Wenbin Huang

List of Publications by Year
in descending order

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44 papers	1,346 citations	471509 17 h-index	345221 36 g-index
44 all docs	44 docs citations	44 times ranked	1048 citing authors

#	Article	IF	Citations
1	A variable reluctance based rotational electromagnetic harvester for the high-speed smart bearing. Smart Materials and Structures, 2022, 31, 045023.	3.5	7
2	A magnetically coupled two-degrees-of-freedom piezoelectric energy harvester using torsional spring. Journal of Intelligent Material Systems and Structures, 2022, 33, 2346-2356.	2.5	5
3	Self-Powered Wireless Sensor Node for Smart Railway Axle Box Bearing via a Variable Reluctance Energy Harvesting System. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	4.7	10
4	Performance of a flexoelectric actuator for lamb wave excitation. Journal of Applied Physics, 2021, 129, .	2.5	8
5	Local structural heterogeneity induced large flexoelectricity in Sm-doped PMNâ€“PT ceramics. Journal of Applied Physics, 2021, 129, .	2.5	11
6	Design, modeling and optimization of an N-shape electromagnetic energy harvester for smart bearing of high speed train. Smart Materials and Structures, 2021, 30, 075026.	3.5	12
7	A Lamb Waves Based Ultrasonic System for the Simultaneous Data Communication, Defect Inspection, and Power Transmission. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 3192-3203.	3.0	11
8	Rolling bearing remaining useful life prediction via weight tracking relevance vector machine. Measurement Science and Technology, 2021, 32, 024006.	2.6	14
9	A Wireless Demodulation Method for Acoustic Emission Sensing. IEEE Sensors Journal, 2020, 20, 12671-12678.	4.7	4
10	A flexible laser ultrasound transducer for Lamb wave-based structural health monitoring. Smart Materials and Structures, 2020, 29, 075006.	3.5	17
11	A hula-hooping-like nonlinear buckled elastic string electromagnetic energy harvester for omnidirectional broadband excitations. Smart Materials and Structures, 2020, 29, 075026.	3.5	14
12	Polar molecules realignment in CH3NH3PbI3 by strain gradient. Materials Letters, 2020, 275, 128106.	2.6	3
13	Photoflexoelectric effect in halide perovskites. Nature Materials, 2020, 19, 605-609.	27.5	132
14	Candle-Soot Carbon Nanoparticles in Photoacoustics: Advantages and Challenges for Laser Ultrasound Transmitters. IEEE Nanotechnology Magazine, 2019, 13, 13-28.	1.3	32
15	Design, analysis and experimental study of a T-shaped piezoelectric energy harvester with internal resonance. Smart Materials and Structures, 2019, 28, 085027.	3.5	38
16	A magnetically coupled nonlinear T-shaped piezoelectric energy harvester with internal resonance. Smart Materials and Structures, 2019, 28, 11LT01.	3.5	17
17	Large flexoelectric response in PMN-PT ceramics through composition design. Applied Physics Letters, 2019, 115, .	3.3	16
18	The benefits of a magnetically coupled asymmetric monostable dual-cantilever energy harvester under random excitation. Journal of Intelligent Material Systems and Structures, 2019, 30, 3136-3145.	2.5	9

#	Article	IF	Citations
19	Enhanced room-temperature microwave dielectric properties in bismuth zinc niobate thin films. Journal of Alloys and Compounds, 2019, 798, 665-668.	5.5	1
20	Theoretical analysis of an impact-bistable piezoelectric energy harvester. European Physical Journal Plus, 2019, 134, 1.	2.6	18
21	Transient Signal Analysis Using Parallel Time-Frequency Manifold Filtering for Bearing Health Diagnosis. IEEE Access, 2019, 7, 175277-175289.	4.2	2
22	Non-linear behavior of flexoelectricity. Applied Physics Letters, 2019, 115, .	3.3	14
23	A piezoelectric energy harvester for broadband rotational excitation using buckled beam. AIP Advances, 2018, 8, .	1.3	59
24	A pin-moment model of flexoelectric actuators. International Journal of Hydromechatronics, 2018, 1, 72.	2.3	9
25	Flexoelectric fatigue in (K,Na,Li)(Nb,Sb)O3 ceramics. Applied Physics Letters, 2018, 113, .	3.3	13
26	Design and Experimental Investigation of a Piezoelectric Rotation Energy Harvester Using Bistable and Frequency Up-Conversion Mechanisms. Applied Sciences (Switzerland), 2018, 8, 1418.	2.5	28
27	Large flexoelectricity in Al2O3-doped Ba(Ti0.85Sn0.15)O3 ceramics. Applied Physics Letters, 2017, 110, .	3.3	25
28	Flexoelectricity in low densification materials and its implication. Journal of Alloys and Compounds, 2017, 695, 1555-1560.	5.5	11
29	Flexoelectric behavior in PIN-PMN-PT single crystals over a wide temperature range. Applied Physics Letters, 2017, 111, .	3.3	23
30	Photoacoustic transduction efficiency evaluation of candle soot nanoparticles/PDMS composites. , 2017, , .		2
31	A Novel Laser Ultrasound Transducer Using Candle Soot Carbon Nanoparticles. IEEE Nanotechnology Magazine, 2016, 15, 395-401.	2.0	43
32	Candle soot nanoparticles-polydimethylsiloxane composites for laser ultrasound transducers. Applied Physics Letters, 2015, 107, .	3.3	98
33	A novel laser ultrasound transducer using candle soot carbon nanoparticles. , 2015, , .		1
34	Electromechanical response of micromachined 1-3 piezoelectric composites: Effect of etched piezo-pillar slope. Journal of Intelligent Material Systems and Structures, 2015, 26, 2011-2019.	2.5	18
35	Direct Measurement of Opening Mode Stress Intensity Factors Using Flexoelectric Strain Gradient Sensors. Experimental Mechanics, 2015, 55, 313-320.	2.0	12
36	Fabrication and measurement of a flexoelectric micro-pyramid composite. AIP Advances, 2014, 4, .	1.3	11

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37	Flexoelectricity in barium strontium titanate thin film. Applied Physics Letters, 2014, 105, .	3.3	42
38	Converse flexoelectric coefficient f₁₂₁₂ in bulk Ba_{0.67}Sr_{0.33}TiO₃. Applied Physics Letters, 2014, 104, 232902.	3.3	50
39	A trapezoidal flexoelectric accelerometer. Journal of Intelligent Material Systems and Structures, 2014, 25, 271-277.	2.5	50
40	Flexoelectric nano-generator: Materials, structures and devices. Nano Energy, 2013, 2, 1079-1092.	16.0	265
41	A dual-layer micromachined PMN-PT 1-3 composite transducer for broadband ultrasound imaging. , 2013, , .		3
42	Flexoelectric strain gradient detection using Ba0.64Sr0.36TiO3 for sensing. Applied Physics Letters, 2012, 101, .	3.3	72
43	YCa4O(BO3)3 (YCOB) high temperature vibration sensor. Journal of Applied Physics, 2011, 109, .	2.5	43
44	Scaling effect of flexoelectric (Ba,Sr)TiO₃microcantilevers. Physica Status Solidi - Rapid Research Letters, 2011, 5, 350-352.	2.4	73