Shuxiang Dong

List of Publications by Year
in descending order

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111 papers	8,905 citations	87843 38 h-index	40954 93 g-index
112 all docs	112 docs citations	112 times ranked	5250 citing authors

#	Article	IF	Citations
1	Multiferroic magnetoelectric composites: Historical perspective, status, and future directions. Journal of Applied Physics, 2008, 103, .	1.1	3,224
2	Magnetoelectric Laminate Composites: An Overview. Journal of the American Ceramic Society, 2008, 91, 351-358.	1.9	397
3	Near-ideal magnetoelectricity in high-permeability magnetostrictive/piezofiber laminates with a (2-1) connectivity. Applied Physics Letters, 2006, 89, 252904.	1.5	342
4	Enhanced magnetoelectric effects in laminate composites of Terfenol-D/Pb(Zr,Ti)O3 under resonant drive. Applied Physics Letters, 2003, 83, 4812-4814.	1.5	319
5	Giant magnetoelectric effect in Metglas/polyvinylidene-fluoride laminates. Applied Physics Letters, 2006, 89, 083507.	1.5	233
6	Piezoelectric Actuators and Motors: Materials, Designs, and Applications. Advanced Materials Technologies, 2020, 5, 1900716.	3.0	224
7	Push-pull mode magnetostrictive/piezoelectric laminate composite with an enhanced magnetoelectric voltage coefficient. Applied Physics Letters, 2005, 87, 062502.	1.5	195
8	Review of multi-layered magnetoelectric composite materials and devices applications. Journal Physics D: Applied Physics, 2018, 51, 243001.	1.3	193
9	Multimodal system for harvesting magnetic and mechanical energy. Applied Physics Letters, 2008, 93, .	1.5	161
10	Characterization of magnetoelectric laminate composites operated in longitudinal-transverse and transverseâ€“transverse modes. Journal of Applied Physics, 2004, 95, 2625-2630.	1.1	152
11	Giant Piezoelectric Coefficients in Relaxor Piezoelectric Ceramic PNNâ€PZT for Vibration Energy Harvesting. Advanced Functional Materials, 2018, 28, 1706895.	7.8	152
12	Enhanced Resonance Magnetoelectric Coupling in (1â€1) Connectivity Composites. Advanced Materials, 2017, 29, 1606022.	11.1	137
13	Piezoelectric ultrasonic micromotor with 1.5 mm diameter. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2003, 50, 361-367.	1.7	122
14	Highâ€Temperature BiScO₃â€PbTiO₃ Piezoelectric Vibration Energy Harvester. Advanced Functional Materials, 2016, 26, 7186-7194.	7.8	116
15	Energy harvesting from ambient low-frequency magnetic field using magneto-mechano-electric composite cantilever. Applied Physics Letters, 2014, 104, .	1.5	109
16	Extremely low frequency response of magnetoelectric multilayer composites. Applied Physics Letters, 2005, 86, 102901.	1.5	101
17	A 3D-printed, alternatively tilt-polarized PVDF-TrFE polymer with enhanced piezoelectric effect for self-powered sensor application. Nano Energy, 2021, 85, 105985.	8.2	86
18	Magnetoelectric gyration effect in Tb1â^'xDyxFe2â^'yâ^•Pb(Zr,Ti)O3 laminated composites at the electromechanical resonance. Applied Physics Letters, 2006, 89, 243512.	1.5	84

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19	Magnetoelectric coupling, efficiency, and voltage gain effect in piezoelectric-piezomagnetic laminate composites. Journal of Materials Science, 2006, 41, 97-106.	1.7	84
20	Giant magnetoelectric effect (under a dc magnetic bias of 2Oe) in laminate composites of FeBSiC alloy ribbons and Pb(Zn1âˆ•3,Nb2âˆ•3)O3â€“7%PbTiO3 fibers. Applied Physics Letters, 2007, 91, 022915.	1.5	84
21	Longitudinal and transverse magnetoelectric voltage coefficients of magnetostrictive/ piezoelectric laminate composite: experiments. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2004, 51, 794-799.	1.7	83
22	REVIEW ON PIEZOELECTRIC, ULTRASONIC, AND MAGNETOELECTRIC ACTUATORS. Journal of Advanced Dielectrics, 2012, 02, 1230001.	1.5	83
23	The large piezoelectricity and high power density of a 3D-printed multilayer copolymer in a rugby ball-structured mechanical energy harvester. Energy and Environmental Science, 2020, 13, 152-161.	15.6	82
24	Magnetostrictive and magnetoelectric behavior of Feâ€“20at.% Gaâˆ•Pb(Zr,Ti)O3 laminates. Journal of Applied Physics, 2005, 97, 103902.	1.1	74
25	Feâ€“Gaâˆ•Pb(Mg1âˆ•3Nb2âˆ•3)O3â€“PbTiO3 magnetoelectric laminate composites. Applied Physics Letters, 2005, 87, 222504.	1.5	72
26	Temperature dependence of dielectric, piezoelectric and elastic properties of BiScO3â€“PbTiO3 high temperature ceramics with morphotropic phase boundary (MPB) composition. Journal of Alloys and Compounds, 2012, 537, 280-285.	2.8	72
27	A quasi(unidirectional) Tellegen gyrator. Journal of Applied Physics, 2006, 100, 124509.	1.1	67
28	A tunable ring-type magnetoelectric inductor. Journal of Applied Physics, 2010, 108, .	1.1	67
29	A flex-compressive-mode piezoelectric transducer for mechanical vibration/strain energy harvesting. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 698-703.	1.7	63
30	Colossal low-frequency resonant magnetomechanical and magnetoelectric effects in a three-phase ferromagnetic/elastic/piezoelectric composite. Applied Physics Letters, 2012, 101, .	1.5	58
31	3D-printed flexible, Ag-coated PNN-PZT ceramic-polymer grid-composite for electromechanical energy conversion. Nano Energy, 2020, 73, 104737.	8.2	57
32	Review on high temperature piezoelectric ceramics and actuators based on BiScO₃â€“PbTiO₃ solid solutions. Journal of Advanced Dielectrics, 2014, 04, 1430002.	1.5	53
33	A standing wave linear ultrasonic motor operating in in-plane expanding and bending modes. Review of Scientific Instruments, 2015, 86, 035002.	0.6	48
34	Designing electromechanical metamaterial with full nonzero piezoelectric coefficients. Science Advances, 2019, 5, eaax1782.	4.7	48
35	A barbell-shaped high-temperature piezoelectric vibration energy harvester based on BiScO3-PbTiO3 ceramic. Applied Physics Letters, 2016, 109, .	1.5	47
36	Excitation of fundamental shear horizontal wave by using face-shear (d36) piezoelectric ceramics. Journal of Applied Physics, 2016, 119, .	1.1	47

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37	Dual-stimulus magnetoelectric energy harvesting. MRS Bulletin, 2018, 43, 199-205.	1.7	47
38	Piezoelectric Ring-Morph Actuators for Valve Application. , 2002, 8, 155-161.		44
39	A double-mode piezoelectric single-crystal ultrasonic micro-actuator. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 2596-2600.	1.7	41
40	Versatile power and energy conversion of magnetoelectric composite materials with high efficiency via electromechanical resonance. Nano Energy, 2020, 70, 104506.	8.2	40
41	Thermal noise cancellation in symmetric magnetoelectric bimorph laminates. Applied Physics Letters, 2008, 93, 072906.	1.5	38
42	A high-temperature double-mode piezoelectric ultrasonic linear motor. Applied Physics Letters, 2012, 101, 072902.	1.5	37
43	Analytical solutions for the transverse deflection of a piezoelectric circular axisymmetric unimorph actuator. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2007, 54, 1240-1249.	1.7	36
44	Theoretical analyses on effective magnetoelectric coupling coefficients in piezoelectric/piezomagnetic laminates. Journal of Applied Physics, 2011, 109, .	1.1	34
45	A square-plate ultrasonic linear motor operating in two orthogonal first bending modes. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 115-120.	1.7	34
46	A standing wave linear ultrasonic motor operating in face-diagonal-bending mode. Applied Physics Letters, 2013, 103, .	1.5	34
47	A magnetoelectric flux gate: new approach for weak DC magnetic field detection. Scientific Reports, 2017, 7, 8592.	1.6	32
48	A flexible, wave-shaped P(VDF-TrFE)/metglas piezoelectric composite for wearable applications. Journal of Applied Physics, 2016, 120, .	1.1	31
49	A low-power and high-sensitivity magnetic field sensor based on converse magnetoelectric effect. Applied Physics Letters, 2019, 115, .	1.5	30
50	(Na_{1/2}Bi_{1/2})TiO₃â€based leadâ€free coâ€fired multilayer actuators with large strain and high fatigue resistance. Journal of the American Ceramic Society, 2019, 102, 6147-6155.	1.9	30
51	High-performance Pb(Ni1/3Nb2/3)O3-PbZrO3-PbTiO3 ceramics with the triple point composition. Journal of the European Ceramic Society, 2021, 41, 6983-6990.	2.8	30
52	MnO 2 doped PSNâ€“PZNâ€“PZT piezoelectric ceramics for resonant actuator application. Journal of Alloys and Compounds, 2014, 615, 676-682.	2.8	29
53	A multilayered-cylindrical piezoelectric shear actuator operating in shear (d15) mode. Applied Physics Letters, 2018, 112, .	1.5	26
54	Magnetoelectric devices based on magnetoelectric bulk composites. Journal of Materials Chemistry C, 2021, 9, 5594-5614.	2.7	26

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55	A spiral motion piezoelectric micromotor for autofocus and auto zoom in a medical endoscope. Applied Physics Letters, 2016, 108, 052902.	1.5	25
56	A modified barbell-shaped PNN-PZT-PIN piezoelectric ceramic energy harvester. Applied Physics Letters, 2017, 111, .	1.5	25
57	Voltage-Driven Nonlinearity in Magnetoelectric Heterostructures. Physical Review Applied, 2019, 12, .	1.5	24
58	A 1D Magnetoelectric Sensor Array for Magnetic Sketching. Advanced Materials Technologies, 2019, 4, 1800484.	3.0	24
59	High-temperature actuation performance of BiScO₃â€“PbTiO₃ ceramics and their multilayer configuration. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 446-450.	1.7	23
60	Enhanced low-frequency magnetic field sensitivity in magnetoelectric composite with amplitude modulation method. Applied Physics Letters, 2019, 114, .	1.5	23
61	Ultralow dielectric loss of BiScO3-PbTiO3 ceramics by Bi(Mn1/2Zr1/2)O3 modification. Journal of the European Ceramic Society, 2020, 40, 3003-3010.	2.8	22
62	A high-temperature piezoelectric linear actuator operating in two orthogonal first bending modes. Applied Physics Letters, 2013, 102, .	1.5	21
63	High-order face-shear modes of relaxor-PbTiO3 crystals for piezoelectric motor applications. Applied Physics Letters, 2014, 104, .	1.5	21
64	Full set of material constants of (Na0.5K0.5)NbO3â€“BaZrO3â€“(Bi0.5Li0.5)TiO3 lead-free piezoelectric ceramics at the morphotropic phase boundary. Journal of Alloys and Compounds, 2016, 655, 290-295.	2.8	21
65	Low-power eddy current detection with 1-1 type magnetoelectric sensor for pipeline cracks monitoring. Sensors and Actuators A: Physical, 2021, 318, 112496.	2.0	21
66	Significantly Enhanced Power Generation from Extremely Lowâ€Intensity Magnetic Field via a Clampedâ€Clamped Magnetoâ€Mechanoâ€Electric Generator. Advanced Energy Materials, 2022, 12, .	10.2	20
67	Investigation on Resonant Vibration Performances of Feâ€Doped BiScO₃â€“PbTiO₃ Ceramics in Highâ€Temperature Environment. Journal of the American Ceramic Society, 2015, 98, 3145-3152.	1.9	19
68	Novel method for driving the ultrasonic motor. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2002, 49, 1356-1362.	1.7	18
69	A shear-bending mode high temperature piezoelectric actuator. Applied Physics Letters, 2012, 101, .	1.5	18
70	A magneto-mechano-electric (MME) energy harvester based on rectangular cymbal structure. Sensors and Actuators A: Physical, 2020, 316, 112400.	2.0	18
71	A micromachined piezoelectric microgripper for manipulation of micro/nanomaterials. Review of Scientific Instruments, 2017, 88, 065002.	0.6	17
72	A hexagonal-framed magnetoelectric composite for magnetic vector measurement. Applied Physics Letters, 2018, 113, .	1.5	17

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73	A PMNNâ€PZT Piezoceramic Based Magnetoâ€Mechanoâ€Electric Coupled Energy Harvester. Advanced Functional Materials, 2022, 32, .	7.8	17
74	A Magnetoelectric Compass for In-Plane AC Magnetic Field Detection. IEEE Transactions on Industrial Electronics, 2021, 68, 3527-3536.	5.2	16
75	Theoretical analysis on low frequency magneto-mechano-electric coupling behavior in piezo-unimorph/magnet composite. Journal of Applied Physics, 2014, 115, 164104.	1.1	15
76	A square-plate piezoelectric linear motor operating in two orthogonal and isomorphic face-diagonal-bending modes. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 159-165.	1.7	15
77	Enhanced piezoelectric performance of BiScO3-PbTiO3 ceramics modified by 0.03Pb(Sb1/2Nb1/2)O3. Journal of Alloys and Compounds, 2018, 731, 1140-1145.	2.8	15
78	A ring-shaped, linear piezoelectric ultrasonic motor operating in E01 mode. Applied Physics Letters, 2020, 116, .	1.5	15
79	Designing Ordered Structure with Piezoceramic Actuation Units (OSPAU) for Generating Continual Nanostep Motion. Advanced Science, 2020, 7, 2001155.	5.6	15
80	Designing Artificial Vibration Modes of Piezoelectric Devices Using Programmable, 3D Ordered Structure with Piezoceramic Strain Units. Advanced Materials, 2022, 34, e2107236.	11.1	15
81	Low temperature sintering of Li2CO3 added Pb(Ni1/3Nb2/3)-Pb(Zr,Ti)O3 ceramics with high piezoelectric properties. Journal of Alloys and Compounds, 2022, 892, 162132.	2.8	14
82	Ring Type Uni/Bimorph Piezoelectric Actuators. Journal of Intelligent Material Systems and Structures, 2001, 12, 613-616.	1.4	13
83	Actuation performance and heat generation of shear-bending actuator based on BiScO3-PbTiO3 ceramics from 25 to 300â€‰Â°C. Applied Physics Letters, 2015, 107, .	1.5	13
84	Enhancing weak magnetic field MME coupling in NdFeB magnet/piezoelectric composite cantilevers with stress concentration effect. Applied Physics Letters, 2021, 118, .	1.5	13
85	3D-printed flexible, multilayered ceramic-polymer composite grid with integrated structural-self-sensing function. Sensors and Actuators A: Physical, 2021, 332, 113187.	2.0	13
86	An approach combining additive manufacturing and dielectrophoresis for 3D-structured flexible lead-free piezoelectric composites for electromechanical energy conversion. Journal of Materials Chemistry A, 2021, 9, 26767-26776.	5.2	13
87	Enhanced self-bias magnetoelectric effect in locally heat-treated ME laminated composite. Applied Physics Letters, 2019, 115, .	1.5	12
88	A Piezoelectric and Electromagnetic Dual Mechanism Multimodal Linear Actuator for Generating Macro- and Nanomotion. Research, 2019, 2019, 8232097.	2.8	12
89	A piezoelectric pseudo-bimorph actuator. Applied Physics Letters, 2013, 102, .	1.5	10
90	Electrode shape dependence of the barbell-shaped magneto-mechano-electric energy harvester for low-frequency applications. Sensors and Actuators A: Physical, 2019, 297, 111535.	2.0	10

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91	Quantitative studies of domain evolution in tetragonal BSâ€“PT ceramics in electric poling and thermal depoling processes. Journal of Materials Chemistry C, 2019, 7, 4517-4526.	2.7	10
92	A piezoelectric single-crystal ultrasonic microactuator for driving optics. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 2737-2742.	1.7	9
93	A diffraction-plane-transformation model for quantitatively evaluating 90Â° domain evolution in tetragonal BS-PT piezoelectric ceramic. Journal of Alloys and Compounds, 2018, 745, 669-676.	2.8	9
94	A ring-shaped linear ultrasonic motor based on PSN-PMS-PZT ceramic. Sensors and Actuators A: Physical, 2020, 309, 112036.	2.0	9
95	Quantitative domain engineering for realizing d36 piezoelectric coefficient in tetragonal ceramics. Acta Materialia, 2020, 188, 416-423.	3.8	9
96	Unconventional piezoelectric coefficients in perovskite piezoelectric ceramics. Journal of Materiomics, 2021, 7, 254-263.	2.8	9
97	Tailoring Artificial Mode to Enable Cofired Integration of Shearâ€type Piezoelectric Devices. Advanced Science, 2020, 7, 2001368.	5.6	7
98	Enhancing high power performances of Pb(Mn1/3Nb2/3)O3â€“Pb(Zr,Ti)O3 ceramics by Bi(Ni1/2Ti1/2)O3 modification. Ceramics International, 2020, 46, 19103-19110.	2.3	7
99	A bending-bending mode piezoelectric actuator based on PIN-PMN-PT crystal stacks. Sensors and Actuators A: Physical, 2021, 331, 113052.	2.0	7
100	Jumping and hysteresis effect in 1â€“1-typed magnetoelectric resonators. Applied Physics Letters, 2021, 119, .	1.5	7
101	A robust, low-voltage driven millirobot based on transparent ferroelectric crystals. Applied Physics Letters, 2022, 120, .	1.5	7
102	Development of hard high-temperature piezoelectric ceramics for actuator applications. Journal of Materials Science: Materials in Electronics, 2015, 26, 9350-9354.	1.1	6
103	A square-framed ME composite with inherent multiple resonant peaks for broadband magnetoelectric response. Science Bulletin, 2017, 62, 1177-1180.	4.3	6
104	Magnetoelectric coupling of a magnetoelectric flux gate sensor in vibration noise circumstance. AIP Advances, 2018, 8, .	0.6	6
105	A differential magnetoelectric laminated composite for vibration noise suppression. Science Bulletin, 2014, 59, 5223-5226.	1.7	5
106	Highly Sensitive Magneto-Mechano-Electric Magnetic Field Sensor Based on Torque Effect. IEEE Sensors Journal, 2021, 21, 1409-1416.	2.4	4
107	A co-fired multilayer PMnS-PZT ceramic based linear piezoelectric ultrasonic micromotor with a high-load-density. Applied Physics Letters, 2022, 120, .	1.5	4
108	Theoretical analysis on shear-bending deflection of a ring-shape piezoelectric plate. AIP Advances, 2016, 6, .	0.6	3

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109	Monolithic piezoceramic actuators with a twist. Science China Materials, 2021, 64, 2777-2785.	3.5	2
110	Piezoelectrically actuated vibrating flexible differential capacitances for electrostatic detection. Applied Physics Letters, 2019, 114, .	1.5	1
111	10.1063/1.4985110.1. , 2017, , .		0