

Mohamed Sultan Mohamed Ali

List of Publications by Year in descending order

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67
papers

1,510
citations

304368

22
h-index

329751

37
g-index

70
all docs

70
docs citations

70
times ranked

1514
citing authors

#	ARTICLE	IF	CITATIONS
1	Micro-scale energy harvesting devices: Review of methodological performances in the last decade. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 54, 1035-1047.	8.2	184
2	Inorganic thermoelectric materials: A review. <i>International Journal of Energy Research</i> , 2020, 44, 6170-6222.	2.2	119
3	Soft dielectric elastomer actuator micropump. <i>Sensors and Actuators A: Physical</i> , 2017, 263, 276-284.	2.0	83
4	MEMS Gas Sensors: A Review. <i>IEEE Sensors Journal</i> , 2021, 21, 18381-18397.	2.4	75
5	Development of a shape-memory-alloy micromanipulator based on integrated bimorph microactuators. <i>Mechatronics</i> , 2016, 38, 16-28.	2.0	58
6	Wireless powered thermo-pneumatic micropump using frequency-controlled heater. <i>Sensors and Actuators A: Physical</i> , 2015, 233, 1-8.	2.0	56
7	Micromachined Shape-Memory-Alloy Microactuators and Their Application in Biomedical Devices. <i>Micromachines</i> , 2015, 6, 879-901.	1.4	55
8	MEMS actuators for biomedical applications: a review. <i>Journal of Micromechanics and Microengineering</i> , 2020, 30, 073001.	1.5	54
9	Review on recent advances in 4D printing of shape memory polymers. <i>European Polymer Journal</i> , 2021, 159, 110708.	2.6	51
10	Energy Harvesters for Wearable Electronics and Biomedical Devices. <i>Advanced Materials Technologies</i> , 2021, 6, 2000771.	3.0	49
11	RF MEMS Inductors and Their Applications – A Review. <i>Journal of Microelectromechanical Systems</i> , 2017, 26, 17-44.	1.7	44
12	Methodological reviews and analyses on the emerging research trends and progresses of thermoelectric generators. <i>International Journal of Energy Research</i> , 2019, 43, 113-140.	2.2	44
13	High-aspect-ratio, free-form patterning of carbon nanotube forests using micro-electro-discharge machining. <i>Diamond and Related Materials</i> , 2010, 19, 1405-1410.	1.8	43
14	A wirelessly-controlled piezoelectric microvalve for regulated drug delivery. <i>Sensors and Actuators A: Physical</i> , 2018, 279, 191-203.	2.0	43
15	Thermoelectric Generator: Materials and Applications in Wearable Health Monitoring Sensors and Internet of Things Devices. <i>Advanced Materials Technologies</i> , 2022, 7, .	3.0	42
16	State-of-the-Art Reviews and Analyses of Emerging Research Findings and Achievements of Thermoelectric Materials over the Past Years. <i>Journal of Electronic Materials</i> , 2019, 48, 745-777.	1.0	39
17	Transforming carbon nanotube forest from darkest absorber to reflective mirror. <i>Applied Physics Letters</i> , 2012, 101, 061913.	1.5	37
18	Inductive antenna stent: design, fabrication and characterization. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 025015.	1.5	32

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19	A multi-segmented shape memory alloy-based actuator system for endoscopic applications. <i>Sensors and Actuators A: Physical</i> , 2019, 296, 92-100.	2.0	31
20	Thermal analysis of wirelessly powered thermo-pneumatic micropump based on planar LC circuit. <i>Journal of Mechanical Science and Technology</i> , 2016, 30, 2659-2665.	0.7	29
21	Radio-Controlled Microactuator Based on Shape-Memory-Alloy Spiral-Coil Inductor. <i>Journal of Microelectromechanical Systems</i> , 2013, 22, 331-338.	1.7	23
22	Design and fabrication of a novel XYZ monolithic micro-positioning stage driven by NiTi shape-memory-alloy actuators. <i>Smart Materials and Structures</i> , 2016, 25, 105004.	1.8	23
23	Thermomechanical behavior of bulk NiTi shape-memory-alloy microactuators based on bimorph actuation. <i>Microsystem Technologies</i> , 2016, 22, 2125-2131.	1.2	23
24	High-power MEMS switch enabled by carbon nanotube contact and shape-memory alloy actuator. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 631-638.	0.8	20
25	PDMS-based dual-channel pneumatic micro-actuator. <i>Smart Materials and Structures</i> , 2019, 28, 115044.	1.8	16
26	Frequency-Controlled Wireless Passive Thermopneumatic Micromixer. <i>Journal of Microelectromechanical Systems</i> , 2017, 26, 691-703.	1.7	14
27	The effects of the silicon wafer resistivity on the performance of microelectrical discharge machining. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 95, 257-266.	1.5	13
28	Planar Variable Inductor Controlled by Ferrofluid Actuation. <i>IEEE Transactions on Magnetics</i> , 2013, 49, 1402-1406.	1.2	12
29	Wireless Displacement Sensing of Micromachined Spiral-Coil Actuator Using Resonant Frequency Tracking. <i>Sensors</i> , 2014, 14, 12399-12409.	2.1	12
30	Radio aneurysm coils for noninvasive detection of cerebral embolization failures: A preliminary study. <i>Biosensors and Bioelectronics</i> , 2011, 30, 300-305.	5.3	11
31	Copper-Nickel and Copper-Cobalt Thermoelectric Generators: Power-Generating Optimization through Structural Geometrics. <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 3394-3400.	1.6	11
32	Development of 4D-printed shape memory polymer large-stroke XY micropositioning stages. <i>Journal of Micromechanics and Microengineering</i> , 2022, 32, 065006.	1.5	11
33	Piezoresistive strain sensing using carbon nanotube forests suspended by Parylene-C membranes. <i>Applied Physics Letters</i> , 2012, 100, 213510.	1.5	10
34	Non-Invasive Treatment for Coronary In-Stent Restenosis via Wireless Revascularization With Nitinol Active Stent. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 3681-3689.	2.5	10
35	Effect of laser parameters on sequential laser beam micromachining and micro electro-discharge machining. <i>International Journal of Advanced Manufacturing Technology</i> , 2021, 114, 709-723.	1.5	10
36	Copper-Cobalt Thermoelectric Generators: Power Improvement Through Optimized Thickness and Sandwiched Planar Structure. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 3459-3465.	1.6	9

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37	Wearable thermoelectric generator with vertically aligned PEDOT:PSS and carbon nanotubes thermoelements for energy harvesting. International Journal of Energy Research, 2022, 46, 15824-15836.	2.2	9
38	A recoil resilient lumen support, design, fabrication and mechanical evaluation. Journal of Micromechanics and Microengineering, 2013, 23, 065001.	1.5	6
39	Analysis of Thermomechanical Behavior of Shape-Memory-Alloy Bimorph Microactuator. , 2014, , .		6
40	Wireless Valving for Centrifugal Microfluidic Disc. Journal of Microelectromechanical Systems, 2017, 26, 1327-1334.	1.7	6
41	Hybrid PSO-Tuned PID and Hysteresis-Observer Based Control for Piezoelectric Micropositioning Stages. , 2019, , .		6
42	Micromachined Shape Memory Alloy Active Stent with Wireless Monitoring and Re-Expansion Features. , 2020, , .		6
43	Advanced Nanoscale Surface Characterization of CuO Nanoflowers for Significant Enhancement of Catalytic Properties. Molecules, 2021, 26, 2700.	1.7	6
44	Silicon nanowire arrays thermoelectric power harvester. , 2017, , .		5
45	Design, fabrication, and characterization of lateral-structured Cu-Ni thermoelectric devices. , 2018, , .		5
46	Development of 4D Printed PLA Actuators with an Induced Internal Strain Upon Printing. , 2021, , .		5
47	Non-traditional machining techniques for silicon wafers. International Journal of Advanced Manufacturing Technology, 2022, 121, 29-57.	1.5	5
48	Development of Miniature Stewart Platform Using TiNiCu Shape-Memory-Alloy Actuators. Advances in Materials Science and Engineering, 2015, 2015, 1-9.	1.0	4
49	PDMS-based Dual-Channel Pneumatic Microactuator Using Sacrificial Molding Fabrication Technique. , 2019, , .		4
50	Geometrical Analysis of Diffuser-Nozzle Elements for Valveless Micropumps. , 2019, , .		4
51	Heat-assisted $\hat{1}/4$ -electrical discharge machining of silicon. International Journal of Advanced Manufacturing Technology, 2021, 113, 1727-1738.	1.5	4
52	Enhancement of spin Seebeck effect of reverse spin crossover Fe (II) micellar charge transport using PMMA polymer electrolyte. Applied Organometallic Chemistry, 2021, 35, e6268.	1.7	4
53	Dual-stage artificial neural network (ANN) model for sequential LBMM- $\hat{1}/4$ EDM-based micro-drilling. International Journal of Advanced Manufacturing Technology, 2021, 117, 3343-3365.	1.5	4
54	Investigation of Si-based thermoelectrochemical cells (TECs) towards semiconductor fabrication and processing. Semiconductor Science and Technology, 2021, 36, 115006.	1.0	4

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55	Miniature parallel manipulator using TiNiCu shape-memory-alloy microactuators. , 2015, , .		3
56	Modeling and Simulation of a Wireless Passive Thermopneumatic Micromixer. Communications in Computer and Information Science, 2017, , 312-322.	0.4	3
57	Characterization of heat flow in silicon nanowire arrays for efficient thermoelectric power harvesting. Experimental Heat Transfer, 2018, 31, 470-481.	2.3	3
58	Variable stiffness 4D printing. , 2022, , 407-433.		3
59	Analysis of micropatterned wireless resonant heaters for wireless-control of MEMS thermal actuators. Microsystem Technologies, 2014, 20, 235-241.	1.2	2
60	Modelling and simulation of magnesium antimonide based thermoelectric generator. Indonesian Journal of Electrical Engineering and Computer Science, 2020, 19, 686.	0.7	2
61	A stainless-steel-based capacitive pressure sensor chip and its microwelding integration. , 2015, , .		1
62	Simulation Study of Two-Phase Fluid 3D Imaging Using Lab-on-Chip ECT. , 2019, , .		1
63	Microelectrical discharge machining of silicon wafers. , 2021, , 219-244.		1
64	Electrical discharge machining for the formation of bulk-shape memory alloy actuators. , 2021, , 195-217.		1
65	Design of Inductor-Capacitor Circuits for Wireless Power Transfer for Biomedical Applications. Advances in Intelligent Systems and Computing, 2021, , 81-90.	0.5	0
66	Finite Element Analysis of Thermoelectric Power Generation from Human Wrist. , 2021, , .		0
67	Structural Optimization of a Bismuth Telluride-Based Thermoelectric Generator Using Finite Element Analysis. , 2021, , .		0