

Roland K Chen

List of Publications by Year in descending order

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36
papers

867
citations

687363

13
h-index

477307

29
g-index

37
all docs

37
docs citations

37
times ranked

1155
citing authors

#	ARTICLE	IF	CITATIONS
1	Additive manufacturing of custom orthoses and prosthesesâ€”A review. Additive Manufacturing, 2016, 12, 77-89.	3.0	175
2	Smart polymers and nanocomposites for 3D and 4D printing. Materials Today, 2020, 40, 215-245.	14.2	144
3	Additive Manufacturing of Custom Orthoses and Prostheses â€” A Review. Procedia CIRP, 2015, 36, 199-204.	1.9	106
4	No Such Thing as Trash: A 3D-Printable Polymer Composite Composed of Oil-Extracted Spent Coffee Grounds and Polylactic Acid with Enhanced Impact Toughness. ACS Sustainable Chemistry and Engineering, 2019, 7, 15304-15310.	6.7	44
5	Multi-modality gellan gum-based tissue-mimicking phantom with targeted mechanical, electrical, and thermal properties. Physics in Medicine and Biology, 2013, 58, 5511-5525.	3.0	43
6	A Study on Degradation Behavior of 3D Printed Gellan Gum Scaffolds. Procedia CIRP, 2017, 65, 78-83.	1.9	35
7	Self-Adhesive Microneedles with Interlocking Features for Sustained Ocular Drug Delivery. Macromolecular Bioscience, 2020, 20, e2000089.	4.1	32
8	Electrosurgical Vessel Sealing Tissue Temperature: Experimental Measurement and Finite Element Modeling. IEEE Transactions on Biomedical Engineering, 2013, 60, 453-460.	4.2	30
9	Optimal needle design for minimal insertion force and bevel length. Medical Engineering and Physics, 2014, 36, 1093-1100.	1.7	30
10	Investigation of a Magnetic Field-Assisted Digital-Light-Processing Stereolithography for Functionally Graded Materials. Procedia Manufacturing, 2019, 34, 731-737.	1.9	21
11	Bipolar Electrosurgical Vessel-Sealing Device With Compressive Force Monitoring. Journal of Biomechanical Engineering, 2014, 136, 061001.	1.3	17
12	Distinct phenotypes of cancer cells on tissue matrix gel. Breast Cancer Research, 2020, 22, 82.	5.0	16
13	Porcine Breast Extracellular Matrix Hydrogel for Spatial Tissue Culture. International Journal of Molecular Sciences, 2018, 19, 2912.	4.1	15
14	Additive Manufacturing of Overhang Structures Using Moisture-Cured Silicone with Support Material. Journal of Manufacturing and Materials Processing, 2018, 2, 24.	2.2	15
15	A Feasibility Study of an Extrusion-Based Fabrication Process for Personalized Drugs. Journal of Personalized Medicine, 2020, 10, 16.	2.5	14
16	Characterization and Modeling of Tissue Thermal Conductivity During an Electrosurgical Joining Process. IEEE Transactions on Biomedical Engineering, 2018, 65, 365-370.	4.2	13
17	Development of a design and characterization framework for fabrication of functionally graded materials using magnetic field-assisted digital light processing stereolithography. Journal of Manufacturing Processes, 2021, 67, 314-324.	5.9	11
18	Field-assisted additive manufacturing of polymeric composites. Additive Manufacturing, 2022, 51, 102642.	3.0	11

#	ARTICLE	IF	CITATIONS
19	Measurement and Modeling of Tissue Thermal Conductivity With Variable Water Content and Compression. <i>Journal of Heat Transfer</i> , 2016, 138, .	2.1	10
20	An experimental study and finite element modeling of head and neck cooling for brain hypothermia. <i>Journal of Thermal Biology</i> , 2018, 71, 99-111.	2.5	9
21	Aerosol jet printing of nickel oxide nanoparticle ink with ultraviolet radiation curing for thin-film temperature sensors. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 118, 1957-1965.	3.0	9
22	Video Enriched Pedagogy in Manufacturing Processes. <i>Procedia Manufacturing</i> , 2016, 5, 1154-1167.	1.9	8
23	Biomedical Manufacturing: A Review of the Emerging Research and Applications. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2020, 142, .	2.2	8
24	Bone geometry on the contact stress in the shoulder for evaluation of pressure ulcers: Finite element modeling and experimental validation. <i>Medical Engineering and Physics</i> , 2015, 37, 187-194.	1.7	7
25	Comparison of thermal coagulation profiles for bipolar forceps with different cooling mechanisms in a porcine model of spinal surgery. , 2013, 4, 113.		7
26	Hydrogel-Forming Microneedle Arrays for Sustained and Controlled Ocular Drug Delivery. <i>Journal of Engineering and Science in Medical Diagnostics and Therapy</i> , 2020, 3, .	0.5	7
27	An Experimental and Numerical Study on Coaxial Extrusion of a Non-Newtonian Hydrogel Material. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2021, 143, .	2.2	5
28	An Experimental Study on Bipolar Tissue Hemostasis and Its Dynamic Impedance. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2018, 140, .	2.2	4
29	Determination of Tissue Thermal Conductivity as a Function of Thermal Dose and Its Application in Finite Element Modeling of Electrosurgical Vessel Sealing. <i>IEEE Transactions on Biomedical Engineering</i> , 2020, 67, 2862-2869.	4.2	4
30	Controllability Over Wall Thickness of Tubular Structures and Encapsulation During Co-Axial Extrusion of a Thermal-Crosslinking Hydrogel. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2020, 142, .	2.2	4
31	Human Breast Extracellular Matrix Microstructures and Protein Hydrogel 3D Cultures of Mammary Epithelial Cells. <i>Cancers</i> , 2021, 13, 5857.	3.7	4
32	Characterization of the Electrosurgical Tissue Joining Process Using Dynamic Impedance and Energy Efficiency. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2019, 141, .	2.2	3
33	Photo-Responsive Hydrogel Mns with Interlocking Control for Easy Extraction in Sustained Ocular Drug Delivery. <i>Journal of Engineering and Science in Medical Diagnostics and Therapy</i> , 2021, , .	0.5	3
34	Fabrication of Gellan Gum Tubular Structure Using Coaxial Needles: A Study on Wall Thickness and Encapsulation. , 2018, , .		1
35	Dynamic Impedance Monitoring for Large Diameter Vessel Sealing Using Bipolar Electrosurgery. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2020, 14, .	0.7	1
36	Particle-resin systems for additive manufacturing of rigid and elastic magnetic polymeric composites. <i>Additive Manufacturing</i> , 2022, 51, 102587.	3.0	1