

Kwang J Kim

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259
papers

9,066
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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	Ionic polymer-metal composites: I. Fundamentals. <i>Smart Materials and Structures</i> , 2001 , 10, 819-833	3.4	887
258	Ionic polymer-metal composites: IV. Industrial and medical applications. <i>Smart Materials and Structures</i> , 2005 , 14, 197-214	3.4	486
257	Ionic polymer-metal composites: II. Manufacturing techniques. <i>Smart Materials and Structures</i> , 2003 , 12, 65-79	3.4	437
256	Ionic polymer-metal composites: III. Modeling and simulation as biomimetic sensors, actuators, transducers, and artificial muscles. <i>Smart Materials and Structures</i> , 2004 , 13, 1362-1388	3.4	280
255	Recent advances in ionic polymer-metal composite actuators and their modeling and applications. <i>Progress in Polymer Science</i> , 2013 , 38, 1037-1066	29.6	270
254	A novel method of manufacturing three-dimensional ionic polymer-metal composites (IPMCs) biomimetic sensors, actuators and artificial muscles. <i>Polymer</i> , 2002 , 43, 797-802	3.9	268
253	Dropwise Condensation Modeling Suitable for Superhydrophobic Surfaces. <i>Journal of Heat Transfer</i> , 2011 , 133,	1.8	220
252	The effect of surface-electrode resistance on the performance of ionic polymer-metal composite (IPMC) artificial muscles. <i>Smart Materials and Structures</i> , 2000 , 9, 543-551	3.4	219
251	Dropwise Condensation on Micro- and Nanostructured Surfaces. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2014 , 18, 223-250	3.7	186
250	A self-sensing dielectric elastomer actuator. <i>Sensors and Actuators A: Physical</i> , 2008 , 143, 343-351	3.9	178
249	Interlaboratory evaluation of in vitro cytotoxicity and inflammatory responses to engineered nanomaterials: the NIEHS Nano GO Consortium. <i>Environmental Health Perspectives</i> , 2013 , 121, 683-90	8.4	151
248	Sulfur and Nitrogen Co-Doped Graphene Electrodes for High-Performance Ionic Artificial Muscles. <i>Advanced Materials</i> , 2016 , 28, 1610-5	24	139
247	Metal hydride compacts of improved thermal conductivity. <i>International Journal of Hydrogen Energy</i> , 2001 , 26, 609-613	6.7	125
246	Ionic polymer-metal composite mechanoelectrical transduction: review and perspectives. <i>Polymer International</i> , 2010 , 59, 279-289	3.3	119
245	Pool boiling of saturated FC-72 on nano-porous surface. <i>International Communications in Heat and Mass Transfer</i> , 2005 , 32, 27-31	5.8	117
244	Pool boiling heat transfer with nano-porous surface. <i>International Journal of Heat and Mass Transfer</i> , 2010 , 53, 4274-4279	4.9	114
243	An experimental and theoretical study on the concept of dropwise condensation. <i>International Journal of Heat and Mass Transfer</i> , 2006 , 49, 649-657	4.9	113

242	Long term testing for dropwise condensation using self-assembled monolayer coatings of n-octadecyl mercaptan. <i>Applied Thermal Engineering</i> , 2006 , 26, 421-429	5.8	110
241	Electrical activation of artificial muscles containing polyacrylonitrile gel fibers. <i>Biomacromolecules</i> , 2000 , 1, 642-7	6.9	108
240	Novel ionic polymer-metal composites equipped with physically loaded particulate electrodes as biomimetic sensors, actuators and artificial muscles. <i>Sensors and Actuators A: Physical</i> , 2002 , 96, 125-132	3.9	101
239	An IPMC-enabled bio-inspired bending/twisting fin for underwater applications. <i>Smart Materials and Structures</i> , 2013 , 22, 014003	3.4	80
238	Enhanced heat transfer performance of alumina sponge-like nano-porous structures through surface wettability control in nucleate pool boiling. <i>International Journal of Heat and Mass Transfer</i> , 2012 , 55, 7487-7498	4.9	78
237	Ionic polymer-metal composite bending actuator loaded with multi-walled carbon nanotubes. <i>Sensors and Actuators A: Physical</i> , 2007 , 133, 117-127	3.9	78
236	Ionomeric electroactive polymer artificial muscle for naval applications. <i>IEEE Journal of Oceanic Engineering</i> , 2004 , 29, 729-737	3.3	73
235	Ionic polymer-metal composite as energy harvesters. <i>Smart Structures and Systems</i> , 2008 , 4, 549-563		72
234	Water uptake and migration effects of electroactive ion-exchange polymer metal composite (IPMC) actuator. <i>Sensors and Actuators A: Physical</i> , 2005 , 118, 98-106	3.9	70
233	Equivalent modeling for ionic polymer-metal composite actuators based on beam theories. <i>Smart Materials and Structures</i> , 2005 , 14, 1363-1368	3.4	69
232	A multiple-shape memory polymer-metal composite actuator capable of programmable control, creating complex 3D motion of bending, twisting, and oscillation. <i>Scientific Reports</i> , 2016 , 6, 24462	4.9	67
231	. <i>IEEE Journal of Oceanic Engineering</i> , 2014 , 39, 540-551	3.3	66
230	An artificial muscle actuator for biomimetic underwater propulsors. <i>Bioinspiration and Biomimetics</i> , 2007 , 2, S31-41	2.6	66
229	Electromechanically driven variable-focus lens based on transparent dielectric elastomer. <i>Applied Optics</i> , 2012 , 51, 2987-96	1.7	65
228	Artificial Muscles		65
227	An explicit physics-based model of ionic polymer-metal composite actuators. <i>Journal of Applied Physics</i> , 2011 , 110, 084904	2.5	60
226	Design of IPMC actuator-driven valve-less micropump and its flow rate estimation at low Reynolds numbers. <i>Smart Materials and Structures</i> , 2006 , 15, 1103-1109	3.4	59
225	Ionic polymer-metal composites as multifunctional materials. <i>Polymer Composites</i> , 2003 , 24, 24-33	3	59

224	A hydrogen-compression system using porous metal hydride pellets of LaNi ₅ -xAl _x . <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 870-877	6.7	55
223	Electric current as a control variable in the electrospinning process. <i>Polymer Engineering and Science</i> , 2006 , 46, 954-959	2.3	54
222	Metal hydrides in engineering systems, processes, and devices: A review of non-storage applications. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 2231-2247	6.7	53
221	Heat transfer measurement during dropwise condensation using micro/nano-scale porous surface. <i>International Journal of Heat and Mass Transfer</i> , 2013 , 65, 619-626	4.9	52
220	Disc-shaped ionic polymer metal composites for use in mechano-electrical applications. <i>Smart Materials and Structures</i> , 2010 , 19, 065016	3.4	51
219	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2012 , 17, 345-355	5.5	50
218	Morphological change of plain and nano-porous surfaces during boiling and its effect on nucleate pool boiling heat transfer. <i>Experimental Thermal and Fluid Science</i> , 2012 , 40, 150-158	3	50
217	Mechanical, dielectric, and magnetic properties of the silicone elastomer with multi-walled carbon nanotubes as a nanofiller. <i>Polymer Engineering and Science</i> , 2007 , 47, 1396-1405	2.3	50
216	Ionic electroactive polymer artificial muscles in space applications. <i>Scientific Reports</i> , 2014 , 4, 6913	4.9	48
215	Effect of multiwalled carbon nanotube (M-CNT) loading on M-CNT distribution behavior and the related electromechanical properties of the M-CNT dispersed ionomeric nanocomposites. <i>Surface and Coatings Technology</i> , 2005 , 200, 1920-1925	4.4	48
214	Mass Transfer Induced Hydraulic Actuation in Ionic Polymer-Metal Composites. <i>Journal of Intelligent Material Systems and Structures</i> , 2002 , 13, 369-376	2.3	48
213	Nanothorn electrodes for ionic polymer-metal composite artificial muscles. <i>Scientific Reports</i> , 2014 , 4, 6176	4.9	47
212	A self-oscillating ionic polymer-metal composite bending actuator. <i>Journal of Applied Physics</i> , 2008 , 103, 084908	2.5	46
211	Ionic Polymer-metal Composites for Underwater Operation. <i>Journal of Intelligent Material Systems and Structures</i> , 2007 , 18, 123-131	2.3	46
210	Palladium buffer-layered high performance ionic polymer-metal composites. <i>Smart Materials and Structures</i> , 2008 , 17, 035011	3.4	45
209	Ultrafiltration using graphene oxide surface-embedded polysulfone membranes. <i>Separation and Purification Technology</i> , 2016 , 166, 41-47	8.3	45
208	Solid-state soft actuator exhibiting large electromechanical effect. <i>Applied Physics Letters</i> , 2002 , 80, 3445-3447	3.4	42
207	Water droplet evaporation on Cu-based hydrophobic surfaces with nano- and micro-structures. <i>International Journal of Heat and Mass Transfer</i> , 2012 , 55, 2151-2159	4.9	41

206	Soft but Powerful Artificial Muscles Based on 3D Graphene-CNT-Ni Heteronanostructures. <i>Small</i> , 2017 , 13, 1701314	11	40
205	Effect of metal diffusion on mechanoelectric property of ionic polymer-metal composite. <i>Applied Physics Letters</i> , 2010 , 97, 244104	3.4	38
204	Development of LaNi ₅ /Cu/Sn metal hydride powder composites. <i>Powder Technology</i> , 1998 , 99, 40-45	5.2	38
203	Physical Principles of Ionic Polymer-Metal Composites as Electroactive Actuators and Sensors. <i>MRS Bulletin</i> , 2008 , 33, 190-195	3.2	38
202	An electrode model for ionic polymer-metal composites. <i>Smart Materials and Structures</i> , 2007 , 16, 2286-2295	3.4	38
201	The interfacial turbulence in falling film absorption: effects of additives. <i>International Journal of Refrigeration</i> , 1996 , 19, 322-330	3.8	38
200	A dropwise condensation model using a nano-scale, pin structured surface. <i>International Journal of Heat and Mass Transfer</i> , 2013 , 60, 664-671	4.9	37
199	Cathodic electrophoretic deposition (EPD) of phenylenediamine-modified graphene oxide (GO) for anti-corrosion protection of metal surfaces. <i>Carbon</i> , 2019 , 142, 68-77	10.4	37
198	Transparent actuator made with few layer graphene electrode and dielectric elastomer, for variable focus lens. <i>Applied Physics Letters</i> , 2013 , 103, 023106	3.4	36
197	A bio-inspired multi degree of freedom actuator based on a novel cylindrical ionic polymer-metal composite material. <i>Robotics and Autonomous Systems</i> , 2014 , 62, 53-60	3.5	35
196	Low temperature characteristics of ionic polymer-metal composite actuators. <i>Sensors and Actuators A: Physical</i> , 2005 , 118, 135-143	3.9	35
195	Polyacrylonitrile linear actuators: Chemomechanical and electro-chemomechanical properties. <i>Sensors and Actuators A: Physical</i> , 2006 , 126, 165-172	3.9	34
194	A Twistable Ionic Polymer-Metal Composite Artificial Muscle for Marine Applications. <i>Marine Technology Society Journal</i> , 2011 , 45, 83-98	0.5	34
193	Dropwise steam condensation on various hydrophobic surfaces: Polyphenylene sulfide (PPS), polytetrafluoroethylene (PTFE), and self-assembled micro/nano silver (SAMS). <i>International Journal of Heat and Mass Transfer</i> , 2015 , 89, 353-358	4.9	32
192	Effect of liquid uptake on critical heat flux utilizing a three dimensional, interconnected alumina nano porous surfaces. <i>Applied Physics Letters</i> , 2012 , 101, 054104	3.4	32
191	Hydrogen compression characteristics of a dual stage thermal compressor system utilizing LaNi ₅ and Ca _{0.6} Mm _{0.4} Ni ₅ as the working metal hydrides. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 5693-5702	6.7	32
190	Collectively Exhaustive Electrodes Based on Covalent Organic Framework and Antagonistic Co-Doping for Electroactive Ionic Artificial Muscles. <i>Advanced Functional Materials</i> , 2019 , 29, 1900161	15.6	32
189	UV-curing kinetics and performance development of in situ curable 3D printing materials. <i>European Polymer Journal</i> , 2017 , 93, 140-147	5.2	31

188	Novel electroactive, silicate nanocomposites prepared to be used as actuators and artificial muscles. <i>Sensors and Actuators A: Physical</i> , 2003 , 105, 83-90	3.9	31
187	Mechanical and thermal behavior of ionic polymer-metal composites: effects of electroded metals. <i>Smart Materials and Structures</i> , 2007 , 16, 1090-1097	3.4	30
186	Mitigating IPMC back relaxation through feedforward and feedback control of patterned electrodes. <i>Smart Materials and Structures</i> , 2012 , 21, 085002	3.4	29
185	Simulation study on the reaction process based single stage metal hydride thermal compressor. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 321-328	6.7	29
184	Transparent flexible conductor of poly(methyl methacrylate) containing highly-dispersed multiwalled carbon nanotube. <i>Organic Electronics</i> , 2008 , 9, 1-13	3.5	29
183	Performance Characteristics of Electrochemically Driven Polyacrylonitrile Fiber Bundle Actuators. <i>Journal of Intelligent Material Systems and Structures</i> , 2006 , 17, 563-576	2.3	29
182	Electrically controllable twisted-coiled artificial muscle actuators using surface-modified polyester fibers. <i>Smart Materials and Structures</i> , 2017 , 26, 035048	3.4	28
181	Electrostrictive polymer nanocomposites exhibiting tunable electrical properties. <i>Smart Materials and Structures</i> , 2005 , 14, 87-90	3.4	28
180	Mechanical properties and cytotoxicity of PLA/PCL films. <i>Biomedical Engineering Letters</i> , 2018 , 8, 267-273	3.6	27
179	Visualization of the cation migration in ionic polymer-metal composite under an electric field. <i>Applied Physics Letters</i> , 2010 , 96, 043301	3.4	27
178	Thermal Conductivity Measurements of Metal Hydride Compacts Developed for High-Power Reactors. <i>Journal of Thermophysics and Heat Transfer</i> , 1998 , 12, 132-137	1.3	27
177	Experimental Investigation on Electrochemical Properties of Ionic Polymer-Metal Composite. <i>Journal of Intelligent Material Systems and Structures</i> , 2006 , 17, 449-454	2.3	26
176	Electroionic Antagonistic Muscles Based on Nitrogen-Doped Carbons Derived from Poly(Triazine-Triptycene). <i>Advanced Science</i> , 2017 , 4, 1700410	13.6	25
175	Surface wettability effect on nucleate pool boiling heat transfer with titanium oxide (TiO ₂) coated heating surface. <i>International Journal of Heat and Mass Transfer</i> , 2019 , 133, 352-358	4.9	25
174	A biomimetic underwater vehicle actuated by waves with ionic polymer-metal composite soft sensors. <i>Bioinspiration and Biomimetics</i> , 2015 , 10, 055007	2.6	24
173	Electro-chemical operation of ionic polymer-metal composites. <i>Sensors and Actuators B: Chemical</i> , 2011 , 155, 106-113	8.5	24
172	Cellophane as a biodegradable electroactive polymer actuator. <i>Sensors and Actuators A: Physical</i> , 2004 , 112, 107-115	3.9	24
171	3D-Printing and Machine Learning Control of Soft Ionic Polymer-Metal Composite Actuators. <i>Scientific Reports</i> , 2019 , 9, 17482	4.9	24

170	Theoretical consideration of contact angle hysteresis using surface-energy-minimization methods. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 102, 154-161	4.9	23
169	High-performance polyvinyl chloride gel artificial muscle actuator with graphene oxide and plasticizer. <i>Scientific Reports</i> , 2019 , 9, 9658	4.9	23
168	Nucleate pool boiling heat transfer augmentation on hydrophobic self-assembly mono-layered alumina nano-porous surfaces. <i>International Journal of Heat and Mass Transfer</i> , 2014 , 73, 551-561	4.9	23
167	A cylindrical ionic polymer-metal composite-based robotic catheter platform: modeling, design and control. <i>Smart Materials and Structures</i> , 2015 , 24, 015007	3.4	23
166	Augmented boiling heat transfer on the wetting-modified three dimensionally-interconnected alumina nano porous surfaces in aqueous polymeric surfactants. <i>International Journal of Heat and Mass Transfer</i> , 2013 , 63, 224-232	4.9	23
165	Amine-functionalized polyglycidyl methacrylate microsphere as a unified template for the synthesis of gold nanoparticles and single-crystal gold plates. <i>Macromolecular Rapid Communications</i> , 2013 , 34, 504-10	4.8	23
164	Thermal conductivity measurements of copper-coated metal hydrides (LaNi ₅ , Ca _{0.6} Mm _{0.4} Ni ₅ , and LaNi _{4.75} Al _{0.25}) for use in metal hydride hydrogen compression systems. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 3185-3190	6.7	23
163	Synthesis, characterization, and kinetic study of activated carbon modified by polysulfide rubber coating for aqueous hexavalent chromium removal. <i>Journal of Industrial and Engineering Chemistry</i> , 2019 , 69, 196-210	6.3	23
162	An ionic electro-active actuator made with graphene film electrode, chitosan and ionic liquid. <i>Smart Materials and Structures</i> , 2015 , 24, 065026	3.4	22
161	Electrospun nanoscale polyacrylonitrile artificial muscle. <i>Smart Materials and Structures</i> , 2006 , 15, N152-N156	3.4	22
160	The behavior of ionic polymer-metal composites in a multi-layer configuration. <i>Smart Materials and Structures</i> , 2005 , 14, 881-888	3.4	22
159	Blood pressure, pulse rate, and rhythm measurement using ionic polymer-metal composite sensors 1999 ,		22
158	Electrode of ionic polymer-metal composite sensors: Modeling and experimental investigation. <i>Journal of Applied Physics</i> , 2014 , 115, 194902	2.5	21
157	2017 ,		21
156	A comprehensive physics-based model encompassing variable surface resistance and underlying physics of ionic polymer-metal composite actuators. <i>Journal of Applied Physics</i> , 2015 , 118, 124904	2.5	21
155	Experimental study of a metal hydride driven braided artificial pneumatic muscle. <i>Smart Materials and Structures</i> , 2009 , 18, 125014	3.4	21
154	Modeling and experiment of a muscle-like linear actuator using an ionic polymer-metal composite and its actuation characteristics. <i>Smart Materials and Structures</i> , 2007 , 16, 583-588	3.4	21
153	Searching for a new ionomer for 3D printable ionic polymer-metal composites: Aquivion as a candidate. <i>Smart Materials and Structures</i> , 2017 , 26, 115029	3.4	20

152	Multi-fields responsive ionic polymer-metal composite. <i>Sensors and Actuators A: Physical</i> , 2007 , 135, 220-228	3.9	20
151	Self-standing and shape-memorable UV-curing epoxy polymers for three-dimensional (3D) continuous-filament printing. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 2996-3003	7.1	19
150	Improving electromechanical output of IPMC by high surface area Pd-Pt electrodes and tailored ionomer membrane thickness. <i>International Journal of Smart and Nano Materials</i> , 2014 , 5, 99-113	3.6	19
149	Smart hydrogen/metal hydride actuator. <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 247-255	6.7	19
148	The effective use of heat transfer additives for steam condensation. <i>Applied Thermal Engineering</i> , 2001 , 21, 1863-1874	5.8	19
147	Control of pool boiling heat transfer through photo-induced wettability change of titania nanotube arrayed surface. <i>International Communications in Heat and Mass Transfer</i> , 2017 , 81, 124-130	5.8	18
146	Influence of heated surfaces and fluids on pool boiling heat transfer. <i>Experimental Thermal and Fluid Science</i> , 2014 , 59, 15-23	3	18
145	Solubility of Hydrogen in Octane, 1-Octanol, and Squalane. <i>Journal of Chemical & Engineering Data</i> , 1997 , 42, 214-215	2.8	18
144	Modeling of an IPMC Actuator-driven Zero-Net-Mass-Flux Pump for Flow Control. <i>Journal of Intelligent Material Systems and Structures</i> , 2006 , 17, 533-541	2.3	18
143	Self-oscillating electroactive polymer actuator. <i>Applied Physics Letters</i> , 2007 , 90, 184104	3.4	18
142	Use of ionic polymer-metal composites (IPMCs) as a pressure transducer in the human spine 1999 ,		18
141	Surface tension of aqueous lithium bromide + 2-ethyl-1-hexanol. <i>Journal of Chemical & Engineering Data</i> , 1994 , 39, 122-124	2.8	18
140	Scissor mechanisms enabled compliant modular earthworm-like robot: Segmental muscle-mimetic design, prototyping and locomotion performance validation 2016 ,		18
139	Biologically inspired tunable hydrophilic/hydrophobic surfaces: a copper oxide self-assembly multistep approach. <i>Bioinspiration and Biomimetics</i> , 2012 , 7, 036011	2.6	17
138	Promising Developments in Marine Applications With Artificial Muscles: Electrodeless Artificial Cilia Microfibers. <i>Marine Technology Society Journal</i> , 2016 , 50, 24-34	0.5	17
137	Electroactive Artificial Muscles Based on Functionally Antagonistic Core-Shell Polymer Electrolyte Derived from PS-PSS Block Copolymer. <i>Advanced Science</i> , 2019 , 6, 1801196	13.6	17
136	Experimentally tuned dual stage hydrogen compressor for improved compression ratio. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 12924-12933	6.7	16
135	A new ionic polymer-metal composite based on Nafion/poly(vinyl alcohol-co-ethylene) blends. <i>Smart Materials and Structures</i> , 2015 , 24, 105011	3.4	15

134	Physics-based modeling of mechano-electric transduction of tube-shaped ionic polymer-metal composite. <i>Journal of Applied Physics</i> , 2015 , 117, 114903	2.5	15
133	Formulation and Numerical Solution of Non-Local Thermal Equilibrium Equations for Multiple Gas/Solid Porous Metal Hydride Reactors. <i>Journal of Heat Transfer</i> , 2001 , 123, 520-526	1.8	15
132	Investigation of coupled AB5 type high-power metal hydride reactors. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 5770-5777	6.7	14
131	Mechanoelectric transduction of ionic polymer-graphene composite sensor with ionic liquid as electrolyte. <i>Sensors and Actuators A: Physical</i> , 2019 , 286, 68-77	3.9	14
130	A fabrication method of unique Nafion [®] shapes by painting for ionic polymer-metal composites. <i>Smart Materials and Structures</i> , 2016 , 25, 085006	3.4	13
129	A novel ionic polymer metal ZnO composite (IPMZO). <i>Sensors</i> , 2011 , 11, 4674-87	3.8	13
128	Absorption of water vapor into LiBr solutions with 2-ethyl-1-hexanol. <i>AIChE Journal</i> , 1996 , 42, 884-888	3.6	13
127	A study on effective use of heat transfer additives in the process of steam condensation. <i>International Journal of Refrigeration</i> , 2006 , 29, 724-734	3.8	12
126	A robotic multiple-shape-memory ionic polymer-metal composite (IPMC) actuator: modeling approach. <i>Smart Materials and Structures</i> , 2019 , 28, 015009	3.4	12
125	Internal dropwise condensation: Modeling and experimental framework for horizontal tube condensers. <i>International Journal of Heat and Mass Transfer</i> , 2015 , 83, 99-108	4.9	11
124	Crystal Structures of a Hyperthermophilic Archaeal Homoserine Dehydrogenase Suggest a Novel Cofactor Binding Mode for Oxidoreductases. <i>Scientific Reports</i> , 2015 , 5, 11674	4.9	11
123	Modeling Ionic Polymer-Metal Composites with Space-Time Adaptive Multimesh hp-FEM. <i>Communications in Computational Physics</i> , 2012 , 11, 249-270	2.4	11
122	Ionic polymer-metal composite actuators exhibiting self-oscillation. <i>Sensors and Actuators A: Physical</i> , 2007 , 137, 129-133	3.9	11
121	A new high-performance ionic polymer-metal composite based on Nafion/polyimide blends. <i>Smart Materials and Structures</i> , 2017 , 26, 035015	3.4	10
120	Nonlinear and complex cure kinetics of ultra-thin glass fiber epoxy prepreg with highly-loaded silica bead under isothermal and dynamic-heating conditions. <i>Thermochimica Acta</i> , 2016 , 644, 28-32	2.9	10
119	Electromechanical performance and other characteristics of IPMCs fabricated with various commercially available ion exchange membranes. <i>Smart Materials and Structures</i> , 2014 , 23, 074001	3.4	10
118	Mechanoelectric transduction in ionic polymer-metal composite. <i>Applied Physics Letters</i> , 2013 , 102, 123903	3.4	10
117	Fluid interaction of segmented ionic polymer-metal composites under water. <i>Smart Materials and Structures</i> , 2007 , 16, S220-S226	3.4	10

116	Sulfur- and Nitrogen-Rich Porous Conjugated COFs as Stable Electrode Materials for Electro-Ionic Soft Actuators. <i>Advanced Functional Materials</i> , 2020 , 30, 2003863	15.6	10
115	Slender tube-shaped and square rod-shaped IPMC actuators with integrated sensing for soft mechatronics. <i>Meccanica</i> , 2015 , 50, 2781-2795	2.1	9
114	Basic design of a biomimetic underwater soft robot with switchable swimming modes and programmable artificial muscles. <i>Smart Materials and Structures</i> , 2020 , 29, 035038	3.4	9
113	Bioinspired travelling wave generation in soft-robotics using ionic polymer-metal composites. <i>International Journal of Intelligent Robotics and Applications</i> , 2017 , 1, 167-179	1.7	9
112	Self-sensing of dielectric elastomer actuator 2008 ,		9
111	The mechanical properties of ionic polymer-metal composites 2007 ,		9
110	Experimental Study of Ionic Polymer-Metal Composites in Various Cation Forms: Actuation Behavior. <i>Science and Engineering of Composite Materials</i> , 2002 , 10, 423-436	1.5	9
109	Dynamic Modeling of Segmented Ionic Polymer Metal Composite (IPMC) Actuator 2006 ,		8
108	Electrically Controllable Biomimetic Actuators Made with Multiwalled Carbon Nanotube(MWNT) Loaded Ionomeric Nanocomposites. <i>Key Engineering Materials</i> , 2005 , 284-286, 733-736	0.4	8
107	Developing next generation ionic polymer-metal composite materials: perspectives for enabling robotics and biomimetics. <i>Polymer International</i> , 2021 , 70, 7-9	3.3	8
106	Design and Modeling of a New Biomimetic Soft Robotic Jellyfish Using IPMC-Based Electroactive Polymers. <i>Frontiers in Robotics and AI</i> , 2019 , 6, 112	2.8	7
105	Enabling earthworm-like soft robot development using bioinspired IPMC-scissor lift actuation structures: Design, locomotion simulation and experimental validation 2015 ,		7
104	A Rod-Shaped Ionic Polymer-Metal Composite for Use as an Active Catheter-Platform 2010 ,		7
103	A bio-inspired multi degree of freedom actuator based on a novel cylindrical ionic polymer-metal composite material 2011 ,		7
102	Sectored-electrode IPMC actuator for bending and twisting motion 2010 ,		7
101	Sprayed Sensor Using IPMC PAINT. <i>Advances in Science and Technology</i> , 2008 , 61, 59-64	0.1	7
100	Operation of ionic polymer-metal composites in water 2005 ,		7
99	Design, development, and testing of a multifingered heart compression/assist device equipped with IPMC artificial muscles 2001 , 4329, 411		7

98	Preparation of IPMCs for use in fuel cells, electrolysis, and hydrogen sensors 2000 ,		7
97	Biomimetic Robotic Artificial Muscles 2013 ,		7
96	Characteristics of ionic polymer-metal composite with chemically doped TiO ₂ particles. <i>Smart Materials and Structures</i> , 2011 , 20, 124004	3.4	6
95	Absorption of Hydrogen in LaNi _{4.75} Al _{0.25} /n-Octane Slurries. <i>Industrial & Engineering Chemistry Research</i> , 1997 , 36, 3920-3926	3.9	6
94	Non-absorbable gas effects on heat and mass transfer in wavy laminar falling film absorptin. <i>Solar Energy</i> , 1997 , 60, 301-311	6.8	6
93	Ionic polymer metal composites as energy harvesters 2007 ,		6
92	Effective diffusivity of nanoscale ion-water clusters within ion-exchange membranes determined by a novel mechano-electrical technique. <i>International Journal of Hydrogen Energy</i> , 2003 , 28, 99-104	6.7	6
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