

# Ming-Sheng Zheng

## List of Publications by Year in descending order

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53  
papers

6,517  
citations

136740

32  
h-index

174990

52  
g-index

53  
all docs

53  
docs citations

53  
times ranked

4464  
citing authors

#	ARTICLE	IF	CITATIONS
1	Recyclability and Self-Healing of Dynamic Cross-Linked Polyimide with Mechanical/Electrical Damage. Energy and Environmental Materials, 2023, 6, .	7.3	26
2	Advanced dielectric elastomer based on optimized thermoplastic polyurethane-styrene ethylene butylene styrene blend: Experiment and simulation. Journal of Applied Polymer Science, 2022, 139, 51595.	1.3	9
3	Enhancement of high-temperature dielectric energy storage performances of polyimide nanocomposites utilizing surface functionalized MAX nanosheets. Composites Science and Technology, 2022, 218, 109193.	3.8	35
4	High-temperature polyimide dielectric materials for energy storage: theory, design, preparation and properties. Energy and Environmental Science, 2022, 15, 56-81.	15.6	166
5	Fabrication and actuation characterisation of a new UV curing acrylic dielectric elastomer. IET Nanodielectrics, 2022, 5, 104-111.	2.0	7
6	Recent Progress and Future Prospects on All-Organic Polymer Dielectrics for Energy Storage Capacitors. Chemical Reviews, 2022, 122, 3820-3878.	23.0	240
7	Achieving high insulating strength and energy storage properties of all-organic dielectric composites by surface morphology modification. Composites Science and Technology, 2022, 226, 109545.	3.8	13
8	Surface engineering of 2D dielectric polymer films for scalable production of High-Energy-Density films. Progress in Materials Science, 2022, 128, 100968.	16.0	37
9	Significantly improved high-temperature charge-discharge efficiency of all-organic polyimide composites by suppressing space charges. Nano Energy, 2022, 99, 107410.	8.2	36
10	High strength, stable and self-healing copolyimide for defects induced by mechanical and electrical damages. Journal of Materials Chemistry C, 2022, 10, 11307-11315.	2.7	16
11	Integrated multifunctional properties of polypropylene composites by employing three-dimensional flower-like MgO with hierarchical surface morphology. IET Nanodielectrics, 2021, 4, 27-37.	2.0	5
12	Regulating dielectric performances of Poly(vinylidene fluoride) nanocomposites by individually controlling shell thickness of Core@Double-shells structured nanowires. IET Nanodielectrics, 2021, 4, 11-20.	2.0	5
13	All-Organic Dielectrics with High Breakdown Strength and Energy Storage Density for High-Power Capacitors. Macromolecular Rapid Communications, 2021, 42, e2100116.	2.0	38
14	Structural, electrical, and thermal features of polyimide composites filled with semiconductive MXene sheets. Applied Physics Letters, 2021, 118, .	1.5	10
15	Soft, tough, and fast polyacrylate dielectric elastomer for non-magnetic motor. Nature Communications, 2021, 12, 4517.	5.8	82
16	Polymer-based dielectrics with high permittivity for electric energy storage: A review. Nano Energy, 2021, 89, 106438.	8.2	130
17	High energy density and discharge efficiency polypropylene nanocomposites for potential high-power capacitor. Energy Storage Materials, 2020, 27, 443-452.	9.5	113
18	Thermal, electrical, and mechanical properties of addition-type liquid silicone rubber coated with $\text{Al}_2\text{O}_3$ particles and BN sheets. Journal of Applied Polymer Science, 2020, 137, 49399.	1.3	21

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19	Review of dielectric elastomers for actuators, generators and sensors. IET Nanodielectrics, 2020, 3, 99-106.	2.0	34
20	Enhancement of breakdown strength of multilayer polymer film through electric field redistribution and defect modification. Applied Physics Letters, 2019, 114, 103702.	1.5	46
21	Tailored high cycling performance in a solid polymer electrolyte with perovskite-type $\text{Li}_{0.33}\text{La}_{0.557}\text{TiO}_3$ nanofibers for all-solid-state lithium ion batteries. Dalton Transactions, 2019, 48, 3263-3269.	1.6	52
22	Remarkable electrically actuation performance in advanced acrylic-based dielectric elastomers without pre-strain at very low driving electric field. Polymer, 2018, 137, 269-275.	1.8	43
23	Largely enhanced dielectric constant of PVDF nanocomposites through a core-shell strategy. Physical Chemistry Chemical Physics, 2018, 20, 2777-2786.	1.3	29
24	Preparation of New Acrylic-Based Dielectric Elastomers Based on Complexation of $\text{Ca}^{2+}$ Ions with Carboxyl Groups Displaying Excellent Performance. , 2018, , .		0
25	Constructing advanced dielectric elastomer based on copolymer of acrylate and polyurethane with large actuation strain at low electric field. Polymer, 2018, 149, 39-44.	1.8	30
26	Dielectric Elastomer Generator with Improved Energy Density and Conversion Efficiency Based on Polyurethane Composites. ACS Applied Materials & Interfaces, 2017, 9, 5237-5243.	4.0	74
27	Ductile polymer-based films with ultrahigh permittivity and low dielectric loss. Polymer, 2017, 130, 258-266.	1.8	10
28	Electrochemical performance of all-solid-state lithium batteries using inorganic lithium garnets particulate reinforced PEO/LiClO <sub>4</sub> electrolyte. Electrochimica Acta, 2017, 253, 430-438.	2.6	133
29	Theoretical analysis and application of polymer matrix field grading materials in HVDC cable terminals. High Voltage, 2017, 2, 39-46.	2.7	20
30	Electrospun poly(ethylene oxide) nanofibrous composites with enhanced ionic conductivity as flexible solid polymer electrolytes. High Voltage, 2017, 2, 25-31.	2.7	11
31	1D/2D Carbon Nanomaterial-Polymer Dielectric Composites with High Permittivity for Power Energy Storage Applications. Small, 2016, 12, 1688-1701.	5.2	405
32	Distinctive electrical properties in sandwich-structured Al <sub>2</sub> O <sub>3</sub> /low density polyethylene nanocomposites. Applied Physics Letters, 2016, 108, .	1.5	44
33	Enhanced breakdown strength of poly(vinylidene fluoride) utilizing rubber nanoparticles for energy storage application. Applied Physics Letters, 2016, 109, .	1.5	51
34	Tailored wide-frequency dielectric behavior of polyimide composite films with $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$ Perovskites ceramic particles. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 113-120.	1.8	14
35	Preparation and dielectric properties of core-shell structured Ag@polydopamine/poly(vinylidene) Tj ETQq1 1 0.784314 rgBT/Overlo	3.8	85
36	Highly improved electro-actuation of dielectric elastomers by molecular grafting of azobenzenes to silicon rubber. Journal of Materials Chemistry C, 2015, 3, 4883-4889.	2.7	82

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37	Temperature-dependent electro-mechanical actuation sensitivity in stiffness-tunable BaTiO <sub>3</sub> /polydimethylsiloxane dielectric elastomer nanocomposites. Applied Physics Letters, 2015, 106, .	1.5	38
38	Thermally stable polyimide nanocomposite films from electrospun BaTiO <sub>3</sub> fibers for high-density energy storage capacitors. RSC Advances, 2015, 5, 44749-44755.	1.7	44
39	Origin of large field-induced strain of azobenzene/polyurethane blend dielectric elastomers. RSC Advances, 2015, 5, 82215-82226.	1.7	12
40	Improved mechanical and electrical properties in electrospun polyimide/multiwalled carbon nanotubes nanofibrous composites. Journal of Applied Physics, 2014, 116, 134104.	1.1	15
41	Flexible Nanodielectric Materials with High Permittivity for Power Energy Storage. Advanced Materials, 2013, 25, 6334-6365.	11.1	1,204
42	Increased electroaction through a molecular flexibility tuning process in TiO <sub>2</sub> -polydimethylsilicone nanocomposites. Journal of Materials Chemistry A, 2013, 1, 3140.	5.2	100
43	Dielectric Properties and Thermal Expansion of ZrW <sub>2</sub> O <sub>8</sub> /Polyimide Hybrid Films. Journal of Advanced Physics, 2012, 1, 48-53.	0.4	5
44	Fundamentals, processes and applications of high-permittivity polymer matrix composites. Progress in Materials Science, 2012, 57, 660-723.	16.0	1,467
45	Giant Dielectric Permittivity Nanocomposites: Realizing True Potential of Pristine Carbon Nanotubes in Polyvinylidene Fluoride Matrix through an Enhanced Interfacial Interaction. Journal of Physical Chemistry C, 2011, 115, 5515-5521.	1.5	341
46	Microstructure and electrical properties in three-component (Al <sub>2</sub> O <sub>3</sub> -TiO <sub>2</sub> )/polyimide nanocomposite films. Journal of Materials Research, 2010, 25, 2384-2391.	1.2	17
47	Dielectric properties and effect of electrical aging on space charge accumulation in polyimide/TiO <sub>2</sub> nanocomposite films. Journal of Applied Physics, 2010, 108, 094113.	1.1	77
48	Electrical properties of TiO <sub>2</sub> -filled polyimide nanocomposite films prepared via an in situ polymerization process. Synthetic Metals, 2010, 160, 2670-2674.	2.1	47
49	Advanced Calcium Copper Titanate/Polyimide Functional Hybrid Films with High Dielectric Permittivity. Advanced Materials, 2009, 21, 2077-2082.	11.1	378
50	Fabrication and Dielectric Characterization of Advanced BaTiO <sub>3</sub> /Polyimide Nanocomposite Films with High Thermal Stability. Advanced Functional Materials, 2008, 18, 1509-1517.	7.8	294
51	Mechanism analysis of improved corona-resistant characteristic in polyimide/TiO <sub>2</sub> nanohybrid films. Applied Physics Letters, 2008, 93, .	1.5	63
52	High dielectric permittivity silver/polyimide composite films with excellent thermal stability. Applied Physics Letters, 2008, 92, .	1.5	93
53	Morphology and Dielectric Property of Homogenous BaTiO <sub>3</sub> /PVDF Nanocomposites Prepared via the Natural Adsorption Action of Nanosized BaTiO <sub>3</sub> . Macromolecular Rapid Communications, 2005, 26, 1185-1189.	2.0	170