

# Xuanhe Zhao

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

166  
papers

23,279  
citations

75  
h-index

152  
g-index

181  
ext. papers

28,520  
ext. citations

12  
avg, IF

7.77  
L-index

#	Paper	IF	Citations
166	Fracture and fatigue of entangled and unentangled polymer networks. <i>Extreme Mechanics Letters</i> , <b>2022</b> , 51, 101608	3.9	4
165	Magnetic soft continuum robots with contact forces. <i>Extreme Mechanics Letters</i> , <b>2022</b> , 51, 101604	3.9	2
164	An off-the-shelf bioadhesive patch for sutureless repair of gastrointestinal defects.. <i>Science Translational Medicine</i> , <b>2022</b> , 14, eabh2857	17.5	10
163	Magnetic Soft Materials and Robots.. <i>Chemical Reviews</i> , <b>2022</b> ,	68.1	23
162	Ultrasound-Responsive Aqueous Two-Phase Microcapsules for On-Demand Drug Release.. <i>Angewandte Chemie - International Edition</i> , <b>2022</b> ,	16.4	2
161	Engineered Living Hydrogels.. <i>Advanced Materials</i> , <b>2022</b> , e2201326	24	5
160	Telerobotic neurovascular interventions with magnetic manipulation.. <i>Science Robotics</i> , <b>2022</b> , 7, eabg99078.6	13.6	13
159	Shaping the future of robotics through materials innovation. <i>Nature Materials</i> , <b>2021</b> , 20, 1582-1587	27	17
158	Reply from the authors: Deformation-induced cleaning of organically fouled membranes. <i>Journal of Membrane Science</i> , <b>2021</b> , 642, 119961	9.6	
157	Magnetic Living Hydrogels for Intestinal Localization, Retention, and Diagnosis. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2010918	15.6	22
156	Hydrogel-based biocontainment of bacteria for continuous sensing and computation. <i>Nature Chemical Biology</i> , <b>2021</b> , 17, 724-731	11.7	36
155	Soft Materials by Design: Unconventional Polymer Networks Give Extreme Properties. <i>Chemical Reviews</i> , <b>2021</b> , 121, 4309-4372	68.1	145
154	Evolutionary design of magnetic soft continuum robots. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	21
153	Deformation-induced cleaning of organically fouled membranes: Fundamentals and techno-economic assessment for spiral-wound membranes. <i>Journal of Membrane Science</i> , <b>2021</b> , 626, 119169	9.6	6
152	Stretchable Anti-Fogging Tapes for Diverse Transparent Materials. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2103551	15.6	4
151	Strong fatigue-resistant nanofibrous hydrogels inspired by lobster underbelly. <i>Matter</i> , <b>2021</b> , 4, 1919-1934	14.7	13
150	Adaptive and multifunctional hydrogel hybrid probes for long-term sensing and modulation of neural activity. <i>Nature Communications</i> , <b>2021</b> , 12, 3435	17.4	36

149	Electrical bioadhesive interface for bioelectronics. <i>Nature Materials</i> , <b>2021</b> , 20, 229-236	27	136
148	A Multifunctional Origami Patch for Minimally Invasive Tissue Sealing. <i>Advanced Materials</i> , <b>2021</b> , 33, e2007667	30	
147	Modular Integration of Hydrogel Neural Interfaces. <i>ACS Central Science</i> , <b>2021</b> , 7, 1516-1523	16.8	3
146	A soft neuroprosthetic hand providing simultaneous myoelectric control and tactile feedback. <i>Nature Biomedical Engineering</i> , <b>2021</b> ,	19	26
145	Rapid and coagulation-independent haemostatic sealing by a paste inspired by barnacle glue. <i>Nature Biomedical Engineering</i> , <b>2021</b> , 5, 1131-1142	19	33
144	Fracture and fatigue of ideal polymer networks. <i>Extreme Mechanics Letters</i> , <b>2021</b> , 48, 101399	3.9	8
143	Hard-magnetic elastica. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2020</b> , 142, 104045	5	50
142	Instant tough bioadhesive with triggerable benign detachment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 15497-15503	11.5	91
141	Strong adhesion of wet conducting polymers on diverse substrates. <i>Science Advances</i> , <b>2020</b> , 6, eaay5394	14.3	63
140	3D printing of conducting polymers. <i>Nature Communications</i> , <b>2020</b> , 11, 1604	17.4	263
139	An organosynthetic dynamic heart model with enhanced biomimicry guided by cardiac diffusion tensor imaging. <i>Science Robotics</i> , <b>2020</b> , 5,	18.6	10
138	Fatigue-resistant adhesion of hydrogels. <i>Nature Communications</i> , <b>2020</b> , 11, 1071	17.4	80
137	Hydrogel machines. <i>Materials Today</i> , <b>2020</b> , 36, 102-124	21.8	268
136	Designing complex architected materials with generative adversarial networks. <i>Science Advances</i> , <b>2020</b> , 6, eaaz4169	14.3	67
135	EML webinar overview: Extreme mechanics of soft materials for merging human-machine intelligence. <i>Extreme Mechanics Letters</i> , <b>2020</b> , 39, 100784	3.9	5
134	Superior environmentally friendly stretchable supercapacitor based on nitrogen-doped graphene/hydrogel and single-walled carbon nanotubes. <i>Journal of Energy Storage</i> , <b>2020</b> , 30, 101505	7.8	9
133	Hydration and swelling of dry polymers for wet adhesion. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2020</b> , 137, 103863	5	24
132	Graded intrafillable architecture-based iontronic pressure sensor with ultra-broad-range high sensitivity. <i>Nature Communications</i> , <b>2020</b> , 11, 209	17.4	177

131	Designing Ferromagnetic Soft Robots (FerroSoRo) with Level-Set-Based Multiphysics Topology Optimization <b>2020</b> ,			7
130	Fracture of polymer networks with diverse topological defects. <i>Physical Review E</i> , <b>2020</b> , 102, 052503	2.4		16
129	Dynamic intermolecular interactions through hydrogen bonding of water promote heat conduction in hydrogels. <i>Materials Horizons</i> , <b>2020</b> , 7, 2936-2943	14.4		14
128	Thermodynamic analysis and material design to enhance chemo-mechanical coupling in hydrogels for energy harvesting from salinity gradients. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 044701	2.5		1
127	Bioinspired metagel with broadband tunable impedance matching. <i>Science Advances</i> , <b>2020</b> , 6,	14.3		5
126	Ultrathin and Robust Hydrogel Coatings on Cardiovascular Medical Devices to Mitigate Thromboembolic and Infectious Complications. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e2001116	10.1		19
125	Ferromagnetic soft continuum robots. <i>Science Robotics</i> , <b>2019</b> , 4,	18.6		334
124	High stretchability, strength, and toughness of living cells enabled by hyperelastic vimentin intermediate filaments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 17175-17180	11.5		64
123	Probing Surface Hydration and Molecular Structure of Zwitterionic and Polyacrylamide Hydrogels. <i>Langmuir</i> , <b>2019</b> , 35, 13292-13300	4		13
122	Ingestible hydrogel device. <i>Nature Communications</i> , <b>2019</b> , 10, 493	17.4		97
121	Anti-fatigue-fracture hydrogels. <i>Science Advances</i> , <b>2019</b> , 5, eaau8528	14.3		155
120	Hydrogel bioelectronics. <i>Chemical Society Reviews</i> , <b>2019</b> , 48, 1642-1667	58.5		742
119	Muscle-like fatigue-resistant hydrogels by mechanical training. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 10244-10249	11.5		157
118	Pure PEDOT:PSS hydrogels. <i>Nature Communications</i> , <b>2019</b> , 10, 1043	17.4		271
117	Metagel with Broadband Tunable Acoustic Properties Over Air/Water/Solid Ranges. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1903699	15.6		15
116	A path-following simulation-based study of elastic instabilities in nearly-incompressible confined cylinders under tension. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2019</b> , 131, 252-275	5		3
115	Dry double-sided tape for adhesion of wet tissues and devices. <i>Nature</i> , <b>2019</b> , 575, 169-174	50.4		375
114	Multifunctional "Hydrogel Skins" on Diverse Polymers with Arbitrary Shapes. <i>Advanced Materials</i> , <b>2019</b> , 31, e1807101	24		146

113	Mechanics of hard-magnetic soft materials. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2019</b> , 124, 244-263	5	165
112	Kirigami enhances film adhesion. <i>Soft Matter</i> , <b>2018</b> , 14, 2515-2525	3.6	46
111	Material-stiffening suppresses elastic fingering and fringe instabilities. <i>International Journal of Solids and Structures</i> , <b>2018</b> , 139-140, 96-104	3.1	9
110	A One-Step Method of Hydrogel Modification by Single-Walled Carbon Nanotubes for Highly Stretchable and Transparent Electronics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 28069-28075	9.5	52
109	Composite Cellularized Structures Created from an Interpenetrating Polymer Network Hydrogel Reinforced by a 3D Woven Scaffold. <i>Macromolecular Bioscience</i> , <b>2018</b> , 18, e1800140	5.5	15
108	Printing ferromagnetic domains for untethered fast-transforming soft materials. <i>Nature</i> , <b>2018</b> , 558, 274-279	30.9	842
107	A New 3D Printing Strategy by Harnessing Deformation, Instability, and Fracture of Viscoelastic Inks. <i>Advanced Materials</i> , <b>2018</b> , 30, 1704028	24	137
106	3D Printing of Living Responsive Materials and Devices. <i>Advanced Materials</i> , <b>2018</b> , 30, 1704821	24	182
105	Soft wall-climbing robots. <i>Science Robotics</i> , <b>2018</b> , 3,	18.6	230
104	Controlled crack propagation for atomic precision handling of wafer-scale two-dimensional materials. <i>Science</i> , <b>2018</b> , 362, 665-670	33.3	133
103	Ideal reversible polymer networks. <i>Soft Matter</i> , <b>2018</b> , 14, 5186-5196	3.6	64
102	Folding artificial mucosa with cell-laden hydrogels guided by mechanics models. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 7503-7508	11.5	49
101	Strong, Tough, Stretchable, and Self-Adhesive Hydrogels from Intrinsically Unstructured Proteins. <i>Advanced Materials</i> , <b>2017</b> , 29, 1604743	24	97
100	Hydraulic hydrogel actuators and robots optically and sonically camouflaged in water. <i>Nature Communications</i> , <b>2017</b> , 8, 14230	17.4	519
99	Stretchable living materials and devices with hydrogel-elastomer hybrids hosting programmed cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 2200-2205	11.5	144
98	Revisiting the Instability and Bifurcation Behavior of Soft Dielectrics. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2017</b> , 84,	2.7	29
97	Tough and tunable adhesion of hydrogels: experiments and models. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , <b>2017</b> , 33, 543-554	2	44
96	Harnessing the hygroscopic and biofluorescent behaviors of genetically tractable microbial cells to design biohybrid wearables. <i>Science Advances</i> , <b>2017</b> , 3, e1601984	14.3	99

95	Multimodal Surface Instabilities in Curved FilmSubstrate Structures. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2017</b> , 84,	2.7	31
94	Instabilities in confined elastic layers under tension: Fringe, fingering and cavitation. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2017</b> , 106, 229-256	5	27
93	Avoiding the pull-in instability of a dielectric elastomer film and the potential for increased actuation and energy harvesting. <i>Soft Matter</i> , <b>2017</b> , 13, 4552-4558	3.6	38
92	A large deformation viscoelastic model for double-network hydrogels. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2017</b> , 100, 103-130	5	95
91	Impermeable Robust Hydrogels via Hybrid Lamination. <i>Advanced Healthcare Materials</i> , <b>2017</b> , 6, 1700520	10.1	47
90	Designing toughness and strength for soft materials. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 8138-8140	11.5	83
89	Incorporation of silicone oil into elastomers enhances barnacle detachment by active surface strain. <i>Biofouling</i> , <b>2016</b> , 32, 1017-28	3.3	17
88	Skin-inspired hydrogel-elastomer hybrids with robust interfaces and functional microstructures. <i>Nature Communications</i> , <b>2016</b> , 7, 12028	17.4	486
87	Stretchable Hydrogel Electronics and Devices. <i>Advanced Materials</i> , <b>2016</b> , 28, 4497-505	24	418
86	Tough bonding of hydrogels to diverse non-porous surfaces. <i>Nature Materials</i> , <b>2016</b> , 15, 190-6	27	546
85	Urinary catheter capable of repeated on-demand removal of infectious biofilms via active deformation. <i>Biomaterials</i> , <b>2016</b> , 77, 77-86	15.6	24
84	Mechanochemically Responsive Viscoelastic Elastomers. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2016</b> , 83,	2.7	8
83	Beyond wrinkles: Multimodal surface instabilities for multifunctional patterning. <i>MRS Bulletin</i> , <b>2016</b> , 41, 115-122	3.2	92
82	Fringe instability in constrained soft elastic layers. <i>Soft Matter</i> , <b>2016</b> , 12, 8899-8906	3.6	16
81	Highly Stretchable, Strain Sensing Hydrogel Optical Fibers. <i>Advanced Materials</i> , <b>2016</b> , 28, 10244-10249	24	236
80	3D Printing of Highly Stretchable and Tough Hydrogels into Complex, Cellularized Structures. <i>Advanced Materials</i> , <b>2015</b> , 27, 4035-40	24	577
79	Dynamic surface deformation of silicone elastomers for management of marine biofouling: laboratory and field studies using pneumatic actuation. <i>Biofouling</i> , <b>2015</b> , 31, 265-74	3.3	29
78	Bioinspired Reversibly Cross-linked Hydrogels Comprising Polypeptide Micelles Exhibit Enhanced Mechanical Properties. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 3122-3130	15.6	46

77	Tunable lotus-leaf and rose-petal effects via graphene paper origami. <i>Extreme Mechanics Letters</i> , <b>2015</b> , 4, 18-25	3.9	29
76	Matrix elasticity of void-forming hydrogels controls transplanted-stem-cell-mediated bone formation. <i>Nature Materials</i> , <b>2015</b> , 14, 1269-77	27	302
75	Mechanics of mechanochemically responsive elastomers. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2015</b> , 82, 320-344	5	64
74	3D Printing: 3D Printing of Highly Stretchable and Tough Hydrogels into Complex, Cellularized Structures. <i>Advanced Materials</i> , <b>2015</b> , 27, 4034	24	63
73	A three-dimensional phase diagram of growth-induced surface instabilities. <i>Scientific Reports</i> , <b>2015</b> , 5, 8887	4.9	134
72	Predicting fracture energies and crack-tip fields of soft tough materials. <i>Extreme Mechanics Letters</i> , <b>2015</b> , 4, 1-8	3.9	84
71	Stretchable and high-performance supercapacitors with crumpled graphene papers. <i>Scientific Reports</i> , <b>2014</b> , 4, 6492	4.9	189
70	Separating viscoelasticity and poroelasticity of gels with different length and time scales. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , <b>2014</b> , 30, 20-27	2	66
69	Harnessing large deformation and instabilities of soft dielectrics: Theory, experiment, and application. <i>Applied Physics Reviews</i> , <b>2014</b> , 1, 021304	17.3	127
68	Magnetoactive sponges for dynamic control of microfluidic flow patterns in microphysiological systems. <i>Lab on A Chip</i> , <b>2014</b> , 14, 514-521	7.2	22
67	Multi-scale multi-mechanism design of tough hydrogels: building dissipation into stretchy networks. <i>Soft Matter</i> , <b>2014</b> , 10, 672-87	3.6	749
66	Design of stiff, tough and stretchy hydrogel composites via nanoscale hybrid crosslinking and macroscale fiber reinforcement. <i>Soft Matter</i> , <b>2014</b> , 10, 7519-27	3.6	126
65	Increasing the maximum achievable strain of a covalent polymer gel through the addition of mechanically invisible cross-links. <i>Advanced Materials</i> , <b>2014</b> , 26, 6013-8	24	73
64	Cephalopod-inspired design of electro-mechano-chemically responsive elastomers for on-demand fluorescent patterning. <i>Nature Communications</i> , <b>2014</b> , 5, 4899	17.4	176
63	Harnessing localized ridges for high-aspect-ratio hierarchical patterns with dynamic tunability and multifunctionality. <i>Advanced Materials</i> , <b>2014</b> , 26, 1763-70	24	147
62	Ultrasound-triggered disruption and self-healing of reversibly cross-linked hydrogels for drug delivery and enhanced chemotherapy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 9762-7	11.5	282
61	Mechanochemical Activation of Covalent Bonds in Polymers with Full and Repeatable Macroscopic Shape Recovery.. <i>ACS Macro Letters</i> , <b>2014</b> , 3, 216-219	6.6	252
60	Designing extremely resilient and tough hydrogels via delayed dissipation. <i>Extreme Mechanics Letters</i> , <b>2014</b> , 1, 70-75	3.9	28



59	Phase Diagrams of Instabilities in Compressed Film-Substrate Systems. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2014</b> , 81, 0510041-5100410	2.7	76
58	On-demand hierarchical patterning with electric fields. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 231605	3.4	7
57	Soft robotic concepts in catheter design: an on-demand fouling-release urinary catheter. <i>Advanced Healthcare Materials</i> , <b>2014</b> , 3, 1588-96	10.1	43
56	Cell mediated contraction in 3D cell-matrix constructs leads to spatially regulated osteogenic differentiation. <i>Integrative Biology (United Kingdom)</i> , <b>2013</b> , 5, 1174-83	3.7	20
55	Tunable stiffness of electrorheological elastomers by designing mesostructures. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 041901	3.4	25
54	Composite three-dimensional woven scaffolds with interpenetrating network hydrogels to create functional synthetic articular cartilage. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 5833-5839	15.6	175
53	Magneto-rheological foams capable of tunable energy absorption <b>2013</b> ,		2
52	Design considerations for an integrated microphysiological muscle tissue for drug and tissue toxicity testing. <i>Stem Cell Research and Therapy</i> , <b>2013</b> , 4 Suppl 1, S10	8.3	21
51	Multifunctionality and control of the crumpling and unfolding of large-area graphene. <i>Nature Materials</i> , <b>2013</b> , 12, 321-5	27	641
50	Bioinspired surfaces with dynamic topography for active control of biofouling. <i>Advanced Materials</i> , <b>2013</b> , 25, 1430-4	24	120
49	Electromechanical instability on dielectric polymer surface: Modeling and experiment. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2013</b> , 260, 40-49	5.7	33
48	Reversible sliding in networks of nanowires. <i>Nano Letters</i> , <b>2013</b> , 13, 2381-6	11.5	66
47	Separating poroviscoelastic deformation mechanisms in hydrogels. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 031913	3.4	63
46	Creasing-wrinkling transition in elastomer films under electric fields. <i>Physical Review E</i> , <b>2013</b> , 88, 042403	2.4	45
45	A theory for large deformation and damage of interpenetrating polymer networks. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2012</b> , 60, 319-332	5	111
44	Localized ridge wrinkling of stiff films on compliant substrates. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2012</b> , 60, 1265-1279	5	119
43	Dynamic electrostatic lithography: multiscale on-demand patterning on large-area curved surfaces. <i>Advanced Materials</i> , <b>2012</b> , 24, 1947-51	24	46
42	Highly stretchable and tough hydrogels. <i>Nature</i> , <b>2012</b> , 489, 133-6	50.4	3109



41	Bursting drops in solid dielectrics caused by high voltages. <i>Nature Communications</i> , <b>2012</b> , 3, 1157	17.4	50
40	Electromechanical instabilities of thermoplastics: Theory and in situ observation. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 141911	3.4	14
39	Mechanisms of large actuation strain in dielectric elastomers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2011</b> , 49, 504-515	2.6	215
38	Electro-creasing instability in deformed polymers: experiment and theory. <i>Soft Matter</i> , <b>2011</b> , 7, 6583	3.6	39
37	Mechanical constraints enhance electrical energy densities of soft dielectrics. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 171906	3.4	19
36	Active scaffolds for on-demand drug and cell delivery. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 67-72	11.5	505
35	Creasing to cratering instability in polymers under ultrahigh electric fields. <i>Physical Review Letters</i> , <b>2011</b> , 106, 118301	7.4	98
34	NONEQUILIBRIUM THERMODYNAMICS OF DIELECTRIC ELASTOMERS. <i>International Journal of Applied Mechanics</i> , <b>2011</b> , 03, 203-217	2.4	120
33	Averting cracks caused by insertion reaction in lithium-ion batteries. <i>Journal of Materials Research</i> , <b>2010</b> , 25, 1007-1010	2.5	138
32	Using indentation to characterize the poroelasticity of gels. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 121904	3.4	193
31	Theory of dielectric elastomers capable of giant deformation of actuation. <i>Physical Review Letters</i> , <b>2010</b> , 104, 178302	7.4	257
30	Poroelasticity of a covalently crosslinked alginate hydrogel under compression. <i>Journal of Applied Physics</i> , <b>2010</b> , 108, 113514	2.5	57
29	The Determination of the Location of Contact Electrification-Induced Discharge Events. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 20885-20895	3.8	11
28	Stress-relaxation behavior in gels with ionic and covalent crosslinks. <i>Journal of Applied Physics</i> , <b>2010</b> , 107, 63509	2.5	230
27	Microbristle in gels: Toward all-polymer reconfigurable hybrid surfaces. <i>Soft Matter</i> , <b>2010</b> , 6, 750	3.6	31
26	A theory of constrained swelling of a pH-sensitive hydrogel. <i>Soft Matter</i> , <b>2010</b> , 6, 784	3.6	243
25	Large deformation and electrochemistry of polyelectrolyte gels. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2010</b> , 58, 558-577	5	192
24	Maximal energy that can be converted by a dielectric elastomer generator. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 262902	3.4	228

23	A finite element method for transient analysis of concurrent large deformation and mass transport in gels. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 093522	2.5	97
22	Formation of creases on the surfaces of elastomers and gels. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 111901	3.4	177
21	Dielectric elastomer membranes undergoing inhomogeneous deformation. <i>Journal of Applied Physics</i> , <b>2009</b> , 106, 083522	2.5	78
20	Electromechanical instability in semicrystalline polymers. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 031904	3.4	47
19	Electrical breakdown and ultrahigh electrical energy density in poly(vinylidene fluoride-hexafluoropropylene) copolymer. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 162901	3.4	211
18	Method to analyze programmable deformation of dielectric elastomer layers. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 251902	3.4	103
17	Electrostriction in elastic dielectrics undergoing large deformation. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 123530	2.5	195
16	On designing dielectric elastomer actuators. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 093503	2.5	75
15	A theory of large deformation in soft active materials <b>2008</b> ,		1
14	Inhomogeneous and anisotropic equilibrium state of a swollen hydrogel containing a hard core. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 051904	3.4	51
13	Drying-induced bifurcation in a hydrogel-actuated nanostructure. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 084905	2.5	27
12	A nonlinear field theory of deformable dielectrics. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2008</b> , 56, 467-486	5	403
11	A theory of coupled diffusion and large deformation in polymeric gels. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2008</b> , 56, 1779-1793	5	626
10	Propagation of instability in dielectric elastomers. <i>International Journal of Solids and Structures</i> , <b>2008</b> , 45, 3739-3750	3.1	124
9	Stretching and polarizing a dielectric gel immersed in a solvent. <i>International Journal of Solids and Structures</i> , <b>2008</b> , 45, 4021-4031	3.1	13
8	Electromechanical hysteresis and coexistent states in dielectric elastomers. <i>Physical Review B</i> , <b>2007</b> , 76,	3.3	291
7	Method to analyze electromechanical stability of dielectric elastomers. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 061921	3.4	348
6	Three-dimensional simulations of the complex dielectric properties of random composites by finite element method. <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 8110-8117	2.5	45

5	Simulation of polycrystalline structure with Voronoi diagram in Laguerre geometry based on random closed packing of spheres. <i>Computational Materials Science</i> , <b>2004</b> , 29, 301-308	3.2	121
4	Evaluation of Mixing Rules for Dielectric Constants of Composite Dielectrics by MC-FEM Calculation on 3D Cubic Lattice <b>2003</b> , 11, 227-239		94
3	Tough Hydrogel-Based Biocontainment of Engineered Organisms for Continuous, Self-Powered Sensing and Computation		4
2	Barnacle-Inspired Paste for Instant Hemostatic Tissue Sealing		1
1	Ultrasound-Responsive Aqueous Two-Phase Microcapsules for On-Demand Drug Release. <i>Angewandte Chemie</i> ,	3.6	1