

# Jung-Hwan Oh

## List of Publications by Citations

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203  
papers

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8,608  
ext. citations

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6.45  
L-index

#	Paper	IF	Citations
203	Graphene oxide-polyethylenimine nanoconstruct as a gene delivery vector and bioimaging tool. <i>Bioconjugate Chemistry</i> , <b>2011</b> , 22, 2558-67	6.3	325
202	Recent advances in ionic polymer-metal composite actuators and their modeling and applications. <i>Progress in Polymer Science</i> , <b>2013</b> , 38, 1037-1066	29.6	270
201	A biomimetic jellyfish robot based on ionic polymer metal composite actuators. <i>Smart Materials and Structures</i> , <b>2009</b> , 18, 085002	3.4	201
200	Seamlessly Conductive 3D Nanoarchitecture of Core-Shell Ni-Co Nanowire Network for Highly Efficient Oxygen Evolution. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1601492	21.8	184
199	Graphene-nanotube-iron hierarchical nanostructure as lithium ion battery anode. <i>ACS Nano</i> , <b>2013</b> , 7, 4242-51	16.7	173
198	Durable and water-floatable ionic polymer actuator with hydrophobic and asymmetrically laser-scribed reduced graphene oxide paper electrodes. <i>ACS Nano</i> , <b>2014</b> , 8, 2986-97	16.7	168
197	Electro-active graphene-Nafion actuators. <i>Carbon</i> , <b>2011</b> , 49, 1279-1289	10.4	162
196	Multilayered graphene-carbon nanotube-iron oxide three-dimensional heterostructure for flexible electromagnetic interference shielding film. <i>Carbon</i> , <b>2017</b> , 111, 248-257	10.4	157
195	Bacterial Nano-Cellulose Triboelectric Nanogenerator. <i>Nano Energy</i> , <b>2017</b> , 33, 130-137	17.1	142
194	Graphene-wrapped and cobalt oxide-intercalated hybrid for extremely durable super-capacitor with ultrahigh energy and power densities. <i>Carbon</i> , <b>2014</b> , 79, 192-202	10.4	140
193	Sulfur and Nitrogen Co-Doped Graphene Electrodes for High-Performance Ionic Artificial Muscles. <i>Advanced Materials</i> , <b>2016</b> , 28, 1610-5	24	139
192	Silk Nanofiber-Networked Bio-Triboelectric Generator: Silk Bio-TEG. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1502329	21.8	138
191	Defect-engineered three-dimensional graphene-nanotube-palladium nanostructures with ultrahigh capacitance. <i>ACS Nano</i> , <b>2012</b> , 6, 10562-70	16.7	124
190	Microwave-Assisted Synthesis of Boron and Nitrogen co-doped Reduced Graphene Oxide for the Protection of Electromagnetic Radiation in Ku-Band. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 19831-42	9.5	121
189	POSTBUCKLING AND VIBRATION CHARACTERISTICS OF PIEZOLAMINATED COMPOSITE PLATE SUBJECT TO THERMO-PIEZOELECTRIC LOADS. <i>Journal of Sound and Vibration</i> , <b>2000</b> , 233, 19-40	3.9	118
188	A Biomimetic Actuator Based on an Ionic Networking Membrane of Poly(styrene-alt-maleimide)-Incorporated Poly(vinylidene fluoride). <i>Advanced Functional Materials</i> , <b>2008</b> , 18, 1290-1298	15.6	114
187	Piezoelectric thin films: an integrated review of transducers and energy harvesting. <i>Smart Materials and Structures</i> , <b>2016</b> , 25, 053002	3.4	112

186	Nanohole-Structured and Palladium-Embedded 3D Porous Graphene for Ultrahigh Hydrogen Storage and CO Oxidation Multifunctionalities. <i>ACS Nano</i> , <b>2015</b> , 9, 7343-51	16.7	99
185	MXene artificial muscles based on ionically cross-linked TiCT electrode for kinetic soft robotics. <i>Science Robotics</i> , <b>2019</b> , 4,	18.6	93
184	Dry-Type Artificial Muscles Based on Pendent Sulfonated Chitosan and Functionalized Graphene Oxide for Greatly Enhanced Ionic Interactions and Mechanical Stiffness. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 6007-6018	15.6	87
183	Synthesis of graphene nano-sheets using eco-friendly chemicals and microwave radiation. <i>Carbon</i> , <b>2010</b> , 48, 2953-2957	10.4	87
182	High-Fidelity Bioelectronic Muscular Actuator Based on Graphene-Mediated and TEMPO-Oxidized Bacterial Cellulose. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 3560-3570	15.6	85
181	Wetting-transparent graphene films for hydrophobic water-harvesting surfaces. <i>Advanced Materials</i> , <b>2014</b> , 26, 5166-72	24	81
180	Novel biomimetic actuator based on SPEEK and PVDF. <i>Sensors and Actuators B: Chemical</i> , <b>2009</b> , 143, 357-364	8.6	80
179	Microwave self-assembly of 3D graphene-carbon nanotube-nickel nanostructure for high capacity anode material in lithium ion battery. <i>Carbon</i> , <b>2013</b> , 64, 527-536	10.4	79
178	Fullerenol-based electroactive artificial muscles utilizing biocompatible polyetherimide. <i>ACS Nano</i> , <b>2011</b> , 5, 2248-56	16.7	75
177	Microwave bottom-up route for size-tunable and switchable photoluminescent graphene quantum dots using acetylacetone: New platform for enzyme-free detection of hydrogen peroxide. <i>Carbon</i> , <b>2015</b> , 81, 514-524	10.4	74
176	Electro-active nano-composite actuator based on fullerene-reinforced Nafion. <i>Composites Science and Technology</i> , <b>2010</b> , 70, 584-592	8.6	73
175	Bendable and flexible supercapacitor based on polypyrrole-coated bacterial cellulose core-shell composite network. <i>Composites Science and Technology</i> , <b>2016</b> , 128, 33-40	8.6	71
174	Synthesis and electrochemical performance characterization of Ce-doped $\text{Li}_3\text{V}_2(\text{PO}_4)_3/\text{C}$ as cathode materials for lithium-ion batteries. <i>Journal of Power Sources</i> , <b>2013</b> , 243, 33-39	8.9	71
173	Bacterial cellulose actuator with electrically driven bending deformation in hydrated condition. <i>Sensors and Actuators B: Chemical</i> , <b>2010</b> , 146, 307-313	8.5	69
172	Fabrication and actuation of ionic polymer metal composites patterned by combining electroplating with electroless plating. <i>Composites Part A: Applied Science and Manufacturing</i> , <b>2008</b> , 39, 588-596	8.4	69
171	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> , <b>2016</b> , 6, 24462	4.9	67
170	Biomimetic electro-active polymer based on sulfonated poly(styrene-b-ethylene-co-butylene-b-styrene). <i>Materials Letters</i> , <b>2007</b> , 61, 5117-5120	3.3	66
169	3D networked graphene-ferromagnetic hybrids for fast shape memory polymers with enhanced mechanical stiffness and thermal conductivity. <i>Small</i> , <b>2014</b> , 10, 3880-6	11	65

168	Arsenic removal from contaminated water using three-dimensional graphene-carbon nanotube-iron oxide nanostructures. <i>Environmental Science &amp; Technology</i> , <b>2013</b> , 47, 10510-7	10.3	65
167	Bio-Inspired All-Organic Soft Actuator Based on a Stacked 3D Ionic Network Membrane and Ultra-Fast Solution Processing. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 6005-6015	15.6	63
166	Microwave-Accelerated Rapid, Chemical Oxidant-Free, Material-Independent Surface Chemistry of Poly(dopamine). <i>Small</i> , <b>2017</b> , 13, 1600443	11	62
165	Electric-stimuli-responsive bending actuator based on sulfonated polyetherimide. <i>Sensors and Actuators B: Chemical</i> , <b>2010</b> , 151, 198-204	8.5	59
164	Self-assembly and morphological control of three-dimensional macroporous architectures built of two-dimensional materials. <i>Nano Today</i> , <b>2017</b> , 14, 100-123	17.9	56
163	Thermopiezoelastic Snapping of Piezolaminated Plates Using Layerwise Nonlinear Finite Elements. <i>AIAA Journal</i> , <b>2001</b> , 39, 1188-1197	2.1	56
162	Stimuli-Responsive MXene-Based Actuators. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1909504	15.6	55
161	Sulfur and nitrogen co-doped holey graphene aerogel for structurally resilient solid-state supercapacitors under high compressions. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 17253-17266	13	55
160	Microwave syntheses of graphene and graphene decorated with metal nanoparticles. <i>Carbon</i> , <b>2011</b> , 49, 4449-4457	10.4	54
159	Thermal post-buckling analysis of shape memory alloy hybrid composite shell panels. <i>Smart Materials and Structures</i> , <b>2004</b> , 13, 1337-1344	3.4	52
158	A soft biomolecule actuator based on a highly functionalized bacterial cellulose nano-fiber network with carboxylic acid groups. <i>Soft Matter</i> , <b>2016</b> , 12, 246-54	3.6	50
157	Directionally Antagonistic Graphene Oxide-Polyurethane Hybrid Aerogel as a Sound Absorber. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 22650-22660	9.5	48
156	Aeroelastic characteristics of cylindrical hybrid composite panels with viscoelastic damping treatments. <i>Journal of Sound and Vibration</i> , <b>2006</b> , 296, 99-116	3.9	48
155	Thermal snapping and vibration characteristics of cylindrical composite panels using layerwise theory. <i>Composite Structures</i> , <b>2001</b> , 51, 49-61	5.3	48
154	Active Disturbance Rejection Control for Precise Position Tracking of Ionic Polymer/Metal Composite Actuators. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2013</b> , 18, 86-95	5.5	47
153	Pressure-dependent synthesis of high-quality few-layer graphene by plasma-enhanced arc discharge and their thermal stability. <i>Journal of Nanoparticle Research</i> , <b>2013</b> , 15, 1	2.3	45
152	Electrospun fullerenol-cellulose biocompatible actuators. <i>Biomacromolecules</i> , <b>2011</b> , 12, 2048-54	6.9	45
151	Electro-active hybrid actuators based on freeze-dried bacterial cellulose and PEDOT:PSS. <i>Smart Materials and Structures</i> , <b>2013</b> , 22, 085026	3.4	44

150	Skin-attachable and biofriendly chitosan-diatom triboelectric nanogenerator. <i>Nano Energy</i> , <b>2020</b> , 75, 104904	17.1	41
149	A composite layer of atomic-layer-deposited Al <sub>2</sub> O <sub>3</sub> and graphene for flexible moisture barrier. <i>Carbon</i> , <b>2017</b> , 116, 553-561	10.4	40
148	Electroactive bio-composite actuators based on cellulose acetate nanofibers with specially chopped polyaniline nanoparticles through electrospinning. <i>Composites Science and Technology</i> , <b>2013</b> , 87, 135-141	8.6	40
147	Soft but Powerful Artificial Muscles Based on 3D Graphene-CNT-Ni Heteronanostructures. <i>Small</i> , <b>2017</b> , 13, 1701314	11	40
146	An ionic liquid-assisted method for splitting carbon nanotubes to produce graphene nano-ribbons by microwave radiation. <i>Carbon</i> , <b>2013</b> , 53, 391-398	10.4	40
145	Enhanced electromechanical performance of carbon nano-fiber reinforced sulfonated poly(styrene-b-[ethylene/butylene]-b-styrene) actuator. <i>Composites Science and Technology</i> , <b>2009</b> , 69, 2098-2101	8.6	39
144	A coagulation technique for purification of graphene sheets with graphene-reinforced PVA hydrogel as byproduct. <i>Journal of Colloid and Interface Science</i> , <b>2010</b> , 348, 384-7	9.3	39
143	Supersonic Flutter Analysis of Stiffened Laminated Plates Subject to Thermal Load. <i>Journal of Sound and Vibration</i> , <b>1999</b> , 224, 49-67	3.9	39
142	Functionally Antagonistic Hybrid Electrode with Hollow Tubular Graphene Mesh and Nitrogen-Doped Crumpled Graphene for High-Performance Ionic Soft Actuators. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1705714	15.6	39
141	A Pair of NiCo <sub>2</sub> O <sub>4</sub> and V <sub>2</sub> O <sub>5</sub> Nanowires Directly Grown on Carbon Fabric for Highly Bendable Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1900477	21.8	38
140	A current-flowing electromagnetic shunt damper for multi-mode vibration control of cantilever beams. <i>Smart Materials and Structures</i> , <b>2009</b> , 18, 095036	3.4	35
139	Electroactive artificial muscle based on crosslinked PVA/SPTES. <i>Sensors and Actuators B: Chemical</i> , <b>2010</b> , 150, 57-64	8.5	35
138	Electro-active polymer actuators employing sulfonated poly(styrene-ran-ethylene) as ionic membranes. <i>Polymer International</i> , <b>2010</b> , 59, 305-312	3.3	34
137	Stretchable and self-healable catechol-chitosan-diatom hydrogel for triboelectric generator and self-powered tremor sensor targeting at Parkinson disease. <i>Nano Energy</i> , <b>2021</b> , 82, 105705	17.1	34
136	Treefrog Toe Pad-Inspired Micropatterning for High-Power Triboelectric Nanogenerator. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1901638	15.6	33
135	Selective growth of platinum electrodes for MDOF IPMC actuators. <i>Thin Solid Films</i> , <b>2009</b> , 517, 5288-5292.2		33
134	Dynamic characteristics of cylindrical hybrid panels containing viscoelastic layer based on layerwise mechanics. <i>Composites Part B: Engineering</i> , <b>2007</b> , 38, 159-171	10	33
133	Defect-engineered mesoporous ternary nanoarchitecture of zinc-cobalt-oxide/nitrogen-doped graphene as anode material in lithium ion batteries. <i>Carbon</i> , <b>2015</b> , 94, 455-463	10.4	32

132	Auxetic graphene oxide-porous foam for acoustic wave and shock energy dissipation. <i>Composites Part B: Engineering</i> , <b>2020</b> , 186, 107817	10	32
131	Highly Bendable Ionic Soft Actuator Based on Nitrogen-Enriched 3D Hetero-Nanostructure Electrode. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1802464	15.6	32
130	Vibration Suppression of Flexible Beam Using Electromagnetic Shunt Damper. <i>IEEE Transactions on Magnetics</i> , <b>2009</b> , 45, 2758-2761	2	32
129	Collectively Exhaustive Electrodes Based on Covalent Organic Framework and Antagonistic Co-Doping for Electroactive Ionic Artificial Muscles. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1900161	15.6	32
128	Ferrocene-Incorporated Cobalt Sulfide Nanoarchitecture for Superior Oxygen Evolution Reaction. <i>Small</i> , <b>2020</b> , 16, e2001665	11	30
127	Far-infrared reduced graphene oxide as high performance electrodes for supercapacitors. <i>Carbon</i> , <b>2014</b> , 75, 201-208	10.4	30
126	Adaptive neuro-fuzzy control of ionic polymer metal composite actuators. <i>Smart Materials and Structures</i> , <b>2009</b> , 18, 065016	3.4	30
125	Microwave extraction of graphene from carbon fibers. <i>Carbon</i> , <b>2011</b> , 49, 222-226	10.4	30
124	Fabrication and actuation of electro-active polymer actuator based on PSMI-incorporated PVDF. <i>Smart Materials and Structures</i> , <b>2008</b> , 17, 045002	3.4	30
123	Supersonic flutter suppression of piezolaminated cylindrical panels based on multifield layerwise theory. <i>Journal of Sound and Vibration</i> , <b>2006</b> , 291, 1186-1201	3.9	30
122	An Electroactive and Transparent Haptic Interface Utilizing Soft Elastomer Actuators with Silver Nanowire Electrodes. <i>Small</i> , <b>2018</b> , 14, e1801603	11	29
121	Electro-active artificial muscle based on irradiation-crosslinked sulfonated poly(styrene-ran-ethylene). <i>Sensors and Actuators B: Chemical</i> , <b>2010</b> , 145, 635-642	8.5	29
120	A helical ionic polymer/metal composite actuator for radius control of biomedical active stents. <i>Smart Materials and Structures</i> , <b>2011</b> , 20, 035008	3.4	28
119	Nonlinear flutter of aerothermally buckled composite shells with damping treatments. <i>Journal of Sound and Vibration</i> , <b>2009</b> , 324, 556-569	3.9	27
118	Electroionic Antagonistic Muscles Based on Nitrogen-Doped Carbons Derived from Poly(Triazine-Triptycene). <i>Advanced Science</i> , <b>2017</b> , 4, 1700410	13.6	25
117	Defect engineering route to boron nitride quantum dots and edge-hydroxylated functionalization for bio-imaging. <i>RSC Advances</i> , <b>2016</b> , 6, 73939-73946	3.7	25
116	Determination of the stoichiometry and critical oxygen tension in the production culture of bacterial cellulose using saccharified food wastes. <i>Korean Journal of Chemical Engineering</i> , <b>2011</b> , 28, 2306-2311 <sup>25</sup>	2.8	25
115	Snap-through dynamics of buckled IPMC actuator. <i>Sensors and Actuators A: Physical</i> , <b>2010</b> , 158, 300-305	3.9	24

114	Novel Nanocomposite Actuator Based on Sulfonated Poly(styrene-b-ethylene-co-butylene-b-styrene) Polymer. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2007</b> , 7, 3740-3743	1.3	24
113	Nanohole-structured, iron oxide-decorated and gelatin-functionalized graphene for high rate and high capacity Li-Ion anode. <i>Carbon</i> , <b>2017</b> , 119, 355-364	10.4	23
112	Graphene-coated meshes for electroactive flow control devices utilizing two antagonistic functions of repellency and permeability. <i>Nature Communications</i> , <b>2016</b> , 7, 13345	17.4	23
111	Electro-chemo-mechanical characteristics of fullerene-reinforced ionic polymer-metal composite transducers. <i>Smart Materials and Structures</i> , <b>2010</b> , 19, 075009	3.4	23
110	Sonochemical self-growth of functionalized titanium carbide nanorods on Ti3C2 nanosheets for high capacity anode for lithium-ion batteries. <i>Composites Part B: Engineering</i> , <b>2020</b> , 181, 107583	10	23
109	Rose-like MoS2 nanostructures with a large interlayer spacing of ~9.9 Å and exfoliated WS2 nanosheets supported on carbon nanotubes for hydrogen evolution reaction. <i>Carbon</i> , <b>2020</b> , 158, 216-225	10.4	23
108	CTF-based soft touch actuator for playing electronic piano. <i>Nature Communications</i> , <b>2020</b> , 11, 5358	17.4	23
107	CNT branching of three-dimensional steam-activated graphene hybrid frameworks for excellent rate and cyclic capabilities to store lithium ions. <i>Carbon</i> , <b>2017</b> , 116, 500-509	10.4	22
106	Design of a Fuel-Cell-Powered Catamaran-Type Unmanned Surface Vehicle. <i>IEEE Journal of Oceanic Engineering</i> , <b>2015</b> , 40, 388-396	3.3	22
105	Highly conducting multilayer films from graphene nanosheets by a spin self-assembly method. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 5378		22
104	AEROTHERMOELASTIC PHENOMENA OF AEROSPACE AND COMPOSITE STRUCTURES. <i>Journal of Thermal Stresses</i> , <b>2003</b> , 26, 525-546	2.2	22
103	Nest-inspired nanosponge-Cu woven mesh hybrid for ultrastable and high-power triboelectric nanogenerator. <i>Nano Energy</i> , <b>2020</b> , 71, 104561	17.1	21
102	Load-bearing supercapacitor based on bicontinuous PEO-b-P(S-co-DVB) structural electrolyte integrated with conductive nanowire-carbon fiber electrodes. <i>Carbon</i> , <b>2018</b> , 139, 10-20	10.4	20
101	Electro-active Polymer Actuator Based on Sulfonated Polyimide with Highly Conductive Silver Electrodes Via Self-metallization. <i>Macromolecular Rapid Communications</i> , <b>2011</b> , 32, 1583-7	4.8	20
100	Thermopiezoelectric nonlinear dynamics of active piezolaminated plates. <i>Smart Materials and Structures</i> , <b>2005</b> , 14, 823-834	3.4	20
99	Diatom Bio-Silica and Cellulose Nanofibril for Bio-Triboelectric Nanogenerators and Self-Powered Breath Monitoring Masks. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 219-232	9.5	20
98	Electromagnetic Synchronized Switch Damping for Vibration Control of Flexible Beams. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2012</b> , 17, 1031-1038	5.5	19
97	Vibration characteristics and supersonic flutter of cylindrical composite panels with large thermoelastic deflections. <i>Composite Structures</i> , <b>2009</b> , 90, 208-216	5.3	19

96	Recent Progress in Multifunctional Graphene Aerogels. <i>Frontiers in Materials</i> , <b>2016</b> , 3,	4	19
95	Integrated dielectric-electrode layer for triboelectric nanogenerator based on Cu nanowire-Mesh hybrid electrode. <i>Nano Energy</i> , <b>2019</b> , 59, 120-128	17.1	19
94	Self-aligned and hierarchically porous graphene-polyurethane foams for acoustic wave absorption. <i>Carbon</i> , <b>2019</b> , 147, 510-518	10.4	18
93	Mutually Exclusive p-Type and n-Type Hybrid Electrode of MoS <sub>2</sub> and Graphene for Artificial Soft Touch Fingers. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1905454	15.6	18
92	An Electroactive, Tunable, and Frequency Selective Surface Utilizing Highly Stretchable Dielectric Elastomer Actuators Based on Functionally Antagonistic Aperture Control. <i>Small</i> , <b>2016</b> , 12, 1840-6	11	18
91	Melt Crystallization and Morphology of Poly(p-phenylene sulfide) under High Pressure. <i>Macromolecular Chemistry and Physics</i> , <b>2007</b> , 208, 405-414	2.6	17
90	Flow-induced snap-through triboelectric nanogenerator. <i>Nano Energy</i> , <b>2020</b> , 68, 104379	17.1	17
89	Electroactive Artificial Muscles Based on Functionally Antagonistic Core-Shell Polymer Electrolyte Derived from PS-PSS Block Copolymer. <i>Advanced Science</i> , <b>2019</b> , 6, 1801196	13.6	17
88	Novel electroactive PVA-TOCN actuator that is extremely sensitive to low electrical inputs. <i>Smart Materials and Structures</i> , <b>2014</b> , 23, 074006	3.4	16
87	NON-LINEAR TRANSIENT RESPONSE OF FLUTTERING STIFFENED COMPOSITE PLATES SUBJECT TO THERMAL LOAD. <i>Journal of Sound and Vibration</i> , <b>2001</b> , 245, 715-736	3.9	16
86	Low voltage actuator using ionic polymer metal nanocomposites based on a miscible polymer blend. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 19718-19727	13	15
85	Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene for wearable energy devices: Supercapacitors and triboelectric nanogenerators. <i>APL Materials</i> , <b>2020</b> , 8, 110701	5.7	15
84	Graphene Mesh for Self-Sensing Ionic Soft Actuator Inspired from Mechanoreceptors in Human Body. <i>Advanced Science</i> , <b>2019</b> , 6, 1901711	13.6	15
83	Surface Modification of Anisotropic Dielectric Elastomer Actuators with Uni- and Bi-axially Wrinkled Carbon Electrodes for Wettability Control. <i>Scientific Reports</i> , <b>2017</b> , 7, 6091	4.9	15
82	Well-aligned nano-fibrous membranes based on three-pole electrospinning with channel electrode. <i>Macromolecular Rapid Communications</i> , <b>2011</b> , 32, 921-6	4.8	15
81	Non-linear static and dynamic instability of complete spherical shells using mixed finite element formulation. <i>International Journal of Non-Linear Mechanics</i> , <b>2003</b> , 38, 923-934	2.8	14
80	Metal-Organic Framework-Derived Graphitic Nanoribbons Anchored on Graphene for Electroionic Artificial Muscles. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1910326	15.6	14
79	Effect of viscosity-inducing factors on oxygen transfer in production culture of bacterial cellulose. <i>Korean Journal of Chemical Engineering</i> , <b>2012</b> , 29, 792-797	2.8	13



78	How does clamping pressure influence actuation performance of soft ionic polymer-metal composites?. <i>Smart Materials and Structures</i> , <b>2013</b> , 22, 025014	3.4	13
77	Palladium-catalyzed Mizoroki-Heck coupling reactions using sterically bulky phosphite ligand. <i>Inorganic Chemistry Communication</i> , <b>2010</b> , 13, 1329-1331	3.1	13
76	Synthesis of Phosphinodiselenoic Acid Ester Derivatives and their Application in the Controlled Radical Polymerization of Styrene. <i>Bulletin of the Korean Chemical Society</i> , <b>2009</b> , 30, 2129-2131	1.2	13
75	Modified transfer path analysis considering transmissibility functions for accurate estimation of vibration source. <i>Journal of Sound and Vibration</i> , <b>2017</b> , 398, 70-83	3.9	12
74	A robotic multiple-shape-memory ionic polymer-metal composite (IPMC) actuator: modeling approach. <i>Smart Materials and Structures</i> , <b>2019</b> , 28, 015009	3.4	12
73	Anticarcinogenic activity of blue fluorescent hexagonal boron nitride quantum dots: as an effective enhancer for DNA cleavage activity of anticancer drug doxorubicin. <i>Materials Today Bio</i> , <b>2019</b> , 1, 100001	9.9	11
72	Intertwined Nanosponge Solid-State Polymer Electrolyte for Rollable and Foldable Lithium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 11657-11668	9.5	11
71	Highly conductive, capacitive, flexible and soft electrodes based on a 3D graphene-nanotube-palladium hybrid and conducting polymer. <i>Small</i> , <b>2014</b> , 10, 5023-9	11	11
70	Morphology investigation on high-pressure crystallized bisphenol-A polycarbonate/dioctyl phthalate blends. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2007</b> , 45, 2715-2728	2.6	11
69	Thermal post-buckling behavior of patched laminated panels under uniform and non-uniform temperature distributions. <i>Composite Structures</i> , <b>2002</b> , 55, 137-145	5.3	11
68	Long-Lasting and Steady Triboelectric Energy Harvesting from Low-Frequency Irregular Motions Using Escapement Mechanism. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2002929	21.8	11
67	Wrinkled Graphene-AgNWs Hybrid Electrodes for Smart Window. <i>Micromachines</i> , <b>2017</b> , 8, 43	3.3	10
66	Compact piezoelectric tripod manipulator based on a reverse bridge-type amplification mechanism. <i>Smart Materials and Structures</i> , <b>2016</b> , 25, 095028	3.4	10
65	Crumpled Quaternary Nanoarchitecture of Sulfur-Doped Nickel Cobalt Selenide Directly Grown on Carbon Cloth for Making Stronger Ionic Soft Actuators. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 40451-40460	9.5	10
64	Micro/nano-heater integrated cantilevers for micro/nano-lithography applications. <i>Microelectronic Engineering</i> , <b>2007</b> , 84, 1041-1044	2.5	10
63	Sulfur- and Nitrogen-Rich Porous Conjugated COFs as Stable Electrode Materials for Electro-Ionic Soft Actuators. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2003863	15.6	10
62	Two-Dimensional rGO-MoS Hybrid Additives for High-Performance Magnetorheological Fluid. <i>Scientific Reports</i> , <b>2018</b> , 8, 12672	4.9	10
61	Basic design of a biomimetic underwater soft robot with switchable swimming modes and programmable artificial muscles. <i>Smart Materials and Structures</i> , <b>2020</b> , 29, 035038	3.4	9

60	Ionic liquid template assisted synthesis of porous nano-silica nails. <i>RSC Advances</i> , <b>2014</b> , 4, 39978-39983	3.7	9
59	Actuation of Electro-Active Artificial Muscle at Ultralow Frequency. <i>Macromolecular Chemistry and Physics</i> , <b>2011</b> , 212, 635-642	2.6	9
58	Biomimetic Nano-composite Actuators Based on Carbon Nanotubes and Ionic Polymers. <i>Journal of Intelligent Material Systems and Structures</i> , <b>2008</b> , 19, 305-311	2.3	9
57	Dynamic Characteristics of Cylindrical Composite Panels with Co-cured and Constrained Viscoelastic Layers.. <i>JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing</i> , <b>2002</b> , 45, 16-25		9
56	Tunable acoustic waveguide based on vibro-acoustic metamaterials with shunted piezoelectric unit cells. <i>Smart Materials and Structures</i> , <b>2015</b> , 24, 105018	3.4	8
55	Coil-based Electromagnetic Damper and Actuator for Vibration Suppression of Cantilever Beams. <i>Journal of Intelligent Material Systems and Structures</i> , <b>2009</b> , 20, 2237-2247	2.3	8
54	Piezoelectric suppression of thermoelastic snap-through in active piezolaminated curved shells. <i>Smart Materials and Structures</i> , <b>2006</b> , 15, 1616-1626	3.4	8
53	Ligand-Free Palladium Catalytic System Supported by CNT and its Application to the Mizoroki Heck Reactions. <i>Bulletin of the Korean Chemical Society</i> , <b>2010</b> , 31, 1735-1738	1.2	8
52	Thermal post-buckled behaviors of cylindrical composite shells with viscoelastic damping treatments. <i>Journal of Sound and Vibration</i> , <b>2009</b> , 323, 93-111	3.9	7
51	Damping Characteristics of Cylindrical Laminates with Viscoelastic Layer Considering Temperature- and Frequency-Dependence. <i>Journal of Thermal Stresses</i> , <b>2008</b> , 32, 1-20	2.2	7
50	Resonant frequency and instability of multi-layered micro-resonators with initial imperfection subject to piezoelectric loads. <i>Microelectronic Engineering</i> , <b>2007</b> , 84, 1388-1392	2.5	7
49	Phenol-Derived Carbon Sealant Inspired by a Coalification Process. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 3864-3870	16.4	7
48	Bio-Inspired dielectric elastomer actuator with AgNWs coated on carbon black electrode. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2014</b> , 14, 7483-7	1.3	6
47	Linear-to-rotary motion converter using asymmetric compliant mechanics and single-crystal PMN-PT stack actuator. <i>Journal of Intelligent Material Systems and Structures</i> , <b>2014</b> , 25, 2221-2227	2.3	6
46	Sulfonated poly(styrene-b-ethylene-co-butylene-b-styrene) and fullerene composites for ionic polymer actuators. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2010</b> , 10, 3203-6	1.3	6
45	Collectively Exhaustive Hybrid Triboelectric Nanogenerator Based on Flow-Induced Impacting-Sliding Cylinder for Ocean Energy Harvesting. <i>Advanced Energy Materials</i> , 2103076	21.8	6
44	A revisit to imperfect acoustic cloak of multi-layered shell structures considering sound speed and impedance matching. <i>Journal of Sound and Vibration</i> , <b>2014</b> , 333, 4637-4652	3.9	4
43	Durability studies shed light on the design of novel self-healing artificial muscles by employing ionic network polymers. <i>Journal of Controlled Release</i> , <b>2011</b> , 152 Suppl 1, e229-30	11.7	4

42	Fiber Sensor Based on Piezoelectric Ultrasonic Wave. <i>Journal of Intelligent Material Systems and Structures</i> , <b>2008</b> , 19, 299-304	2.3	4
41	Ligand-free Palladium-Catalyzed Mizoroki-Heck-type Reaction of Arylboronic Acids and Alkenes Using Silver Cation. <i>Bulletin of the Korean Chemical Society</i> , <b>2010</b> , 31, 1789-1792	1.2	4
40	Phenol-Derived Carbon Sealant Inspired by a Coalification Process. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 3892-3898	3.8	4
39	A dual-ion accepting vanadium carbide nanowire cathode integrated with carbon cloths for high cycling stability. <i>Nanoscale</i> , <b>2020</b> , 12, 20868-20874	7.7	4
38	Boosting Oxygen Evolution Reaction on Metallocene-based Transition Metal Sulfides Integrated with N-doped Carbon Nanostructures. <i>ChemSusChem</i> , <b>2021</b> , 14, 5004-5020	8.3	4
37	Theoretical and experimental investigation of the shape memory properties of an ionic polymer-metal composite. <i>Smart Materials and Structures</i> , <b>2017</b> , 26, 045020	3.4	3
36	Omnidirectional two-dimensional acoustic cloak by axisymmetric cylindrical lattices. <i>Wave Motion</i> , <b>2015</b> , 54, 157-169	1.8	3
35	Accurate Dynamic Modeling of Helical Ionic Polymer-Metal Composite Actuator Based on Intrinsic Equations. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2015</b> , 20, 1680-1688	5.5	3
34	Growth of Spatial Dendrites in Bisphenol-A Polycarbonate Induced by Dioctyl Phthalate at High Pressure. <i>Molecular Crystals and Liquid Crystals</i> , <b>2009</b> , 511, 327/[1797]-336/[1806]	0.5	3
33	Ultrasonic Active Fiber Sensor based on Pulse-echo Method. <i>Journal of Intelligent Material Systems and Structures</i> , <b>2009</b> , 20, 1035-1043	2.3	3
32	Dynamic Characteristics of Novel Ionic-Polymer-Metal-Composites. <i>Key Engineering Materials</i> , <b>2006</b> , 321-323, 208-211	0.4	3
31	Electronically Conjugated Multifunctional Covalent Triazine Framework for Unprecedented CO2 Selectivity and High-Power Flexible Supercapacitor. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 2107442	15.6	3
30	Electro-Active and Photo-Active Vanadium Oxide Nanowire Thermo-Hygroscopic Actuators for Kirigami Pop-up. <i>Advanced Science</i> , <b>2021</b> , 8, e2102064	13.6	3
29	Fabrication and characterizations of electro-mechanical actuators based on fullerene-reinforced biocompatible polymer. <i>Sensors and Actuators A: Physical</i> , <b>2022</b> , 339, 113510	3.9	3
28	Actuators: Functionally Antagonistic Hybrid Electrode with Hollow Tubular Graphene Mesh and Nitrogen-Doped Crumpled Graphene for High-Performance Ionic Soft Actuators (Adv. Funct. Mater. 5/2018). <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1870033	15.6	2
27	Graphene Films: Wetting-Transparent Graphene Films for Hydrophobic Water-Harvesting Surfaces (Adv. Mater. 30/2014). <i>Advanced Materials</i> , <b>2014</b> , 26, 5070-5070	24	2
26	Artificial Muscles: Electroionic Antagonistic Muscles Based on Nitrogen-Doped Carbons Derived from Poly(Triazine-Triptycene) (Adv. Sci. 12/2017). <i>Advanced Science</i> , <b>2017</b> , 4, 1770062	13.6	2
25	Suzuki-Miyaura Coupling Reactions Using Phosphite Ligands. <i>Synthesis</i> , <b>2009</b> , 2009, 2073-2075	2.9	2

24	Nonlinear dynamics of curved IPMC actuators undergoing electrically driven large deformations. <i>International Journal of Smart and Nano Materials</i> , <b>2012</b> , 3, 214-225	3.6	2
23	Electron microscopy of high pressure crystallised poly (p-phenylene sulfide). <i>Plastics, Rubber and Composites</i> , <b>2008</b> , 37, 263-267	1.5	2
22	Elastic Valley Hall Edge Wave in a Hierarchical Hexagonal Lattice. <i>Journal of Sound and Vibration</i> , <b>2022</b> , 526, 116817	3.9	2
21	Plasma Surface Modification of Graphene and Combination with Bacteria Cellulose. <i>Korean Chemical Engineering Research</i> , <b>2013</b> , 51, 388-393		2
20	Collectively Exhaustive MXene and Graphene Oxide Multilayer for Suppressing Shuttling Effect in Flexible Lithium Sulfur Battery. <i>Advanced Materials Technologies</i> , 2101025	6.8	2
19	Mutually exclusive ytterbium and nitrogen co-doping of mesoporous titania-carbon for self-cleanable and sustainable triboelectric nanogenerators. <i>Nano Energy</i> , <b>2021</b> , 90, 106615	17.1	2
18	Electroionic Artificial Muscles: MetalOrganic Framework-Derived Graphitic Nanoribbons Anchored on Graphene for Electroionic Artificial Muscles (Adv. Funct. Mater. 29/2020). <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2070195	15.6	2
17	Motion Control of Piezoelectric Tripod Platform via Feedforward Hysteresis Compensation. <i>Advanced Materials Technologies</i> , <b>2018</b> , 3, 1800298	6.8	2
16	Hybrid Carbon Nanomaterials for Electromagnetic Interference Shielding. <i>Composites Research</i> , <b>2016</b> , 29, 138-144		1
15	Micro-structured porous electrolytes for highly responsive ionic soft actuators. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 352, 131006	8.5	1
14	Film Properties of Al Thin Films Depending on Process Parameters and Film Thickness Grown by Sputter. <i>Korean Journal of Materials Research</i> , <b>2016</b> , 26, 438-443	0.2	1
13	Novel nanocomposite actuator based on sulfonated poly(styrene-b-ethylene-co-butylene-b-styrene) polymer. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2007</b> , 7, 3740-3	1.3	1
12	Cooling-Accelerated Nanowire-Nitinol Hybrid Muscle for Versatile Prosthetic Hand and Biomimetic Retractable Claw. <i>Advanced Functional Materials</i> , 2111145	15.6	1
11	Antagonistically Functionalized Diatom Biosilica for Bio-Triboelectric Generators.. <i>Small</i> , <b>2022</b> , e2107638	1	1
10	Spherical Micro/Nano Hierarchical Structures for Energy and Water Harvesting Devices.. <i>Small Methods</i> , <b>2022</b> , e2200248	12.8	1
9	Collectively Exhaustive Hybrid Triboelectric Nanogenerator Based on Flow-Induced Impacting-Sliding Cylinder for Ocean Energy Harvesting (Adv. Energy Mater. 3/2022). <i>Advanced Energy Materials</i> , <b>2022</b> , 12, 2270008	21.8	0
8	Design of multi-auxetic microstructures for sound absorbing applications. <i>Advanced Composite Materials</i> , 1-12	2.8	0
7	IPMCs as EAPs: Materials <b>2016</b> , 151-170		

6 IPMCs as EAPs: Materials **2016**, 1-20

5 Reply to "Comment on Nanohole-Structured and Palladium-Embedded 3D Porous Graphene for Ultrahigh Hydrogen Storage and CO Oxidation Multifunctionalities". *ACS Nano*, **2016**, 10, 9057-9060 16.7

4 BIOINSPIRED ARTIFICIAL MUSCLES AND ROBOTS. *World Scientific Series in Nanoscience and Nanotechnology*, **2014**, 443-474 0.1

3 Nano for Biomimetics and Biomaterials. *Journal of Nanomaterials*, **2014**, 2014, 1-1 3.2

2 Piezoelectric Actuators: Motion Control of Piezoelectric Tripod Platform via Feedforward Hysteresis Compensation (Adv. Mater. Technol. 12/2018). *Advanced Materials Technologies*, **2018**, 3, 1870049 6.8

1 Cooling-Accelerated Nanowire-Nitinol Hybrid Muscle for Versatile Prosthetic Hand and Biomimetic Retractable Claw (Adv. Funct. Mater. 18/2022). *Advanced Functional Materials*, **2022**, 32, 2270104 15.6