

# Yaojin Wang

## List of Publications by Year in descending order

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86  
papers

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citations

201385

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86  
all docs

86  
docs citations

86  
times ranked

2472  
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-powered energy-harvesting magnetic field sensor. Applied Physics Letters, 2022, 120, .	1.5	14
2	High pyroelectric performance in $\text{Pb}_{0.99}\text{Nb}_{0.02}[(\text{Zr}_{0.57}\text{Sn}_{0.43})_{0.94}\text{Ti}_{0.06}]_{0.98}\text{Sb}_{0.02}$ composites by design. Journal of the American Ceramic Society, 2022, 105, 3331-3338.		
3	A Biodegradable and Recyclable Piezoelectric Sensor Based on a Molecular Ferroelectric Embedded in a Bacterial Cellulose Hydrogel. ACS Nano, 2022, 16, 3744-3755.	7.3	68
4	Large pyroelectricity via engineered ferroelectric-relaxor phase boundary. Journal of the American Ceramic Society, 2022, 105, 5230-5239.	1.9	6
5	Flexible multi-state nonvolatile antiferroelectric memory. Journal of the American Ceramic Society, 2022, 105, 6232-6240.	1.9	3
6	Robust Flexo-catalysis in Centrosymmetric Nanoparticles. Advanced Materials Technologies, 2022, 7, .	3.0	6
7	Ultrasensitive flexible magnetoelectric sensor. APL Materials, 2021, 9, .	2.2	25
8	Giant Bulk Photostriction of Lead Halide Perovskite Single Crystals. ACS Applied Materials & Interfaces, 2021, 13, 32263-32269.	4.0	6
9	Flexible and transparent piezoelectric loudspeaker. Npj Flexible Electronics, 2021, 5, .	5.1	21
10	Large Piezoelectricity in Ternary Lead-free Single Crystals. Advanced Electronic Materials, 2020, 6, 1900949.	2.6	83
11	Structural Tailing and Pyroelectric Energy Harvesting of P(VDF-TrFE) and P(VDF-TrFE-CTFE) Ferroelectric Polymer Blends. ACS Omega, 2020, 5, 13712-13718.	1.6	11
12	Piezo-catalysis for nondestructive tooth whitening. Nature Communications, 2020, 11, 1328.	5.8	236
13	Heat Recovery Assisted by Thermomagnetic-Electric Conversion. ACS Applied Electronic Materials, 2020, 2, 1048-1054.	2.0	3
14	Photovoltaic, photo-impedance, and photo-capacitance effects of the flexible (111) BiFeO <sub>3</sub> film. Applied Physics Letters, 2019, 115, .	1.5	26
15	Toward artificial intelligent self-cooling electronic skins: Large electrocaloric effect in all-inorganic flexible thin films at room temperature. Journal of Materiomics, 2019, 5, 66-72.	2.8	16
16	Anti-parallel polarization switching in a triglycine sulfate organic ferroelectric insulator: The role of surface charges. Applied Physics Letters, 2018, 112, .	1.5	4
17	Pyro-catalytic hydrogen evolution by $\text{Ba}_{0.7}\text{Sr}_{0.3}\text{TiO}_3$ nanoparticles: harvesting cold-hot alternation energy near room-temperature. Energy and Environmental Science, 2018, 11, 2198-2207.	15.6	157
18	Giant strain and electric-field-induced phase transition in lead-free $(\text{Na}_{0.5}\text{Bi}_{0.5})\text{TiO}_3\text{-BaTiO}_3\text{-(K}_{0.5}\text{Na}_{0.5})\text{NbO}_3$ single crystal. Applied Physics Letters, 2016, 108, .	1.5	42

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19	Hierarchical domain structure of lead-free piezoelectric (Na <sup>1/2</sup> Bi <sup>1/2</sup> )TiO <sub>3</sub> -(K <sup>1/2</sup> Bi <sup>1/2</sup> )TiO <sub>3</sub> single crystals. Journal of Applied Physics, 2016, 119, 174102.	1.1	5
20	The enhanced photocurrent of epitaxial BiFeO <sub>3</sub> film at 130°C. Journal of Applied Physics, 2016, 119, .	1.1	28
21	A differential magnetoelectric heterostructure: Internal noise reduction and external noise cancellation. Journal of Applied Physics, 2015, 118, 214103.	1.1	12
22	Mechanical Noise Limit of a Strain-Coupled Magneto(Elasto)electric Sensor Operating Under a Magnetic or an Electric Field Modulation. IEEE Sensors Journal, 2015, 15, 1575-1587.	2.4	26
23	Sensitivity and Noise Evaluation of a Bonded Magneto(elasto) Electric Laminated Sensor Based on In-Plane Magnetocapacitance Effect for Quasi-Static Magnetic Field Sensing. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	15
24	Giant strain with ultra-low hysteresis and high temperature stability in grain oriented lead-free K <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> -BaTiO <sub>3</sub> -Na <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> piezoelectric materials. Scientific Reports, 2015, 5, 8595.	1.6	92
25	Phase coexistence and transformations in field-cooled ternary piezoelectric single crystals near the morphotropic phase boundary. Applied Physics Letters, 2014, 105, .	1.5	8
26	Piezoelectric single crystal and magnetostrictive Metglas composites: Linear and nonlinear magnetoelectric coupling. Applied Physics Letters, 2014, 104, 142909.	1.5	5
27	Electric-field induced strain modulation of magnetization in Fe-Ga/Pb(Mg <sup>1/3</sup> Nb <sup>2/3</sup> )-PbTiO <sub>3</sub> magnetoelectric heterostructures. Journal of Applied Physics, 2014, 115, .	1.1	7
28	Giant magnetoelectric effect in nonlinear Metglas/PIN-PMN-PT multiferroic heterostructure. Applied Physics Letters, 2014, 105, 152902.	1.5	33
29	Temperature-induced and electric-field-induced phase transitions in rhombohedral $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{PbTiO}_3$ magnetoelectric heterostructures. Journal of Applied Physics, 2014, 115, .		
30	Crafting the strain state in epitaxial thin films: A case study of $\text{CoFe}_2\text{O}_4$ films on $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{PbTiO}_3$ heterostructures. Physical Review B, 2014, 90, .	1.1	19
31	High non-linear magnetoelectric coefficient in Metglas/PMN-PT laminate composites under zero direct current magnetic bias. Journal of Applied Physics, 2014, 115, .	1.1	26
32	Magnetoelectric Assisted 180° Magnetization Switching for Electric Field Addressable Writing in Magnetoresistive Random-Access Memory. ACS Nano, 2014, 8, 7793-7800.	7.3	50
33	Magnetoelectrics for magnetic sensor applications: status, challenges and perspectives. Materials Today, 2014, 17, 269-275.	8.3	282
34	A magnetic signature study using magnetoelectric laminate sensors. Smart Materials and Structures, 2013, 22, 095007.	1.8	15
35	Volatile and nonvolatile magnetic easy-axis rotation in epitaxial ferromagnetic thin films on ferroelectric single crystal substrates. Applied Physics Letters, 2013, 103, .	1.5	42
36	Flux distraction effect on magnetoelectric laminate sensors and gradiometer. Journal of Applied Physics, 2013, 114, 134104.	1.1	3

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37	Equivalent magnetic noise in multi- push-pull configuration magnetoelectric composites: model and experiment. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 1227-1233.	1.7	27
38	Nonlinear magnetoelectric response of a Metglas/piezofiber laminate to a high-frequency bipolar AC magnetic field. Applied Physics Letters, 2013, 102, .	1.5	22
39	Giant magnetoelectric effect in self-biased laminates under zero magnetic field. Applied Physics Letters, 2013, 102, .	1.5	102
40	Mechanical loss and magnetoelectric response in magnetostrictive/interdigitated-electrode/piezoelectric laminated resonators. Journal of Applied Physics, 2013, 113, .	1.1	7
41	Piezomagnetic strain-dependent non-linear magnetoelectric response enhancement by flux concentration effect. Applied Physics Letters, 2013, 102, 172904.	1.5	26
42	Structural dependence of nonlinear magnetoelectric effect for magnetic field detection by frequency modulation. Journal of Applied Physics, 2013, 114, .	1.1	9
43	AC magnetic dipole localization by a magnetoelectric sensor. Smart Materials and Structures, 2012, 21, 065007.	1.8	16
44	Dependence of magnetic field sensitivity of a magnetoelectric laminate sensor pair on separation distance: Effect of mutual inductance. Journal of Applied Physics, 2012, 111, .	1.1	12
45	Theoretical model for geometry-dependent magnetoelectric effect in magnetostrictive/piezoelectric composites. Journal of Applied Physics, 2012, 111, .	1.1	38
46	Modeling of resonant magneto-electric effect in a magnetostrictive and piezoelectric laminate composite structure coupled by a bonding material. Journal of Applied Physics, 2012, 112, 064109.	1.1	20
47	Investigation of vehicle induced magnetic anomaly by triple-axis magnetoelectric sensors. Smart Materials and Structures, 2012, 21, 115007.	1.8	15
48	Metglas/Pb(Mg <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> -PbTiO <sub>3</sub> magnetoelectric gradiometric sensor with high detection sensitivity. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 2111-2115.	1.7	6
49	Self-amplified magnetoelectric properties in a dumbbell-shaped magnetostrictive/piezoelectric composite. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 859-862.	1.7	18
50	Giant resonant magnetoelectric effect in bi-layered Metglas/Pb(Zr,Ti)O <sub>3</sub> composites. Journal of Applied Physics, 2012, 112, .	1.1	37
51	Thermal stability of magnetoelectric sensors. Applied Physics Letters, 2012, 100, 173505.	1.5	31
52	Giant converse magnetoelectric effect in multi-push-pull mode Metglas/Pb(Zr,Ti)O <sub>3</sub> /Metglas laminates. Applied Physics Letters, 2012, 100, .	1.5	20
53	Theoretical modelling of magnetoelectric effects in multi-push-pull mode Metglas/piezo-fibre laminates. Journal Physics D: Applied Physics, 2012, 45, 355002.	1.3	17
54	Geometry-induced magnetoelectric effect enhancement and noise floor reduction in Metglas/piezofiber sensors. Applied Physics Letters, 2012, 101, 092905.	1.5	32

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55	Quasi-static ( $f \ll 10^2$ Hz) frequency response of magnetoelectric composites based magnetic sensor. <i>Materials Letters</i> , 2012, 85, 84-87.	1.3	27
56	Influence of interfacial bonding condition on magnetoelectric properties in piezofiber/Metglas heterostructures. <i>Journal of Alloys and Compounds</i> , 2012, 513, 242-244.	2.8	44
57	Improvement of magnetoelectric properties in Metglas/Pb(Mg $_{1/3}$ Nb $_{2/3}$ )O $_3$ -PbTiO $_3$ laminates by poling optimization. <i>Journal of Alloys and Compounds</i> , 2012, 519, 1-3.	2.8	26
58	Theoretical and experimental investigation of magnetoelectric effect for bending-tension coupled modes in magnetostrictive-piezoelectric layered composites. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	44
59	Magnetic field dependence of the effective permittivity in multiferroic composites. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012, 209, 2059-2062.	0.8	21
60	Electric field tuning of magnetoelectric properties in Metglas/piezofiber composites. <i>Physica Status Solidi - Rapid Research Letters</i> , 2012, 6, 265-267.	1.2	10
61	Ultralow equivalent magnetic noise in a magnetoelectric Metglas/Mn-doped Pb(Mg $_{1/3}$ Nb $_{2/3}$ )O $_3$ -PbTiO $_3$ heterostructure. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	27
62	Enhanced magnetoelectric effect in self-stressed multi-push-pull mode Metglas/Pb(Zr,Ti)O $_3$ /Metglas laminates. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	21
63	Enhancement in magnetic field sensitivity and reduction in equivalent magnetic noise by magnetoelectric laminate stacks. <i>Journal of Applied Physics</i> , 2012, 111, .	1.1	16
64	Shear-mode magnetostrictive/piezoelectric composite with an enhanced magnetoelectric coefficient. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	38
65	Self-powered low noise magnetic sensor. <i>Materials Letters</i> , 2012, 82, 178-180.	1.3	14
66	Magnetoelectric bending-mode structure based on Metglas/Pb(Zr,Ti)O $_3$ fiber laminates. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2011, 58, 1545-1549.	1.7	16
67	Enhanced sensitivity to direct current magnetic field changes in Metglas/Pb(Mg $_{1/3}$ Nb $_{2/3}$ )O $_3$ -PbTiO $_3$ laminates. <i>Journal of Applied Physics</i> , 2011, 109, .	1.1	70
68	Equivalent magnetic noise in magnetoelectric Metglas/Pb(Mg $_{1/3}$ Nb $_{2/3}$ )O $_3$ -PbTiO $_3$ laminate composites. <i>Physica Status Solidi - Rapid Research Letters</i> , 2011, 5, 232-234.	1.2	24
69	Strong magnetoelectric coupling in highly oriented ZnO films deposited on Metglas substrates. <i>Physica Status Solidi - Rapid Research Letters</i> , 2011, 5, 391-393.	1.2	15
70	An Extremely Low Equivalent Magnetic Noise Magnetoelectric Sensor. <i>Advanced Materials</i> , 2011, 23, 4111-4114.	11.1	323
71	The MA-type monoclinic phase and its dc electric/temperature responses studies in Pb(In $_{1/2}$ Nb $_{1/2}$ )O $_3$ -Pb(Mg $_{1/3}$ Nb $_{2/3}$ )O $_3$ -PbTiO $_3$ ternary single crystals by polarized light microscopy. <i>Materials Chemistry and Physics</i> , 2010, 122, 350-353.	2.0	19
72	Lead-free magnetoelectric laminated composite of Mn-doped Na $_0.5$ Bi $_0.5$ TiO $_3$ -BaTiO $_3$ single crystal and Tb $_0.3$ Dy $_0.7$ Fe $_{1.92}$ alloy. <i>Journal of Alloys and Compounds</i> , 2010, 496, L4-L6.	2.8	21

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73	Electrical resistance load effect on magnetoelectric coupling of magnetostrictive/piezoelectric laminated composite. <i>Journal of Alloys and Compounds</i> , 2010, 500, 224-226.	2.8	39
74	Magnetoelectric effect in laminates of polymer-based pseudo- $\epsilon_3$ (Tb <sub>0.3</sub> Dy <sub>0.7</sub> ) <sub>0.5</sub> Pr <sub>0.5</sub> Fe <sub>1.55</sub> composite and $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3 \text{--} 0.7\text{PbTiO}_3$ single crystal. <i>Applied Physics A: Materials Science and Processing</i> , 2009, 97, 201-204.	1.1	13
75	Optical constants and dispersion behavior of $\text{PbMg}_{1/3}\text{Nb}_{2/3}\text{O}_3$ single crystals. <i>Optical Materials</i> , 2009, 31, 1151-1154.	1.7	9
76	Resonance converse magnetoelectric effect in a dual-mode bilayered composite of $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3 \text{--} \text{PbTiO}_3$ and Tb <sub>0.3</sub> Dy <sub>0.7</sub> Fe <sub>1.92</sub> . <i>Journal of Alloys and Compounds</i> , 2009, 487, 450-452.	2.8	16
77	Magnetoelectric voltage gain effect in a long-type magnetostrictive/piezoelectric heterostructure. <i>Applied Physics Letters</i> , 2009, 95, 143503.	1.5	20
78	Enhanced piezoelectric and ferroelectric properties in Mn-doped $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3 \text{--} \text{BaTiO}_3$ single crystals. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	136
79	Dielectric, ferroelectric, and pyroelectric characterization of Mn-doped $0.74\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3 \text{--} 0.26\text{PbTiO}_3$ crystals for infrared detection applications. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	63
80	Dual-mode magnetoelectric effect in laminate composite of Terfenol-D alloy and PMN-PT transformer with double output ports. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 135414.	1.3	18
81	Magnetoelectric and converse magnetoelectric responses in $\text{Tb}_x\text{Dy}_{1-x}\text{Fe}_2$ alloy & $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})(1-x)\text{Ti}_x\text{O}_3$ crystal laminated composites. <i>Science Bulletin</i> , 2008, 53, 2129-2134.	4.3	25
82	Giant sharp converse magnetoelectric effect from the combination of a piezoelectric transformer with a piezoelectric/magnetostrictive laminated composite. <i>Applied Physics Letters</i> , 2008, 93, 113503.	1.5	46
83	Giant magnetoelectric effect in mechanically clamped heterostructures of magnetostrictive alloy and piezoelectric crystal-alloy cymbal. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	20
84	Magnetoelectric effect from mechanically mediated torsional magnetic force effect in NdFeB magnets and shear piezoelectric effect in $0.7\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3 \text{--} 0.3\text{PbTiO}_3$ single crystal. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	34
85	Enhanced magnetoelectric effect in longitudinal-transverse mode Terfenol-D- $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3 \text{--} \text{PbTiO}_3$ laminate composites with optimal crystal cut. <i>Journal of Applied Physics</i> , 2008, 103, .	1.1	96
86	PMN-PT single crystal and Terfenol-D alloy magnetoelectric laminated composites for electromagnetic device applications. <i>Journal of the Ceramic Society of Japan</i> , 2008, 116, 540-544.	0.5	14