Wai Yee Yeong

List of Publications by Citations

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	Rapid prototyping in tissue engineering: challenges and potential. *Trends in Biotechnology*, **2004**, 22, 643-52	15.1	658
132	3D printing of smart materials: A review on recent progresses in 4D printing. *Virtual and Physical Prototyping*, **2015**, 10, 103-122	10.1	503
131	Laser and electron-beam powder-bed additive manufacturing of metallic implants: A review on processes, materials and designs. *Journal of Orthopaedic Research*, **2016**, 34, 369-85	3.8	489
130	Selective laser melting of stainless steel 316L with low porosity and high build rates. *Materials and Design*, **2016**, 104, 197-204	8.1	353
129	Porous polycaprolactone scaffold for cardiac tissue engineering fabricated by selective laser sintering. *Acta Biomaterialia*, **2010**, 6, 2028-34	10.8	271
128	Numerical investigation and an effective modelling on the Selective Laser Melting (SLM) process with aluminium alloy 6061. *International Journal of Heat and Mass Transfer*, **2015**, 80, 288-300	4.9	256
127	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. *Materials Science and Engineering C*, **2017**, 76, 1328-1343	8.3	253
126	Selective laser melting of titanium alloy with 50 wt% tantalum: Microstructure and mechanical properties. *Journal of Alloys and Compounds*, **2016**, 660, 461-470	5.7	238
125	Engineering functionally graded tissue engineering scaffolds. *Journal of the Mechanical Behavior of Biomedical Materials*, **2008**, 1, 140-52	4.1	236
124	Design and Printing Strategies in 3D Bioprinting of Cell-Hydrogels: A Review. *Advanced Healthcare Materials*, **2016**, 5, 2856-2865	10.1	194
123	Direct selective laser sintering and melting of ceramics: a review. *Rapid Prototyping Journal*, **2017**, 23, 611-623	3.8	187
122	Selective laser melting of lattice structures: A statistical approach to manufacturability and mechanical behavior. *Robotics and Computer-Integrated Manufacturing*, **2018**, 49, 170-180	9.2	174
121	Additive manufacturing in unmanned aerial vehicles (UAVs): Challenges and potential. *Aerospace Science and Technology*, **2017**, 63, 140-151	4.9	168
120	Skin Bioprinting: Impending Reality or Fantasy?. *Trends in Biotechnology*, **2016**, 34, 689-699	15.1	159
119	Recent Progress in Additive Manufacturing of Fiber Reinforced Polymer Composite. *Advanced Materials Technologies*, **2019**, 4, 1800271	6.8	157
118	Process–Structure–Properties in Polymer Additive Manufacturing via Material Extrusion: A Review. *Critical Reviews in Solid State and Materials Sciences*, **2020**, 45, 113-133	10.1	133
117	Polyelectrolyte gelatin-chitosan hydrogel optimized for 3D bioprinting in skin tissue engineering. *International Journal of Bioprinting*, **2016**, 2,	6.2	126

116	3D Printed Polycaprolactone Carbon Nanotube Composite Scaffolds for Cardiac Tissue Engineering. *Macromolecular Bioscience*, **2017**, 17, 1600250	5.5	115
115	Microvalve-based bioprinting - process, bio-inks and applications. *Biomaterials Science*, **2017**, 5, 632-647	7.4	112
114	Vat polymerization-based bioprinting-process, materials, applications and regulatory challenges. *Biofabrication*, **2020**, 12, 022001	10.5	112
113	Proof-of-concept: 3D bioprinting of pigmented human skin constructs. *Biofabrication*, **2018**, 10, 025005	10.5	109
112	Material jetting additive manufacturing: An experimental study using designed metrological benchmarks. *Precision Engineering*, **2017**, 50, 275-285	2.9	103
111	A review on machine learning in 3D printing: applications, potential, and challenges. *Artificial Intelligence Review*, **2021**, 54, 63-94	9.7	102
110	Additive manufacture of fashion and jewellery products: a mini review. *Virtual and Physical Prototyping*, **2014**, 9, 195-201	10.1	96
109	Selective laser melting of titanium alloy with 50 wt% tantalum: Effect of laser process parameters on part quality. *International Journal of Refractory Metals and Hard Materials*, **2018**, 77, 120-127	4.1	93
108	Microstructure modelling for metallic additive manufacturing: a review. *Virtual and Physical Prototyping*, **2020**, 15, 87-105	10.1	93
107	Characterization of Titanium Lattice Structures Fabricated by Selective Laser Melting Using an Adapted Compressive Test Method. *Experimental Mechanics*, **2016**, 56, 735-748	2.6	87
106	Indirect fabrication of collagen scaffold based on inkjet printing technique. *Rapid Prototyping Journal*, **2006**, 12, 229-237	3.8	82
105	Laser powder bed fusion for metal additive manufacturing: perspectives on recent developments. *Virtual and Physical Prototyping*, **2020**, 15, 359-370	10.1	81
104	Hybrid microscaffold-based 3D bioprinting of multi-cellular constructs with high compressive strength: A new biofabrication strategy. *Scientific Reports*, **2016**, 6, 39140	4.9	74
103	3D bioprinting processes: A perspective on classification and terminology. *International Journal of Bioprinting*, **2018**, 4, 151	6.2	69
102	Directed and On-Demand Alignment of Carbon Nanotube: A Review toward 3D Printing of Electronics. *Advanced Materials Interfaces*, **2019**, 6, 1801318	4.6	69
101	Wearable Bandage-Based Strain Sensor for Home Healthcare: Combining 3D Aerosol Jet Printing and Laser Sintering. *ACS Sensors*, **2019**, 4, 218-226	9.2	69
100	Emerging metallic systems for additive manufacturing: In-situ alloying and multi-metal processing in laser powder bed fusion. *Progress in Materials Science*, **2021**, 119, 100795	42.2	67
99	Development of bendable strain sensor with embedded microchannels using 3D printing. *Sensors and Actuators A: Physical*, **2017**, 263, 593-599	3.9	61

98	Characterization and evaluation of 3D printed microfluidic chip for cell processing. *Microfluidics and Nanofluidics*, **2016**, 20, 1	2.8	60
97	Laser powder bed fusion of titanium-tantalum alloys: Compositions and designs for biomedical applications. *Journal of the Mechanical Behavior of Biomedical Materials*, **2020**, 108, 103775	4.1	59
96	Resolution and shape in bioprinting: Strategizing towards complex tissue and organ printing. *Applied Physics Reviews*, **2019**, 6, 011307	17.3	56
95	Shape recovery effect of 3D printed polymeric honeycomb. *Virtual and Physical Prototyping*, **2015**, 10, 91-99	10.1	56
94	Polyvinylpyrrolidone-Based Bio-Ink Improves Cell Viability and Homogeneity during Drop-On-Demand Printing. *Materials*, **2017**, 10,	3.5	56
93	Effect of solution heat treatment on microstructure and mechanical properties of laser powder bed fusion produced cobalt-28chromium-6molybdenum. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 769, 138511	5.3	56
92	Applying macromolecular crowding to 3D bioprinting: fabrication of 3D hierarchical porous collagen-based hydrogel constructs. *Biomaterials Science*, **2018**, 6, 562-574	7.4	55
91	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. *Anatomical Sciences Education*, **2018**, 11, 54-64	6.8	55
90	Multiscale topological guidance for cell alignment via direct laser writing on biodegradable polymer. *Tissue Engineering - Part C: Methods*, **2010**, 16, 1011-21	2.9	55
89	Performance evaluation of ProJet multi-material jetting 3D printer. *Virtual and Physical Prototyping* , **2017**, 12, 95-103	10.1	54
88	A preliminary model of time-pressure dispensing system for bioprinting based on printing and material parameters. *Virtual and Physical Prototyping*, **2015**, 10, 3-8	10.1	51
87	Comparison of drying methods in the fabrication of collagen scaffold via indirect rapid prototyping. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2007**, 82, 260-6	3.5	49
86	Development of Polyelectrolyte Chitosan-gelatin Hydrogels for Skin Bioprinting. *Procedia CIRP*, **2016**, 49, 105-112	1.8	49
85	Selective Laser Melting of aluminium alloy using a uniform beam profile. *Virtual and Physical Prototyping*, **2014**, 9, 11-16	10.1	47
84	A low cost and flexible carbon nanotube pH sensor fabricated using aerosol jet technology for live cell applications. *Sensors and Actuators B: Chemical*, **2018**, 260, 227-235	8.5	45
83	Aerosol-Jet-Printed Preferentially Aligned Carbon Nanotube Twin-Lines for Printed Electronics. *ACS Applied Materials & Interfaces*, **2019**, 11, 43719-43730	9.5	45
82	3D printed bio-models for medical applications. *Rapid Prototyping Journal*, **2017**, 23, 227-235	3.8	41
81	Smart hydrogels for 3D bioprinting. *International Journal of Bioprinting*, **2015**,	6.2	41

80	Healing of Chronic Wounds: An Update of Recent Developments and Future Possibilities. *Tissue Engineering - Part B: Reviews*, **2019**, 25, 429-444	7.9	37
79	A review of 3D printing processes and materials for soft robotics. *Rapid Prototyping Journal*, **2020**, 26, 1345-1361	3.8	37
78	Inkjet-printed patch antenna emitter for wireless communication application. *Virtual and Physical Prototyping*, **2016**, 11, 289-294	10.1	37
77	Biodegradable Polymeric Films and Membranes Processing and Forming for Tissue Engineering. *Macromolecular Materials and Engineering*, **2015**, 300, 858-877	3.9	36
76	Additively manufactured multi-material free-form structure with printed electronics. *International Journal of Advanced Manufacturing Technology*, **2018**, 94, 1309-1316	3.2	35
75	Sessile droplets containing carbon nanotubes: a study of evaporation dynamics and CNT alignment for printed electronics. *Nanoscale*, **2019**, 11, 10603-10614	7.7	34
74	Investigation of cell viability and morphology in 3D bio-printed alginate constructs with tunable stiffness. *Journal of Biomedical Materials Research - Part A*, **2017**, 105, 1009-1018	5.4	32
73	Crack monitoring and failure investigation on inkjet printed sandwich structures under quasi-static indentation test. *Materials and Design*, **2018**, 137, 140-151	8.1	32
72	Bioprinting **2015**,		32
71	Resolving the porosity-unmelted inclusion dilemma during in-situ alloying of Ti34Nb via laser powder bed fusion. *Acta Materialia*, **2021**, 204, 116522	8.4	32
70	A novel 3D bioprinted flexible and biocompatible hydrogel bioelectronic platform. *Biosensors and Bioelectronics*, **2018**, 102, 365-371	11.8	32
69	Investigation of Quasi-Static Indentation Response of Inkjet Printed Sandwich Structures under Various Indenter Geometries. *Materials*, **2017**, 10,	3.5	31
68	Fabrication of titanium based biphasic scaffold using selective laser melting and collagen immersion. *International Journal of Bioprinting*, **2017**, 3,	6.2	30
67	3D Printing of Multilayered and Multimaterial Electronics: A Review. *Advanced Electronic Materials*, **2021**, 7, 2100445	6.4	30
66	Bioprinting of Collagen: Considerations, Potentials, and Applications. *Macromolecular Bioscience*, **2021**, 21, e2000280	5.5	28
65	Bioprinting in cardiovascular tissue engineering: a review. *International Journal of Bioprinting*, **2016**, 2,	6.2	26
64	Additively manufactured continuous carbon fiber-reinforced thermoplastic for topology optimized unmanned aerial vehicle structures. *Composites Part B: Engineering*, **2021**, 216, 108840	10	26
63	Optimizing aerosol jet printing process of silver ink for printed electronics. *IOP Conference Series: Materials Science and Engineering*, **2017**, 191, 012027	0.4	23

62	Concentric Bioprinting Of Alginate-Based Tubular Constructs Using Multi-Nozzle Extrusion-Based Technique. *International Journal of Bioprinting*, **2015**,	6.2	23
61	Fabrication and in vitro analysis of tubular scaffolds by melt-drawing for esophageal tissue engineering. *Materials Letters*, **2015**, 159, 424-427	3.3	21
60	A bilayer photoreceptor-retinal tissue model with gradient cell density design: A study of microvalve-based bioprinting. *Journal of Tissue Engineering and Regenerative Medicine*, **2018**, 12, 1297-1306	4.4	21
59	Characterization, mechanical behavior and in vitro evaluation of a melt-drawn scaffold for esophageal tissue engineering. *Journal of the Mechanical Behavior of Biomedical Materials*, **2016**, 57, 246-59	4.1	21
58	Hybrid three-dimensional (3D) bioprinting of retina equivalent for ocular research. *International Journal of Bioprinting*, **2017**, 3, 008	6.2	21
57	3D printing of metals in rapid prototyping of biomaterials: Techniques in additive manufacturing **2020**, 17-40		21
56	Silicone 3D Printing: Process Optimization, Product Biocompatibility, and Reliability of Silicone Meniscus Implants. *3D Printing and Additive Manufacturing*, **2019**, 6, 319-332	4	21
55	Novel method for the fabrication of ultrathin, free-standing and porous polymer membranes for retinal tissue engineering. *Journal of Materials Chemistry B*, **2017**, 5, 5616-5622	7.3	19
54	Process-structure-property of additively manufactured continuous carbon fiber reinforced thermoplastic: an investigation of mode I interlaminar fracture toughness. *Mechanics of Advanced Materials and Structures*, **2020**, 1-13	1.8	19
53	The future of skin toxicology testing - Three-dimensional bioprinting meets microfluidics. *International Journal of Bioprinting*, **2019**, 5, 237	6.2	18
52	3D Printing of Carbon Fiber Composite: The Future of Composite Industry?. *Matter*, **2020**, 2, 1361-1363	12.7	18
51	Aerosol Jet Printed Strain Sensor: Simulation Studies Analyzing the Effect of Dimension and Design on Performance (September 2018). *IEEE Access*, **2018**, 6, 63080-63086	3.5	18
50	3D Direct Printing of Silicone Meniscus Implant Using a Novel Heat-Cured Extrusion-Based Printer. *Polymers*, **2020**, 12,	4.5	17
49	3D extrusion bioprinting. *Nature Reviews Methods Primers*, **2021**, 1,		17
48	Additive manufacturing of multiple materials by selective laser melting: Ti-alloy to stainless steel via a Cu-alloy interlayer. *Additive Manufacturing*, **2020**, 31, 100970	6.1	17
47	Multi-material three dimensional printed models for simulation of bronchoscopy. *BMC Medical Education*, **2019**, 19, 236	3.3	16
46	Investigation of out of plane compressive strength of 3D printed sandwich composites. *IOP Conference Series: Materials Science and Engineering*, **2016**, 139, 012017	0.4	16
45	A quality management framework for implementing additive manufacturing of medical devices. *Virtual and Physical Prototyping*, **2013**, 8, 193-199	10.1	14

44	Machine learning for 3D printed multi-materials tissue-mimicking anatomical models. *Materials and Design*, **2021**, 211, 110125	8.1	14
43	Quasi-static indentation analysis on three-dimensional printed continuous-fiber sandwich composites. *Journal of Sandwich Structures and Materials*, **2021**, 23, 385-404	2.1	14
42	Benchmarking for Additive Manufacturing **2017**, 181-212		12
41	Tissue engineering of retina and Bruch's membrane: a review of cells, materials and processes. *British Journal of Ophthalmology*, **2018**, 102, 1182-1187	5.5	12
40	Engineering macroscale cell alignment through coordinated toolpath design using support-assisted 3D bioprinting. *Journal of the Royal Society Interface*, **2020**, 17, 20200294	4.1	12
39	3D and 4D printing of polymer/CNTs-based conductive composites **2020**, 297-324		12
38	Bioprinting of Multimaterials with Computer-aided Design/Computer-aided Manufacturing. *International Journal of Bioprinting*, **2020**, 6, 245	6.2	11
37	3D Printed Silicone Meniscus Implants: Influence of the 3D Printing Process on Properties of Silicone Implants. *Polymers*, **2020**, 12,	4.5	11
36	Additive Manufacturing of Patient-Customizable Scaffolds for Tubular Tissues Using the Melt-Drawing Method. *Materials*, **2016**, 9,	3.5	11
35	Recent progress in 3D printing of fiber-reinforced composite and nanocomposites **2020**, 371-394		8
34	Hybrid approach in prototyping functional medical safety devices: A case study. *Virtual and Physical Prototyping*, **2008**, 3, 41-47	10.1	8
33	Potential of Bioprinted Films for Skin Tissue Engineering **2014**,		8
32	Fabrication and Characterization of 3D Bioprinted Triple-layered Human Alveolar Lung Models. *International Journal of Bioprinting*, **2021**, 7, 332	6.2	8
31	Controlling Droplet Impact Velocity and Droplet Volume: Key Factors to Achieving High Cell Viability in Sub-Nanoliter Droplet-based Bioprinting.. *International Journal of Bioprinting*, **2022**, 8, 424	6.2	8
30	Selective Laser Melting of Ti42Nb Composite Powder and the Effect of Laser Re-Melting. *Key Engineering Materials*, **2019**, 801, 270-275	0.4	7
29	Development of a three-dimensional printed heart from computed tomography images of a plastinated specimen for learning anatomy. *Anatomy and Cell Biology*, **2020**, 53, 48-57	1.4	7
28	Direct Bioprinting of Alginate-Based Tubular Constructs Using Multi-Nozzle Extrusion-Based Technique **2014**,		6
27	High-Resolution Novel Indirect Bioprinting of Low-Viscosity Cell-Laden Hydrogels via Model-Support Bioink Interaction. *3D Printing and Additive Manufacturing*, **2021**, 8, 69-78	4	6

26	Annealing of Biodegradable Polymer Induced by Femtosecond Laser Micromachining. *Advanced Engineering Materials*, **2010**, 12, B89-B93	3.5	5
25	Hydrogels for 3-D bioprinting-based tissue engineering **2020**, 183-204		5
24	Quasi-static indentation and sound-absorbing properties of 3D printed sandwich core panels. *Journal of Sandwich Structures and Materials*,109963622110370	2.1	5
23	Roadmap on Additive Manufacturing Standards **2017**, 31-55		4
22	3D Printed Bioelectronic Platform with Embedded Electronics. *MRS Advances*, **2018**, 3, 3011-3017	0.7	4
21	Tissue engineering and 3D printing of bioartificial pancreas for regenerative medicine in diabetes. *Trends in Endocrinology and Metabolism*, **2021**, 32, 609-622	8.8	4
20	Fabrication of design-optimized multifunctional safety cage with conformal circuits for drone using hybrid 3D printing technology. *International Journal of Advanced Manufacturing Technology*, **2022**, 120, 2573	3.2	4
19	Use of Fumed Silica Nanostructured Additives in Selective Laser Melting and Fabrication of Steel Matrix Nanocomposites.. *Materials*, **2022**, 15,	3.5	4
18	Introduction to 3D Printing or Additive Manufacturing **2017**, 1-29		3
17	Anomaly Detection in Fused Filament Fabrication Using Machine Learning. *3D Printing and Additive Manufacturing*,	4	3
16	The role of block-type support structure design on the thermal field and deformation in components fabricated by Laser Powder Bed Fusion. *Additive Manufacturing*, **2022**, 51, 102644	6.1	3
15	Compressive Strength of Thin-Walled Cellular Core by Inkjet-Based Additive Manufacturing **2014**,		3
14	Material Characterization for Additive Manufacturing **2017**, 95-137		2
13	Quality Management Framework in Additive Manufacturing **2017**, 213-239		2
12	Equipment Qualification **2017**, 139-157		2
11	Fabrication of titanium based biphasic scaffold using selective laser melting and collagen immersion. *International Journal of Bioprinting*, **2017**, 3, 007	6.2	2
10	Fracture behavior of laser powder bed fusion fabricated Ti41Nb via in-situ alloying. *Acta Materialia*, **2022**, 225, 117593	8.4	2
9	Potential of Printed Electrodes for Electrochemical Impedance Spectroscopy (EIS): Toward Membrane Fouling Detection. *Advanced Electronic Materials*, **2021**, 7, 2100043	6.4	2

8	Preliminary Investigation on the Geometric Accuracy of 3D Printed Dental Implant Using a Monkey Maxilla Incisor Model.. *International Journal of Bioprinting*, **2022**, 8, 476	6.2	2
7	Process Control and Modeling **2017**, 159-179		1
6	Software and Data Format **2017**, 75-94		1
5	Measurement Science Roadmap for Additive Manufacturing **2017**, 57-73		1
4	Piezoceramic materials for energy harvesting on 3D printed unmanned aerial vehicles: A feasibility study **2015**,		1
3	Investigating the effectiveness of three-dimensionally printed anatomical models compared with plastinated human specimens in learning cardiac and neck anatomy: A randomized crossover study. *Anatomical Sciences Education*, **2021**,	6.8	1
2	Hydrogels for Bioprinting **2022**, 185-211		1
1	Development of a 3-dimensional printed tube thoracostomy task trainer: An improved methodology. *Asia Pacific Scholar*, **2021**, 6, 109-113	0.5	