

# Wai Yee Yeong

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

133  
papers

8,259  
citations

48  
h-index

89  
g-index

147  
ext. papers

10,301  
ext. citations

6.3  
avg, IF

7.09  
L-index

#	Paper	IF	Citations
133	The role of block-type support structure design on the thermal field and deformation in components fabricated by Laser Powder Bed Fusion. <i>Additive Manufacturing</i> , <b>2022</b> , 51, 102644	6.1	3
132	Fracture behavior of laser powder bed fusion fabricated Ti41Nb via in-situ alloying. <i>Acta Materialia</i> , <b>2022</b> , 225, 117593	8.4	2
131	Preliminary Investigation on the Geometric Accuracy of 3D Printed Dental Implant Using a Monkey Maxilla Incisor Model.. <i>International Journal of Bioprinting</i> , <b>2022</b> , 8, 476	6.2	2
130	Hydrogels for Bioprinting <b>2022</b> , 185-211		1
129	Fabrication of design-optimized multifunctional safety cage with conformal circuits for drone using hybrid 3D printing technology. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2022</b> , 120, 2573	3.2	4
128	Use of Fumed Silica Nanostructured Additives in Selective Laser Melting and Fabrication of Steel Matrix Nanocomposites.. <i>Materials</i> , <b>2022</b> , 15,	3.5	4
127	Controlling Droplet Impact Velocity and Droplet Volume: Key Factors to Achieving High Cell Viability in Sub-Nanoliter Droplet-based Bioprinting.. <i>International Journal of Bioprinting</i> , <b>2022</b> , 8, 424	6.2	8
126	3D extrusion bioprinting. <i>Nature Reviews Methods Primers</i> , <b>2021</b> , 1,		17
125	Machine learning for 3D printed multi-materials tissue-mimicking anatomical models. <i>Materials and Design</i> , <b>2021</b> , 211, 110125	8.1	14
124	Fabrication and Characterization of 3D Bioprinted Triple-layered Human Alveolar Lung Models. <i>International Journal of Bioprinting</i> , <b>2021</b> , 7, 332	6.2	8
123	Emerging metallic systems for additive manufacturing: In-situ alloying and multi-metal processing in laser powder bed fusion. <i>Progress in Materials Science</i> , <b>2021</b> , 119, 100795	42.2	67
122	3D Printing of Multilayered and Multimaterial Electronics: A Review. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2100445	6.4	30
121	Quasi-static indentation analysis on three-dimensional printed continuous-fiber sandwich composites. <i>Journal of Sandwich Structures and Materials</i> , <b>2021</b> , 23, 385-404	2.1	14
120	A review on machine learning in 3D printing: applications, potential, and challenges. <i>Artificial Intelligence Review</i> , <b>2021</b> , 54, 63-94	9.7	102
119	Bioprinting of Collagen: Considerations, Potentials, and Applications. <i>Macromolecular Bioscience</i> , <b>2021</b> , 21, e2000280	5.5	28
118	High-Resolution Novel Indirect Bioprinting of Low-Viscosity Cell-Laden Hydrogels via Model-Support Bioink Interaction. <i>3D Printing and Additive Manufacturing</i> , <b>2021</b> , 8, 69-78	4	6
117	Resolving the porosity-unmelted inclusion dilemma during in-situ alloying of Ti34Nb via laser powder bed fusion. <i>Acta Materialia</i> , <b>2021</b> , 204, 116522	8.4	32

116	Development of a 3-dimensional printed tube thoracostomy task trainer: An improved methodology. <i>Asia Pacific Scholar</i> , <b>2021</b> , 6, 109-113	0.5	
115	Additively manufactured continuous carbon fiber-reinforced thermoplastic for topology optimized unmanned aerial vehicle structures. <i>Composites Part B: Engineering</i> , <b>2021</b> , 216, 108840	10	26
114	Potential of Printed Electrodes for Electrochemical Impedance Spectroscopy (EIS): Toward Membrane Fouling Detection. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2100043	6.4	2
113	Investigating the effectiveness of three-dimensionally printed anatomical models compared with plastinated human specimens in learning cardiac and neck anatomy: A randomized crossover study. <i>Anatomical Sciences Education</i> , <b>2021</b> ,	6.8	1
112	Tissue engineering and 3D printing of bioartificial pancreas for regenerative medicine in diabetes. <i>Trends in Endocrinology and Metabolism</i> , <b>2021</b> , 32, 609-622	8.8	4
111	3D Direct Printing of Silicone Meniscus Implant Using a Novel Heat-Cured Extrusion-Based Printer. <i>Polymers</i> , <b>2020</b> , 12,	4.5	17
110	Laser powder bed fusion of titanium-tantalum alloys: Compositions and designs for biomedical applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2020</b> , 108, 103775	4.1	59
109	Recent progress in 3D printing of fiber-reinforced composite and nanocomposites <b>2020</b> , 371-394		8
108	Laser powder bed fusion for metal additive manufacturing: perspectives on recent developments. <i>Virtual and Physical Prototyping</i> , <b>2020</b> , 15, 359-370	10.1	81
107	Bioprinting of Multimaterials with Computer-aided Design/Computer-aided Manufacturing. <i>International Journal of Bioprinting</i> , <b>2020</b> , 6, 245	6.2	11
106	Development of a three-dimensional printed heart from computed tomography images of a plastinated specimen for learning anatomy. <i>Anatomy and Cell Biology</i> , <b>2020</b> , 53, 48-57	1.4	7
105	3D printing of metals in rapid prototyping of biomaterials: Techniques in additive manufacturing <b>2020</b> , 17-40		21
104	Hydrogels for 3-D bioprinting-based tissue engineering <b>2020</b> , 183-204		5
103	Vat polymerization-based bioprinting-process, materials, applications and regulatory challenges. <i>Biofabrication</i> , <b>2020</b> , 12, 022001	10.5	112
102	Additive manufacturing of multiple materials by selective laser melting: Ti-alloy to stainless steel via a Cu-alloy interlayer. <i>Additive Manufacturing</i> , <b>2020</b> , 31, 100970	6.1	17
101	3D Printing of Carbon Fiber Composite: The Future of Composite Industry?. <i>Matter</i> , <b>2020</b> , 2, 1361-1363	12.7	18
100	A review of 3D printing processes and materials for soft robotics. <i>Rapid Prototyping Journal</i> , <b>2020</b> , 26, 1345-1361	3.8	37
99	Engineering macroscale cell alignment through coordinated toolpath design using support-assisted 3D bioprinting. <i>Journal of the Royal Society Interface</i> , <b>2020</b> , 17, 20200294	4.1	12

98	Process-structure-property of additively manufactured continuous carbon fiber reinforced thermoplastic: an investigation of mode I interlaminar fracture toughness. <i>Mechanics of Advanced Materials and Structures</i> , <b>2020</b> , 1-13	1.8	19
97	3D Printed Silicone Meniscus Implants: Influence of the 3D Printing Process on Properties of Silicone Implants. <i>Polymers</i> , <b>2020</b> , 12,	4.5	11
96	Process-Structure-Properties in Polymer Additive Manufacturing via Material Extrusion: A Review. <i>Critical Reviews in Solid State and Materials Sciences</i> , <b>2020</b> , 45, 113-133	10.1	133
95	Effect of solution heat treatment on microstructure and mechanical properties of laser powder bed fusion produced cobalt-28chromium-6molybdenum. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 769, 138511	5.3	56
94	Microstructure modelling for metallic additive manufacturing: a review. <i>Virtual and Physical Prototyping</i> , <b>2020</b> , 15, 87-105	10.1	93
93	3D and 4D printing of polymer/CNTs-based conductive composites <b>2020</b> , 297-324		12
92	Sessile droplets containing carbon nanotubes: a study of evaporation dynamics and CNT alignment for printed electronics. <i>Nanoscale</i> , <b>2019</b> , 11, 10603-10614	7.7	34
91	Selective Laser Melting of Ti42Nb Composite Powder and the Effect of Laser Re-Melting. <i>Key Engineering Materials</i> , <b>2019</b> , 801, 270-275	0.4	7
90	Healing of Chronic Wounds: An Update of Recent Developments and Future Possibilities. <i>Tissue Engineering - Part B: Reviews</i> , <b>2019</b> , 25, 429-444	7.9	37
89	Resolution and shape in bioprinting: Strategizing towards complex tissue and organ printing. <i>Applied Physics Reviews</i> , <b>2019</b> , 6, 011307	17.3	56
88	Multi-material three dimensional printed models for simulation of bronchoscopy. <i>BMC Medical Education</i> , <b>2019</b> , 19, 236	3.3	16
87	Aerosol-Jet-Printed Preferentially Aligned Carbon Nanotube Twin-Lines for Printed Electronics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 43719-43730	9.5	45
86	The future of skin toxicology testing - Three-dimensional bioprinting meets microfluidics. <i>International Journal of Bioprinting</i> , <b>2019</b> , 5, 237	6.2	18
85	Silicone 3D Printing: Process Optimization, Product Biocompatibility, and Reliability of Silicone Meniscus Implants. <i>3D Printing and Additive Manufacturing</i> , <b>2019</b> , 6, 319-332	4	21
84	Directed and On-Demand Alignment of Carbon Nanotube: A Review toward 3D Printing of Electronics. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1801318	4.6	69
83	Wearable Bandage-Based Strain Sensor for Home Healthcare: Combining 3D Aerosol Jet Printing and Laser Sintering. <i>ACS Sensors</i> , <b>2019</b> , 4, 218-226	9.2	69
82	Recent Progress in Additive Manufacturing of Fiber Reinforced Polymer Composite. <i>Advanced Materials Technologies</i> , <b>2019</b> , 4, 1800271	6.8	157
81	A bilayer photoreceptor-retinal tissue model with gradient cell density design: A study of microvalve-based bioprinting. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2018</b> , 12, 1297-1306	4.4	21

80	Tissue engineering of retina and Bruch's membrane: a review of cells, materials and processes. <i>British Journal of Ophthalmology</i> , <b>2018</b> , 102, 1182-1187	5.5	12
79	Applying macromolecular crowding to 3D bioprinting: fabrication of 3D hierarchical porous collagen-based hydrogel constructs. <i>Biomaterials Science</i> , <b>2018</b> , 6, 562-574	7.4	55
78	Proof-of-concept: 3D bioprinting of pigmented human skin constructs. <i>Biofabrication</i> , <b>2018</b> , 10, 025005	10.5	109
77	A low cost and flexible carbon nanotube pH sensor fabricated using aerosol jet technology for live cell applications. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 260, 227-235	8.5	45
76	Evaluation by medical students of the educational value of multi-material and multi-colored three-dimensional printed models of the upper limb for anatomical education. <i>Anatomical Sciences Education</i> , <b>2018</b> , 11, 54-64	6.8	55
75	Selective laser melting of lattice structures: A statistical approach to manufacturability and mechanical behavior. <i>Robotics and Computer-Integrated Manufacturing</i> , <b>2018</b> , 49, 170-180	9.2	174
74	Crack monitoring and failure investigation on inkjet printed sandwich structures under quasi-static indentation test. <i>Materials and Design</i> , <b>2018</b> , 137, 140-151	8.1	32
73	Additively manufactured multi-material free-form structure with printed electronics. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2018</b> , 94, 1309-1316	3.2	35
72	Selective laser melting of titanium alloy with 50 wt% tantalum: Effect of laser process parameters on part quality. <i>International Journal of Refractory Metals and Hard Materials</i> , <b>2018</b> , 77, 120-127	4.1	93
71	3D bioprinting processes: A perspective on classification and terminology. <i>International Journal of Bioprinting</i> , <b>2018</b> , 4, 151	6.2	69
70	A novel 3D bioprinted flexible and biocompatible hydrogel bioelectronic platform. <i>Biosensors and Bioelectronics</i> , <b>2018</b> , 102, 365-371	11.8	32
69	Aerosol Jet Printed Strain Sensor: Simulation Studies Analyzing the Effect of Dimension and Design on Performance (September 2018). <i>IEEE Access</i> , <b>2018</b> , 6, 63080-63086	3.5	18
68	3D Printed Bioelectronic Platform with Embedded Electronics. <i>MRS Advances</i> , <b>2018</b> , 3, 3011-3017	0.7	4
67	3D printed bio-models for medical applications. <i>Rapid Prototyping Journal</i> , <b>2017</b> , 23, 227-235	3.8	41
66	Metallic powder-bed based 3D printing of cellular scaffolds for orthopaedic implants: A state-of-the-art review on manufacturing, topological design, mechanical properties and biocompatibility. <i>Materials Science and Engineering C</i> , <b>2017</b> , 76, 1328-1343	8.3	253
65	Microvalve-based bioprinting - process, bio-inks and applications. <i>Biomaterials Science</i> , <b>2017</b> , 5, 632-647	7.4	112
64	Optimizing aerosol jet printing process of silver ink for printed electronics. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2017</b> , 191, 012027	0.4	23
63	Novel method for the fabrication of ultrathin, free-standing and porous polymer membranes for retinal tissue engineering. <i>Journal of Materials Chemistry B</i> , <b>2017</b> , 5, 5616-5622	7.3	19

62	Material jetting additive manufacturing: An experimental study using designed metrological benchmarks. <i>Precision Engineering</i> , <b>2017</b> , 50, 275-285	2.9	103
61	Direct selective laser sintering and melting of ceramics: a review. <i>Rapid Prototyping Journal</i> , <b>2017</b> , 23, 611-623	3.8	187
60	Additive manufacturing in unmanned aerial vehicles (UAVs): Challenges and potential. <i>Aerospace Science and Technology</i> , <b>2017</b> , 63, 140-151	4.9	168
59	Investigation of cell viability and morphology in 3D bio-printed alginate constructs with tunable stiffness. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2017</b> , 105, 1009-1018	5.4	32
58	Material Characterization for Additive Manufacturing <b>2017</b> , 95-137		2
57	Process Control and Modeling <b>2017</b> , 159-179		1
56	Quality Management Framework in Additive Manufacturing <b>2017</b> , 213-239		2
55	Benchmarking for Additive Manufacturing <b>2017</b> , 181-212		12
54	Software and Data Format <b>2017</b> , 75-94		1
53	Measurement Science Roadmap for Additive Manufacturing <b>2017</b> , 57-73		1
52	Development of bendable strain sensor with embedded microchannels using 3D printing. <i>Sensors and Actuators A: Physical</i> , <b>2017</b> , 263, 593-599	3.9	61
51	Introduction to 3D Printing or Additive Manufacturing <b>2017</b> , 1-29		3
50	3D Printed Polycaprolactone Carbon Nanotube Composite Scaffolds for Cardiac Tissue Engineering. <i>Macromolecular Bioscience</i> , <b>2017</b> , 17, 1600250	5.5	115
49	Performance evaluation of ProJet multi-material jetting 3D printer. <i>Virtual and Physical Prototyping</i> , <b>2017</b> , 12, 95-103	10.1	54
48	Roadmap on Additive Manufacturing Standards <b>2017</b> , 31-55		4
47	Equipment Qualification <b>2017</b> , 139-157		2
46	Polyvinylpyrrolidone-Based Bio-Ink Improves Cell Viability and Homogeneity during Drop-On-Demand Printing. <i>Materials</i> , <b>2017</b> , 10,	3.5	56
45	Investigation of Quasi-Static Indentation Response of Inkjet Printed Sandwich Structures under Various Indenter Geometries. <i>Materials</i> , <b>2017</b> , 10,	3.5	31

44	Fabrication of titanium based biphasic scaffold using selective laser melting and collagen immersion. <i>International Journal of Bioprinting</i> , <b>2017</b> , 3,	6.2	30
43	Hybrid three-dimensional (3D) bioprinting of retina equivalent for ocular research. <i>International Journal of Bioprinting</i> , <b>2017</b> , 3, 008	6.2	21
42	Fabrication of titanium based biphasic scaffold using selective laser melting and collagen immersion. <i>International Journal of Bioprinting</i> , <b>2017</b> , 3, 007	6.2	2
41	Design and Printing Strategies in 3D Bioprinting of Cell-Hydrogels: A Review. <i>Advanced Healthcare Materials</i> , <b>2016</b> , 5, 2856-2865	10.1	194
40	Laser and electron-beam powder-bed additive manufacturing of metallic implants: A review on processes, materials and designs. <i>Journal of Orthopaedic Research</i> , <b>2016</b> , 34, 369-85	3.8	489
39	Characterization and evaluation of 3D printed microfluidic chip for cell processing. <i>Microfluidics and Nanofluidics</i> , <b>2016</b> , 20, 1	2.8	60
38	Characterization, mechanical behavior and in vitro evaluation of a melt-drawn scaffold for esophageal tissue engineering. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2016</b> , 57, 246-59	4.1	21
37	Characterization of Titanium Lattice Structures Fabricated by Selective Laser Melting Using an Adapted Compressive Test Method. <i>Experimental Mechanics</i> , <b>2016</b> , 56, 735-748	2.6	87
36	Selective laser melting of titanium alloy with 50wt% tantalum: Microstructure and mechanical properties. <i>Journal of Alloys and Compounds</i> , <b>2016</b> , 660, 461-470	5.7	238
35	Polyelectrolyte gelatin-chitosan hydrogel optimized for 3D bioprinting in skin tissue engineering. <i>International Journal of Bioprinting</i> , <b>2016</b> , 2,	6.2	126
34	Bioprinting in cardiovascular tissue engineering: a review. <i>International Journal of Bioprinting</i> , <b>2016</b> , 2,	6.2	26
33	Additive Manufacturing of Patient-Customizable Scaffolds for Tubular Tissues Using the Melt-Drawing Method. <i>Materials</i> , <b>2016</b> , 9,	3.5	11
32	Hybrid microscaffold-based 3D bioprinting of multi-cellular constructs with high compressive strength: A new biofabrication strategy. <i>Scientific Reports</i> , <b>2016</b> , 6, 39140	4.9	74
31	Investigation of out of plane compressive strength of 3D printed sandwich composites. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2016</b> , 139, 012017	0.4	16
30	Selective laser melting of stainless steel 316L with low porosity and high build rates. <i>Materials and Design</i> , <b>2016</b> , 104, 197-204	8.1	353
29	Skin Bioprinting: Impending Reality or Fantasy?. <i>Trends in Biotechnology</i> , <b>2016</b> , 34, 689-699	15.1	159
28	Development of Polyelectrolyte Chitosan-gelatin Hydrogels for Skin Bioprinting. <i>Procedia CIRP</i> , <b>2016</b> , 49, 105-112	1.8	49
27	Inkjet-printed patch antenna emitter for wireless communication application. <i>Virtual and Physical Prototyping</i> , <b>2016</b> , 11, 289-294	10.1	37



26	Fabrication and in vitro analysis of tubular scaffolds by melt-drawing for esophageal tissue engineering. <i>Materials Letters</i> , <b>2015</b> , 159, 424-427	3.3	21
25	Shape recovery effect of 3D printed polymeric honeycomb. <i>Virtual and Physical Prototyping</i> , <b>2015</b> , 10, 91-99	10.1	56
24	3D printing of smart materials: A review on recent progresses in 4D printing. <i>Virtual and Physical Prototyping</i> , <b>2015</b> , 10, 103-122	10.1	503
23	A preliminary model of time-pressure dispensing system for bioprinting based on printing and material parameters. <i>Virtual and Physical Prototyping</i> , <b>2015</b> , 10, 3-8	10.1	51
22	Numerical investigation and an effective modelling on the Selective Laser Melting (SLM) process with aluminium alloy 6061. <i>International Journal of Heat and Mass Transfer</i> , <b>2015</b> , 80, 288-300	4.9	256
21	Biodegradable Polymeric Films and Membranes Processing and Forming for Tissue Engineering. <i>Macromolecular Materials and Engineering</i> , <b>2015</b> , 300, 858-877	3.9	36
20	Piezoceramic materials for energy harvesting on 3D printed unmanned aerial vehicles: A feasibility study <b>2015</b> ,		1
19	Bioprinting <b>2015</b> ,		32
18	Concentric Bioprinting Of Alginate-Based Tubular Constructs Using Multi-Nozzle Extrusion-Based Technique. <i>International Journal of Bioprinting</i> , <b>2015</b> ,	6.2	23
17	Smart hydrogels for 3D bioprinting. <i>International Journal of Bioprinting</i> , <b>2015</b> ,	6.2	41
16	Selective Laser Melting of aluminium alloy using a uniform beam profile. <i>Virtual and Physical Prototyping</i> , <b>2014</b> , 9, 11-16	10.1	47
15	Additive manufacture of fashion and jewellery products: a mini review. <i>Virtual and Physical Prototyping</i> , <b>2014</b> , 9, 195-201	10.1	96
14	Potential of Bioprinted Films for Skin Tissue Engineering <b>2014</b> ,		8
13	Compressive Strength of Thin-Walled Cellular Core by Inkjet-Based Additive Manufacturing <b>2014</b> ,		3
12	Direct Bioprinting of Alginate-Based Tubular Constructs Using Multi-Nozzle Extrusion-Based Technique <b>2014</b> ,		6
11	A quality management framework for implementing additive manufacturing of medical devices. <i>Virtual and Physical Prototyping</i> , <b>2013</b> , 8, 193-199	10.1	14
10	Multiscale topological guidance for cell alignment via direct laser writing on biodegradable polymer. <i>Tissue Engineering - Part C: Methods</i> , <b>2010</b> , 16, 1011-21	2.9	55
9	Annealing of Biodegradable Polymer Induced by Femtosecond Laser Micromachining. <i>Advanced Engineering Materials</i> , <b>2010</b> , 12, B89-B93	3.5	5



8	Porous polycaprolactone scaffold for cardiac tissue engineering fabricated by selective laser sintering. <i>Acta Biomaterialia</i> , <b>2010</b> , 6, 2028-34	10.8	271
7	Hybrid approach in prototyping functional medical safety devices: A case study. <i>Virtual and Physical Prototyping</i> , <b>2008</b> , 3, 41-47	10.1	8
6	Engineering functionally graded tissue engineering scaffolds. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2008</b> , 1, 140-52	4.1	236
5	Comparison of drying methods in the fabrication of collagen scaffold via indirect rapid prototyping. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2007</b> , 82, 260-6	3.5	49
4	Indirect fabrication of collagen scaffold based on inkjet printing technique. <i>Rapid Prototyping Journal</i> , <b>2006</b> , 12, 229-237	3.8	82
3	Rapid prototyping in tissue engineering: challenges and potential. <i>Trends in Biotechnology</i> , <b>2004</b> , 22, 643-52	15.1	658
2	Anomaly Detection in Fused Filament Fabrication Using Machine Learning. <i>3D Printing and Additive Manufacturing</i> ,	4	3
1	Quasi-static indentation and sound-absorbing properties of 3D printed sandwich core panels. <i>Journal of Sandwich Structures and Materials</i> ,109963622110370	2.1	5