Geon-Tae Hwang

List of Publications by Year
in descending order

73	7,813	117453	79541
papers	citations	34 h-index	73 g-index

76	76	76	7418
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Piezoelectric BaTiO₃Thin Film Nanogenerator on Plastic Substrates. Nano Letters, 2010, 10, 4939-4943.	4.5	711
2	Highlyâ€Efficient, Flexible Piezoelectric PZT Thin Film Nanogenerator on Plastic Substrates. Advanced Materials, 2014, 26, 2514-2520.	11.1	690
3	Highâ€Performance Dielectric Ceramic Films for Energy Storage Capacitors: Progress and Outlook. Advanced Functional Materials, 2018, 28, 1803665.	7.8	613
4	Flexible Nanocomposite Generator Made of BaTiO₃ Nanoparticles and Graphitic Carbons. Advanced Materials, 2012, 24, 2999-3004.	11.1	601
5	Selfâ€Powered Cardiac Pacemaker Enabled by Flexible Single Crystalline PMNâ€PT Piezoelectric Energy Harvester. Advanced Materials, 2014, 26, 4880-4887.	11.1	558
6	A Hyperâ€Stretchable Elasticâ€Composite Energy Harvester. Advanced Materials, 2015, 27, 2866-2875.	11.1	350
7	Topographically-Designed Triboelectric Nanogenerator via Block Copolymer Self-Assembly. Nano Letters, 2014, 14, 7031-7038.	4.5	310
8	Flexible Piezoelectric Thinâ€Film Energy Harvesters and Nanosensors for Biomedical Applications. Advanced Healthcare Materials, 2015, 4, 646-658.	3.9	249
9	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
10	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
11	Virus-Directed Design of a Flexible BaTiO₃ Nanogenerator. ACS Nano, 2013, 7, 11016-11025.	7.3	208
12	Self-powered deep brain stimulation via a flexible PIMNT energy harvester. Energy and Environmental Science, 2015, 8, 2677-2684.	15.6	207
13	Flashâ€Induced Selfâ€Limited Plasmonic Welding of Silver Nanowire Network for Transparent Flexible Energy Harvester. Advanced Materials, 2017, 29, 1603473.	11.1	207
14	Self-powered fully-flexible light-emitting system enabled by flexible energy harvester. Energy and Environmental Science, 2014, 7, 4035-4043.	15.6	179
15	Selfâ€Powered Wireless Sensor Node Enabled by an Aerosolâ€Deposited PZT Flexible Energy Harvester. Advanced Energy Materials, 2016, 6, 1600237.	10.2	179
16	Flexible Inorganic Piezoelectric Acoustic Nanosensors for Biomimetic Artificial Hair Cells. Advanced Functional Materials, 2014, 24, 6914-6921.	7.8	176
17	In Vivo Selfâ€Powered Wireless Transmission Using Biocompatible Flexible Energy Harvesters. Advanced Functional Materials, 2017, 27, 1700341.	7.8	160
18	Comprehensive biocompatibility of nontoxic and high-output flexible energy harvester using lead-free piezoceramic thin film. APL Materials, 2017, 5, .	2.2	121

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19	A Reconfigurable Rectified Flexible Energy Harvester via Solidâ€State Single Crystal Grown PMNâ€“PZT. Advanced Energy Materials, 2015, 5, 1500051.	10.2	116
20	Magnetic energy harvesting with magnetoelectrics: an emerging technology for self-powered autonomous systems. Sustainable Energy and Fuels, 2017, 1, 2039-2052.	2.5	115
21	Self-powered flexible inorganic electronic system. Nano Energy, 2015, 14, 111-125.	8.2	110
22	Exceeding milli-watt powering magneto-mechano-electric generator for standalone-powered electronics. Energy and Environmental Science, 2018, 11, 818-829.	15.6	110
23	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
24	Multicomponent Nanopatterns by Directed Block Copolymer Self-Assembly. ACS Nano, 2013, 7, 8899-8907.	7.3	99
25	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
26	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
27	All-inkjet-printed flexible piezoelectric generator made of solvent evaporation assisted BaTiO3 hybrid material. Nano Energy, 2017, 41, 337-343.	8.2	69
28	Nanowire-percolated piezoelectric copolymer-based highly transparent and flexible self-powered sensors. Journal of Materials Chemistry A, 2019, 7, 25481-25489.	5.2	69
29	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
30	Optogenetic brain neuromodulation by stray magnetic field via flash-enhanced magneto-mechano-triboelectric nanogenerator. Nano Energy, 2020, 75, 104951.	8.2	54
31	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
32	Significant power enhancement of magneto-mechano-electric generators by magnetic flux concentration. Energy and Environmental Science, 2020, 13, 4238-4248.	15.6	48
33	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
34	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
35	Flexible Self-Charging, Ultrafast, High-Power-Density Ceramic Capacitor System. ACS Energy Letters, 0, , 1383-1391.	8.8	36
36	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

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37	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
38	Heterostructures in two-dimensional colloidal metal chalcogenides: Synthetic fundamentals and applications. Nano Research, 2019, 12, 1750-1769.	5.8	33
39	31-mode piezoelectric micromachined ultrasonic transducer with PZT thick film by granule spraying in vacuum process. Applied Physics Letters, 2017, 110, .	1.5	25
40	Selective Phase Control of Dopant-Free Potassium Sodium Niobate Perovskites in Solution. Inorganic Chemistry, 2020, 59, 3042-3052.	1.9	24
41	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
42	Face-shear 36-mode magnetoelectric composites with piezoelectric single crystal and Metglas laminate. Applied Physics Letters, 2019, 115, .	1.5	23
43	Inverse size-dependence of piezoelectricity in single BaTiO3 nanoparticles. Nano Energy, 2019, 58, 78-84.	8.2	23
44	Exceeding 50ÂmW RMSâ€Output Magnetoâ€Mechanoâ€Electric Generator by Hybridizing Piezoelectric and Electromagnetic Induction Effects. Advanced Functional Materials, 2022, 32, .	7.8	22
45	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
46	Roomâ€Temperature Solidâ€State Grown WO 3â^Ί´ Film on Plastic Substrate for Extremely Sensitive Flexible NO 2 Gas Sensors. Advanced Materials Interfaces, 2018, 5, 1700811.	1.9	20
47	(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
48	Effect of elastic modulus of cantilever beam on the performance of unimorph type piezoelectric energy harvester. APL Materials, 2018, 6, .	2.2	18
49	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
50	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
51	Lifetime estimation of single crystal macro-fiber composite-based piezoelectric energy harvesters using accelerated life testing. Nano Energy, 2021, 88, 106279.	8.2	16
52	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
53	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
54	Effect of aspect ratio of piezoelectric constituents on the energy harvesting performance of magneto-mechano-electric generators. Energy, 2022, 239, 122078.	4.5	15

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55	Vacancy engineering in rock-salt type (IV-VI)x(V-VI) materials for high thermoelectric performance. Nano Energy, 2020, 78, 105198.	8.2	14
56	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
57	Conformably Skin-Adherent Piezoelectric Patch with Bioinspired Hierarchically Arrayed Microsuckers Enables Physical Energy Amplification. ACS Energy Letters, 2022, 7, 1820-1827.	8.8	13
58	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
59	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
60	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
61	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
62	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
63	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
64	High performance of polycrystalline piezoelectric ceramic-based magneto-mechano-electric energy generators. Journal of Asian Ceramic Societies, 2021, 9, 1290-1297.	1.0	8
65	Harvesting electrical energy using plasmon-enhanced light pressure in a platinum cut cone. Optics Express, 2021, 29, 35161.	1.7	8
66	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
67	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
68	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
69	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
70	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
71	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
72	High-performance magneto-mechano-electric generator through optimization of magnetic flux concentration. Sustainable Energy and Fuels, 0, , .	2.5	4

#	Article	IF	Citations
73	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