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	Flexoelectric nano-generator: Materials, structures and devices. Nano Energy, 2013, 2, 1079-1092.	16.0	265
2	Photoflexoelectric effect in halide perovskites. Nature Materials, 2020, 19, 605-609.	27.5	132
3	Candle soot nanoparticles-polydimethylsiloxane composites for laser ultrasound transducers. Applied Physics Letters, 2015, 107, .	3.3	98
4	Scaling effect of flexoelectric (Ba,Sr)TiO₃microcantilevers. Physica Status Solidi - Rapid Research Letters, 2011, 5, 350-352.	2.4	73
5	Flexoelectric strain gradient detection using Ba0.64Sr0.36TiO3 for sensing. Applied Physics Letters, 2012, 101, .	3.3	72
6	A piezoelectric energy harvester for broadband rotational excitation using buckled beam. AIP Advances, 2018, 8, .	1.3	59
7	Converse flexoelectric coefficient f₁₂₁₂ in bulk Ba_{0.67}Sr_{0.33}TiO₃. Applied Physics Letters, 2014, 104, 232902.	3.3	50
8	A trapezoidal flexoelectric accelerometer. Journal of Intelligent Material Systems and Structures, 2014, 25, 271-277.	2.5	50
9	YCa4O(BO3)3 (YCOB) high temperature vibration sensor. Journal of Applied Physics, 2011, 109, .	2.5	43
10	A Novel Laser Ultrasound Transducer Using Candle Soot Carbon Nanoparticles. IEEE Nanotechnology Magazine, 2016, 15, 395-401.	2.0	43
11	Flexoelectricity in barium strontium titanate thin film. Applied Physics Letters, 2014, 105, .	3.3	42
12	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
13	Candle-Soot Carbon Nanoparticles in Photoacoustics: Advantages and Challenges for Laser Ultrasound Transmitters. IEEE Nanotechnology Magazine, 2019, 13, 13-28.	1.3	32
14	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
15	Large flexoelectricity in Al2O3-doped Ba(Ti0.85Sn0.15)O3 ceramics. Applied Physics Letters, 2017, 110, .	3.3	25
16	Flexoelectric behavior in PIN-PMN-PT single crystals over a wide temperature range. Applied Physics Letters, 2017, 111, .	3.3	23
17	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
18	Theoretical analysis of an impact-bistable piezoelectric energy harvester. European Physical Journal Plus, 2019, 134, 1.	2.6	18

#	Article	IF	Citations
19	A magnetically coupled nonlinear T-shaped piezoelectric energy harvester with internal resonance. Smart Materials and Structures, 2019, 28, 11LT01.	3.5	17
20	A flexible laser ultrasound transducer for Lamb wave-based structural health monitoring. Smart Materials and Structures, 2020, 29, 075006.	3.5	17
21	Large flexoelectric response in PMN-PT ceramics through composition design. Applied Physics Letters, 2019, 115, .	3.3	16
22	Non-linear behavior of flexoelectricity. Applied Physics Letters, 2019, 115, .	3.3	14
23	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
24	Rolling bearing remaining useful life prediction via weight tracking relevance vector machine. Measurement Science and Technology, 2021, 32, 024006.	2.6	14
25	Flexoelectric fatigue in (K,Na,Li)(Nb,Sb)O3 ceramics. Applied Physics Letters, 2018, 113, .	3.3	13
26	Direct Measurement of Opening Mode Stress Intensity Factors Using Flexoelectric Strain Gradient Sensors. Experimental Mechanics, 2015, 55, 313-320.	2.0	12
27	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
28	Fabrication and measurement of a flexoelectric micro-pyramid composite. AIP Advances, 2014, 4, .	1.3	11
29	Flexoelectricity in low densification materials and its implication. Journal of Alloys and Compounds, 2017, 695, 1555-1560.	5.5	11
30	Local structural heterogeneity induced large flexoelectricity in Sm-doped PMNâ€“PT ceramics. Journal of Applied Physics, 2021, 129, .	2.5	11
31	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
32	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
33	A pin-moment model of flexoelectric actuators. International Journal of Hydromechatronics, 2018, 1, 72.	2.3	9
34	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
35	Performance of a flexoelectric actuator for lamb wave excitation. Journal of Applied Physics, 2021, 129, .	2.5	8
36	A variable reluctance based rotational electromagnetic harvester for the high-speed smart bearing. Smart Materials and Structures, 2022, 31, 045023.	3.5	7

#	Article	IF	Citations
37	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
38	A Wireless Demodulation Method for Acoustic Emission Sensing. IEEE Sensors Journal, 2020, 20, 12671-12678.	4.7	4
39	A dual-layer micromachined PMN-PT 1-3 composite transducer for broadband ultrasound imaging. , 2013, , .		3
40	Polar molecules realignment in CH3NH3PbI3 by strain gradient. Materials Letters, 2020, 275, 128106.	2.6	3
41	Photoacoustic transduction efficiency evaluation of candle soot nanoparticles/PDMS composites. , 2017, , .		2
42	Transient Signal Analysis Using Parallel Time-Frequency Manifold Filtering for Bearing Health Diagnosis. IEEE Access, 2019, 7, 175277-175289.	4.2	2
43	A novel laser ultrasound transducer using candle soot carbon nanoparticles. , 2015, , .		1
44	Enhanced room-temperature microwave dielectric properties in bismuth zinc niobate thin films. Journal of Alloys and Compounds, 2019, 798, 665-668.	5.5	1