

Yong Chen

List of Publications by Year in descending order

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142
papers

7,662
citations

71061

41
h-index

56687

83
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144
all docs

144
docs citations

144
times ranked

6733
citing authors

#	ARTICLE	IF	CITATIONS
1	Hybrid-Light-Source Stereolithography for Fabricating Macro-Objects With Micro-Textures. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2022, 144, .	1.3	6
2	Recent progress in 3D printing piezoelectric materials for biomedical applications. Journal Physics D: Applied Physics, 2022, 55, 013002.	1.3	15
3	Fabrication of flexible microheater with tunable heating capabilities by direct laser writing and selective electrodeposition. Journal of Manufacturing Processes, 2022, 74, 88-99.	2.8	8
4	3D Printing of Nacre-Inspired Structures with Exceptional Mechanical and Flame-Retardant Properties. Research, 2022, 2022, 9840574.	2.8	18
5	Additive manufacturing of complex-shaped and high-performance aluminum nitride-based components for thermal management. Additive Manufacturing, 2022, 52, 102671.	1.7	12
6	In-situ transfer vat photopolymerization for transparent microfluidic device fabrication. Nature Communications, 2022, 13, 918.	5.8	34
7	Flexible ultrasound-induced retinal stimulating piezo-arrays for biomimetic visual prostheses. Nature Communications, 2022, 13, .	5.8	48
8	Limpet Tooth-Inspired Painless Microneedles Fabricated by Magnetic Field-Assisted 3D Printing. Advanced Functional Materials, 2021, 31, 2003725.	7.8	54
9	Painless Microneedles: Limpet Tooth-Inspired Painless Microneedles Fabricated by Magnetic Field-Assisted 3D Printing (Adv. Funct. Mater. 5/2021). Advanced Functional Materials, 2021, 31, 2170033.	7.8	1
10	Photoacoustic and piezo-ultrasound hybrid-induced energy transfer for 3D twining wireless multifunctional implants. Energy and Environmental Science, 2021, 14, 1490-1505.	15.6	23
11	Reusable support for additive manufacturing. Additive Manufacturing, 2021, 39, 101840.	1.7	12
12	Function-aware slicing using principal stress line for toolpath planning in additive manufacturing. Journal of Manufacturing Processes, 2021, 64, 1420-1433.	2.8	20
13	Mesenchymal Stem Cells and Three-Dimensional-Osteoconductive Scaffold Regenerate Calvarial Bone in Critical Size Defects in Swine. Stem Cells Translational Medicine, 2021, 10, 1170-1183.	1.6	15
14	3D Printing of Functional Magnetic Materials: From Design to Applications. Advanced Functional Materials, 2021, 31, 2102777.	7.8	91
15	Multi-material stereolithography using curing-on-demand printheads. Rapid Prototyping Journal, 2021, 27, 861-871.	1.6	16
16	Rapid chemically selective 3D imaging in the mid-infrared. Optica, 2021, 8, 995.	4.8	10
17	Vat-Photopolymerization-Based Ceramic Manufacturing. Journal of Materials Engineering and Performance, 2021, 30, 4819-4836.	1.2	12
18	Spatiotemporal Projection-Based Additive Manufacturing: A Data-Driven Image Planning Method for Subpixel Shifting in a Split Second. Advanced Intelligent Systems, 2021, 3, 2100079.	3.3	7

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19	Photocuring-while-writing: A 3D printing strategy to build free space structure and freeform surface texture. <i>Manufacturing Letters</i> , 2021, 29, 113-116.	1.1	2
20	Multichannel Piezo-Induced Ultrasound Implant with Hybrid Waterborne Acoustic Metastructure for Selective Wireless Energy Transfer at Megahertz Frequencies. <i>Advanced Materials</i> , 2021, 33, e2104251.	11.1	23
21	Direct Droplet Writing - A Novel Droplet-punching Capillary-splitting 3D Printing Method for Highly Viscous Materials. <i>Procedia Manufacturing</i> , 2021, 53, 472-483.	1.9	0
22	A Vibration-Assisted Separation Method for Constrained-Surface-Based Stereolithography. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2021, 143, .	1.3	17
23	An Investigation of Integrated Multiscale Three-Dimensional Printing for Hierarchical Structures Fabrication. <i>Journal of Micro and Nano-Manufacturing</i> , 2021, 9, .	0.8	3
24	Geometric analysis and computation using layered depth-normal images for three-dimensional microfabrication. , 2020, , 271-302.		0
25	3D-Printed Cactus-Inspired Spine Structures for Highly Efficient Water Collection. <i>Advanced Materials Interfaces</i> , 2020, 7, 1901752.	1.9	68
26	3D printing of hydroxyapatite/tricalcium phosphate scaffold with hierarchical porous structure for bone regeneration. <i>Bio-Design and Manufacturing</i> , 2020, 3, 15-29.	3.9	96
27	Ultrasound-induced wireless energy harvesting: From materials strategies to functional applications. <i>Nano Energy</i> , 2020, 77, 105131.	8.2	69
28	3D-Printing Piezoelectric Composite with Honeycomb Structure for Ultrasonic Devices. <i>Micromachines</i> , 2020, 11, 713.	1.4	48
29	Stretchable Nanolayered Thermoelectric Energy Harvester on Complex and Dynamic Surfaces. <i>Nano Letters</i> , 2020, 20, 4445-4453.	4.5	106
30	Bone-inspired healing of 3D-printed porous ceramics. <i>Materials Horizons</i> , 2020, 7, 2130-2140.	6.4	4
31	A numerically controlled shape memory alloy wire bending process using vat photopolymerization. <i>Journal of Manufacturing Processes</i> , 2020, 56, 1322-1330.	2.8	5
32	Healable, memorizable, and transformable lattice structures made of stiff polymers. <i>NPG Asia Materials</i> , 2020, 12, .	3.8	18
33	Vat-Photopolymerization-Based Ceramic Manufacturing. , 2020, , 81-96.		1
34	Cure behavior of colorful ZrO ₂ suspensions during Digital light processing (DLP) based stereolithography process. <i>Journal of the European Ceramic Society</i> , 2019, 39, 4921-4927.	2.8	48
35	Biomedical Applications: Ultrasound-Induced Wireless Energy Harvesting for Potential Retinal Electrical Stimulation Application (<i>Adv. Funct. Mater.</i> 33/2019). <i>Advanced Functional Materials</i> , 2019, 29, 1970231.	7.8	1
36	Ultrasound-Induced Wireless Energy Harvesting for Potential Retinal Electrical Stimulation Application. <i>Advanced Functional Materials</i> , 2019, 29, 1902522.	7.8	56

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37	Mask Video Projection-Based Stereolithography With Continuous Resin Flow. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2019, 141, .	1.3	34
38	Regional gene therapy with 3D printed scaffolds to heal critical sized bone defects in a rat model. Journal of Biomedical Materials Research - Part A, 2019, 107, 2174-2182.	2.1	30
39	Bioinspired Surfaces: Bioinspired Functional Surfaces Enabled by Multiscale Stereolithography (Adv.) Tj ETQq1 1 0.784314 rgBT /Over 3.0	3.0	1
40	Digital Material Design Using Tensor-Based Error Diffusion for Additive Manufacturing. CAD Computer Aided Design, 2019, 114, 224-235.	1.4	14
41	Three-Dimensional Printed Piezoelectric Array for Improving Acoustic Field and Spatial Resolution in Medical Ultrasonic Imaging. Micromachines, 2019, 10, 170.	1.4	23
42	Electrically assisted 3D printing of nacre-inspired structures with self-sensing capability. Science Advances, 2019, 5, eaau9490.	4.7	214
43	Bioinspired Functional Surfaces Enabled by Multiscale Stereolithography. Advanced Materials Technologies, 2019, 4, 1800638.	3.0	47
44	Challenges and Status on Design and Computation for Emerging Additive Manufacturing Technologies. Journal of Computing and Information Science in Engineering, 2019, 19, .	1.7	50
45	3D Printing of Flexible Liquid Sensor Based on Swelling Behavior of Hydrogel with Carbon Nanotubes. Advanced Materials Technologies, 2019, 4, 1800476.	3.0	38
46	Flexible piezoelectric ultrasonic energy harvester array for bio-implantable wireless generator. Nano Energy, 2019, 56, 216-224.	8.2	105
47	Adaptive slicing based on efficient profile analysis. CAD Computer Aided Design, 2019, 107, 89-101.	1.4	48
48	Superhydrophobicity: 3D-Printed Biomimetic Super-Hydrophobic Structure for Microdroplet Manipulation and Oil/Water Separation (Adv. Mater. 9/2018). Advanced Materials, 2018, 30, 1870062.	11.1	12
49	3D-Printed Biomimetic Super-Hydrophobic Structure for Microdroplet Manipulation and Oil/Water Separation. Advanced Materials, 2018, 30, 1704912.	11.1	312
50	3D Printing Temporary Crown and Bridge by Temperature Controlled Mask Image Projection Stereolithography. Procedia Manufacturing, 2018, 26, 1023-1033.	1.9	43
51	Approximate Functionally Graded Materials for Multi-Material Additive Manufacturing. , 2018, , .		4
52	Multifocal point beam forming by a single ultrasonic transducer with 3D printed holograms. Applied Physics Letters, 2018, 113, .	1.5	19
53	Mask Video Projection Based Stereolithography With Continuous Resin Flow to Build Digital Models in Minutes. , 2018, , .		2
54	Recent Progress in Biomimetic Additive Manufacturing Technology: From Materials to Functional Structures. Advanced Materials, 2018, 30, e1706539.	11.1	325

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55	A vibration-assisted method to reduce separation force for stereolithography. Journal of Manufacturing Processes, 2018, 34, 793-801.	2.8	38
56	Piezoelectric component fabrication using projection-based stereolithography of barium titanate ceramic suspensions. Rapid Prototyping Journal, 2017, 23, 44-53.	1.6	61
57	Fast Mask Image Projection-Based Micro-Stereolithography Process for Complex Geometry. Journal of Micro and Nano-Manufacturing, 2017, 5, .	0.8	17
58	Mass Customization: Reuse of Digital Slicing for Additive Manufacturing. Journal of Computing and Information Science in Engineering, 2017, 17, .	1.7	18
59	Photocuring Temperature Study for Curl Distortion Control in Projection-Based Stereolithography. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .	1.3	13
60	A Reverse Compensation Framework for Shape Deformation Control in Additive Manufacturing. Journal of Computing and Information Science in Engineering, 2017, 17, .	1.7	20
61	Biomimetic Anisotropic Reinforcement Architectures by Electrically Assisted Nanocomposite 3D Printing. Advanced Materials, 2017, 29, 1605750.	11.1	212
62	Porous Structure Fabrication Using a Stereolithography-Based Sugar Foaming Method. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .	1.3	31
63	Micro-scale feature fabrication using immersed surface accumulation. Journal of Manufacturing Processes, 2017, 28, 531-540.	2.8	34
64	Highly removable water support for Stereolithography. Journal of Manufacturing Processes, 2017, 28, 541-549.	2.8	28
65	Four-Dimensional Printing: Design and Fabrication of Smooth Curved Surface Using Controlled Self-Folding. Journal of Mechanical Design, Transactions of the ASME, 2017, 139, .	1.7	14
66	Effect of Meso-Scale Geometry on Piezoelectric Performances of Additively Manufactured Flexible Polymer $\text{Pb}(\text{Zr}_x\text{Ti}_{1-x})\text{O}_3$ Composites. Advanced Engineering Materials, 2017, 19, 1600803.	1.6	19
67	Biomimetics: Biomimetic Anisotropic Reinforcement Architectures by Electrically Assisted Nanocomposite 3D Printing (Adv. Mater. 11/2017). Advanced Materials, 2017, 29, .	11.1	2
68	Accurately controlled sequential self-folding structures by polystyrene film. Smart Materials and Structures, 2017, 26, 085040.	1.8	21
69	Multiscale Stereolithography Using Shaped Beams. Journal of Micro and Nano-Manufacturing, 2017, 5, .	0.8	12
70	GDPE: Geometry-Driven Finite Element for Four-Dimensional Printing. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .	1.3	10
71	Multi-Scale Stereolithography Using Shaped Beams. , 2017, , .		1
72	Fabrication of dense zirconia-toughened alumina ceramics through a stereolithography-based additive manufacturing. Ceramics International, 2017, 43, 968-972.	2.3	157

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73	Notice of Removal: Multi-focused acoustic holograms by 3D printing. , 2017, , .		0
74	Piezoelectric array for transducer application using additive manufacturing. , 2017, , .		1
75	Notice of Removal: 3D printing of piezoelectric transducer/array for ultrasonic imaging. , 2017, , .		0
76	Rope caging and grasping. , 2016, , .		14
77	A Reverse Compensation Framework for Shape Deformation in Additive Manufacturing. , 2016, , .		2
78	A Digital Material Design Framework for 3D-Printed Heterogeneous Objects. , 2016, , .		5
79	Three-dimensional circuit fabrication using four-dimensional printing and direct ink writing. , 2016, , .		11
80	Fabrication of fine-grained alumina ceramics by a novel process integrating stereolithography and liquid precursor infiltration processing. <i>Ceramics International</i> , 2016, 42, 17736-17741.	2.3	32
81	LISA: Linear immersed sweeping accumulation. <i>Journal of Manufacturing Processes</i> , 2016, 24, 406-415.	2.8	18
82	A structural topology design method based on principal stress line. <i>CAD Computer Aided Design</i> , 2016, 80, 19-31.	1.4	44
83	Effect of the particle size and the debinding process on the density of alumina ceramics fabricated by 3D printing based on stereolithography. <i>Ceramics International</i> , 2016, 42, 17290-17294.	2.3	170
84	Meniscus process optimization for smooth surface fabrication in Stereolithography. <i>Additive Manufacturing</i> , 2016, 12, 321-333.	1.7	27
85	3D printing of piezoelectric element for energy focusing and ultrasonic sensing. <i>Nano Energy</i> , 2016, 27, 78-86.	8.2	199
86	Preparation of a defect-free alumina cutting tool via additive manufacturing based on stereolithography – Optimization of the drying and debinding processes. <i>Ceramics International</i> , 2016, 42, 11598-11602.	2.3	152
87	Three dimensional printing of high dielectric capacitor using projection based stereolithography method. <i>Nano Energy</i> , 2016, 22, 414-421.	8.2	138
88	Geometric Analysis and Computation Using Layered Depth-Normal Images for Three-Dimensional Microfabrication. , 2016, , 119-147.		2
89	Mask Image Planning for Deformation Control in Projection-Based Stereolithography Process. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2015, 137, .	1.3	24
90	Stereolithography with variable resolutions using optical filter with high-contrast gratings. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2015, 33, 06F604.	0.6	4

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91	Shape Acquiring and Editing through an Augmented Reality based Computer-aided Design System. Computer-Aided Design and Applications, 2015, 12, 683-692.	0.4	2
92	4D Printing: Design and Fabrication of 3D Shell Structures With Curved Surfaces Using Controlled Self-Folding. , 2015, , .		4
93	Four-Dimensional Printing for Freeform Surfaces: Design Optimization of Origami and Kirigami Structures. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	72
94	Smooth Surface Fabrication Based on Controlled Meniscus and Cure Depth in Microstereolithography. Journal of Micro and Nano-Manufacturing, 2015, 3, .	0.8	18
95	Origami-Based Self-Folding Structure Design and Fabrication Using Projection Based Stereolithography. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	52
96	Development of a Low-Cost Parallel Kinematic Machine for Multidirectional Additive Manufacturing. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2015, 137, .	1.3	102
97	Ceramic fabrication using Mask-Image-Projection-based Stereolithography integrated with tape-casting. Journal of Manufacturing Processes, 2015, 20, 456-464.	2.8	126
98	The status, challenges, and future of additive manufacturing in engineering. CAD Computer Aided Design, 2015, 69, 65-89.	1.4	1,725
99	Interactive Material Design Using Model Reduction. ACM Transactions on Graphics, 2015, 34, 1-14.	4.9	67
100	Predictive modeling of geometric deviations of 3D printed products - A unified modeling approach for cylindrical and polygon shapes. , 2014, , .		25
101	Statistical Predictive Modeling and Compensation of Geometric Deviations of Three-Dimensional Printed Products. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2014, 136, .	1.3	98
102	Curing Temperature Study for Curl Distortion Control and Simulation in Projection Based Stereolithography. , 2014, , .		1
103	Origami-Based Self-Folding Structure Fabrication Based on 3D Printing on Polystyrene Films. , 2014, , .		3
104	Multitool and Multi-Axis Computer Numerically Controlled Accumulation for Fabricating Conformal Features on Curved Surfaces. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2014, 136, .	1.3	51
105	Deformation Control Based on In-Situ Sensors for Mask Projection Based Stereolithography. , 2014, , .		3
106	An integrated CNC accumulation system for automatic building-around-inserts. Journal of Manufacturing Processes, 2013, 15, 432-443.	2.8	23
107	An Origami Inspired Additive Manufacturing Process for Building Thin-Shell Structures. , 2013, , .		3
108	Direct Geometry Processing for Telefabrication. Journal of Computing and Information Science in Engineering, 2013, 13, .	1.7	25

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109	Thickening freeform surfaces for solid fabrication. Rapid Prototyping Journal, 2013, 19, 395-406.	1.6	31
110	Regulating complex geometries using layered depth-normal images for rapid prototyping and manufacturing. Rapid Prototyping Journal, 2013, 19, 253-268.	1.6	15
111	Digital material fabrication using mask-image-projection-based stereolithography. Rapid Prototyping Journal, 2013, 19, 153-165.	1.6	204
112	Multi-piece mould design based on a mixed-integer programming method. International Journal of Computer Integrated Manufacturing, 2013, 26, 939-954.	2.9	0
113	Intersection-Free and Topologically Faithful Slicing of Implicit Solid. Journal of Computing and Information Science in Engineering, 2013, 13, .	1.7	37
114	A Fast Mask Projection Stereolithography Process for Fabricating Digital Models in Minutes. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2012, 134, .	1.3	126
115	Ultrasound Transducer Array Fabrication Based on Additive Manufacturing of Piezocomposites. , 2012, , .		20
116	Rapid Manufacturing in Minutes: The Development of a Mask Projection Stereolithography Process for High-Speed Fabrication. , 2012, , .		10
117	Mask Image Planning for Deformation Control in Projection-Based Stereolithography Process. , 2012, , .		2
118	Joint Design for 3-D Printing Non-Assembly Mechanisms. , 2012, , .		12
119	Smooth surface fabrication in mask projection based stereolithography. Journal of Manufacturing Processes, 2012, 14, 460-470.	2.8	86
120	Additive manufacturing based on optimized mask video projection for improved accuracy and resolution. Journal of Manufacturing Processes, 2012, 14, 107-118.	2.8	76
121	A rapid shape acquisition method by integrating user touching input. Virtual and Physical Prototyping, 2011, 6, 133-147.	5.3	2
122	Parallel and efficient Boolean on polygonal solids. Visual Computer, 2011, 27, 507-517.	2.5	23
123	Uniform offsetting of polygonal model based on Layered Depth-Normal Images. CAD Computer Aided Design, 2011, 43, 31-46.	1.4	53
124	A layerless additive manufacturing process based on CNC accumulation. Rapid Prototyping Journal, 2011, 17, 218-227.	1.6	74
125	Contouring of Structured Points With Small Features. , 2010, , .		4
126	Solid modeling of polyhedral objects by Layered Depth-Normal Images on the GPU. CAD Computer Aided Design, 2010, 42, 535-544.	1.4	68

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127	Manufacturability Analysis of Infeasible Features in Polygonal Models for Web-Based Rapid Prototyping. , 2010, , .		4
128	Optimized Mask Image Projection for Solid Freeform Fabrication. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2009, 131, .	1.3	51
129	Design of Flexible Skin for Target Displacements Based on Meso-Structures. , 2009, , .		6
130	Optimized Mask Image Projection for Solid Freeform Fabrication. , 2009, , .		7
131	Layer Depth-Normal Images for Complex Geometries: Part One " Accurate Modeling and Adaptive Sampling. , 2008, , .		9
132	Computer-aided Product Design with Performance-Tailored Mesostructures. Computer-Aided Design and Applications, 2008, 5, 565-576.	0.4	8
133	Layered Depth-Normal Images for Complex Geometries: Part Two " Manifold-Preserved Adaptive Contouring. , 2008, , .		8
134	3D Texture Mapping for Rapid Manufacturing. Computer-Aided Design and Applications, 2007, 4, 761-771.	0.4	72
135	An accurate sampling-based method for approximating geometry. CAD Computer Aided Design, 2007, 39, 975-986.	1.4	13
136	A Mesh-Based Geometric Modeling Method for General Structures. , 2006, , 269.		10
137	Filleting and Rounding Using a Point-Based Method. , 2005, , 533.		13
138	Vapor-Phase Self-Assembled Monolayer for Improved Mold Release in Nanoimprint Lithography. Langmuir, 2005, 21, 1158-1161.	1.6	267
139	A Hybrid Geometric Modeling Method for Large Scale Conformal Cellular Structures. , 2005, , 421.		47
140	The rapid tooling testbed: a distributed design"for"manufacturing system. Rapid Prototyping Journal, 2003, 9, 122-132.	1.6	17
141	A Reverse Glue Approach to Automated Construction of Multi-Piece Molds. Journal of Computing and Information Science in Engineering, 2003, 3, 219-230.	1.7	18
142	A Region Based Method to Automated Design of Multi-Piece Molds with Application to Rapid Tooling. Journal of Computing and Information Science in Engineering, 2002, 2, 86-97.	1.7	22