Mahmoud Tavakoli

List of Publications by Year
in descending order

76 papers	2,441 citations	218677 26 h-index	223800 46 g-index
76 all docs	76 docs citations	76 times ranked	2076 citing authors

#	Article	IF	Citations
1	Laser Writing of Eutectic Galliumâ€“Indium Alloy Grapheneâ€Oxide Electrodes and Semitransparent Conductors. Advanced Materials Technologies, 2022, 7, 2101238.	5.8	6
2	Dielectric Elastomer Actuators with Biphasic Agâ€“EGaIn Electrodes. Advanced Engineering Materials, 2022, 24, 2100953.	3.5	12
3	Biphasic Liquid Metal Composites for Sinterâ€Free Printed Stretchable Electronics. Advanced Materials Interfaces, 2022, 9, .	3.7	34
4	Liquid metal polymer composites: from printed stretchable circuits to soft actuators. Flexible and Printed Electronics, 2022, 7, 013002.	2.7	32
5	Tailor-made smart glove for robot teleoperation, using printed stretchable sensors. , 2022, , .		7
6	Laserâ€Assisted Rapid Fabrication of Largeâ€Scale Graphene Oxide Transparent Conductors. Advanced Materials Interfaces, 2022, 9, .	3.7	6
7	3D Printed Stretchable Liquid Gallium Battery. Advanced Functional Materials, 2022, 32, .	14.9	28
8	Laser Writing of Eutectic Galliumâ€“Indium Alloy Grapheneâ€Oxide Electrodes and Semitransparent Conductors (Adv. Mater. Technol. 5/2022). Advanced Materials Technologies, 2022, 7, .	5.8	0
9	3R Electronics: Scalable Fabrication of Resilient, Repairable, and Recyclable Softâ€Matter Electronics. Advanced Materials, 2022, 34, .	21.0	33
10	A Comparative Study of Silver Microflakes in Digitally Printable Liquid Metal Embedded Elastomer Inks for Stretchable Electronics. Advanced Materials Technologies, 2022, 7, .	5.8	24
11	Chicken feather fiber-based bio-piezoelectric energy harvester: an efficient green energy source for flexible electronics. Sustainable Energy and Fuels, 2021, 5, 1857-1866.	4.9	15
12	Bi-Phasic Agâ€“Inâ€“Ga-Embedded Elastomer Inks for Digitally Printed, Ultra-Stretchable, Multi-layer Electronics. ACS Applied Materials & Interfaces, 2021, 13, 14552-14561.	8.0	76
13	Reversible polymer-gel transition for ultra-stretchable chip-integrated circuits through self-soldering and self-coating and self-healing. Nature Communications, 2021, 12, 4666.	12.8	59
14	Dynamic hand gesture recognition using a stretchable multi-layer capacitive array, proximity sensing, and a SVM classifier. , 2021, , .		4
15	Wearable Pressure Mapping Through Piezoresistive C-PU Foam and Tailor-Made Stretchable e-Textile. IEEE Sensors Journal, 2021, 21, 27374-27384.	4.7	14
16	Untethered Disposable Health Monitoring Electronic Patches with an Integrated Ag₂Oâ€“Zn Battery, a AgInGa Current Collector, and Hydrogel Electrodes. ACS Applied Materials & Interfaces, 2020, 12, 3407-3414.	8.0	43
17	Wearable and Comfortable e-Textile Headband for Long-Term Acquisition of Forehead EEG Signals. IEEE Sensors Journal, 2020, 20, 15107-15116.	4.7	49
18	Domiciliary Hospitalization through Wearable Biomonitoring Patches: Recent Advances, Technical Challenges, and the Relation to Covid-19. Sensors, 2020, 20, 6835.	3.8	25

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19	Nondrying, Sticky Hydrogels for the Next Generation of High-Resolution Conformable Bioelectronics. ACS Applied Electronic Materials, 2020, 2, 3390-3401.	4.3	23
20	High Resolution Soft and Stretchable Circuits with PVA/Liquidâ€Metal Mediated Printing. Advanced Materials Technologies, 2020, 5, 2000343.	5.8	42
21	Fully Untethered Battery-free Biomonitoring Electronic Tattoo with Wireless Energy Harvesting. Scientific Reports, 2020, 10, 5539.	3.3	64
22	Water Based Magnification of Capacitive Proximity Sensors: Water Containers as Passive Human Detectors. , 2020, , .		0
23	Foot Gesture Recognition Through Dual Channel Wearable EMG System. IEEE Sensors Journal, 2019, 19, 10187-10197.	4.7	26
24	Soft Bioelectronic Stickers: Selection and Evaluation of Skinâ€Interfacing Electrodes. Advanced Healthcare Materials, 2019, 8, e1900234.	7.6	77
25	Design of compact switchable magnetic grippers for the HyReCRo structure-climbing robot. Mechatronics, 2019, 59, 199-212.	3.3	35
26	Reliable interfaces for EGaIn multi-layer stretchable circuits and microelectronics. Lab on A Chip, 2019, 19, 897-906.	6.0	72
27	Digitally printed stretchable electronics: a review. Journal of Materials Chemistry C, 2019, 7, 14035-14068.	5.5	93
28	Fabrication and characterization of bending and pressure sensors for a soft prosthetic hand. Journal of Micromechanics and Microengineering, 2018, 28, 034001.	2.6	82
29	Hydroprinted Electronics: Ultrathin Stretchable Agâ€“Inâ€“Ga E-Skin for Bioelectronics and Humanâ€“Machine Interaction. ACS Applied Materials & Interfaces, 2018, 10, 38760-38768.	8.0	108
30	EGaInâ€Assisted Roomâ€Temperature Sintering of Silver Nanoparticles for Stretchable, Inkjetâ€Printed, Thinâ€Film Electronics. Advanced Materials, 2018, 30, e1801852.	21.0	225
31	Stretchable Electronics: EGaIn-Assisted Room-Temperature Sintering of Silver Nanoparticles for Stretchable, Inkjet-Printed, Thin-Film Electronics (Adv. Mater. 29/2018). Advanced Materials, 2018, 30, 1870215.	21.0	2
32	Robust hand gesture recognition with a double channel surface EMG wearable armband and SVM classifier. Biomedical Signal Processing and Control, 2018, 46, 121-130.	5.7	110
33	Anthropomorphic finger for grasping applications: 3D printed endoskeleton in a soft skin. International Journal of Advanced Manufacturing Technology, 2017, 91, 2607-2620.	3.0	22
34	Single channel surface EMG control of advanced prosthetic hands: A simple, low cost and efficient approach. Expert Systems With Applications, 2017, 79, 322-332.	7.6	104
35	Carbon doped PDMS: conductance stability over time and implications for additive manufacturing of stretchable electronics. Journal of Micromechanics and Microengineering, 2017, 27, 035010.	2.6	32
36	Performance analysis and design of parallel kinematic machines using interval analysis. Mechanism and Machine Theory, 2017, 115, 218-236.	4.5	23

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37	A novel grid-based reconfigurable spatial parallel mechanism with large workspace. Mechanism and Machine Theory, 2017, 115, 149-167.	4.5	16
38	3D printed endoskeleton with a soft skin for upper-limb body actuated prosthesis. , 2017, , .		6
39	Hydrogel-silicone conjunction as epidermal and dermal layers of bio-inspired soft finger skin. , 2017, , .		1
40	SCALAâ€"A Scalable Rail-based Multirobot System for Large Space Automation: Design and Development. IEEE/ASME Transactions on Mechatronics, 2017, 22, 2208-2217.	5.8	9
41	Autonomous Selection of Closing Posture of a Robotic Hand Through Embodied Soft Matter Capacitive Sensors. IEEE Sensors Journal, 2017, 17, 5669-5677.	4.7	55
42	Soft Bionics Hands with a Sense of Touch Through an Electronic Skin. Biosystems and Biorobotics, 2017, , 5-10.	0.3	7
43	Soft-matter sensor for proximity, tactile and pressure detection. , 2017, , .		20
44	The UC Softhand: Light Weight Adaptive Bionic Hand with a Compact Twisted String Actuation System. Actuators, 2016, 5, 1.	2.3	92
45	The hybrid OmniClimber robot: Wheel based climbing, arm based plane transition, and switchable magnet adhesion. Mechatronics, 2016, 36, 136-146.	3.3	60
46	Actuation Configurations of Bionic Hands for a Better Anthropomorphism Index. Journal of Mechanisms and Robotics, 2016, 8, .	2.2	8
47	A compact two-phase twisted string actuation system: Modeling and validation. Mechanism and Machine Theory, 2016, 101, 23-35.	4.5	34
48	State estimation and path following on curved and flat vertical surfaces with Omniclimber robots: Kinematics and control. , 2015, , .		0
49	Switchable magnets for robotics applications. , 2015, , .		6
50	InchwormClimber: A light-weight biped climbing robot with a switchable magnet adhesion unit. , 2015, , .		9
51	Motion control of an omnidirectional climbing robot based on dead reckoning method. Mechatronics, 2015, 30, 94-106.	3.3	22
52	Underactuated anthropomorphic hands: Actuation strategies for a better functionality. Robotics and Autonomous Systems, 2015, 74, 267-282.	5.1	33
53	A single DOF arm for transition of climbing robots between perpendicular planes. , 2014, , .		3
54	Adaptive under-actuated anthropomorphic hand: ISR-SoftHand. , 2014, , .		50

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55	Actuation strategies for underactuated anthropomorphic hands. , 2014, , .		4
56	Analysis and application of dual-row omnidirectional wheels for climbing robots. Mechatronics, 2014, 24, 436-448.	3.3	35
57	Optimization of a Three Degrees of Freedom DELTA Manipulator for Well-Conditioned Workspace with a Floating Point Genetic Algorithm. International Journal of Natural Computing Research, 2014, 4, 1-14.	0.5	5
58	Dexterity Optimization of a Three Degrees of Freedom DELTA Parallel Manipulator. Advances in Intelligent Systems and Computing, 2014, , 719-726.	0.6	0
59	OmniClimbers: Omni-directional magnetic wheeled climbing robots for inspection of ferromagnetic structures. Robotics and Autonomous Systems, 2013, 61, 997-1007.	5.1	106
60	Magnetic omnidirectional wheels for climbing robots. , 2013, , .		10
61	Flexirigid, a novel two phase flexible gripper. , 2013, , .		16
62	OmniClimber-II: An omnidirectional climbing robot with high maneuverability and flexibility to adapt to non-flat surfaces. , 2013, , .		7
63	Cooperative multi-agent mapping of three-dimensional structures for pipeline inspection applications. International Journal of Robotics Research, 2012, 31, 1489-1503.	8.5	20
64	OmniClimber: An omnidirectional light weight climbing robot with flexibility to adapt to non-flat surfaces. , 2012, , .		19
65	Autonomous mapping for inspection of 3D structures. , 2011, , .		4
66	3DCLIMBER: Climbing and manipulation over 3D structures. Mechatronics, 2011, 21, 48-62.	3.3	49
67	A low-cost approach for self-calibration of climbing robots. Robotica, 2011, 29, 23-34.	1.9	16
68	Autonomous mapping for inspection of 3D structures. , 2011, , .		0
69	Development of an industrial pipeline inspection robot. Industrial Robot, 2010, 37, 309-322.	2.1	42
70	A comparison study on Pneumatic Muscles and electrical motors. , 2009, , .		7
71	Self calibration of step-by-step based climbing robots. , 2009, , .		6
72	3DCLIMBER: A climbing robot for inspection of 3D human made structures. , 2008, , .		52

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73	Propose of a Benchmark for Pole Climbing Robots. Springer Tracts in Advanced Robotics, 2008, , 215-222.	0.4	5
74	A STEP TOWARD AUTONOMOUS POLE CLIMBING ROBOTS. , 2008, , .		0
75	A COMPARISON STUDY ON PNEUMATIC MUSCLES AND ELECTRICAL MOTORS USING THE 3DCLIMBER AS A CASE STUDY. , 2008, , .		0
76	PATH PLANNING FOR THE "3DCLIMBER". , 2007, , .		0