angular Momentum. <i>ACS Nano</i> , 2021, 15, 2893-2900.	14.6	63

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19	High-Performance Unidirectional Manipulation of Microdroplets by Horizontal Vibration on Femtosecond Laser-Induced Slant Microwall Arrays. <i>Advanced Materials</i> , 2020, 32, e2005039.	21.0	62
20	Gigantic vortical differential scattering as a monochromatic probe for multiscale chiral structures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	62
21	Remote Photothermal Actuation of Underwater Bubble toward Arbitrary Direction on Planar Slippery Fe ₃ O ₄ -Doped Surfaces. <i>Advanced Functional Materials</i> , 2019, 29, 1904766.	14.9	59
22	Reconfigurable Magnetic Liquid Metal Robot for High-Performance Droplet Manipulation. <i>Nano Letters</i> , 2022, 22, 2923-2933.	9.1	57
23	Localized Self-Growth of Reconfigurable Architectures Induced by a Femtosecond Laser on a Shape-Memory Polymer. <i>Advanced Materials</i> , 2018, 30, e1803072.	21.0	55
24	In Situ Reversible Tuning from Pinned to Roll-Down Superhydrophobic States on a Thermal-Responsive Shape Memory Polymer by a Silver Nanowire Film. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 13464-13472.	8.0	55
25	Targeted Single-Cell Therapeutics with Magnetic Tubular Micromotor by One-Step Exposure of Structured Femtosecond Optical Vortices. <i>Advanced Functional Materials</i> , 2019, 29, 1905745.	14.9	54
26	Noncontact All-in-Situ Reversible Reconfiguration of Femtosecond Laser-Induced Shape Memory Magnetic Microcones for Multifunctional Liquid Droplet Manipulation and Information Encryption. <i>Advanced Functional Materials</i> , 2021, 31, 2100543.	14.9	51
27	Three-Dimensional Multifunctional Magnetically Responsive Liquid Manipulator Fabricated by Femtosecond Laser Writing and Soft Transfer. <i>Nano Letters</i> , 2020, 20, 7519-7529.	9.1	50
28	Two-photon polymerization of microstructures by a non-diffraction multifoci pattern generated from a superposed Bessel beam. <i>Optics Letters</i> , 2017, 42, 743.	3.3	49
29	Transparent Light-Driven Hydrogel Actuator Based on Photothermal Marangoni Effect and Buoyancy Flow for Three-Dimensional Motion. <i>Advanced Functional Materials</i> , 2021, 31, 2009386.	14.9	48
30	Capillary Force Driven Self-Assembly of Anisotropic Hierarchical Structures Prepared by Femtosecond Laser 3D Printing and Their Applications in Crystallizing Microparticles. <i>ACS Nano</i> , 2015, 9, 12060-12069.	14.6	47
31	Two-photon polymerization of cylinder microstructures by femtosecond Bessel beams. <i>Applied Physics Letters</i> , 2014, 105, 041110.	3.3	44
32	Chiral Assemblies of Laser-Printed Micropillars Directed by Asymmetrical Capillary Force. <i>Advanced Materials</i> , 2020, 32, e2002356.	21.0	42
33	Quasi-phase-matching-division multiplexing holography in a three-dimensional nonlinear photonic crystal. <i>Light: Science and Applications</i> , 2021, 10, 146.	16.6	42
34	A Biocompatible Vibration-Actuated Omni-Droplets Rectifier with Large Volume Range Fabricated by Femtosecond Laser. <i>Advanced Materials</i> , 2022, 34, e2108567.	21.0	40
35	Efficient full-path optical calculation of scalar and vector diffraction using the Bluestein method. <i>Light: Science and Applications</i> , 2020, 9, 119.	16.6	38
36	Real-time two-photon lithography in controlled flow to create a single-microparticle array and particle-cluster array for optofluidic imaging. <i>Lab on A Chip</i> , 2018, 18, 442-450.	6.0	35

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37	Unidirectional Transport and Effective Collection of Underwater CO ₂ Bubbles Utilizing Ultrafast-Laser-Ablated Janus Foam. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 18110-18115.	8.0	34
38	High efficiency fabrication of complex microtube arrays by scanning focused femtosecond laser Bessel beam for trapping/releasing biological cells. <i>Optics Express</i> , 2017, 25, 8144.	3.4	33
39	Cross-Species Bioinspired Anisotropic Surfaces for Active Droplet Transportation Driven by Unidirectional Microcolumn Waves. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 42264-42273.	8.0	33
40	Reversible Tuning between Isotropic and Anisotropic Sliding by One-Direction Mechanical Stretching on Microgrooved Slippery Surfaces. <i>Langmuir</i> , 2019, 35, 10625-10630.	3.5	31
41	Uniaxial Stretching of Cell-Laden Microfibers for Promoting C2C12 Myoblasts Alignment and Myofibers Formation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 2162-2170.	8.0	31
42	Ultralow-Voltage-Driven Smart Control of Diverse Drop TM s Anisotropic Sliding by in Situ Switching Joule Heat on Paraffin-Infused Microgrooved Slippery Surface. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 1895-1904.	8.0	31
43	<i>In situ</i> tunable bubble wettability with fast response induced by solution surface tension. <i>Journal of Materials Chemistry A</i> , 2018, 6, 20878-20886.	10.3	30
44	Mechanical-Tunable Capillary-Force-Driven Self-Assembled Hierarchical Structures on Soft Substrate. <i>ACS Nano</i> , 2018, 12, 10142-10150.	14.6	29
45	Arch-like microsorters with multi-modal and clogging-improved filtering functions by using femtosecond laser multifocal parallel microfabrication. <i>Optics Express</i> , 2017, 25, 16739.	3.4	27
46	Handwriting Iontronic Pressure Sensing Origami. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 46157-46164.	8.0	27
47	Ultrathin and High-Stress-Resolution Liquid-Metal-Based Pressure Sensors with Simple Device Structures. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 55390-55398.	8.0	27
48	Dimension [∞] Controllable Microtube Arrays by Dynamic Holographic Processing as 3D Yeast Culture Scaffolds for Asymmetrical Growth Regulation. <i>Small</i> , 2017, 13, 1701190.	10.0	26
49	Droplet digital PCR enabled by microfluidic impact printing for absolute gene quantification. <i>Talanta</i> , 2020, 211, 120680.	5.5	25
50	Multifurcate Assembly of Slanted Micropillars Fabricated by Superposition of Optical Vortices and Application in High [∞] Efficiency Trapping Microparticles. <i>Advanced Functional Materials</i> , 2017, 27, 1701939.	14.9	24
51	Femtosecond Laser Regulated Ultrafast Growth of Mushroom-Like Architecture for Oil Repellency and Manipulation. <i>Nano Letters</i> , 2021, 21, 9301-9309.	9.1	22
52	Bridged Bowtie Aperture Antenna for Producing an Electromagnetic Hot Spot. <i>ACS Photonics</i> , 2017, 4, 567-575.	6.6	21
53	Generation of colorful Airy beams and Airy imaging of letters via two-photon processed cubic phase plates. <i>Optics Letters</i> , 2018, 43, 1151.	3.3	21
54	Hemoglobin-Laden Microcapsules for Simulating Oxygen Dynamics of Biological Tissue. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 3177-3184.	5.2	20

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55	Three-level cobblestone-like TiO ₂ micro/nanocones for dual-responsive water/oil reversible wetting without fluorination. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	18
56	Continuous cubic phase microplates for generating high-quality Airy beams with strong deflection. <i>Optics Letters</i> , 2017, 42, 2483.	3.3	18
57	High-aspect-ratio microtubes with variable diameter and uniform wall thickness by compressing Bessel hologram phase depth. <i>Optics Letters</i> , 2018, 43, 3514.	3.3	18
58	Spontaneous and unidirectional transportation of underwater bubbles on superhydrophobic dual rails. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	18
59	Robust Underwater Air Layer Retention and Restoration on <i>Salvinia</i> -Inspired Self-Grown Heterogeneous Architectures. <i>ACS Nano</i> , 2022, 16, 2730-2740.	14.6	18
60	Piezoelectric-driven droplet impact printing with an interchangeable microfluidic cartridge. <i>Biomicrofluidics</i> , 2015, 9, 054101.	2.4	17
61	Microtubes with Complex Cross Section Fabricated by C-Shaped Bessel Laser Beam for Mimicking Stomata That Opens and Closes Rapidly. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 36369-36376.	8.0	17
62	Channel-controlled Janus membrane fabricated by simultaneous laser ablation and nanoparticles deposition for underwater bubbles manipulation. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	17
63	Rapid Fabrication of 3D Chiral Microstructures by Single Exposure of Interfered Femtosecond Vortex Beams and Capillary-Force-Assisted Self-Assembly. <i>Advanced Functional Materials</i> , 2022, 32, 2106917.	14.9	17
64	Functional Shape-Morphing Microarchitectures Fabricated by Dynamic Holographically Shifted Femtosecond Multifoci. <i>Nano Letters</i> , 2022, 22, 5277-5286.	9.1	16
65	Light-driven Locomotion of Underwater Bubbles on Ultrarobust Paraffin-impregnated Laser-ablated Fe ₃ O ₄ -doped Slippery Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 9272-9280.	8.0	15
66	Tunable microfluidic device fabricated by femtosecond structured light for particle and cell manipulation. <i>Lab on A Chip</i> , 2019, 19, 3988-3996.	6.0	14
67	Guiding the Patterned Growth of Neuronal Axons and Dendrites Using Anisotropic Micropillar Scaffolds. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100094.	7.6	10
68	3D Multiscale Micro-/Nanofolds by Femtosecond Laser Intermittent Ablation and Constrained Heating on a Shape Memory Polymer. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 23210-23219.	8.0	9
69	Sustaining Robust Cavities with Slippery Liquid-Liquid Interfaces. <i>Advanced Science</i> , 2022, 9, e2103568.	11.2	8
70	Tailoring Optical Vortical Dichroism with Stereometamaterials. <i>Laser and Photonics Reviews</i> , 2022, 16, .	8.7	8
71	Femtosecond Laser-Assisted Top-Restricted Self-Growth Re-Entrant Structures on Shape Memory Polymer for Dynamic Pressure Resistance. <i>Langmuir</i> , 2020, 36, 12346-12356.	3.5	7
72	On-Demand Maneuvering of Diverse Prodrug Liquids on a Light-Responsive Candle-Soot-Hybridized Lubricant-Infused Slippery Surface for Highly Effective Toxicity Screening. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 31667-31676.	8.0	6

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73	Kirigami Structures of Shape Memory Polymer by Femtosecond Laser Scribing and Constrained Heating. <i>Advanced Materials Technologies</i> , 2021, 6, 2100200.	5.8	4
74	Direct Generation of Airy Beams at Designed Fourier Planes Using Integrated Airy Phase Plates. <i>IEEE Photonics Technology Letters</i> , 2021, 33, 595-598.	2.5	4
75	Anisotropic Sliding Behaviors of Gas Bubbles upon Ferrofluid-Infused Orthonormal Tracks (FOTs) Under Magnetic Stimuli. <i>Advanced Materials Interfaces</i> , 2022, 9, .	3.7	4
76	4D Printing: Botanical-Inspired 4D Printing of Hydrogel at the Microscale (<i>Adv. Funct. Mater.</i> 4/2020). <i>Advanced Functional Materials</i> , 2020, 30, 2070026.	14.9	2
77	Reply to Comments on "Efficient full-path optical calculation of scalar and vector diffraction using the Bluestein method": <i>Light: Science and Applications</i> , 2021, 10, 13.	16.6	2
78	Femtosecond laser direct writing continuous phase vortex gratings with proportionally distributed diffraction energy. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	1
79	Chiral Microstructures: Chiral Assemblies of Laser-Printed Micropillars Directed by Asymmetrical Capillary Force (<i>Adv. Mater.</i> 31/2020). <i>Advanced Materials</i> , 2020, 32, 2070236.	21.0	0