Albert J Shih

List of Publications by Year
in descending order

284 papers	7,128 citations	50244 46 h-index	95218 68 g-index
303 all docs	303 docs citations	303 times ranked	5029 citing authors

#	Article	IF	Citations
1	Application of Nanofluids in Minimum Quantity Lubrication Grinding. Tribology Transactions, 2008, 51, 730-737.	1.1	209
2	Additive manufacturing of custom orthoses and prostheses â€”A review. Additive Manufacturing, 2016, 12, 77-89.	1.7	175
3	Experimental Study of the Dry and Near-Dry Electrical Discharge Milling Processes. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, .	1.3	146
4	Near dry electrical discharge machining. International Journal of Machine Tools and Manufacture, 2007, 47, 2273-2281.	6.2	133
5	Chip formation, cutting forces, and tool wear in turning of Zr-based bulk metallic glass. International Journal of Machine Tools and Manufacture, 2004, 44, 915-925.	6.2	129
6	Fixed abrasive diamond wire machiningâ€”part I: process monitoring and wire tension force. International Journal of Machine Tools and Manufacture, 2003, 43, 523-532.	6.2	125
7	Deep hole drilling. CIRP Annals - Manufacturing Technology, 2018, 67, 673-694.	1.7	114
8	Minimum Quantity Lubrication (MQL) in Automotive Powertrain Machining. Procedia CIRP, 2014, 14, 523-528.	1.0	110
9	Fixed Abrasive Diamond Wire Saw Slicing of Single-Crystal Silicon Carbide Wafers. Materials and Manufacturing Processes, 2004, 19, 355-367.	2.7	107
10	Additive Manufacturing of Custom Orthoses and Prostheses â€“ A Review. Procedia CIRP, 2015, 36, 199-204.	1.0	106
11	Magnetorheological fluid-controlled boring bar for chatter suppression. Journal of Materials Processing Technology, 2009, 209, 1861-1870.	3.1	105
12	Toward human-centric smart manufacturing: A human-cyber-physical systems (HCPS) perspective. Journal of Manufacturing Systems, 2022, 63, 471-490.	7.6	100
13	High-throughput drilling of titanium alloys. International Journal of Machine Tools and Manufacture, 2007, 47, 63-74.	6.2	97
14	Friction drilling of cast metals. International Journal of Machine Tools and Manufacture, 2006, 46, 1526-1535.	6.2	90
15	Image-Guided Biopsy in the Era of Personalized Cancer Care: Proceedings from the Society of Interventional Radiology Research Consensus Panel. Journal of Vascular and Interventional Radiology, 2016, 27, 8-19.	0.2	87
16	Development of the Cylindrical Wire Electrical Discharge Machining Process, Part 1: Concept, Design, and Material Removal Rate. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2002, 124, 702-707.	1.3	85
17	Microstructural Alterations Associated With Friction Drilling of Steel, Aluminum, and Titanium. Journal of Materials Engineering and Performance, 2005, 14, 647-653.	1.2	85
18	Oxidation and crystallization of Zr-based bulk metallic glass due to machining. Intermetallics, 2004, 12, 195-204.	1.8	83

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19	Thermo-Mechanical Finite Element Modeling of the Friction Drilling Process. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2007, 129, 531-538.	1.3	81
20	Development of the Cylindrical Wire Electrical Discharge Machining Process, Part 2: Surface Integrity and Roundness. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2002, 124, 708-714.	1.3	80
21	Light emission, chip morphology, and burr formation in drilling the bulk metallic glass. International Journal of Machine Tools and Manufacture, 2005, 45, 741-752.	6.2	80
22	Sliding tribological characteristics of Zr-based bulk metallic glass. Intermetallics, 2008, 16, 34-41.	1.8	78
23	Machining of a Zrâ€“Tiâ€“Alâ€“Cuâ€“Ni metallic glass. Scripta Materialia, 2004, 50, 583-588.	2.6	75
24	Tool wear in friction drilling. International Journal of Machine Tools and Manufacture, 2007, 47, 1636-1645.	6.2	75
25	Experimental and finite element predictions of residual stresses due to orthogonal metal cutting. International Journal for Numerical Methods in Engineering, 1993, 36, 1487-1507.	1.5	74
26	Tissue mimicking materials for imaging and therapy phantoms: a review. Physics in Medicine and Biology, 2020, 65, .	1.6	74
27	Development of a 3D-printed external ventricular drain placement simulator: technical note. Journal of Neurosurgery, 2015, 123, 1070-1076.	0.9	72
28	Experimental and Numerical Analysis of the Friction Drilling Process. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2006, 128, 802-810.	1.3	71
29	The extrusion-based additive manufacturing of moisture-cured silicone elastomer with minimal void for pneumatic actuators. Additive Manufacturing, 2017, 17, 1-14.	1.7	71
30	Fixed abrasive diamond wire machiningâ€”part II: experiment design and results. International Journal of Machine Tools and Manufacture, 2003, 43, 533-542.	6.2	69
31	Modeling of the Anode Crater Formation in Electrical Discharge Machining. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2012, 134, .	1.3	68
32	Tool Temperature in Titanium Drilling. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2007, 129, 740-749.	1.3	64
33	Finite element analysis of the rake angle effects in orthogonal metal cutting. International Journal of Mechanical Sciences, 1995, 38, 1-17.	3.6	63
34	Finite element modeling of 3D turning of titanium. International Journal of Advanced Manufacturing Technology, 2006, 29, 253-261.	1.5	60
35	Wire electrical discharge machining of metal bond diamond wheels for ceramic grinding. International Journal of Machine Tools and Manufacture, 2002, 42, 1355-1362.	6.2	59
36	Investigation of the spark cycle on material removal rate in wire electrical discharge machining of advanced materials. International Journal of Machine Tools and Manufacture, 2004, 44, 391-400.	6.2	58

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37	Metallurgical analysis and nanoindentation characterization of Tiâ€“6Alâ€“4V workpiece and chips in high-throughput drilling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 472, 115-124.	2.6	58
38	Tool wear monitoring for micro-end grinding of ceramic materials. Journal of Materials Processing Technology, 2009, 209, 5110-5116.	3.1	58
39	EVALUATION AND COMPARISON OF LUBRICANT PROPERTIES IN MINIMUM QUANTITY LUBRICATION MACHINING. Machining Science and Technology, 2011, 15, 376-391.	1.4	56
40	Hollow needle tissue insertion force model. CIRP Annals - Manufacturing Technology, 2011, 60, 157-160.	1.7	54
41	Finite element analysis of orthogonal metal cutting mechanics. International Journal of Machine Tools and Manufacture, 1996, 36, 255-273.	6.2	53
42	A Heat Transfer Model Based on Finite Difference Method for Grinding. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2011, 133, .	1.3	53
43	A physical simulator for endoscopic endonasal drilling techniques: technical note. Journal of Neurosurgery, 2016, 124, 811-816.	0.9	53
44	Mechanical properties of Nylon bonded Ndâ€“Feâ€“B permanent magnets. Journal of Magnetism and Magnetic Materials, 2003, 257, 32-43.	1.0	51
45	Thermal model to investigate the temperature in bone grinding for skull base neurosurgery. Medical Engineering and Physics, 2013, 35, 1391-1398.	0.8	49
46	Novel needle cutting edge geometry for endâ€cut biopsy. Medical Physics, 2012, 39, 99-108.	1.6	48
47	Silicone-Based Tissue-Mimicking Phantom for Needle Insertion Simulation. Journal of Medical Devices, Transactions of the ASME, 2014, 8, .	0.4	48
48	Investigation of wire electrical discharge machining of thin cross-sections and compliant mechanisms. International Journal of Machine Tools and Manufacture, 2005, 45, 1717-1725.	6.2	47
49	A three-dimensional inverse problem in estimating the applied heat flux of a titanium drilling â€“ Theoretical and experimental studies. International Journal of Heat and Mass Transfer, 2007, 50, 3265-3277.	2.5	47
50	Spiral point drill temperature and stress in high-throughput drilling of titanium. International Journal of Machine Tools and Manufacture, 2007, 47, 2005-2017.	6.2	46
51	Mechanical properties of polyphenylene-sulfide (PPS) bonded Ndâ€“Feâ€“B permanent magnets. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 359, 375-383.	2.6	45
52	Metal removal rate of Thiobacillus thiooxidans without pre-secreted metabolite. Journal of Materials Processing Technology, 2008, 201, 560-564.	3.1	45
53	Effects of nanoparticle layering on nanofluid and base fluid pool boiling heat transfer from a horizontal surface under atmospheric pressure. Journal of Applied Physics, 2010, 107, .	1.1	45
54	Biomanufacturing. CIRP Annals - Manufacturing Technology, 2013, 62, 585-606.	1.7	45

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55	Machining of biocompatible materials â€" Recent advances. CIRP Annals - Manufacturing Technology, 2019, 68, 629-652.	1.7	45
56	Investigation of the effects of electrode orientation and fluid flow rate in near-dry EDM milling. International Journal of Machine Tools and Manufacture, 2009, 49, 749-758.	6.2	44
57	Modeling of the Plane Needle Cutting Edge Rake and Inclination Angles for Biopsy. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2010, 132, .	1.3	43
58	Boiling surface enhancement by electrophoretic deposition of particles from a nanofluid. International Journal of Heat and Mass Transfer, 2011, 54, 4370-4375.	2.5	42
59	An analytical finite element model for predicting three-dimensional tool forces and chip flow. International Journal of Machine Tools and Manufacture, 2002, 42, 723-731.	6.2	41
60	Surface Roughness and Material Removal Rate in Machining Using Microorganisms. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2007, 129, 223-227.	1.3	41
61	Polyvinyl chloride as a multimodal tissueâ€mimicking material with tuned mechanical and medical imaging properties. Medical Physics, 2016, 43, 5577-5592.	1.6	41
62	End Milling of Elastomersâ€"Fixture Design and Tool Effectiveness for Material Removal. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2004, 126, 115-123.	1.3	40
63	Robust Machine Tool Thermal Error Modeling Through Thermal Mode Concept. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, .	1.3	40
64	Thermal-Electric Finite Element Analysis and Experimental Validation of Bipolar Electrosurgical Cautery. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, .	1.3	40
65	Gap control for near-dry EDM milling with lead angle. International Journal of Machine Tools and Manufacture, 2011, 51, 77-83.	6.2	40
66	Design and Manufacture of Polyvinyl Chloride (PVC) Tissue Mimicking Material for Needle Insertion. Procedia Manufacturing, 2015, 1, 866-878.	1.9	40
67	Thrust force, torque, and tool wear in drilling the bulk metallic glass. International Journal of Machine Tools and Manufacture, 2005, 45, 863-872.	6.2	39
68	Thermocouple Fixation Method for Grinding Temperature Measurement. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, .	1.3	38
69	Prediction of bone grinding temperature in skull base neurosurgery. CIRP Annals - Manufacturing Technology, 2012, 61, 307-310.	1.7	38
70	Monopolar Electrosurgical Thermal Management for Minimizing Tissue Damage. IEEE Transactions on Biomedical Engineering, 2012, 59, 167-173.	2.5	38
71	Form measurements of micro-holes. Measurement Science and Technology, 2007, 18, 3603-3611.	1.4	37
72	Process Planning for the Fuse Deposition Modeling of Ankle-Foot-Othoses. Procedia CIRP, 2016, 42, 760-765.	1.0	37

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73	An experimental investigation of rotary diamond truing and dressing of vitreous bond wheels for ceramic grinding. International Journal of Machine Tools and Manufacture, 2000, 40, 1755-1774.	6.2	35
74	Mist cooling in neurosurgical bone grinding. CIRP Annals - Manufacturing Technology, 2013, 62, 367-370.	1.7	35
75	Nanoindentation characterization of surface layers of electrical discharge machined WCâ€“Co. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 344, 125-131.	2.6	34
76	Numerical evaluation of sequential bone drilling strategies based on thermal damage. Medical Engineering and Physics, 2015, 37, 855-861.	0.8	34
77	Machined surface temperature in hard turning. International Journal of Machine Tools and Manufacture, 2017, 121, 10-21.	6.2	34
78	An Inverse Heat Transfer Method for Determining Workpiece Temperature in Minimum Quantity Lubrication Deep Hole Drilling. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2012, 134, .	1.3	32
79	Analytical Surface Roughness Parameters of a Theoretical Profile Consisting of Elliptical Arcs. Machining Science and Technology, 2003, 7, 281-294.	1.4	31
80	Chip Morphology and Forces in End Milling of Elastomers. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2004, 126, 124-130.	1.3	30
81	Fuzzy Logic Control of Microhole Electrical Discharge Machining. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, .	1.3	30
82	Electrosurgical Vessel Sealing Tissue Temperature: Experimental Measurement and Finite Element Modeling. IEEE Transactions on Biomedical Engineering, 2013, 60, 453-460.	2.5	30
83	Optimal needle design for minimal insertion force and bevel length. Medical Engineering and Physics, 2014, 36, 1093-1100.	0.8	30
84	Fixed abrasive machining of non-metallic materials. CIRP Annals - Manufacturing Technology, 2018, 67, 767-790.	1.7	30
85	Development and validation of a pressure-type automated quantitative sensory testing system for point-of-care pain assessment. Medical and Biological Engineering and Computing, 2013, 51, 633-644.	1.6	29
86	Neurosurgical Bone Grinding Temperature Monitoring. Procedia CIRP, 2013, 5, 226-230.	1.0	28
87	Heat accumulation during sequential cortical bone drilling. Journal of Orthopaedic Research, 2016, 34, 463-470.	1.2	28
88	Cloud-based Design and Additive Manufacturing of Custom Orthoses. Procedia CIRP, 2017, 63, 156-160.	1.0	28
89	Abrasive micro-blasting to improve surface integrity of electrical discharge machined WCâ€“Co composite. Journal of Materials Processing Technology, 2005, 166, 440-448.	3.1	27
90	Sub-nanosecond monitoring of micro-hole electrical discharge machining pulses and modeling of discharge ringing. International Journal of Machine Tools and Manufacture, 2006, 46, 1996-2008.	6.2	27

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91	Wear mechanism of metal bond diamond wheels trued by wire electrical discharge machining. Wear, 2002, 252, 644-653.	1.5	26
92	The Needle With Lancet Point: Geometry for Needle Tip Grinding and Tissue Insertion Force. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2013, 135, .	1.3	26
93	Design and tuning of a fuzzy logic controller for micro-hole electrical discharge machining. Journal of Manufacturing Processes, 2008, 10, 61-73.	2.8	25
94	Vitreous bond silicon carbide wheel for grinding of silicon nitride. International Journal of Machine Tools and Manufacture, 2006, 46, 631-639.	6.2	24
95	Design, manufacture, and analysis of metal foam electrical resistance heater. International Journal of Mechanical Sciences, 2006, 48, 1314-1322.	3.6	24
96	Temperature prediction in high speed bone grinding using motor PWM signal. Medical Engineering and Physics, 2013, 35, 1545-1549.	0.8	24
97	Surface Finishing of Needles for High-performance Biopsy. Procedia CIRP, 2014, 14, 48-53.	1.0	24
98	Comparison of Cortical Bone Drilling Induced Heat Production Among Common Drilling Tools. Journal of Orthopaedic Trauma, 2015, 29, e188-e193.	0.7	24
99	Advances in machining of hard tissues â€“ From material removal mechanisms to tooling solutions. International Journal of Machine Tools and Manufacture, 2022, 172, 103838.	6.2	24
100	Effects of insertion speed and trocar stiffness on the accuracy of needle position for brachytherapy. Medical Physics, 2012, 39, 1811-1817.	1.6	23
101	Construction of a comprehensive endovascular test bed for research and device development in mechanical thrombectomy in stroke. Journal of Neurosurgery, 2021, 134, 1190-1197.	0.9	23
102	Improvement of surface flatness in face milling based on 3-D holographic laser metrology. International Journal of Machine Tools and Manufacture, 2011, 51, 483-490.	6.2	22
103	Notched K-wire for low thermal damage bone drilling. Medical Engineering and Physics, 2017, 45, 25-33.	0.8	22
104	Voids and tensile properties in extrusion-based additive manufacturing of moisture-cured silicone elastomer. Additive Manufacturing, 2018, 22, 606-617.	1.7	22
105	Optimal Design of a High-Speed Pick-and-Place Cable-Driven Parallel Robot. Mechanisms and Machine Science, 2018, , 340-352.	0.3	22
106	Intelligent machine agent architecture for adaptive control optimization of manufacturing processes. Advanced Engineering Informatics, 2011, 25, 783-796.	4.0	21
107	Workpiece Thermal Distortion in Minimum Quantity Lubrication Deep Hole Drillingâ€"Finite Element Modeling and Experimental Validation. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2012, 134, .	1.3	21
108	Two-Finger Tightness. Journal of Orthopaedic Trauma, 2016, 30, 273-277.	0.7	21

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109	Fine Surface Finish of a Hardened Stainless Steel Using a New Burnishing Tool. Procedia Manufacturing, 2017, 10, 208-217.	1.9	21
110	3D Printed composite for simulating thermal and mechanical responses of the cortical bone in orthopaedic surgery. Medical Engineering and Physics, 2018, 61, 61-68.	0.8	21
111	Analysis of human emboli and thrombectomy forces in large-vessel occlusion stroke. Journal of Neurosurgery, 2020, 134, 1-9.	0.9	21
112	Impedance of tissue-mimicking phantom material under compression. Journal of Electrical Bioimpedance, 2013, 4, 2-12.	0.5	21
113	Laser Interferometry Hologram Registration for Three-Dimensional Precision Measurements. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2006, 128, 1006-1013.	1.3	20
114	Modeling cutting edge geometry for plane and curved needle tips. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2012, 226, 861-869.	1.5	19
115	Workpiece Temperature During Deep-Hole Drilling of Cast Iron Using High Air Pressure Minimum Quantity Lubrication. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2013, 135, .	1.3	19
116	Measurement and Modeling of Forces in Extrusion-Based Additive Manufacturing of Flexible Silicone Elastomer With Thin Wall Structures. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2018, 140, .	1.3	19
117	Needle deflection and tissue sampling length in needle biopsy. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 104, 103632.	1.5	19
118	Standardized Fabrication Method of Human-Derived Emboli with Histologic and Mechanical Quantification for Stroke Research. Journal of Stroke and Cerebrovascular Diseases, 2020, 29, 105205.	0.7	19
119	Precision grid and hand motion for accurate needle insertion in brachytherapy. Medical Physics, 2011, 38, 4749-4759.	1.6	18
120	Grinding wheel motion, force, temperature, and material removal in rotational atherectomy of calcified plaque. CIRP Annals - Manufacturing Technology, 2016, 65, 345-348.	1.7	18
121	Silicone Foam Additive Manufacturing by Liquid Rope Coiling. Procedia CIRP, 2017, 65, 196-201.	1.0	18
122	A pulsatile blood vessel system for a femoral arterial access clinical simulation model. Medical Engineering and Physics, 2013, 35, 1518-1524.	0.8	17
123	Bipolar Electrosurgical Vessel-Sealing Device With Compressive Force Monitoring. Journal of Biomechanical Engineering, 2014, 136, 061001.	0.6	17
124	Mosquito proboscis-inspired needle insertion to reduce tissue deformation and organ displacement. Scientific Reports, 2020, 10, 12248.	1.6	17
125	Biaxial test and hyperelastic material models of silicone elastomer fabricated by extrusion-based additive manufacturing for wearable biomedical devices. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 107, 103733.	1.5	17
126	Grinding Temperature Measurements in Magnesiaâ€Partiallyâ€Stabilized Zirconia Using Infrared Spectrometry. Journal of the American Ceramic Society, 2003, 86, 333-341.	1.9	16

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127	Increased susceptibility to microdamage in Brtl/+ mouse model for osteogenesis imperfecta. Bone, 2012, 50, 784-791.	1.4	16
128	High-Definition Metrology Enabled Surface Variation Control by Cutting Load Balancing1. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .	1.3	16
129	Analysis of Machining and Machine Tools. , 2016, , .		16
130	Tool Path Planning for Near-Dry EDM Milling With Lead Angle on Curved Surfaces. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2011, 133, .	1.3	15
131	An endoscopic continuum testbed for finalizing system characteristics of a surgical robot for NOTES procedures. , 2013, , .		15
132	Using simulation for teaching femoral arterial access: A multicentric collaboration. Catheterization and Cardiovascular Interventions, 2016, 87, 376-380.	0.7	15
133	Experimental investigation of the abrasive crown dynamics in orbital atherectomy. Medical Engineering and Physics, 2016, 38, 639-647.	0.8	15
134	Tissue transformation mold design and stereolithography fabrication. Rapid Prototyping Journal, 2017, 23, 162-168.	1.6	15
135	Biaxial Mooney-Rivlin Coefficient of Silicone Sheet by Additive Manufacturing. Procedia CIRP, 2017, 65, 189-195.	1.0	15
136	Three-Dimensional Printing Multifunctional Engineered Cementitious Composites (ECC) for Structural Elements. RILEM Bookseries, 2019, , 115-128.	0.2	15
137	Cost-Effective Grinding of Zirconia Using the Dense Vitreous Bond Silicon Carbide Wheel. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2003, 125, 297-303.	1.3	13
138	Inverse Heat Transfer Solution of the Heat Flux Due to Induction Heating. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2005, 127, 555-563.	1.3	13
139	In Vivo Vascular Wall Shear Rate and Circumferential Strain of Renal Disease Patients. Ultrasound in Medicine and Biology, 2013, 39, 241-252.	0.7	13
140	Contributions in medical needle technologiesâ€"Geometry, mechanics, design, and manufacturing. Machining Science and Technology, 2016, 20, 1-43.	1.4	13
141	Simulator and 2 tools: Validation of performance measures from a novel neurosurgery simulation model using the current Standards framework. Surgery, 2016, 160, 571-579.	1.0	13
142	Computational Fluid Dynamics Modeling of the Burr Orbital Motion in Rotational Atherectomy with Particle Image Velocimetry Validation. Annals of Biomedical Engineering, 2018, 46, 567-578.	1.3	13
143	Failure modes and effects analysis of mechanical thrombectomy for stroke discovered in human brains. Journal of Neurosurgery, 2022, 136, 197-204.	0.9	13
144	Recent Advancements in Machining With Abrasives. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2020, 142, .	1.3	13

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145	Biomedical Manufacturing: A New Frontier of Manufacturing Research. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, .	1.3	12
146	Cutting of blood clots â€“ Experiment and smooth particle Galerkin modelling. CIRP Annals - Manufacturing Technology, 2019, 68, 97-100.	1.7	12
147	Quantification of Ultrasound Correlationâ€Based Flow Velocity Mapping and Edge Velocity Gradient Measurement. Journal of Ultrasound in Medicine, 2013, 32, 1815-1830.	0.8	11
148	Design of Bioimpedance Spectroscopy Instrument With Compensation Techniques for Soft Tissue Characterization. Journal of Medical Devices, Transactions of the ASME, 2015, 9, 0210011-210018.	0.4	11
149	Experiment and smooth particle hydrodynamics simulation of debris size in grinding of calcified plaque in atherectomy. CIRP Annals - Manufacturing Technology, 2017, 66, 325-328.	1.7	11
150	Continuous Inferior Vena Cava Diameter Tracking through an Iterative Kanadeâ€“Lucasâ€“Tomasi-Based Algorithm. Ultrasound in Medicine and Biology, 2018, 44, 2793-2801.	0.7	11
151	Wear of the blade diamond tools in truing vitreous bond grinding wheels. Wear, 2001, 250, 587-592.	1.5	10
152	Measurement and Modeling of Tissue Thermal Conductivity With Variable Water Content and Compression. Journal of Heat Transfer, 2016, 138, .	1.2	10
153	Minimum Quantity Lubrication for Sustainable Machining. , 2017, , 477-485.		10
154	Hollow Notched Kâ€Wires for Bone Drilling With Throughâ€Tool Cooling. Journal of Orthopaedic Research, 2019, 37, 2297-2306.	1.2	10
155	Evaluation of Heat Generation in Unidirectional Versus Oscillatory Modes During Kâ€Wire Insertion in Bone. Journal of Orthopaedic Research, 2019, 37, 1903-1909.	1.2	10
156	Arterial Collapse during Thrombectomy for Stroke: Clinical Evidence and Experimental Findings in Human Brains and In Vivo Models. American Journal of Neuroradiology, 2022, 43, 251-257.	1.2	10
157	A Novel Technique for Demonstrating the Real-Time Subsurface Tissue Thermal Profile of Two Energized Surgical Instruments. Journal of Minimally Invasive Gynecology, 2009, 16, 599-603.	0.3	9
158	Positional accuracy and transmitter orientation of the 3D electromagnetic tracking system. Measurement Science and Technology, 2013, 24, 105105.	1.4	9
159	Thermoelectrical Modeling of Bipolar Coagulation on Posterior Spinal Artery in a Porcine Spinal Surgery Model. IEEE Transactions on Biomedical Engineering, 2014, 61, 182-188.	2.5	9
160	Influence of non-invasive blood pressure measurement intervals on the occurrence of intra-operative hypotension. Journal of Clinical Monitoring and Computing, 2018, 32, 699-705.	0.7	9
161	An experimental study and finite element modeling of head and neck cooling for brain hypothermia. Journal of Thermal Biology, 2018, 71, 99-111.	1.1	9
162	Thrombus Histology as It Relates to Mechanical Thrombectomy: A Meta-Analysis and Systematic Review. Neurosurgery, 2021, 89, 1122-1131.	0.6	9

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163	Wear of the blade diamond tools in truing vitreous bond grinding wheels. Wear, 2001, 250, 593-603.	1.5	8
164	Reanalysis of Microgravity Heat Capacity Measurements Near the SF6Liquidâ€“Gas Critical Point. International Journal of Thermophysics, 2004, 25, 1667-1675.	1.0	8
165	INDUCTION-HEATED TOOL MACHINING OF ELASTOMERSâ€”PART 2: CHIP MORPHOLOGY, CUTTING FORCES, AND MACHINED SURFACES. Machining Science and Technology, 2005, 9, 567-588.	1.4	8
166	Phase unwrapping for large depth-of-field 3D laser holographic interferometry measurement of laterally discontinuous surfaces. Measurement Science and Technology, 2006, 17, 3110-3119.	1.4	8
167	Effect of Lead Use on Back and Shoulder Postural Muscle Activity in Healthy Young Adults. Human Factors, 2011, 53, 729-739.	2.1	8
168	Experimental Investigation of the Grinding Wheel Dynamics in Atherectomy. Procedia Manufacturing, 2015, 1, 879-891.	1.9	8
169	Effects of geometry and material on the insertion oi very small neural electrode. , 2016, 2016, 2784-2788.		8
170	Video Enriched Pedagogy in Manufacturing Processes. Procedia Manufacturing, 2016, 5, 1154-1167.	1.9	8
171	Dry and minimum quantity lubrication high-throughput drilling of compacted graphite iron. Machining Science and Technology, 2018, 22, 652-670.	1.4	8
172	Multigrain Smoothed Particle Hydrodynamics and Hertzian Contact Modeling of the Grinding Force in Atherectomy. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2019, 141, .	1.3	8
173	Biomedical Manufacturing: A Review of the Emerging Research and Applications. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2020, 142, .	1.3	8
174	Fixed Abrasive Diamond Wire Saw Slicing of Single Crystal SiC Wafers. , 2003, , 653.		7
175	Quantitative evaluation of powder spray effects on stereovision measurements. Measurement Science and Technology, 2008, 19, 025502.	1.4	7
176	Surface Variation Reduction for Face Milling Based on High-Definition Metrology. , 2012, , .		7
177	Cutting Force of Hollow Needle Insertion in Soft Tissue. , 2013, , .		7
178	Cool Mist Irrigation Improves Heat Dissipation during Surgical Bone Drilling. Journal of Neurological Surgery, Part B: Skull Base, 2014, 75, 243-246.	0.4	7
179	Bone geometry on the contact stress in the shoulder for evaluation of pressure ulcers: Finite element modeling and experimental validation. Medical Engineering and Physics, 2015, 37, 187-194.	0.8	7
180	Optical Measurement of Tissue Deformation in Needle Insertion. Procedia CIRP, 2017, 65, 175-179.	1.0	7

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181	An Open-Source Ultrasound Software for Diagnosis of Fistula Maturation. ASAIO Journal, 2018, 64, 70-76.	0.9	7
182	A pilot study to measure vascular compliance changes during fistula maturation using open-source software. Journal of Vascular Access, 2019, 20, 41-45.	0.5	7
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