Tian-Dong Zhang

List of Publications by Year
in descending order

69	2,965	172207	168136
papers	citations	29 h-index	53 g-index

69	69	69	1557
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Excellent energy storage performance and thermal property of polymer-based composite induced by multifunctional one-dimensional nanofibers oriented in-plane direction. Nano Energy, 2019, 56, 138-150.	8.2	289
2	Ultrahigh discharge efficiency and excellent energy density in oriented core-shell nanofiber-polyetherimide composites. Energy Storage Materials, 2020, 25, 180-192.	9.5	152
3	Sandwich-structured polymers with electrospun boron nitrides layers as high-temperature energy storage dielectrics. Chemical Engineering Journal, 2020, 389, 124443.	6.6	143
4	High Energy Storage Performance of Opposite Doubleâ€Heterojunction Ferroelectricityâ€“Insulators. Advanced Functional Materials, 2018, 28, 1706211.	7.8	117
5	High Energy Storage Density for Poly(vinylidene fluoride) Composites by Introduced Coreâ€“Shell CaCu₃Ti₄O₁₂@Al₂O₃ Nanofibers. ACS Sustainable Chemistry and Engineering, 2018, 6, 8641-8649.	3.2	112
6	Excellent Energy Storage of Sandwich-Structured PVDF-Based Composite at Low Electric Field by Introduction of the Hybrid CoFe₂O₄@BZTâ€“BCT Nanofibers. ACS Sustainable Chemistry and Engineering, 2018, 6, 403-412.	3.2	110
7	Highâ€Energy Storage Density and Efficiency of (1â^'x)[0.94â€‰NBTâ€“0.06â€‰BT]â€“xST Leadâ€Free Ceramics. Energy Technology, 2015, 3, 1198-1204.	1.8	109
8	Sandwich-Structured PVDF-Based Composite Incorporated with Hybrid Fe₃O₄@BN Nanosheets for Excellent Dielectric Properties and Energy Storage Performance. Journal of Physical Chemistry C, 2018, 122, 1500-1512.	1.5	108
9	Recent Advances in Multilayerâ€Structure Dielectrics for Energy Storage Application. Advanced Science, 2021, 8, e2102221.	5.6	105
10	Mn doping to enhance energy storage performance of lead-free 0.7NBT-0.3ST thin films with weak oxygen vacancies. Applied Physics Letters, 2017, 110, .	1.5	97
11	Polymer dielectric films exhibiting superior high-temperature capacitive performance by utilizing an inorganic insulation interlayer. Materials Horizons, 2022, 9, 1273-1282.	6.4	93
12	Energy storage enhancement of P(VDF-TrFE-CFE)-based composites with double-shell structured BZCT nanofibers of parallel and orthogonal configurations. Nano Energy, 2019, 66, 104195.	8.2	89
13	Excellent energy storage density and efficiency in blend polymer-based composites by design of core-shell structured inorganic fibers and sandwich structured films. Composites Part B: Engineering, 2019, 177, 107429.	5.9	89
14	Excellent Energy Storage Properties with High-Temperature Stability in Sandwich-Structured Polyimide-Based Composite Films. ACS Sustainable Chemistry and Engineering, 2019, 7, 748-757.	3.2	88
15	A blended binary composite of poly(vinylidene fluoride) and poly(methyl methacrylate) exhibiting excellent energy storage performances. Journal of Materials Chemistry C, 2019, 7, 14148-14158.	2.7	74
16	PVDF-Based Dielectric Composite Films with Excellent Energy Storage Performances by Design of Nanofibers Composition Gradient Structure. ACS Applied Energy Materials, 2018, 1, 6320-6329.	2.5	70
17	Highâ€energy storage density and excellent temperature stability in antiferroelectric/ferroelectric bilayer thin films. Journal of the American Ceramic Society, 2017, 100, 3080-3087.	1.9	66
18	Excellent Energy Storage Performance of Ferroconcrete-like All-Organic Linear/Ferroelectric Polymer Films Utilizing Interface Engineering. ACS Applied Materials & Interfaces, 2020, 12, 56424-56434.	4.0	66

#	Article	IF	Citations
19	High-temperature all-organic energy storage dielectric with the performance of self-adjusting electric field distribution. Journal of Materials Chemistry A, 2021, 9, 16384-16394.	5.2	65
20	High energy storage density and efficiency in aligned nanofiber filled nanocomposites with multilayer structure. Composites Part B: Engineering, 2020, 198, 108206.	5.9	64
21	High energy storage density at low electric field of ABO3 antiferroelectric films with ionic pair doping. Energy Storage Materials, 2019, 18, 238-245.	9.5	61
22	Polymer nanocomposites with excellent energy storage performances by utilizing the dielectric properties of inorganic fillers. Chemical Engineering Journal, 2021, 408, 127314.	6.6	61
23	Designing of Ferroelectric/Linear Dielectric Bilayer Films: An Effective Way to Improve the Energy Storage Performances of Polymer-Based Capacitors. Journal of Physical Chemistry C, 2020, 124, 5920-5927.	1.5	52
24	Double-gradients design of polymer nanocomposites with high energy density. Energy Storage Materials, 2022, 44, 73-81.	9.5	51
25	Polymer/metal multi-layers structured composites: A route to high dielectric constant and suppressed dielectric loss. Applied Physics Letters, 2018, 112, .	1.5	47
26	Microstructures and energy storage property of sandwiched BZT-BCT@Fe3O4/polyimide composites. Journal of Materials Science: Materials in Electronics, 2019, 30, 1-8.	1.1	46
27	Significantly Improved Energy Storage Performance of PVDF Ferroelectric Films by Blending PMMA and Filling PCBM. ACS Sustainable Chemistry and Engineering, 2021, 9, 16291-16303.	3.2	42
28	Giant electrocaloric effect in PZT bilayer thin films by utilizing the electric field engineering. Applied Physics Letters, 2016, 108, 162902.	1.5	38
29	Positive/negative electrocaloric effect induced by defect dipoles in PZT ferroelectric bilayer thin films. RSC Advances, 2016, 6, 71934-71939.	1.7	36
30	Improved Energy Storage Performance of All-Organic Composite Dielectric via Constructing Sandwich Structure. Polymers, 2020, 12, 1972.	2.0	30
31	Enhanced Energy Storage Characteristics in PVDF-Based Nanodielectrics With Core-Shell Structured and Optimized Shape Fillers. IEEE Access, 2020, 8, 81542-81550.	2.6	30
32	Self-polarization and energy storage performance in antiferroelectric-insulator multilayer thin films. Composites Part B: Engineering, 2021, 221, 109027.	5.9	29
33	Double gradient composite dielectric with high energy density and efficiency. Journal of Materials Chemistry A, 2022, 10, 15183-15195.	5.2	28
34	Machine learning and microstructure design of polymer nanocomposites for energy storage application. High Voltage, 2022, 7, 242-250.	2.7	24
35	Improved HighâEŤemperature Energy Storage Performance of PEI Dielectric Films by Introducing an SiO₂ Insulating Layer. Macromolecular Materials and Engineering, 2021, 306, 2100514.	1.7	24
36	Optimizing sandwich-structured composites based on the structure of the filler and the polymer matrix: toward high energy storage properties. RSC Advances, 2019, 9, 33229-33237.	1.7	22

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37	Multiferroic Properties and Magnetic Anisotropy in P(VDF-TrFE) Composites with Oriented CoFe₂O₄ Nanofibers. Journal of Physical Chemistry C, 2021, 125, 8840-8852.	1.5	22
38	Giant electrocaloric effect in compositionally graded PZT multilayer thin films. Journal of Alloys and Compounds, 2018, 731, 489-495.	2.8	19
39	Designing of surface modification and sandwich structure: effective routs to improve energy storage property in polyimide-based composite films. Journal of Materials Science: Materials in Electronics, 2019, 30, 19956-19965.	1.1	18
40	Study on nonlinear conductivity and breakdown characteristics of zinc oxideâ€“hexagonal boron nitride/EPDM composites. Journal of Materials Science: Materials in Electronics, 2018, 29, 19678-19688.	1.1	15
41	Improved energy storage performances of solution-processable ferroelectric polymer by modulating of microscopic and mesoscopic structure. Composites Part B: Engineering, 2020, 199, 108312.	5.9	14
42	Energy storage properties of P(VDFâ€TrFEâ€CTFE)â€based composite dielectrics with uniform and gradientâ€doped boron nitride nanosheets. IET Nanodielectrics, 2022, 5, 50-61.	2.0	13
43	Interesting Influence of Different Inorganic Particles on the Energy Storage Performance of a Polyethersulfone-Based Dielectric Composite. ACS Applied Energy Materials, 2022, 5, 3545-3557.	2.5	13
44	High Energy Storage Performance of All-Inorganic Flexible Antiferroelectricâ€“Insulator Multilayered Thin Films. ACS Applied Materials & Interfaces, 2022, 14, 28997-29006.	4.0	13
45	Excellent energy storage performance for P(VDF-TrFE-CFE) composites by filling coreâ€“shell structured inorganic fibers. Journal of Materials Science: Materials in Electronics, 2020, 31, 21128-21141.	1.1	11
46	High energy storage performance for flexible PbZrO3 thin films by seed layer engineering. Ceramics International, 2022, 48, 23840-23848.	2.3	10
47	Improved Energy Storage Performance of P(VDF-TrFE-CFE) Multilayer Films by Utilizing Inorganic Functional Layers. ACS Applied Energy Materials, 2021, 4, 11726-11734.	2.5	9
48	Investigation of electrical and mechanical properties of silver-hexagonal boron nitride/EPDM composites. Journal of Materials Science: Materials in Electronics, 2019, 30, 13321-13329.	1.1	8
49	Study on nonlinear conductivity of copper-titanate-calcium/liquid silicone rubber composites. IEEE Transactions on Dielectrics and Electrical Insulation, 2019, 26, 681-688.	1.8	8
50	Nonlinear conductivity and breakdown strength characteristics of silicon carbide and hexagonal boron nitride co-doped epoxy resin composites. AIP Advances, 2020, 10, .	0.6	8
51	Designing coexisting multi-phases in PZT multilayer thin films: an effective way to induce large electrocaloric effect. RSC Advances, 2020, 10, 6603-6608.	1.7	8
52	Thermal and Electrical Properties of Epoxy Composites Filled with 3D hâ€BN/TOCNF Fillers. Macromolecular Materials and Engineering, 2022, 307, .	1.7	8
53	Effect of humidity on the microstructure and energy storage properties of polyetherimide. Applied Physics Letters, 2021, 119, .	1.5	7
54	Effect of TiO2 size factor on the electrical properties of polyethylene matrix dielectrics. Results in Physics, 2018, 11, 52-57.	2.0	5

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55	Effect of nano-fillers on nonlinear conduction and DC breakdown characteristics of epoxy composites. Journal of Materials Science: Materials in Electronics, 2019, 30, 10293-10301.	1.1	5
56	Study on nonlinear conductivity of copper-titanate-calcium/liquid silicone rubber composites. IEEE Transactions on Dielectrics and Electrical Insulation, 2019, 26, 681-688.	1.8	4
57	Investigation of electrical properties of ZnO@Ag/EPDM composites. AIP Advances, 2020, 10, .	0.6	3
58	Electrical, mechanical and thermal properties of ZnO/SiR composite dielectric. Journal of Materials Science: Materials in Electronics, 2021, 32, 17253-17265.	1.1	3
59	Structure, dielectric, ferroelectric, and energy density properties of polyethersulfone-based composite for energy storage application. Journal of Materials Science: Materials in Electronics, 2022, 33, 12884-12899.	1.1	3
60	Structureâ€Property Relationships: High Energy Storage Performance of Opposite Doubleâ€Heterojunction Ferroelectricityâ€“Insulators (Adv. Funct. Mater. 10/2018). Advanced Functional Materials, 2018, 28, 1870066.	7.8	2
61	Effect of MWCNTs/ZnO inorganic fillers on the electrical, mechanical and thermal properties of SiR-based composites. Journal of Materials Science: Materials in Electronics, 2021, 32, 27676-27687.	1.1	2
62	Investigations on the Electrical Performances of CuNPs/BN/EPDM Composites. Journal of Electronic Materials, 2022, 51, 1349-1357.	1.0	2
63	Heat-resistant and electrical properties of bismaleimide modified epoxy resin. Journal of Materials Science: Materials in Electronics, 2022, 33, 17868-17876.	1.1	2
64	Study on Nonlinear Conductivity and Breakdown Characteristics of Zinc Oxide Nano Sheets/EPDM Composites. , 2019, , .		1
65	High Temperature Dielectric Materials for Electrical Energy Storage. , 2021, , 653-674.		1
66	Excellent Energy Storage of PVTC-Based Composites at Low Electric Field by Filling with Core-Shell CCTO@SiO₂ Nanoparticles. , 2021, , .		1
67	Study on the Energy Storage Perfomance of Al2O3 /PVDF Hybrid Film Based on Sol Blending Doping Strategy. , 2021, , .		0
68	Study on electrical properties of donor ZnO nanoparticles/EPDM composites. Journal of Materials Science: Materials in Electronics, 2021, 32, 26894-26904.	1.1	0
69	Improved Energy Storage Density in Polymethyl Methacrylate Nanocomposites by Filling with High Aspect Ratio BaSrTiO3Nanofibers. , 2020, , .		0