Kwang J Kim

List of Publications by Year in Descending Order

259 papers	9,066 citations	47 h-index	87 g-index
293 ext. papers	10,228 ext. citations	4.2 avg, IF	6.45 L-index

#	Paper	IF	Citations
259	Approximate field measures for ionic polymer-metal composite materials and a simplified order-of-magnitude actuator model. *Smart Materials and Structures*, **2022**, 31, 025029	3.4	0
258	A study of electroactive polyvinyl chloride (PVC) gel actuators through the use of the electric modulus formalism and cyclic linear voltage sweeps. *Smart Materials and Structures*, **2022**, 31, 035020	3.4	1
257	Characterizing the transduction behavior of ionic polymer-metal composite actuators and sensors via dimensional analysis. *Smart Materials and Structures*, **2022**, 31, 025014	3.4	2
256	Ionic Polymer-Metal Composite (IPMC) Artificial Muscles in Underwater Environments: Review of Actuation, Sensing, Controls, and Applications to Soft Robotics **2021**, 117-139		1
255	Control-oriented Nonlinear Modeling of Polyvinyl Chloride (PVC) Gel Actuators. *IFAC-PapersOnLine*, **2021**, 54, 304-309	0.7	0
254	Thermo-mechanical response of the twisted and coiled polymer actuator (TCPA): a finite element analysis (FEA). *Smart Materials and Structures*, **2021**, 30, 065017	3.4	
253	Developing next generation ionic polymer□metal composite materials: perspectives for enabling robotics and biomimetics. *Polymer International*, **2021**, 70, 7-9	3.3	8
252	Soft actuators and their potential applications in rehabilitative devices **2021**, 89-110		2
251	A hyperelastic porous media framework for ionic polymer-metal composite actuators and sensors: thermodynamically consistent formulation and nondimensionalization of the field equations. *Smart Materials and Structures*, **2021**, 30, 095024	3.4	4
250	Basic design of a biomimetic underwater soft robot with switchable swimming modes and programmable artificial muscles. *Smart Materials and Structures*, **2020**, 29, 035038	3.4	9
249	Sulfur- and Nitrogen-Rich Porous □Conjugated COFs as Stable Electrode Materials for Electro-Ionic Soft Actuators. *Advanced Functional Materials*, **2020**, 30, 2003863	15.6	10
248	Multidirectional Cylindrical Piezoelectric Force Sensor: Design and Experimental Validation. *Sensors* , **2020**, 20,	3.8	2
247	Ionic polymer metal composites for use as an organic electrolyte supercapacitor. *Smart Materials and Structures*, **2019**, 28, 054003	3.4	5
246	High-performance polyvinyl chloride gel artificial muscle actuator with graphene oxide and plasticizer. *Scientific Reports*, **2019**, 9, 9658	4.9	23
245	A Soft-Robotic Harbor Porpoise Pectoral Fin Driven by Coiled Polymer Actuators as Artificial Muscles. *Advanced Intelligent Systems*, **2019**, 1, 1900028	6	3
244	Non-Einstein Viscosity Phenomenon of Acrylonitrile-Butadiene-Styrene Composites Containing Lignin-Polycaprolactone Particulates Highly Dispersed by High-Shear Stress. *ACS Omega*, **2019**, 4, 10036-10043	3.9	3
243	Design and Modeling of a New Biomimetic Soft Robotic Jellyfish Using IPMC-Based Electroactive Polymers. *Frontiers in Robotics and AI*, **2019**, 6, 112	2.8	7

242	Modelling and Experimental Study for PVC Gel Actuators **2019**,		2
241	Collectively Exhaustive Electrodes Based on Covalent Organic Framework and Antagonistic Co-Doping for Electroactive Ionic Artificial Muscles. *Advanced Functional Materials*, **2019**, 29, 1900161	15.6	32
240	3D-Printing and Machine Learning Control of Soft Ionic Polymer-Metal Composite Actuators. *Scientific Reports*, **2019**, 9, 17482	4.9	24
239	Surface wettability effect on nucleate pool boiling heat transfer with titanium oxide (TiO2) coated heating surface. *International Journal of Heat and Mass Transfer*, **2019**, 133, 352-358	4.9	25
238	Mechanoelectric transduction of ionic polymer-graphene composite sensor with ionic liquid as electrolyte. *Sensors and Actuators A: Physical*, **2019**, 286, 68-77	3.9	14
237	Formation of a gold nanoparticle layer for the electrodes of ionic polymer□metal composites by electroless deposition process. *Applied Surface Science*, **2019**, 470, 8-12	6.7	6
236	A robotic multiple-shape-memory ionic polymer□metal composite (IPMC) actuator: modeling approach. *Smart Materials and Structures*, **2019**, 28, 015009	3.4	12
235	A Targeted Swallow Screen for the Detection of Postoperative Dysphagia in Liver Transplant Patients. *Progress in Transplantation*, **2019**, 29, 4-10	1.1	3
234	Electroactive Artificial Muscles Based on Functionally Antagonistic Core-Shell Polymer Electrolyte Derived from PS--PSS Block Copolymer. *Advanced Science*, **2019**, 6, 1801196	13.6	17
233	Synthesis, characterization, and kinetic study of activated carbon modified by polysulfide rubber coating for aqueous hexavalent chromium removal. *Journal of Industrial and Engineering Chemistry*, **2019**, 69, 196-210	6.3	23
232	Cathodic electrophoretic deposition (EPD) of phenylenediamine-modified graphene oxide (GO) for anti-corrosion protection of metal surfaces. *Carbon*, **2019**, 142, 68-77	10.4	37
231	Self-standing and shape-memorable UV-curing epoxy polymers for three-dimensional (3D) continuous-filament printing. *Journal of Materials Chemistry C*, **2018**, 6, 2996-3003	7.1	19
230	Behavior of an evaporating water droplet on lubricant-impregnated nano-structured surface. *Experimental Thermal and Fluid Science*, **2018**, 96, 216-223	3	4
229	Mechanical properties and cytotoxicity of PLA/PCL films. *Biomedical Engineering Letters*, **2018**, 8, 267-272	3.6	27
228	Mechanical properties and flame retardancy of surface modified magnesium oxysulfate (5Mg(OH)2□MgSO4□3H2O) whisker for polypropylene composites. *Journal of Materiomics*, **2018**, 4, 149-156	6.7	2
227	Anti-Biofouling, Thermal, and Electrical Performance of Nanocomposite Coating with Multiwall Carbon Nanotube and Polytetrafluoroethylene-Blended Polyphenylenesulfide. *Advances in Polymer Technology*, **2018**, 37, 843-849	1.9	4
226	Understanding the Thermal Properties of Precursor-Ionomers to Optimize Fabrication Processes for Ionic Polymer-Metal Composites (IPMCs). *Materials*, **2018**, 11,	3.5	5
225	Nanoplatelet reinforcement of cavity cell walls in polymer foams using carbon dioxide supercritical fluid. *Journal of Applied Polymer Science*, **2018**, 135, 46615	2.9	5

224	A reduced dimensional mapping approach for modeling IPMCs with computational efficiency and rapid design development applications. *Smart Materials and Structures*, **2018**, 27, 125012	3.4	5
223	A new high-performance ionic polymer□metal composite based on Nafion/polyimide blends. *Smart Materials and Structures*, **2017**, 26, 035015	3.4	10
222	Electrically controllable twisted-coiled artificial muscle actuators using surface-modified polyester fibers. *Smart Materials and Structures*, **2017**, 26, 035048	3.4	28
221	Modeling of a soft multiple-shape-memory ionic polymer-metal composite actuator **2017**,		1
220	UV-curing kinetics and performance development of in situ curable 3D printing materials. *European Polymer Journal*, **2017**, 93, 140-147	5.2	31
219	Design Optimization of Autoswitch Hydrogen Absorption and Desorption Device Using Metal Hydrides. *International Journal of Chemical Reactor Engineering*, **2017**, 15,	1.2	2
218	Theoretical and experimental investigation of the shape memory properties of an ionic polymer□metal composite. *Smart Materials and Structures*, **2017**, 26, 045020	3.4	3
217	Control of pool boiling heat transfer through photo-induced wettability change of titania nanotube arrayed surface. *International Communications in Heat and Mass Transfer*, **2017**, 81, 124-130	5.8	18
216	Searching for a new ionomer for 3D printable ionic polymer□metal composites: Aquivion as a candidate. *Smart Materials and Structures*, **2017**, 26, 115029	3.4	20
215	Electroionic Antagonistic Muscles Based on Nitrogen-Doped Carbons Derived from Poly(Triazine-Triptycene). *Advanced Science*, **2017**, 4, 1700410	13.6	25
214	Multi-step cure kinetic model of ultra-thin glass fiber epoxy prepreg exhibiting both autocatalytic and diffusion-controlled regimes under isothermal and dynamic-heating conditions **2017**, 29, 157-162		1
213	**2017**,		21
212	Soft but Powerful Artificial Muscles Based on 3D Graphene-CNT-Ni Heteronanostructures. *Small*, **2017**, 13, 1701314	11	40
211	Bioinspired travelling wave generation in soft-robotics using ionic polymer-metal composites. *International Journal of Intelligent Robotics and Applications*, **2017**, 1, 167-179	1.7	9
210	Design, modeling and experimental validation of a scissor mechanisms enabled compliant modular earthworm-like robot **2017**,		5
209	Artificial Muscles: Electroionic Antagonistic Muscles Based on Nitrogen-Doped Carbons Derived from Poly(Triazine-Triptycene) (Adv. Sci. 12/2017). *Advanced Science*, **2017**, 4, 1770062	13.6	2
208	Muscles, Artificial: Sensing, Transduction, Feedback Control, and Robotic Applications **2017**, 978-993		
207	Nonlinear and complex cure kinetics of ultra-thin glass fiber epoxy prepreg with highly-loaded silica bead under isothermal and dynamic-heating conditions. *Thermochimica Acta*, **2016**, 644, 28-32	2.9	10

206	IPMCs as EAPs: How to Start Experimenting with Them **2016**, 215-233		1
205	IPMCs as EAPs: Fundamentals **2016**, 131-150		2
204	IPMCs as EAPs: Materials **2016**, 151-170		
203	IPMCs as EAPs: Models **2016**, 171-190		
202	A fabrication method of unique Nafion shapes by painting for ionic polymer metal composites. *Smart Materials and Structures*, **2016**, 25, 085006	3.4	13
201	IPMCs as EAPs: Materials **2016**, 1-20		
200	A multiple-shape memory polymer-metal composite actuator capable of programmable control, creating complex 3D motion of bending, twisting, and oscillation. *Scientific Reports*, **2016**, 6, 24462	4.9	67
199	Sulfur and Nitrogen Co-Doped Graphene Electrodes for High-Performance Ionic Artificial Muscles. *Advanced Materials*, **2016**, 28, 1610-5	24	139
198	IPMCs as EAPs: How to Start Experimenting with Them **2016**, 1-19		
197	Theoretical consideration of contact angle hysteresis using surface-energy-minimization methods. *International Journal of Heat and Mass Transfer*, **2016**, 102, 154-161	4.9	23
196	Promising Developments in Marine Applications With Artificial Muscles: Electrodeless Artificial Cilia Microfibers. *Marine Technology Society Journal*, **2016**, 50, 24-34	0.5	17
195	IPMCs as EAPs: Fundamentals **2016**, 1-20		
194	Scissor mechanisms enabled compliant modular earthworm-like robot: Segmental muscle-mimetic design, prototyping and locomotion performance validation **2016**,		18
193	IPMCs as EAPs: Models **2016**, 1-20		
192	Ultrafiltration using graphene oxide surface-embedded polysulfone membranes. *Separation and Purification Technology*, **2016**, 166, 41-47	8.3	45
191	Performance study of a hydrogen powered metal hydride actuator. *Smart Materials and Structures*, **2016**, 25, 045004	3.4	4
190	Forced infiltration of silica beads into densely-packed glass fibre beds for thin composite laminates. *RSC Advances*, **2016**, 6, 91341-91348	3.7	5
189	Metal hydrides in engineering systems, processes, and devices: A review of non-storage applications. *International Journal of Hydrogen Energy*, **2015**, 40, 2231-2247	6.7	53

188	Dropwise steam condensation on various hydrophobic surfaces: Polyphenylene sulfide (PPS), polytetrafluoroethylene (PTFE), and self-assembled micro/nano silver (SAMS). *International Journal of Heat and Mass Transfer*, **2015**, 89, 353-358	4.9	32
187	A new ionic polymer□metal composite based on Nafion/poly(vinyl alcohol-co-ethylene) blends. *Smart Materials and Structures*, **2015**, 24, 105011	3.4	15
186	Physics-based modeling of mechano-electric transduction of tube-shaped ionic polymer-metal composite. *Journal of Applied Physics*, **2015**, 117, 114903	2.5	15
185	Slender tube-shaped and square rod-shaped IPMC actuators with integrated sensing for soft mechatronics. *Meccanica*, **2015**, 50, 2781-2795	2.1	9
184	Internal dropwise condensation: Modeling and experimental framework for horizontal tube condensers. *International Journal of Heat and Mass Transfer*, **2015**, 83, 99-108	4.9	11
183	Enabling earthworm-like soft robot development using bioinspired IPMC-scissor lift actuation structures: Design, locomotion simulation and experimental validation **2015**,		7
182	A comprehensive physics-based model encompassing variable surface resistance and underlying physics of ionic polymer-metal composite actuators. *Journal of Applied Physics*, **2015**, 118, 124904	2.5	21
181	Crystal Structures of a Hyperthermophilic Archaeal Homoserine Dehydrogenase Suggest a Novel Cofactor Binding Mode for Oxidoreductases. *Scientific Reports*, **2015**, 5, 11674	4.9	11
180	An ionic electro-active actuator made with graphene film electrode, chitosan and ionic liquid. *Smart Materials and Structures*, **2015**, 24, 065026	3.4	22
179	Comprehensive modeling of ionic polymer-metal composite actuators based upon variable surface resistance and underlying physics of the polymer membrane **2015**,		2
178	A biomimetic underwater vehicle actuated by waves with ionic polymer-metal composite soft sensors. *Bioinspiration and Biomimetics*, **2015**, 10, 055007	2.6	24
177	Development of self-sensing Ionic Polymer-Metal Composite soft robotic actuator integrated with gallium-indium alloy **2015**,		2
176	A cylindrical ionic polymer-metal composite-based robotic catheter platform: modeling, design and control. *Smart Materials and Structures*, **2015**, 24, 015007	3.4	23
175	Chapter 5:Modeling Ionic Polymer Metal Composites with COMSOL: Step-by-Step Guide. *RSC Smart Materials*, **2015**, 185-214	0.6	6
174	Nanothorn electrodes for ionic polymer-metal composite artificial muscles. *Scientific Reports*, **2014**, 4, 6176	4.9	47
173	Nucleate pool boiling heat transfer augmentation on hydrophobic self-assembly mono-layered alumina nano-porous surfaces. *International Journal of Heat and Mass Transfer*, **2014**, 73, 551-561	4.9	23
172	A bio-inspired multi degree of freedom actuator based on a novel cylindrical ionic polymer□metal composite material. *Robotics and Autonomous Systems*, **2014**, 62, 53-60	3.5	35
171	. *IEEE Journal of Oceanic Engineering*, **2014**, 39, 540-551	3.3	66

170	Electrode of ionic polymer-metal composite sensors: Modeling and experimental investigation. *Journal of Applied Physics*, **2014**, 115, 194902	2.5	21
169	Electromechanical performance and other characteristics of IPMCs fabricated with various commercially available ion exchange membranes. *Smart Materials and Structures*, **2014**, 23, 074001	3.4	10
168	Dropwise Condensation on Micro- and Nanostructured Surfaces. *Nanoscale and Microscale Thermophysical Engineering*, **2014**, 18, 223-250	3.7	186
167	Improving electromechanical output of IPMC by high surface area Pd-Pt electrodes and tailored ionomer membrane thickness. *International Journal of Smart and Nano Materials*, **2014**, 5, 99-113	3.6	19
166	Influence of heated surfaces and fluids on pool boiling heat transfer. *Experimental Thermal and Fluid Science*, **2014**, 59, 15-23	3	18
165	Experimentally tuned dual stage hydrogen compressor for improved compression ratio. *International Journal of Hydrogen Energy*, **2014**, 39, 12924-12933	6.7	16
164	Noncovalently assembled nanotubular porous layers for delaying of heating surface failure. *Scientific Reports*, **2014**, 4, 6817	4.9	4
163	Ionic electroactive polymer artificial muscles in space applications. *Scientific Reports*, **2014**, 4, 6913	4.9	48
162	Hydrogen Storage with Annular LaNi5 Metal Hydride Pellets. *Advanced Materials Research*, **2014**, 875-877, 1671-1675	0.5	0
161	Effects of electrode surface structure on the mechanoelectrical transduction of IPMC sensors **2014**,		5
160	Multi degree of freedom IPMC sensor **2014**,		1
159	Heat transfer measurement during dropwise condensation using micro/nano-scale porous surface. *International Journal of Heat and Mass Transfer*, **2013**, 65, 619-626	4.9	52
158	Anodic-biased titania nanotube growth in low-dielectric viscous media. *International Journal of Smart and Nano Materials*, **2013**, 4, 47-54	3.6	3
157	Transparent actuator made with few layer graphene electrode and dielectric elastomer, for variable focus lens. *Applied Physics Letters*, **2013**, 103, 023106	3.4	36
156	An IPMC-enabled bio-inspired bending/twisting fin for underwater applications. *Smart Materials and Structures*, **2013**, 22, 014003	3.4	80
155	A dropwise condensation model using a nano-scale, pin structured surface. *International Journal of Heat and Mass Transfer*, **2013**, 60, 664-671	4.9	37
154	Recent advances in ionic polymer–metal composite actuators and their modeling and applications. *Progress in Polymer Science*, **2013**, 38, 1037-1066	29.6	270
153	Mechanoelectric transduction in ionic polymer-metal composite. *Applied Physics Letters*, **2013**, 102, 123903	3.4	10

152	Augmented boiling heat transfer on the wetting-modified three dimensionally-interconnected alumina nano porous surfaces in aqueous polymeric surfactants. *International Journal of Heat and Mass Transfer*, **2013**, 63, 224-232	4.9	23
151	Nanosphere-Decorated Tunable Anatase Titania Conic Self-Assemblies. *Journal of Nanoparticle Research*, **2013**, 15, 1	2.3	
150	Scalable low nDOFhp-FEM model of IPMC actuation **2013**,		1
149	The effects of electrode surface morphology on the actuation performance of IPMC **2013**,		4
148	Sectored Tube-Shaped Ionic Polymer-Metal Composite Actuator With Integrated Sensor **2013**,		2
147	Interlaboratory evaluation of in vitro cytotoxicity and inflammatory responses to engineered nanomaterials: the NIEHS Nano GO Consortium. *Environmental Health Perspectives*, **2013**, 121, 683-90	8.4	151
146	Amine-functionalized polyglycidyl methacrylate microsphere as a unified template for the synthesis of gold nanoparticles and single-crystal gold plates. *Macromolecular Rapid Communications*, **2013**, 34, 504-10	4.8	23
145	Biomimetic Robotic Artificial Muscles **2013**,		7
144	. *IEEE/ASME Transactions on Mechatronics*, **2012**, 17, 345-355	5.5	50
143	Enhanced heat transfer performance of alumina sponge-like nano-porous structures through surface wettability control in nucleate pool boiling. *International Journal of Heat and Mass Transfer*, **2012**, 55, 7487-7498	4.9	78
142	Ionic Polymer□Metal Composites for Sensors and Artificial Muscles: Mechanoelectric Perspectives **2012**, 621-641		1
141	High-performance heat-sink composites incorporating micron-sized inorganic fillers and Sn/In metal particles. *Polymer Engineering and Science*, **2012**, 52, 2435-2442	2.3	5
140	Morphological change of plain and nano-porous surfaces during boiling and its effect on nucleate pool boiling heat transfer. *Experimental Thermal and Fluid Science*, **2012**, 40, 150-158	3	50
139	Water droplet evaporation on Cu-based hydrophobic surfaces with nano- and micro-structures. *International Journal of Heat and Mass Transfer*, **2012**, 55, 2151-2159	4.9	41
138	Electromechanically driven variable-focus lens based on transparent dielectric elastomer. *Applied Optics*, **2012**, 51, 2987-96	1.7	65
137	Effect of liquid uptake on critical heat flux utilizing a three dimensional, interconnected alumina nano porous surfaces. *Applied Physics Letters*, **2012**, 101, 054104	3.4	32
136	Biologically inspired tunable hydrophilic/hydrophobic surfaces: a copper oxide self-assembly multitier approach. *Bioinspiration and Biomimetics*, **2012**, 7, 036011	2.6	17
135	Introduction to the themed articles on ionic polymer□metal composites. *International Journal of Smart and Nano Materials*, **2012**, 3, 183-187	3.6	1

134	Mitigating IPMC back relaxation through feedforward and feedback control of patterned electrodes. *Smart Materials and Structures*, **2012**, 21, 085002	3.4	29
133	Characterization of longitudinal tensile force of millimeter thick IPMCs **2012**,		1
132	Modeling Ionic Polymer-Metal Composites with Space-Time Adaptive Multimesh hp-FEM. *Communications in Computational Physics*, **2012**, 11, 249-270	2.4	11
131	A High-Performance Dual-Stage Hydrogen Compressor System Using Ca0.2Mm0.8Ni5 Metal Hydride **2011**,		3
130	Characterization of Sectored-Electrode IPMC-Based Propulsors for Underwater Locomotion **2011**,		4
129	Characteristics of ionic polymer□metal composite with chemically doped TiO2particles. *Smart Materials and Structures*, **2011**, 20, 124004	3.4	6
128	Electro-chemical operation of ionic polymer□metal composites. *Sensors and Actuators B: Chemical*, **2011**, 155, 106-113	8.5	24
127	An explicit physics-based model of ionic polymer-metal composite actuators. *Journal of Applied Physics*, **2011**, 110, 084904	2.5	60
126	A bio-inspired multi degree of freedom actuator based on a novel cylindrical ionic polymer-metal composite material **2011**,		7
125	Biomimetic super-hydrophobic surfaces for use in enhanced dropwise condensation **2011**,		4
124	Millimeter thick ionic polymer membrane-based IPMCs with bimetallic Pd-Pt electrodes **2011**,		2
123	Dropwise Condensation Modeling Suitable for Superhydrophobic Surfaces. *Journal of Heat Transfer* , **2011**, 133,	1.8	220
122	A novel ionic polymer metal ZnO composite (IPMZC). *Sensors*, **2011**, 11, 4674-87	3.8	13
121	A Twistable Ionic Polymer-Metal Composite Artificial Muscle for Marine Applications. *Marine Technology Society Journal*, **2011**, 45, 83-98	0.5	34
120	Visualization of the cation migration in ionic polymer-metal composite under an electric field. *Applied Physics Letters*, **2010**, 96, 043301	3.4	27
119	Effect of metal diffusion on mechanoelectric property of ionic polymer-metal composite. *Applied Physics Letters*, **2010**, 97, 244104	3.4	38
118	Preliminary study of wireless actuation and control of IPMC actuator **2010**,		2
117	A Rod-Shaped Ionic Polymer-Metal Composite for Use as an Active Catheter-Platform **2010**,		7

116	Disc-shaped ionic polymer metal composites for use in mechano-electrical applications. *Smart Materials and Structures*, **2010**, 19, 065016	3.4	51
115	Sectored-electrode IPMC actuator for bending and twisting motion **2010**,		7
114	Pool boiling heat transfer with nano-porous surface. *International Journal of Heat and Mass Transfer* , **2010**, 53, 4274-4279	4.9	114
113	Dynamic surface tension of heat transfer additives suitable for use in steam condensers and absorbers. *International Journal of Refrigeration*, **2010**, 33, 428-434	3.8	5
112	Simulation study on the reaction process based single stage metal hydride thermal compressor. *International Journal of Hydrogen Energy*, **2010**, 35, 321-328	6.7	29
111	Hydrogen compression characteristics of a dual stage thermal compressor system utilizing LaNi5 and Ca0.6Mm0.4Ni5 as the working metal hydrides. *International Journal of Hydrogen Energy*, **2010**, 35, 5693-5702	6.7	32
110	Ionic polymer–metal composite mechanoelectrical transduction: review and perspectives. *Polymer International*, **2010**, 59, 279-289	3.3	119
109	Modeling IPMC Material With Dynamic Surface Characteristics **2009**,		1
108	Sulfonated Polyamide Based IPMCs **2009**,		1
107	Thermal conductivity measurements of copper-coated metal hydrides (LaNi5, Ca0.6Mm0.4Ni5, and LaNi4.75Al0.25) for use in metal hydride hydrogen compression systems. *International Journal of Hydrogen Energy*, **2009**, 34, 3185-3190	6.7	23
106	Investigation of coupled AB5 type high-power metal hydride reactors. *International Journal of Hydrogen Energy*, **2009**, 34, 5770-5777	6.7	14
105	Experimental study of a metal hydride driven braided artificial pneumatic muscle. *Smart Materials and Structures*, **2009**, 18, 125014	3.4	21
104	Physical Principles of Ionic Polymer–Metal Composites as Electroactive Actuators and Sensors. *MRS Bulletin*, **2008**, 33, 190-195	3.2	38
103	Variable Thickness IPMC: Capacitance Effect on Energy Harvesting. *Materials Research Society Symposia Proceedings*, **2008**, 1129, 1		0
102	Sprayed Sensor Using IPMC PAINT. *Advances in Science and Technology*, **2008**, 61, 59-64	0.1	7
101	Metal Hydride Fluidic Artificial Muscle Actuation System. *Materials Research Society Symposia Proceedings*, **2008**, 1129, 1		
100	Palladium buffer-layered high performance ionic polymer–metal composites. *Smart Materials and Structures*, **2008**, 17, 035011	3.4	45
99	Ionic polymer-metal composites (IPMCs) with bimetallic Pt-Pd electrode **2008**,		2

98	A self-oscillating ionic polymer-metal composite bending actuator. *Journal of Applied Physics*, **2008**, 103, 084908	2.5	46
97	Self-sensing of dielectric elastomer actuator **2008**,		9
96	IPMC paints **2008**,		1
95	Transparent flexible conductor of poly(methyl methacrylate) containing highly-dispersed multiwalled carbon nanotube. *Organic Electronics*, **2008**, 9, 1-13	3.5	29
94	A self-sensing dielectric elastomer actuator. *Sensors and Actuators A: Physical*, **2008**, 143, 343-351	3.9	178
93	A hydrogen-compression system using porous metal hydride pellets of LaNi5-xAlx. *International Journal of Hydrogen Energy*, **2008**, 33, 870-877	6.7	55
92	Ionic polymer-metal composite as energy harvesters. *Smart Structures and Systems*, **2008**, 4, 549-563		72
91	Ionic Polymer-metal Composites for Underwater Operation. *Journal of Intelligent Material Systems and Structures*, **2007**, 18, 123-131	2.3	46
90	Smart hydrogen/metal hydride actuator. *International Journal of Hydrogen Energy*, **2007**, 32, 247-255	6.7	19
89	Ionic polymer□metal composite bending actuator loaded with multi-walled carbon nanotubes. *Sensors and Actuators A: Physical*, **2007**, 133, 117-127	3.9	78
88	Multi-fields responsive ionic polymer□metal composite. *Sensors and Actuators A: Physical*, **2007**, 135, 220-228	3.9	20
87	Ionic polymer□metal composite actuators exhibiting self-oscillation. *Sensors and Actuators A: Physical*, **2007**, 137, 129-133	3.9	11
86	Mechanical, dielectric, and magnetic properties of the silicone elastomer with multi-walled carbon nanotubes as a nanofiller. *Polymer Engineering and Science*, **2007**, 47, 1396-1405	2.3	50
85	An artificial muscle actuator for biomimetic underwater propulsors. *Bioinspiration and Biomimetics*, **2007**, 2, S31-41	2.6	66
84	Modeling and experiment of a muscle-like linear actuator using an ionic polymer□metal composite and its actuation characteristics. *Smart Materials and Structures*, **2007**, 16, 583-588	3.4	21
83	Fluid interaction of segmented ionic polymer□metal composites under water. *Smart Materials and Structures*, **2007**, 16, S220-S226	3.4	10
82	A theoretical and experiment study for self-oscillatory ionic polymer□metal composite actuators. *Smart Materials and Structures*, **2007**, 16, 1789-1795	3.4	5
81	An electrode model for ionic polymer□metal composites. *Smart Materials and Structures*, **2007**, 16, 2286-2295	3.4	38

80	The mechanical properties of ionic polymer-metal composites **2007**,		9
79	Ionic polymer metal composites as energy harvesters **2007**,		6
78	Self-oscillating electroactive polymer actuator. *Applied Physics Letters*, **2007**, 90, 184104	3.4	18
77	Mechanical and thermal behavior of ionic polymer□metal composites: effects of electroded metals. *Smart Materials and Structures*, **2007**, 16, 1090-1097	3.4	30
76	IPMC-assisted miniature disposable infusion pumps with embedded computer control **2007**,		4
75	An experimental and theoretical study on the concept of dropwise condensation. *International Journal of Heat and Mass Transfer*, **2006**, 49, 649-657	4.9	113
74	Sensory behavior of ionic polymer metal composite **2006**, 6168, 547		2
73	Experimental Investigation on Electrochemical Properties of Ionic Polymer□Metal Composite. *Journal of Intelligent Material Systems and Structures*, **2006**, 17, 449-454	2.3	26
72	Application of an Equivalent Circuit Model for Ionic Polymer-Metal Composite (IPMC) Bending Actuator Loaded With Multiwalled Carbon Nanotube (M-CNT). *Key Engineering Materials*, **2006**, 309-311, 593-596	0.4	4
71	Multi-fields responsive ionic polymer-metal composites **2006**,		3
70	Modeling of an IPMC Actuator-driven Zero-Net-Mass-Flux Pump for Flow Control. *Journal of Intelligent Material Systems and Structures*, **2006**, 17, 533-541	2.3	18
69	Performance Characteristics of Electro□hemically Driven Polyacrylonitrile Fiber Bundle Actuators. *Journal of Intelligent Material Systems and Structures*, **2006**, 17, 563-576	2.3	29
68	Dynamic Modeling of Segmented Ionic Polymer Metal Composite (IPMC) Actuator **2006**,		8
67	Electrospun nanoscale polyacrylonitrile artificial muscle. *Smart Materials and Structures*, **2006**, 15, N152-N156	3.4	22
66	Design of IPMC actuator-driven valve-less micropump and its flow rate estimation at low Reynolds numbers. *Smart Materials and Structures*, **2006**, 15, 1103-1109	3.4	59
65	Muscle-like linear actuator using an ionic polymer-metal composite and its actuation characteristics **2006**,		3
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