Gareth J Monkman

List of Publications by Year
in descending order

75 papers	1,235 citations	516215 16 h-index	395343 33 g-index
79 all docs	79 docs citations	79 times ranked	1073 citing authors

#	Article	IF	Citations
1	Experimental study of the magnetic field enhanced Payne effect in magnetorheological elastomers. Soft Matter, 2014, 10, 8765-8776.	1.2	141
2	Advances in shape memory polymer actuation. Mechatronics, 2000, 10, 489-498.	2.0	120
3	Hysteresis of the viscoelastic properties and the normal force in magnetically and mechanically soft magnetoactive elastomers: Effects of filler composition, strain amplitude and magnetic field. Polymer, 2015, 76, 191-202.	1.8	108
4	Evaluation of highly compliant magnetoâ€active elastomers with colossal magnetorheological response. Journal of Applied Polymer Science, 2014, 131, .	1.3	81
5	Reduction of femoral shaft fractures in vitro by a new developed reduction robot system â€˜RepoRoboâ€™. Injury, 2004, 35, 113-119.	0.7	63
6	Electroadhesive microgrippers. Industrial Robot, 2003, 30, 326-330.	1.2	53
7	Robot Grippers for Use With Fibrous Materials. International Journal of Robotics Research, 1995, 14, 144-151.	5.8	50
8	The electrorheological effect under compressive stress. Journal Physics D: Applied Physics, 1995, 28, 588-593.	1.3	49
9	Bio-Inspired Shape-Adaptive Soft Robotic Grippers Augmented with Electroadhesion Functionality. Soft Robotics, 2019, 6, 701-712.	4.6	49
10	An Electrorheological Tactile Display. Presence: Teleoperators and Virtual Environments, 1992, 1, 219-228.	0.3	48
11	Ultra-Soft PDMS-Based Magnetoactive Elastomers as Dynamic Cell Culture Substrata. PLoS ONE, 2013, 8, e76196.	1.1	46
12	Compliant robotic devices, and electroadhesion. Robotica, 1992, 10, 183-185.	1.3	38
13	Electrorheological tactel elements. Mechatronics, 2005, 15, 883-897.	2.0	23
14	Addition of solid structures to electrorheological fluids. Journal of Rheology, 1991, 35, 1385-1392.	1.3	21
15	Magnetorheological behavior of magnetoactive elastomers filled with bimodal iron and magnetite particles. Smart Materials and Structures, 2017, 26, 035019.	1.8	20
16	Patterning of ultrasoft, agglutinative magnetorheological elastomers. Journal of Applied Polymer Science, 2013, 128, 2508-2515.	1.3	18
17	Printing of hybrid magneto active polymers with 6 degrees of freedom. Materials Today Communications, 2018, 15, 269-274.	0.9	16
18	Exploitation of compressive stress in electrorheological coupling. Mechatronics, 1997, 7, 27-36.	2.0	14

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19	Nonlinear Magnetoelectric Response of Planar Ferromagnetic-Piezoelectric Structures to Sub-Millisecond Magnetic Pulses. Sensors, 2012, 12, 14821-14837.	2.1	12
20	Spectroscopic Study of Human Teeth and Blood from Visible to Terahertz Frequencies for Clinical Diagnosis of Dental Pulp Vitality. Journal of Infrared, Millimeter, and Terahertz Waves, 2012, 33, 366-375.	1.2	12
21	Modelling the response of a tactile array using electrorheological fluids. Journal Physics D: Applied Physics, 2004, 37, 794-803.	1.3	11
22	Field-induced interactions in magneto-active elastomers - A comparison of experiments and simulations. Smart Materials and Structures, 2020, 29, 085026.	1.8	11
23	Precise piezoelectric prehension. Industrial Robot, 2000, 27, 189-194.	1.2	10
24	The magnetoactive electret. Smart Materials and Structures, 2017, 26, 075010.	1.8	10
25	Mini-Extruder for 3D Magnetoactive Polymer Printing. Advances in Materials Science and Engineering, 2019, 2019, 1-8.	1.0	10
26	Time-dependent electroadhesive force degradation. Smart Materials and Structures, 2020, 29, 055009.	1.8	10
27	Monomolecular Langmuirâ€Blodgett films â€“ tomorrowâ€™s sensors?. Sensor Review, 2000, 20, 127-131.	1.0	9
28	Dielectrophoretic enhancement of electrorheological robotic actuators. Mechatronics, 1993, 3, 305-313.	2.0	8
29	Properties of Polydimethylsiloxane and Magnetoactive Polymers with Electroconductive Particles. Macromolecular Chemistry and Physics, 2018, 219, 1800222.	1.1	8
30	Controllable Shape Retention. Journal of Intelligent Material Systems and Structures, 1994, 5, 567-575.	1.4	6
31	Sensory integrated fabric ply separation. Robotica, 1996, 14, 119-125.	1.3	6
32	Workpiece retention during machine processing. Assembly Automation, 2001, 21, 61-67.	1.0	5
33	Technologies for haptic displays in teleoperation. Industrial Robot, 2003, 30, 525-530.	1.2	5
34	In vitro optical detection of simulated blood pulse in a human tooth pulp model. Clinical Oral Investigations, 2014, 18, 1401-1409.	1.4	5
35	Sensing in Garment Assembly. , 1995, , 291-308.		5
36	Advancements in infraâ€red array detectors. Sensor Review, 1999, 19, 273-277.	1.0	4

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37	A NEW ER FLUID BASED HAPTIC ACTUATOR SYSTEM FOR VIRTUAL REALITY. International Journal of Modern Physics B, 2005, 19, 1628-1634.	1.0	4
38	Finlandâ€™s industrial robotics. Industrial Robot, 1994, 21, 31-32.	1.2	3
39	Bioâ€chemical sensors. Sensor Review, 1996, 16, 40-44.	1.0	3
40	Problems of scale. Assembly Automation, 2002, 22, 8-9.	1.0	3
41	A New Haptic Sensor Actuator System for Virtual Reality Applications in Medicine. Lecture Notes in Computer Science, 2003, , 132-140.	1.0	3
42	Contact Identification using Tactile Arrays. , 2007, , .		3
43	Detection of pulsed blood flow through a molar pulp chamber and surrounding tissue in vitro. Clinical Oral Investigations, 2019, 23, 1121-1132.	1.4	3
44	Structure formation in low concentration magnetoactive polymers. AIP Advances, 2019, 9, .	0.6	3
45	Electrical Properties of Magnetoactive Boronâ€Organoâ€Silicon Oxide Polymers. Macromolecular Chemistry and Physics, 2020, 221, 1900342.	1.1	3
46	Industrial infrared sensors. Sensor Review, 1996, 16, 22-25.	1.0	2
47	MÃ¼nchen: pH and SAW. Sensor Review, 1996, 16, 28-31.	1.0	2
48	Temperature measurement taken to extremes. Sensor Review, 2001, 21, 177-182.	1.0	2
49	Pre-slip detection based Tactile Sensing. , 2007, , .		2
50	Observation of nonlinear magnetoelectric response to magnetic pulses in layered magnetostrictive-piezoelectric structures. , 2012, , .		2
51	Shape Memory Effects Using Magnetoactive Boronâ€'Organoâ€'Silicon Oxide Polymers. Macromolecular Chemistry and Physics, 2020, 221, 2000149.	1.1	2
52	Fast traffic at 28th ISATA. Sensor Review, 1996, 16, 26-28.	1.0	1
53	Micro actuation and memory alloys. Assembly Automation, 1996, 16, 22-25.	1.0	1
54	Secure electronic tagging. Assembly Automation, 2000, 20, 24-27.	1.0	1

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55	Heavy duty robotic precision fracture repositioning. Industrial Robot, 2004, 31, 488-492.	1.2	1
56	Optimisation of prehension force through tactile sensing. Industrial Robot, 2008, 35, 361-368.	1.2	1
57	Infrared spectral analysis of low concentration magnetoactive polymers. Journal of Applied Polymer Science, 2020, 137, 48366.	1.3	1
58	Selfâ€assembling structure formation in lowâ€density magnetoactive polymers. Journal of Applied Polymer Science, 2020, 137, 48291.	1.3	1
59	Collision and separation of nickel particles embedded in a polydimethylsiloxan matrix under a rotating magnetic field: A strong magneto active function. Colloid and Polymer Science, 2021, 299, 955-967.	1.0	1
60	A Haptic System for Virtual Reality Applications Based on Ultrasound Elastography and Electro-Rheological Fluids. Acoustical Imaging, 2004, , 667-674.	0.2	1
61	Magnetic sensors. Sensor Review, 1998, 18, .	1.0	1
62	Controllable Magnetoactive Polymer Conduit. The Open Mechanical Engineering Journal, 2018, 12, 192-200.	0.3	1
63	Magnetically enhanced photoconductive high voltage control. ISSS Journal of Micro and Smart Systems, 2022, 11, 317-328.	1.0	1
64	Alternative Approach to Optical Detection of Partial Discharges in Air. , 2021, , .		1
65	Productronica â€™95: wafers and waste. Assembly Automation, 1996, 16, 31-35.	1.0	0
66	A simple time domain web measurement and inspection system. Measurement Science and Technology, 1996, 7, 661-665.	1.4	0
67	Microâ€actuators: not so small any more. Assembly Automation, 1998, 18, 286-290.	1.0	0
68	The valve may be dead but it wonâ€™t lie down. Sensor Review, 1999, 19, 6-8.	1.0	0
69	Contact Classification using Tactile Arrays. , 2007, , .		0
70	Infrared spectroscopy for clinical diagnosis of dental pulp vitality. , 2012, , .		0
71	An analysis of the electrical capacitance between two conducting spheres. Journal of Electrostatics, 2020, 108, 103518.	1.0	0
72	Old principles, new opportunities. Sensor Review, 2001, 21, .	1.0	0

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73	Greater than the sum of its parts?. Sensor Review, 2002, 22, .	1.0	0
74	Dielectric behaviour of magnetic hybrid materials. ChemistrySelect, 2020, .	0.7	0
75	Entwicklung eines haptischen Sensor-Aktor-Systems fÃ¼r Anwendungen in der virtuellen RealitÃt. , 2005, , 237-241.		0