Geon-Tae Hwang

List of Publications by Year
in descending order

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73 papers	7,813 citations	117453 34 h-index	79541 73 g-index
76 all docs	76 docs citations	76 times ranked	7418 citing authors

#	Article	IF	Citations
1	Effect of aspect ratio of piezoelectric constituents on the energy harvesting performance of magneto-mechano-electric generators. Energy, 2022, 239, 122078.	4.5	15
2	Modulation of magnetoelectric coupling through systematically engineered spin canting in nickelâ€“zinc ferrite. Journal of the American Ceramic Society, 2022, 105, 2655-2662.	1.9	7
3	Exceeding 50ÂmW RMSâ€Output Magnetoâ€Mechanoâ€Electric Generator by Hybridizing Piezoelectric and Electromagnetic Induction Effects. Advanced Functional Materials, 2022, 32, .	7.8	22
4	Conformably Skin-Adherent Piezoelectric Patch with Bioinspired Hierarchically Arrayed Microsuckers Enables Physical Energy Amplification. ACS Energy Letters, 2022, 7, 1820-1827.	8.8	13
5	Stable output performance generated from a magneto-mechano-electric generator having self-resonance tunability with a movable proof mass. Nano Energy, 2022, 101, 107607.	8.2	13
6	Boosting the lifespan of magneto-mechano-electric generator via vertical installation for sustainable powering of Internet of Things sensor. Nano Energy, 2022, 101, 107567.	8.2	10
7	Multiscale surface modified magneto-mechano-triboelectric nanogenerator enabled by eco-friendly NaCl imprinting stamp for self-powered IoT applications. Nanoscale, 2021, 13, 8418-8424.	2.8	21
8	Enhancement of Energy-Harvesting Performance of Magnetoâ€“Mechanoâ€“Electric Generators through Optimization of the Interfacial Layer. ACS Applied Materials & Interfaces, 2021, 13, 19983-19991.	4.0	18
9	Kinetic motion sensors based on flexible and lead-free hybrid piezoelectric composite energy harvesters with nanowires-embedded electrodes for detecting articular movements. Composites Part B: Engineering, 2021, 212, 108705.	5.9	49
10	High performance of polycrystalline piezoelectric ceramic-based magneto-mechano-electric energy generators. Journal of Asian Ceramic Societies, 2021, 9, 1290-1297.	1.0	8
11	Lifetime estimation of single crystal macro-fiber composite-based piezoelectric energy harvesters using accelerated life testing. Nano Energy, 2021, 88, 106279.	8.2	16
12	Harvesting electrical energy using plasmon-enhanced light pressure in a platinum cut cone. Optics Express, 2021, 29, 35161.	1.7	8
13	Ultra-magnetic field sensitive magnetoelectric composite with sub-pT detection limit at low frequency enabled by flash photon annealing. Nano Energy, 2021, 90, 106598.	8.2	13
14	An easy approach to obtain textured microstructure and transparent seed crystal prepared by simple molten salt synthesis in modified potassium sodium Niobate. Journal of the European Ceramic Society, 2020, 40, 1232-1235.	2.8	11
15	Enhanced Mechanical Quality Factor of 32 Mode Mn Doped 71Pb(Mg1/3Nb2/3)O3â€“29PbZrTiO3 Piezoelectric Single Crystals. Electronic Materials Letters, 2020, 16, 156-163.	1.0	15
16	Effect of Nb2O5 addition on microstructure and thermal/mechanical properties in zirconia-toughened alumina sintered at low temperature. Ceramics International, 2020, 46, 23820-23827.	2.3	7
17	Vacancy engineering in rock-salt type (IV-VI)x(V-VI) materials for high thermoelectric performance. Nano Energy, 2020, 78, 105198.	8.2	14
18	Significant power enhancement of magneto-mechano-electric generators by magnetic flux concentration. Energy and Environmental Science, 2020, 13, 4238-4248.	15.6	48

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19	Fatigue study and durability improvement of piezoelectric single crystal macro-fiber composite energy harvester. Journal of the Korean Ceramic Society, 2020, 57, 645-650.	1.1	9
20	Optogenetic brain neuromodulation by stray magnetic field via flash-enhanced magneto-mechano-triboelectric nanogenerator. Nano Energy, 2020, 75, 104951.	8.2	54
21	(K,Na)NbO3-LiNbO3 nanocube-based flexible and lead-free piezoelectric nanocomposite energy harvesters. Journal of the Korean Ceramic Society, 2020, 57, 401-408.	1.1	20
22	An easy approach to obtain large piezoelectric constant in high-quality transparent ceramics by normal sintering process in modified potassium sodium niobate ceramics. Journal of the European Ceramic Society, 2020, 40, 2989-2995.	2.8	16
23	Selective Phase Control of Dopant-Free Potassium Sodium Niobate Perovskites in Solution. Inorganic Chemistry, 2020, 59, 3042-3052.	1.9	24
24	An easy approach to manufacture high quality zirconia-toughed alumina. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 784, 139328.	2.6	6
25	Face-shear 36-mode magnetoelectric composites with piezoelectric single crystal and Metglas laminate. Applied Physics Letters, 2019, 115, .	1.5	23
26	A high output magneto-mechano-triboelectric generator enabled by accelerated water-soluble nano-bullets for powering a wireless indoor positioning system. Energy and Environmental Science, 2019, 12, 666-674.	15.6	89
27	Heterostructures in two-dimensional colloidal metal chalcogenides: Synthetic fundamentals and applications. Nano Research, 2019, 12, 1750-1769.	5.8	33
28	A Comparison Study of Fatigue Behavior of Hard and Soft Piezoelectric Single Crystal Macro-Fiber Composites for Vibration Energy Harvesting. Sensors, 2019, 19, 2196.	2.1	35
29	High Energy Storage Properties and Electrical Field Stability of Energy Efficiency of (Pb0.89La0.11)(Zr0.70Ti0.30)0.9725O3 Relaxor Ferroelectric Ceramics. Electronic Materials Letters, 2019, 15, 323-330.	1.0	43
30	Nanowire-percolated piezoelectric copolymer-based highly transparent and flexible self-powered sensors. Journal of Materials Chemistry A, 2019, 7, 25481-25489.	5.2	69
31	Effect of Thickness Ratio in Piezoelectric/Elastic Cantilever Structure on the Piezoelectric Energy Harvesting Performance. Electronic Materials Letters, 2019, 15, 61-69.	1.0	12
32	Inverse size-dependence of piezoelectricity in single BaTiO3 nanoparticles. Nano Energy, 2019, 58, 78-84.	8.2	23
33	Linear and Nonlinear Dielectric Ceramics for High-Power Energy Storage Capacitor Applications. Journal of the Korean Ceramic Society, 2019, 56, 1-23.	1.1	70
34	Exceeding milli-watt powering magneto-mechano-electric generator for standalone-powered electronics. Energy and Environmental Science, 2018, 11, 818-829.	15.6	110
35	Enhanced Self-Biased Magnetoelectric Coupling in Laser-Annealed Pb(Zr,Ti)O₃ Thick Film Deposited on Ni Foil. ACS Applied Materials & Interfaces, 2018, 10, 11018-11025.	4.0	34
36	Roomâ€Temperature Solidâ€State Grown WO 3â^'Î´ Film on Plastic Substrate for Extremely Sensitive Flexible NO 2 Gas Sensors. Advanced Materials Interfaces, 2018, 5, 1700811.	1.9	20

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37	Effect of elastic modulus of cantilever beam on the performance of unimorph type piezoelectric energy harvester. APL Materials, 2018, 6, .	2.2	18
38	Enhancement of Magnetoelectric Conversion Achieved by Optimization of Interfacial Adhesion Layer in Laminate Composites. ACS Applied Materials & Interfaces, 2018, 10, 32323-32330.	4.0	37
39	Highly tunable magnetoelectric response in dimensional gradient laminate composites of Fe-Ga alloy and Pb(Mg1/3Nb2/3)O3-Pb(Zr,Ti)O3 single crystal. Journal of Alloys and Compounds, 2018, 765, 764-770.	2.8	23
40	Boosting the Recoverable Energy Density of Lead-Free Ferroelectric Ceramic Thick Films through Artificially Induced Quasi-Relaxor Behavior. ACS Applied Materials & Interfaces, 2018, 10, 20720-20727.	4.0	64
41	Energy storage characteristics of {001} oriented Pb(Zr0.52Ti0.48)O3 thin film grown by chemical solution deposition. Thin Solid Films, 2018, 660, 434-438.	0.8	15
42	Highâ€Performance Dielectric Ceramic Films for Energy Storage Capacitors: Progress and Outlook. Advanced Functional Materials, 2018, 28, 1803665.	7.8	613
43	Comprehensive biocompatibility of nontoxic and high-output flexible energy harvester using lead-free piezoceramic thin film. APL Materials, 2017, 5, .	2.2	121
44	In Vivo Selfâ€Powered Wireless Transmission Using Biocompatible Flexible Energy Harvesters. Advanced Functional Materials, 2017, 27, 1700341.	7.8	160
45	31-mode piezoelectric micromachined ultrasonic transducer with PZT thick film by granule spraying in vacuum process. Applied Physics Letters, 2017, 110, .	1.5	25
46	All-inkjet-printed flexible piezoelectric generator made of solvent evaporation assisted BaTiO3 hybrid material. Nano Energy, 2017, 41, 337-343.	8.2	69
47	Magnetic energy harvesting with magnetoelectrics: an emerging technology for self-powered autonomous systems. Sustainable Energy and Fuels, 2017, 1, 2039-2052.	2.5	115
48	Flashâ€Induced Selfâ€Limited Plasmonic Welding of Silver Nanowire Network for Transparent Flexible Energy Harvester. Advanced Materials, 2017, 29, 1603473.	11.1	207
49	Selfâ€Powered Wireless Sensor Node Enabled by an Aerosolâ€Deposited PZT Flexible Energy Harvester. Advanced Energy Materials, 2016, 6, 1600237.	10.2	179
50	Selfâ€Powered Devices: Selfâ€Powered Wireless Sensor Node Enabled by an Aerosolâ€Deposited PZT Flexible Energy Harvester (Adv. Energy Mater. 13/2016). Advanced Energy Materials, 2016, 6, .	10.2	4
51	A Reconfigurable Rectified Flexible Energy Harvester via Solidâ€State Single Crystal Grown PMNâ€"PZT. Advanced Energy Materials, 2015, 5, 1500051.	10.2	116
52	Self-powered deep brain stimulation via a flexible PIMNT energy harvester. Energy and Environmental Science, 2015, 8, 2677-2684.	15.6	207
53	A Hyperâ€Stretchable Elasticâ€Composite Energy Harvester. Advanced Materials, 2015, 27, 2866-2875.	11.1	350
54	Flexible Piezoelectric Thinâ€Film Energy Harvesters and Nanosensors for Biomedical Applications. Advanced Healthcare Materials, 2015, 4, 646-658.	3.9	249

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55	Self-powered flexible inorganic electronic system. Nano Energy, 2015, 14, 111-125.	8.2	110
56	Flexible Inorganic Piezoelectric Acoustic Nanosensors for Biomimetic Artificial Hair Cells. Advanced Functional Materials, 2014, 24, 6914-6921.	7.8	176
57	Sensors: Flexible Inorganic Piezoelectric Acoustic Nanosensors for Biomimetic Artificial Hair Cells (Adv. Funct. Mater. 44/2014). Advanced Functional Materials, 2014, 24, 6898-6898.	7.8	0
58	Nanogenerators: Self-Powered Cardiac Pacemaker Enabled by Flexible Single Crystalline PMN-PT Piezoelectric Energy Harvester (Adv. Mater. 28/2014). Advanced Materials, 2014, 26, 4754-4754.	11.1	4
59	Largeâ€Area and Flexible Leadâ€Free Nanocomposite Generator Using Alkaline Niobate Particles and Metal Nanorod Filler. Advanced Functional Materials, 2014, 24, 2620-2629.	7.8	211
60	Highlyâ€Efficient, Flexible Piezoelectric PZT Thin Film Nanogenerator on Plastic Substrates. Advanced Materials, 2014, 26, 2514-2520.	11.1	690
61	Nanogenerators: Highlyâ€Efficient, Flexible Piezoelectric PZT Thin Film Nanogenerator on Plastic Substrates (Adv. Mater. 16/2014). Advanced Materials, 2014, 26, 2450-2450.	11.1	9
62	Topographically-Designed Triboelectric Nanogenerator via Block Copolymer Self-Assembly. Nano Letters, 2014, 14, 7031-7038.	4.5	310
63	Self-powered fully-flexible light-emitting system enabled by flexible energy harvester. Energy and Environmental Science, 2014, 7, 4035-4043.	15.6	179
64	Selfâ€Powered Cardiac Pacemaker Enabled by Flexible Single Crystalline PMNâ€PT Piezoelectric Energy Harvester. Advanced Materials, 2014, 26, 4880-4887.	11.1	558
65	Flexible and Largeâ€Area Nanocomposite Generators Based on Lead Zirconate Titanate Particles and Carbon Nanotubes. Advanced Energy Materials, 2013, 3, 1539-1544.	10.2	210
66	Multicomponent Nanopatterns by Directed Block Copolymer Self-Assembly. ACS Nano, 2013, 7, 8899-8907.	7.3	99
67	In Vivo Silicon-Based Flexible Radio Frequency Integrated Circuits Monolithically Encapsulated with Biocompatible Liquid Crystal Polymers. ACS Nano, 2013, 7, 4545-4553.	7.3	108
68	Virus-Directed Design of a Flexible BaTiO₃ Nanogenerator. ACS Nano, 2013, 7, 11016-11025.	7.3	208
69	Nanocomposites: Flexible and Largeâ€Area Nanocomposite Generators Based on Lead Zirconate Titanate Particles and Carbon Nanotubes (Adv. Energy Mater. 12/2013). Advanced Energy Materials, 2013, 3, 1530-1530.	10.2	7
70	Flexible Nanocomposite Generator Made of BaTiO₃ Nanoparticles and Graphitic Carbons. Advanced Materials, 2012, 24, 2999-3004.	11.1	601
71	Piezoelectric BaTiO₃Thin Film Nanogenerator on Plastic Substrates. Nano Letters, 2010, 10, 4939-4943.	4.5	711
72	Flexible Self-Charging, Ultrafast, High-Power-Density Ceramic Capacitor System. ACS Energy Letters, 0, , 1383-1391.	8.8	36

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73	High-performance magneto-mechano-electric generator through optimization of magnetic flux concentration. Sustainable Energy and Fuels, 0, , .	2.5	4