# Ming-Sheng Zheng

List of Publications by Year
in descending order



| 53 | 6,517 | 136740 32 | 174990 52 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 53 | 53 | 53 | 4464 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Fundamentals, processes and applications of high-permittivity polymerâ€“matrix composites. Progress in Materials Science, 2012, 57, 660-723. | 16.0 | 1,467 |
| 2 | Flexible Nanodielectric Materials with High Permittivity for Power Energy Storage. Advanced Materials, 2013, 25, 6334-6365. | 11.1 | 1,204 |
| 3 | 1D/2D Carbon Nanomaterialâ€Polymer Dielectric Composites with High Permittivity for Power Energy Storage Applications. Small, 2016, 12, 1688-1701. | 5.2 | 405 |
| 4 | Advanced Calcium Copper Titanate/Polyimide Functional Hybrid Films with High Dielectric Permittivity. Advanced Materials, 2009, 21, 2077-2082. | 11.1 | 378 |
| 5 | 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 |
| 6 | 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 |
| 7 | Recent Progress and Future Prospects on All-Organic Polymer Dielectrics for Energy Storage Capacitors. Chemical Reviews, 2022, 122, 3820-3878. | 23.0 | 240 |
| 8 | Morphology and Dielectric Property of Homogenous BaTiO3/PVDF Nanocomposites Prepared via the Natural Adsorption Action of Nanosized BaTiO3. Macromolecular Rapid Communications, 2005, 26, 1185-1189. | 2.0 | 170 |
| 9 | High-temperature polyimide dielectric materials for energy storage: theory, design, preparation and properties. Energy and Environmental Science, 2022, 15, 56-81. | 15.6 | 166 |
| 10 | Electrochemical performance of all-solid-state lithium batteries using inorganic lithium garnets particulate reinforced PEO/LiClO4 electrolyte. Electrochimica Acta, 2017, 253, 430-438. | 2.6 | 133 |
| 11 | Polymer-based dielectrics with high permittivity for electric energy storage: A review. Nano Energy, 2021, 89, 106438. | 8.2 | 130 |
| 12 | High energy density and discharge efficiency polypropylene nanocomposites for potential high-power capacitor. Energy Storage Materials, 2020, 27, 443-452. | 9.5 | 113 |
| 13 | Increased electroaction through a molecular flexibility tuning process in TiO2â€“polydimethylsilicone nanocomposites. Journal of Materials Chemistry A, 2013, 1, 3140. | 5.2 | 100 |
| 14 | High dielectric permittivity silver/polyimide composite films with excellent thermal stability. Applied Physics Letters, 2008, 92, . | 1.5 | 93 |
| 15 | Preparation and dielectric properties of coreâ€“shell structured Ag@polydopamine/poly(vinylidene) Tj ETQq1 1 0.784314 rgBT /Overlock | 3.8 | 85 |
| 16 | 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 |
| 17 | Soft, tough, and fast polyacrylate dielectric elastomer for non-magnetic motor. Nature Communications, 2021, 12, 4517. | 5.8 | 82 |
| 18 | Dielectric properties and effect of electrical aging on space charge accumulation in polyimide/TiO2 nanocomposite films. Journal of Applied Physics, 2010, 108, 094113. | 1.1 | 77 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | 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 |
| 20 | Mechanism analysis of improved corona-resistant characteristic in polyimide/TiO2 nanohybrid films. Applied Physics Letters, 2008, 93, . | 1.5 | 63 |
| 21 | Tailored high cycling performance in a solid polymer electrolyte with perovskite-type Li<sub>0.33</sub>La<sub>0.557</sub>TiO<sub>3</sub> nanofibers for all-solid-state lithium ion batteries. Dalton Transactions, 2019, 48, 3263-3269. | 1.6 | 52 |
| 22 | Enhanced breakdown strength of poly(vinylidene fluoride) utilizing rubber nanoparticles for energy storage application. Applied Physics Letters, 2016, 109, . | 1.5 | 51 |
| 23 | Electrical properties of TiO2-filled polyimide nanocomposite films prepared via an in situ polymerization process. Synthetic Metals, 2010, 160, 2670-2674. | 2.1 | 47 |
| 24 | Enhancement of breakdown strength of multilayer polymer film through electric field redistribution and defect modification. Applied Physics Letters, 2019, 114, 103702. | 1.5 | 46 |
| 25 | 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 |
| 26 | Distinctive electrical properties in sandwich-structured Al2O3/low density polyethylene nanocomposites. Applied Physics Letters, 2016, 108, . | 1.5 | 44 |
| 27 | 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 |
| 28 | Temperature-dependent electro-mechanical actuation sensitivity in stiffness-tunable BaTiO3/polydimethylsiloxane dielectric elastomer nanocomposites. Applied Physics Letters, 2015, 106, . | 1.5 | 38 |
| 29 | Allâ€Organic Dielectrics with High Breakdown Strength and Energy Storage Density for Highâ€Power Capacitors. Macromolecular Rapid Communications, 2021, 42, e2100116. | 2.0 | 38 |
| 30 | 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 |
| 31 | Significantly improved high-temperature charge-discharge efficiency of all-organic polyimide composites by suppressing space charges. Nano Energy, 2022, 99, 107410. | 8.2 | 36 |
| 32 | 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 |
| 33 | Review of dielectric elastomers for actuators, generators and sensors. IET Nanodielectrics, 2020, 3, 99-106. | 2.0 | 34 |
| 34 | 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 |
| 35 | Largely enhanced dielectric constant of PVDF nanocomposites through a coreâ€“shell strategy. Physical Chemistry Chemical Physics, 2018, 20, 2777-2786. | 1.3 | 29 |
| 36 | Recyclability and Selfâ€Healing of Dynamic Crossâ€Linked Polyimide with Mechanical/Electrical Damage. Energy and Environmental Materials, 2023, 6, . | 7.3 | 26 |

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|---|---|---|---|
| 37 | Thermal, electrical, and mechanical properties of additionâ€type liquid silicone rubber coâ€filled with <scp>Al<sub>2</sub>O<sub>3</sub></scp> particles and <scp>BN</scp> sheets. Journal of Applied Polymer Science, 2020, 137, 49399. | 1.3 | 21 |
| 38 | Theoretical analysis and application of polymerâ€matrix field grading materials in HVDC cable terminals. High Voltage, 2017, 2, 39-46. | 2.7 | 20 |
| 39 | Microstructure and electrical properties in three-component (Al<sub>2</sub>O<sub>3</sub>â€“TiO<sub>2</sub>)/polyimide nanocomposite films. Journal of Materials Research, 2010, 25, 2384-2391. | 1.2 | 17 |
| 40 | 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 |
| 41 | Improved mechanical and electrical properties in electrospun polyimide/multiwalled carbon nanotubes nanofibrous composites. Journal of Applied Physics, 2014, 116, 134104. | 1.1 | 15 |
| 42 | Tailored wide-frequency dielectric behavior of polyimide composite films with Ba<sub>x</sub>Sr<sub>1-x</sub>TiO<sub>3</sub>Perovskites ceramic particles. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 113-120. | 1.8 | 14 |
| 43 | 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 |
| 44 | Origin of large field-induced strain of azobenzene/polyurethane blend dielectric elastomers. RSC Advances, 2015, 5, 82215-82226. | 1.7 | 12 |
| 45 | Electrospun poly(ethylene oxide) nanofibrous composites with enhanced ionic conductivity as flexible solid polymer electrolytes. High Voltage, 2017, 2, 25-31. | 2.7 | 11 |
| 46 | Ductile polymer-based films with ultrahigh permittivity and low dielectric loss. Polymer, 2017, 130, 258-266. | 1.8 | 10 |
| 47 | Structural, electrical, and thermal features of polyimide composites filled with semiconductive MXene sheets. Applied Physics Letters, 2021, 118, . | 1.5 | 10 |
| 48 | Advanced dielectric elastomer based on optimized thermoplastic polyurethaneâ€“styrene ethylene butylene styrene blend: Experiment and simulation. Journal of Applied Polymer Science, 2022, 139, 51595. | 1.3 | 9 |
| 49 | Fabrication and actuation characterisation of a new UV curing acrylic dielectric elastomer. IET Nanodielectrics, 2022, 5, 104-111. | 2.0 | 7 |
| 50 | Dielectric Properties and Thermal Expansion of ZrW2 O8 /Polyimide Hybrid Films. Journal of Advanced Physics, 2012, 1, 48-53. | 0.4 | 5 |
| 51 | Integrated multifunctional properties of polypropylene composites by employing threeâ€dimensional flowerâ€like MgO with hierarchical surface morphology. IET Nanodielectrics, 2021, 4, 27-37. | 2.0 | 5 |
| 52 | Regulating dielectric performances of Poly(vinylidene fluoride) nanocomposites by individually controlling shell thickness of Core@Doubleâ€Shells structured nanowires. IET Nanodielectrics, 2021, 4, 11-20. | 2.0 | 5 |
| 53 | Preparation of New Acrylic-Based Dielectric Elastomers Based on Complexation of Ca<sup>2</sup>+ Ions with Carboxyl Groups Displaying Excellent Performance. , 2018, , . | | 0 |