Jianzhong Fu

List of Publications by Year in descending order

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141 papers	6,085 citations	71102 41 h-index	79698 73 g-index
141 all docs	141 docs citations	141 times ranked	5955 citing authors

#	Article	IF	Citations
1	Research on the printability of hydrogels in 3D bioprinting. Scientific Reports, 2016, 6, 29977.	3.3	428
2	3D Bioprinting of Low-Concentration Cell-Laden Gelatin Methacrylate (GelMA) Bioinks with a Two-Step Cross-linking Strategy. ACS Applied Materials & Interfaces, 2018, 10, 6849-6857.	8.0	417
3	A Review of 3D Printing Technologies for Soft Polymer Materials. Advanced Functional Materials, 2020, 30, 2000187.	14.9	379
4	Development of 3D bioprinting: From printing methods to biomedical applications. Asian Journal of Pharmaceutical Sciences, 2020, 15, 529-557.	9.1	264
5	A Mechanically Robust and Versatile Liquidâ€Free Ionic Conductive Elastomer. Advanced Materials, 2021, 33, e2006111.	21.0	188
6	3D Bioprinting of Vessel-like Structures with Multilevel Fluidic Channels. ACS Biomaterials Science and Engineering, 2017, 3, 399-408.	5.2	181
7	Programmed Deformations of 3Dâ€Printed Tough Physical Hydrogels with High Response Speed and Large Output Force. Advanced Functional Materials, 2018, 28, 1803366.	14.9	172
8	3D printing of complex GelMA-based scaffolds with nanoclay. Biofabrication, 2019, 11, 035006.	7.1	159
9	Fabrication of liver microtissue with liver decellularized extracellular matrix (dECM) bioink by digital light processing (DLP) bioprinting. Materials Science and Engineering C, 2020, 109, 110625.	7.3	126
10	Fiberâ€Based Mini Tissue with Morphologyâ€Controllable GelMA Microfibers. Small, 2018, 14, e1802187.	10.0	125
11	Interpenetrating polymer network hydrogels composed of chitosan and photocrosslinkable gelatin with enhanced mechanical properties for tissue engineering. Materials Science and Engineering C, 2018, 92, 612-620.	7.3	120
12	Vesselâ€onâ€aâ€chip with Hydrogelâ€based Microfluidics. Small, 2018, 14, e1802368.	10.0	119
13	Directly coaxial 3D bioprinting of large-scale vascularized tissue constructs. Biofabrication, 2020, 12, 035014.	7.1	117
14	3D Printing of Ultratough Polyion Complex Hydrogels. ACS Applied Materials & Interfaces, 2016, 8, 31304-31310.	8.0	105
15	Structure-induced cell growth by 3D printing of heterogeneous scaffolds with ultrafine fibers. Materials and Design, 2019, 181, 108092.	7.0	95
16	Progress in Auxetic Mechanical Metamaterials: Structures, Characteristics, Manufacturing Methods, and Applications. Advanced Engineering Materials, 2020, 22, 2000312.	3.5	93
17	Electroâ€Assisted Bioprinting of Lowâ€Concentration GelMA Microdroplets. Small, 2019, 15, e1804216.	10.0	92
18	Acoustic Metamaterials: A Review of Theories, Structures, Fabrication Approaches, and Applications. Advanced Materials Technologies, 2021, 6, 2000787.	5.8	87

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19	3D printing of high-strength chitosan hydrogel scaffolds without any organic solvents. Biomaterials Science, 2020, 8, 5020-5028.	5.4	82
20	Printing 3D microfluidic chips with a 3D sugar printer. Microfluidics and Nanofluidics, 2015, 19, 447-456.	2.2	78
21	Simultaneous mechanical property and biodegradation improvement of wollastonite bioceramic through magnesium dilute doping. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 54, 60-71.	3.1	74
22	Product of exponential model for geometric error integration of multi-axis machine tools. International Journal of Advanced Manufacturing Technology, 2014, 71, 1653-1667.	3.0	73
23	Airflowâ€Assisted 3D Bioprinting of Human Heterogeneous Microspheroidal Organoids with Microfluidic Nozzle. Small, 2018, 14, e1802630.	10.0	71
24	A review of the design methods of complex topology structures for 3D printing. Visual Computing for Industry, Biomedicine, and Art, 2018, 1, 5.	3.7	69
25	Sacrificial microgel-laden bioink-enabled 3D bioprinting of mesoscale pore networks. Bio-Design and Manufacturing, 2020, 3, 30-39.	7.7	65
26	Separation of mixed waste plastics via magnetic levitation. Waste Management, 2018, 76, 46-54.	7.4	64
27	Grafting of 3D Bioprinting to In Vitro Drug Screening: A Review. Advanced Healthcare Materials, 2020, 9, e1901773.	7.6	63
28	3D Printing of Physical Organ Models: Recent Developments and Challenges. Advanced Science, 2021, 8, e2101394.	11.2	61
29	Synchronous 3D Bioprinting of Largeâ€Scale Cellâ€Laden Constructs with Nutrient Networks. Advanced Healthcare Materials, 2020, 9, e1901142.	7.6	57
30	Hydrogels: The Next Generation Body Materials for Microfluidic Chips?. Small, 2020, 16, e2003797.	10.0	56
31	Construction of multi-scale vascular chips and modelling of the interaction between tumours and blood vessels. Materials Horizons, 2020, 7, 82-92.	12.2	55
32	In situ 3D bioprinting with bioconcrete bioink. Nature Communications, 2022, 13, .	12.8	52
33	Product-of-exponential formulas for precision enhancement of five-axis machine tools via geometric error modeling and compensation. International Journal of Advanced Manufacturing Technology, 2015, 81, 289-305.	3.0	51
34	Modeling the printability of photocuring and strength adjustable hydrogel bioink during projection-based 3D bioprinting. Biofabrication, 2021, 13, 035032.	7.1	51
35	Fabrication of cerebral aneurysm simulator with a desktop 3D printer. Scientific Reports, 2017, 7, 44301.	3.3	47
36	Freeform Vertical and Horizontal Fabrication of Alginate-Based Vascular-Like Tubular Constructs Using Inkjetting. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2014, 136, .	2.2	46

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37	High-fidelity and high-efficiency additive manufacturing using tunable pre-curing digital light processing. Additive Manufacturing, 2019, 30, 100889.	3.0	46
38	Capturing PM2.5 Emissions from 3D Printing via Nanofiber-based Air Filter. Scientific Reports, 2017, 7, 10366.	3.3	45
39	Bioprinting of Cellâ€Laden Microfiber: Can It Become a Standard Product?. Advanced Healthcare Materials, 2019, 8, e1900014.	7.6	45
40	Additive-lathe 3D bioprinting of bilayered nerve conduits incorporated with supportive cells. Bioactive Materials, 2021, 6, 219-229.	15.6	45
41	Improving the electrospinning process of fabricating nanofibrous membranes to filter PM2.5. Science of the Total Environment, 2019, 666, 1011-1021.	8.0	44
42	3D printed multi-scale scaffolds with ultrafine fibers for providing excellent biocompatibility. Materials Science and Engineering C, 2020, 107, 110269.	7.3	44
43	Ultrahigh strength of three-dimensional printed diluted magnesium doping wollastonite porous scaffolds. MRS Communications, 2015, 5, 631-639.	1.8	41
44	On-line measurement of clamping force for injection molding machine using ultrasonic technology. Ultrasonics, 2019, 91, 170-179.	3.9	41
45	Why choose 3D bioprinting? Part II: methods and bioprinters. Bio-Design and Manufacturing, 2020, 3, 1-4.	7.7	39
46	Bioprinting of novel 3D tumor array chip for drug screening. Bio-Design and Manufacturing, 2020, 3, 175-188.	7.7	38
47	Magnetic projection: A novel separation method and its first application on separating mixed plastics. Waste Management, 2019, 87, 805-813.	7.4	36
48	Theoretical prediction and experimental validation of the digital light processing (DLP) working curve for photocurable materials. Additive Manufacturing, 2021, 37, 101716.	3.0	36
49	A low-cost and rapid microfluidic paper-based analytical device fabrication method: flash foam stamp lithography. RSC Advances, 2014, 4, 63860-63865.	3.6	35
50	Non-singular tool path planning by translating tool orientations in C-space. International Journal of Advanced Manufacturing Technology, 2014, 71, 1835-1848.	3.0	32
51	Study of Pinch-Off Locations during Drop-on-Demand Inkjet Printing of Viscoelastic Alginate Solutions. Langmuir, 2017, 33, 5037-5045.	3.5	32
52	Polyacrylonitrile Nerve Conduits With Inner Longitudinal Grooved Textures to Enhance Neuron Directional Outgrowth. Journal of Microelectromechanical Systems, 2018, 27, 457-463.	2.5	32
53	Self-Sensing of Position-Related Loads in Continuous Carbon Fibers-Embedded 3D-Printed Polymer Structures Using Electrical Resistance Measurement. Sensors, 2018, 18, 994.	3.8	32
54	Automated detection of defects with low semantic information in X-ray images based on deep learning. Journal of Intelligent Manufacturing, 2021, 32, 141-156.	7.3	32

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55	Multi-view online vision detection based on robot fused deposit modeling 3D printing technology. Rapid Prototyping Journal, 2019, 25, 343-355.	3.2	31
56	Micro/nanofabrication of brittle hydrogels using 3D printed soft ultrafine fiber molds for damage-free demolding. Biofabrication, 2020, 12, 025015.	7.1	31
57	Liquid Metal Microgels for Three-Dimensional Printing of Smart Electronic Clothes. ACS Applied Materials & Interfaces, 2022, 14, 13458-13467.	8.0	31
58	Rapid Customization of 3D Integrated Microfluidic Chips via Modular Structure-Based Design. ACS Biomaterials Science and Engineering, 2017, 3, 2606-2616.	5.2	29
59	Printability during projection-based 3D bioprinting. Bioactive Materials, 2022, 11, 254-267.	15.6	28
60	Three-Dimensional Coprinting of Liquid Metals for Directly Fabricating Stretchable Electronics. 3D Printing and Additive Manufacturing, 2018, 5, 195-203.	2.9	25
61	High-Performance Auxetic Bilayer Conductive Mesh-Based Multi-Material Integrated Stretchable Strain Sensors. ACS Applied Materials & Interfaces, 2021, 13, 23038-23048.	8.0	25
62	Micro structure fabrication with a simplified hot embossing method. RSC Advances, 2015, 5, 39138-39144.	3.6	24
63	Grasping pose estimation for SCARA robot based on deep learning of point cloud. International Journal of Advanced Manufacturing Technology, 2020, 108, 1217-1231.	3.0	24
64	A flexible porous chiral auxetic tracheal stent with ciliated epithelium. Acta Biomaterialia, 2021, 124, 153-165.	8.3	24
65	On the workpiece setup optimization for five-axis machining with RTCP function. International Journal of Advanced Manufacturing Technology, 2014, 74, 187-197.	3.0	23
66	Smooth contour-parallel tool path generation for high-speed machining through a dual offset procedure. International Journal of Advanced Manufacturing Technology, 2015, 81, 1233-1245.	3.0	23
67	45S5 Bioglass analogue reinforced akermanite ceramic favorable for additive manufacturing mechanically strong scaffolds. RSC Advances, 2015, 5, 102727-102735.	3.6	21
68	Research on the electrospun foaming process to fabricate threeâ€dimensional tissue engineering scaffolds. Journal of Applied Polymer Science, 2018, 135, 46898.	2.6	21
69	Rapid assembling organ prototypes with controllable cell-laden multi-scale sheets. Bio-Design and Manufacturing, 2019, 2, 1-9.	7.7	21
70	Self-sintering liquid metal ink with LAPONITEÂ® for flexible electronics. Journal of Materials Chemistry C, 2021, 9, 3070-3080.	5.5	21
71	Automatic Defect Segmentation in X-Ray Images Based on Deep Learning. IEEE Transactions on Industrial Electronics, 2021, 68, 12912-12920.	7.9	20
72	Machining error inspection of T-spline surface by on-machine measurement. International Journal of Precision Engineering and Manufacturing, 2015, 16, 433-439.	2.2	19

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73	Glucosamineâ€grafted methacrylated gelatin hydrogels as potential biomaterials for cartilage repair. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 990-999.	3.4	19
74	An accurate surface error optimization for five-axis machining of freeform surfaces. International Journal of Advanced Manufacturing Technology, 2014, 71, 1175-1185.	3.0	18
75	The influence of cross-sectional morphology on the compressive resistance of polymeric nerve conduits. Polymer, 2018, 148, 93-100.	3.8	18
76	Physical understanding of axonal growth patterns on grooved substrates: groove ridge crossing versus longitudinal alignment. Bio-Design and Manufacturing, 2020, 3, 348-360.	7.7	17
77	NC codes optimization for geometric error compensation of five-axis machine tools with one novel mathematical model. International Journal of Advanced Manufacturing Technology, 2015, 80, 1879-1894.	3.0	16
78	Porous morphology and mechanical properties of poly(lactide-co-glycolide) hollow fiber membranes governed by ternary-phase inversion. Journal of Membrane Science, 2019, 579, 180-189.	8.2	16
79	Protocols of 3D Bioprinting of Gelatin Methacryloyl Hydrogel Based Bioinks. Journal of Visualized Experiments, 2019, , .	0.3	16
80	Review of heterogeneous material objects modeling in additive manufacturing. Visual Computing for Industry, Biomedicine, and Art, 2020, 3, 6.	3.7	16
81	Recent Progress in 3D Printing of Smart Structures: Classification, Challenges, and Trends. Advanced Intelligent Systems, 2021, 3, 2000271.	6.1	16
82	Nondestructive measurement of layer thickness in waterâ€assisted coinjectionâ€molded product by ultrasonic technology. Journal of Applied Polymer Science, 2018, 135, 46540.	2.6	15
83	Why choose 3D bioprinting? Part I: a brief introduction of 3D bioprinting for the beginners. Bio-Design and Manufacturing, 2019, 2, 221-224.	7.7	15
84	Global uncut regions removal for efficient contour-parallel milling. International Journal of Advanced Manufacturing Technology, 2013, 68, 1241-1252.	3.0	14
85	Facial fabrication of paper-based flexible electronics with flash foam stamp lithography. Microsystem Technologies, 2017, 23, 4419-4426.	2.0	14
86	Additive nanomanufacturing of lab-on-a-chip fluorescent peptide nanoparticle arrays for Alzheimerâ€™s disease diagnosis. Bio-Design and Manufacturing, 2018, 1, 182-194.	7.7	14
87	Analysis, Design, and Experimental Research of a Novel Wheelchair-Stretcher Assistive Robot. Applied Sciences (Switzerland), 2020, 10, 264.	2.5	14
88	Non-retraction toolpath generation for irregular compound freeform surfaces with the LKH TSP solver. International Journal of Advanced Manufacturing Technology, 2017, 92, 2325-2339.	3.0	13
89	Visual Detection of Surface Defects Based on Self-Feature Comparison in Robot 3-D Printing. Applied Sciences (Switzerland), 2020, 10, 235.	2.5	13
90	Broadband controllable acoustic focusing and asymmetric focusing by acoustic metamaterials. Smart Materials and Structures, 2021, 30, 045021.	3.5	13

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91	Five-axis trajectory generation based on kinematic constraints and optimisation. International Journal of Computer Integrated Manufacturing, 2015, 28, 266-277.	4.6	12
92	Fabrication of a dual-layer cell-laden tubular scaffold for nerve regeneration and bile duct reconstruction. Biofabrication, 2021, 13, 035038.	7.1	12
93	Balancing the customization and standardization: exploration and layout surrounding the regulation of the growing field of 3D-printed medical devices in China. Bio-Design and Manufacturing, 2022, 5, 580-606.	7.7	12
94	A Pellet 3D Printer: Device Design and Process Parameters Optimization. Advances in Polymer Technology, 2019, 2019, 1-8.	1.7	11
95	Automatic magnetic projection for one-step separation of mixed plastics using ring magnets. Science of the Total Environment, 2021, 786, 147217.	8.0	11
96	Ultrasonic autofocus imaging of internal voids in multilayer polymer composite structures. Ultrasonics, 2022, 120, 106657.	3.9	11
97	Machine tool selected point temperature rise identification based on operational thermal modal analysis. International Journal of Advanced Manufacturing Technology, 2014, 70, 19-31.	3.0	10
98	A Predictive Model for Temperature Rise of Spindleâ€“Bearing Integrated System. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2015, 137, .	2.2	10
99	A Novel Method of Efficient Machining Error Compensation Based on NURBS Surface Control Points Reconstruction. Machining Science and Technology, 2015, 19, 499-513.	2.5	10
100	Numerical solution of simultaneous equations based geometric error compensation for CNC machine tools with workpiece model reconstruction. International Journal of Advanced Manufacturing Technology, 2016, 86, 2265-2278.	3.0	10
101	Error compensation of free-form surface with critical area based on T-spline surface reconstruction. International Journal of Computer Integrated Manufacturing, 2017, 30, 782-791.	4.6	10
102	Building Orientation Determination Based on Multi-Objective Optimization for Additive Manufacturing. 3D Printing and Additive Manufacturing, 2020, 7, 186-197.	2.9	10
103	Additive Manufacturing of Polyamide 66: Effect of Process Parameters on Crystallinity and Mechanical Properties. Journal of Materials Engineering and Performance, 2022, 31, 191-200.	2.5	10
104	Ultrasonic measurement of clamping force for injection molding machine. Journal of Polymer Engineering, 2019, 39, 388-396.	1.4	9
105	A polygons Boolean operations-based adaptive slicing with sliced data for additive manufacturing. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2017, 231, 2783-2799.	2.1	8
106	Squareness error modeling for multi-axis machine tools via synthesizing the motion of the axes. International Journal of Advanced Manufacturing Technology, 2017, 89, 2993-3008.	3.0	8
107	HSM toolpath generation with capsule-based region subdivision. International Journal of Advanced Manufacturing Technology, 2018, 97, 1407-1419.	3.0	8
108	Utility of three-dimensional printing in preoperative planning for children with anomalous pulmonary venous connection: a single center experience. Quantitative Imaging in Medicine and Surgery, 2019, 9, 1804-1814.	2.0	8

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109	Design of automatic two-axis sun-tracking system. , 2010, , .		7
110	Efficient cutting area detection in roughing process for meshed surfaces. International Journal of Advanced Manufacturing Technology, 2013, 69, 525-530.	3.0	7
111	Generating HSM-adapted pocketing tool path by region subdivision. International Journal of Computer Integrated Manufacturing, 2016, 29, 581-590.	4.6	6
112	Closed T-Spline Surface Reconstruction from Medical Image Data. International Journal of Precision Engineering and Manufacturing, 2018, 19, 1659-1671.	2.2	6
113	Cell-modified bioprinted microspheres for vascular regeneration. Materials Science and Engineering C, 2020, 112, 110896.	7.3	6
114	Intelligent injection molding: Parameters selfâ€learning optimization using iterative gradientâ€approximation adaptive method. Journal of Applied Polymer Science, 2021, 138, 50687.	2.6	6
115	Acoustic wave filtering strategy based on gradient acoustic metamaterials. Journal Physics D: Applied Physics, 2021, 54, 335301.	2.8	6
116	A novel wavy non-uniform ligament chiral stent with J-shaped stressâ€“strain behavior to mimic the native trachea. Bio-Design and Manufacturing, 2021, 4, 851-866.	7.7	6
117	Research on inverse evaluation mechanism in toolpath generation based on global interpolation simulation. International Journal of Advanced Manufacturing Technology, 2015, 79, 1265-1283.	3.0	5
118	Instance segmentation of point cloud captured by RGB-D sensor based on deep learning. International Journal of Computer Integrated Manufacturing, 2021, 34, 950-963.	4.6	5
119	A machining feature recognition approach based on hierarchical neural network for multi-feature point cloud models. Journal of Intelligent Manufacturing, 2023, 34, 2599-2610.	7.3	5
120	Support vector machine and neural network united system for NC machine tool thermal error modeling. , 2010, , .		4
121	Transmission and measurement characteristics evaluation of surface acoustic wave sensor on rotating spindle in machine tools. Advances in Mechanical Engineering, 2016, 8, 168781401667678.	1.6	4
122	The tool following function-based identification approach for all geometric errors of rotary axes using ballbar. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 3509-3527.	2.1	4
123	Generation of truss-structure objects with implicit representation for 3D-printing. International Journal of Computer Integrated Manufacturing, 2017, 30, 871-879.	4.6	4
124	3D Bioprinting: Airflow-Assisted 3D Bioprinting of Human Heterogeneous Microspheroidal Organoids with Microfluidic Nozzle (Small 39/2018). Small, 2018, 14, 1870181.	10.0	4
125	Bidirectional Magnetic Projection: One-Step Separation for Recycling Mixed Wastes. ACS Sustainable Chemistry and Engineering, 0, , .	6.7	4
126	An optimisation algorithm for reducing the number of turns on space-filling curve toolpath for sculptured surface milling. International Journal of Computer Integrated Manufacturing, 2018, 31, 199-209.	4.6	3

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127	A New Phenomenon of Niâ€“Ti Alloys and Its Application for Fabricating Thermally Responsive Microrobots. Advanced Engineering Materials, 2021, 23, 2001367.	3.5	3
128	Ultrasonic measurement of tie-bar stress for die-casting machine. Frontiers of Mechanical Engineering, 2022, 17, 1.	4.3	3
129	Stable Levitation of Pyrolytic Graphite Above Circular Magnet Arrays. IEEE Transactions on Magnetics, 2022, 58, 1-11.	2.1	3
130	Five-Axis Freeform Surface Color Printing Technology Based on Offset Curve Path Planning Method. Applied Sciences (Switzerland), 2020, 10, 1716.	2.5	2
131	Recent Progress in 3D Printing of Smart Structures: Classification, Challenges, and Trends. Advanced Intelligent Systems, 2021, 3, .	6.1	2
132	Research on composite multipoint thermometric system of CNC machine tools based on ARM9. , 2010, , .		1
133	Volumetric error identification for CNC machine tool based on multi-body system and vector diagonal measurement. , 2010, , .		1
134	Product of exponential model for geometric error integration of multi-axis machine tools. , 2014, 71, 1653.		1
135	A new global toolpath linking algorithm for different subregions with Travelling Saleman problem solver. International Journal of Computer Integrated Manufacturing, 2022, 35, 633-644.	4.6	1
136	Fabrication of multi-functionalÂNiâ€“Ti alloys by laser powder bed fusion. International Journal of Advanced Manufacturing Technology, 0, , 1.	3.0	1
137	A new toolpath generation method with feed sensitive zones inspection based on inverse evaluation mechanism. International Journal of Computer Integrated Manufacturing, 2017, 30, 926-942.	4.6	0
138	Coaxial Bioprinting: Bioprinting of Cellâ€Laden Microfiber: Can It Become a Standard Product? (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	7.6	0
139	Five-Axis Tool Path Generation of Injection Mold Represented by T-Spline Surface. Advances in Polymer Technology, 2020, 2020, 1-11.	1.7	0
140	Research and Optimization of the Three-Dimensional Printing Unloading Process for the Flexible Support Platform. 3D Printing and Additive Manufacturing, 2021, 8, 136-147.	2.9	0
141	Flexible Job-Shop Scheduling Based on Improved Firefly Algorithm. , 2022, , .		0