Jiaru Chu

List of Publications by Year
in descending order

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79	3,330	117625	161849
papers	citations	34 h-index	54 g-index

79	79	79	2709
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Rapid Fabrication of 3D Chiral Microstructures by Single Exposure of Interfered Femtosecond Vortex Beams and Capillaryâ€Forceâ€Assisted Selfâ€Assembly. Advanced Functional Materials, 2022, 32, 2106917.	14.9	17
2	Sustaining Robust Cavities with Slippery Liquidâ€“Liquid Interfaces. Advanced Science, 2022, 9, e2103568.	11.2	8
3	Anisotropic Sliding Behaviors of Gas Bubbles upon Ferrofluidâ€Infused Orthonormal Tracks (FOTs) Under Magnetic Stimuli. Advanced Materials Interfaces, 2022, 9, .	3.7	4
4	A Biocompatible Vibrationâ€Actuated Omniâ€Droplets Rectifier with Large Volume Range Fabricated by Femtosecond Laser. Advanced Materials, 2022, 34, e2108567.	21.0	40
5	Robust Underwater Air Layer Retention and Restoration on Salvinia-Inspired Self-Grown Heterogeneous Architectures. ACS Nano, 2022, 16, 2730-2740.	14.6	18
6	Reconfigurable Magnetic Liquid Metal Robot for High-Performance Droplet Manipulation. Nano Letters, 2022, 22, 2923-2933.	9.1	57
7	Tailoring Optical Vortical Dichroism with Stereometamaterials. Laser and Photonics Reviews, 2022, 16, .	8.7	8
8	Functional Shape-Morphing Microarchitectures Fabricated by Dynamic Holographically Shifted Femtosecond Multifoci. Nano Letters, 2022, 22, 5277-5286.	9.1	16
9	On-Demand Maneuvering of Diverse Prodrug Liquids on a Light-Responsive Candle-Soot-Hybridized Lubricant-Infused Slippery Surface for Highly Effective Toxicity Screening. ACS Applied Materials & Interfaces, 2022, 14, 31667-31676.	8.0	6
10	Transparent Lightâ€Driven Hydrogel Actuator Based on Photothermal Marangoni Effect and Buoyancy Flow for Threeâ€Dimensional Motion. Advanced Functional Materials, 2021, 31, 2009386.	14.9	48
11	Light-driven Locomotion of Underwater Bubbles on Ultrarobust Paraffin-impregnated Laser-ablated Fe₃O₄-doped Slippery Surfaces. ACS Applied Materials & Interfaces, 2021, 13, 9272-9280.	8.0	15
12	Noncontact Allâ€Inâ€Situ Reversible Reconfiguration of Femtosecond Laserâ€Induced Shape Memory Magnetic Microcones for Multifunctional Liquid Droplet Manipulation and Information Encryption. Advanced Functional Materials, 2021, 31, 2100543.	14.9	51
13	Kirigami Structures of Shape Memory Polymer by Femtosecond Laser Scribing and Constrained Heating. Advanced Materials Technologies, 2021, 6, 2100200.	5.8	4
14	Guiding the Patterned Growth of Neuronal Axons and Dendrites Using Anisotropic Micropillar Scaffolds. Advanced Healthcare Materials, 2021, 10, e2100094.	7.6	10
15	3D Multiscale Micro-/Nanofolds by Femtosecond Laser Intermittent Ablation and Constrained Heating on a Shape Memory Polymer. ACS Applied Materials & Interfaces, 2021, 13, 23210-23219.	8.0	9
16	Direct Generation of Airy Beams at Designed Fourier Planes Using Integrated Airy Phase Plates. IEEE Photonics Technology Letters, 2021, 33, 595-598.	2.5	4
17	Quasi-phase-matching-division multiplexing holography in a three-dimensional nonlinear photonic crystal. Light: Science and Applications, 2021, 10, 146.	16.6	42
18	Femtosecond laser direct writing continuous phase vortex gratings with proportionally distributed diffraction energy. Applied Physics Letters, 2021, 119, .	3.3	1

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19	Reply to Comments on â€œEfficient full-path optical calculation of scalar and vector diffraction using the Bluestein methodâ€. Light: Science and Applications, 2021, 10, 13.	16.6	2
20	Giant Helical Dichroism of Single Chiral Nanostructures with Photonic Orbital Angular Momentum. ACS Nano, 2021, 15, 2893-2900.	14.6	63
21	Gigantic vortical differential scattering as a monochromatic probe for multiscale chiral structures. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	62
22	Environmentally Adaptive Shape-Morphing Microrobots for Localized Cancer Cell Treatment. ACS Nano, 2021, 15, 18048-18059.	14.6	94
23	Femtosecond Laser Regulated Ultrafast Growth of Mushroom-Like Architecture for Oil Repellency and Manipulation. Nano Letters, 2021, 21, 9301-9309.	9.1	22
24	Botanicalâ€Inspired 4D Printing of Hydrogel at the Microscale. Advanced Functional Materials, 2020, 30, 1907377.	14.9	122
25	Droplet digital PCR enabled by microfluidic impact printing for absolute gene quantification. Talanta, 2020, 211, 120680.	5.5	25
26	Uniaxial Stretching of Cell-Laden Microfibers for Promoting C2C12 Myoblasts Alignment and Myofibers Formation. ACS Applied Materials & Interfaces, 2020, 12, 2162-2170.	8.0	31
27	Ultralow-Voltage-Driven Smart Control of Diverse Dropâ€™s Anisotropic Sliding by in Situ Switching Joule Heat on Paraffin-Infused Microgrooved Slippery Surface. ACS Applied Materials & Interfaces, 2020, 12, 1895-1904.	8.0	31
28	Femtosecond Laser-Assisted Top-Restricted Self-Growth Re-Entrant Structures on Shape Memory Polymer for Dynamic Pressure Resistance. Langmuir, 2020, 36, 12346-12356.	3.5	7
29	Efficient full-path optical calculation of scalar and vector diffraction using the Bluestein method. Light: Science and Applications, 2020, 9, 119.	16.6	38
30	Ultrathin and High-Stress-Resolution Liquid-Metal-Based Pressure Sensors with Simple Device Structures. ACS Applied Materials & Interfaces, 2020, 12, 55390-55398.	8.0	27
31	Highâ€Performance Unidirectional Manipulation of Microdroplets by Horizontal Vibration on Femtosecond Laserâ€Induced Slant Microwall Arrays. Advanced Materials, 2020, 32, e2005039.	21.0	62
32	Chiral Microstructures: Chiral Assemblies of Laserâ€Printed Micropillars Directed by Asymmetrical Capillary Force (Adv. Mater. 31/2020). Advanced Materials, 2020, 32, 2070236.	21.0	0
33	Three-Dimensional Multifunctional Magnetically Responsive Liquid Manipulator Fabricated by Femtosecond Laser Writing and Soft Transfer. Nano Letters, 2020, 20, 7519-7529.	9.1	50
34	Cross-Species Bioinspired Anisotropic Surfaces for Active Droplet Transportation Driven by Unidirectional Microcolumn Waves. ACS Applied Materials & Interfaces, 2020, 12, 42264-42273.	8.0	33
35	High Performance Bubble Manipulation on Ferrofluid-Infused Laser-Ablated Microstructured Surfaces. Nano Letters, 2020, 20, 5513-5521.	9.1	63
36	Chiral Assemblies of Laserâ€Printed Micropillars Directed by Asymmetrical Capillary Force. Advanced Materials, 2020, 32, e2002356.	21.0	42

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37	Spontaneous and unidirectional transportation of underwater bubbles on superhydrophobic dual rails. Applied Physics Letters, 2020, 116, .	3.3	18
38	Stimuli-Responsive Actuator Fabricated by Dynamic Asymmetric Femtosecond Bessel Beam for In Situ Particle and Cell Manipulation. ACS Nano, 2020, 14, 5233-5242.	14.6	87
39	Unidirectional Transport and Effective Collection of Underwater CO₂ Bubbles Utilizing Ultrafast-Laser-Ablated Janus Foam. ACS Applied Materials & Interfaces, 2020, 12, 18110-18115.	8.0	34
40	In Situ Reversible Tuning from Pinned to Roll-Down Superhydrophobic States on a Thermal-Responsive Shape Memory Polymer by a Silver Nanowire Film. ACS Applied Materials & Interfaces, 2020, 12, 13464-13472.	8.0	55
41	Nanogap Plasmonic Structures Fabricated by Switchable Capillaryâ€Force Driven Selfâ€Assembly for Localized Sensing of Anticancer Medicines with Microfluidic SERS. Advanced Functional Materials, 2020, 30, 1909467.	14.9	91
42	4D Printing: Botanicalâ€Inspired 4D Printing of Hydrogel at the Microscale (Adv. Funct. Mater. 4/2020). Advanced Functional Materials, 2020, 30, 2070026.	14.9	2
43	Bioinspired micro/nanostructured surfaces prepared by femtosecond laser direct writing for multi-functional applications. International Journal of Extreme Manufacturing, 2020, 2, 032002.	12.7	73
44	Remote Photothermal Actuation of Underwater Bubble toward Arbitrary Direction on Planar Slippery Fe₃O₄â€Doped Surfaces. Advanced Functional Materials, 2019, 29, 1904766.	14.9	59
45	Reversible Tuning between Isotropic and Anisotropic Sliding by One-Direction Mechanical Stretching on Microgrooved Slippery Surfaces. Langmuir, 2019, 35, 10625-10630.	3.5	31
46	Handwriting Iontronic Pressure Sensing Origami. ACS Applied Materials & Interfaces, 2019, 11, 46157-46164.	8.0	27
47	Targeted Singleâ€Cell Therapeutics with Magnetic Tubular Micromotor by Oneâ€Step Exposure of Structured Femtosecond Optical Vortices. Advanced Functional Materials, 2019, 29, 1905745.	14.9	54
48	Efficient nonlinear beam shaping in three-dimensional lithium niobate nonlinear photonic crystals. Nature Communications, 2019, 10, 4193.	12.8	114
49	Pitcher plant-bioinspired bubble slippery surface fabricated by femtosecond laser for buoyancy-driven bubble self-transport and efficient gas capture. Nanoscale, 2019, 11, 1370-1378.	5.6	74
50	Multifunctional Janus Microplates Arrays Actuated by Magnetic Fields for Water/Light Switches and Bioâ€Inspired Assimilatory Coloration. Advanced Materials, 2019, 31, e1807507.	21.0	144
51	Conical Hollow Microhelices with Superior Swimming Capabilities for Targeted Cargo Delivery. Advanced Materials, 2019, 31, e1808226.	21.0	89
52	Channel-controlled Janus membrane fabricated by simultaneous laser ablation and nanoparticles deposition for underwater bubbles manipulation. Applied Physics Letters, 2019, 114, .	3.3	17
53	In Situ Reversible Control between Sliding and Pinning for Diverse Liquids under Ultra-Low Voltage. ACS Nano, 2019, 13, 5742-5752.	14.6	73
54	Femtosecond Mathieu Beams for Rapid Controllable Fabrication of Complex Microcages and Application in Trapping Microobjects. ACS Nano, 2019, 13, 4667-4676.	14.6	63

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55	Tunable microfluidic device fabricated by femtosecond structured light for particle and cell manipulation. Lab on A Chip, 2019, 19, 3988-3996.	6.0	14
56	Allâ€inâ€One Iontronic Sensing Paper. Advanced Functional Materials, 2019, 29, 1807343.	14.9	85
57	Switchable Underwater Bubble Wettability on Laser-Induced Titanium Multiscale Micro-/Nanostructures by Vertically Crossed Scanning. ACS Applied Materials & Interfaces, 2018, 10, 16867-16873.	8.0	65
58	Real-time two-photon lithography in controlled flow to create a single-microparticle array and particle-cluster array for optofluidic imaging. Lab on A Chip, 2018, 18, 442-450.	6.0	35
59	In situtunable bubble wettability with fast response induced by solution surface tension. Journal of Materials Chemistry A, 2018, 6, 20878-20886.	10.3	30
60	Mechanical-Tunable Capillary-Force-Driven Self-Assembled Hierarchical Structures on Soft Substrate. ACS Nano, 2018, 12, 10142-10150.	14.6	29
61	Localized Selfâ€Growth of Reconfigurable Architectures Induced by a Femtosecond Laser on a Shapeâ€Memory Polymer. Advanced Materials, 2018, 30, e1803072.	21.0	55
62	Microtubes with Complex Cross Section Fabricated by C-Shaped Bessel Laser Beam for Mimicking Stomata That Opens and Closes Rapidly. ACS Applied Materials & Interfaces, 2018, 10, 36369-36376.	8.0	17
63	Generation of colorful Airy beams and Airy imaging of letters via two-photon processed cubic phase plates. Optics Letters, 2018, 43, 1151.	3.3	21
64	Hemoglobin-Laden Microcapsules for Simulating Oxygen Dynamics of Biological Tissue. ACS Biomaterials Science and Engineering, 2018, 4, 3177-3184.	5.2	20
65	High-aspect-ratio microtubes with variable diameter and uniform wall thickness by compressing Bessel hologram phase depth. Optics Letters, 2018, 43, 3514.	3.3	18
66	Bridged Bowtie Aperture Antenna for Producing an Electromagnetic Hot Spot. ACS Photonics, 2017, 4, 567-575.	6.6	21
67	Three-level cobblestone-like TiO2 micro/nanocones for dual-responsive water/oil reversible wetting without fluorination. Applied Physics Letters, 2017, 111, .	3.3	18
68	Multifurcate Assembly of Slanted Micropillars Fabricated by Superposition of Optical Vortices and Application in Highâ€Efficiency Trapping Microparticles. Advanced Functional Materials, 2017, 27, 1701939.	14.9	24
69	Three-dimensional chiral microstructures fabricated by structured optical vortices in isotropic material. Light: Science and Applications, 2017, 6, e17011-e17011.	16.6	201
70	Dimensionâ€Controllable Microtube Arrays by Dynamic Holographic Processing as 3D Yeast Culture Scaffolds for Asymmetrical Growth Regulation. Small, 2017, 13, 1701190.	10.0	26
71	High efficiency fabrication of complex microtube arrays by scanning focused femtosecond laser Bessel beam for trapping/releasing biological cells. Optics Express, 2017, 25, 8144.	3.4	33
72	Arch-like microsorters with multi-modal and clogging-improved filtering functions by using femtosecond laser multifocal parallel microfabrication. Optics Express, 2017, 25, 16739.	3.4	27

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73	Continuous cubic phase microplates for generating high-quality Airy beams with strong deflection. Optics Letters, 2017, 42, 2483.	3.3	18
74	Two-photon polymerization of microstructures by a non-diffraction multifoci pattern generated from a superposed Bessel beam. Optics Letters, 2017, 42, 743.	3.3	49
75	Multifunctional ultrathin aluminum foil: oil/water separation and particle filtration. Journal of Materials Chemistry A, 2016, 4, 18832-18840.	10.3	92
76	Laser printing hierarchical structures with the aid of controlled capillary-driven self-assembly. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6876-6881.	7.1	87
77	Piezoelectric-driven droplet impact printing with an interchangeable microfluidic cartridge. Biomicrofluidics, 2015, 9, 054101.	2.4	17
78	Capillary Force Driven Self-Assembly of Anisotropic Hierarchical Structures Prepared by Femtosecond Laser 3D Printing and Their Applications in Crystallizing Microparticles. ACS Nano, 2015, 9, 12060-12069.	14.6	47
79	Two-photon polymerization of cylinder microstructures by femtosecond Bessel beams. Applied Physics Letters, 2014, 105, 041110.	3.3	44