Geon-Tae Hwang

List of Publications by Citations

69 papers	5,754 citations	29 h-index	75 g-index
76 ext. papers	6,779 ext. citations	13.6 avg, IF	5.66 L-index

#	Paper	IF	Citations
69	Piezoelectric BaTiO3 thin film nanogenerator on plastic substrates. *Nano Letters*, **2010**, 10, 4939-43	11.5	597
68	Highly-efficient, flexible piezoelectric PZT thin film nanogenerator on plastic substrates. *Advanced Materials*, **2014**, 26, 2514-20	24	538
67	Flexible nanocomposite generator made of BaTiO3 nanoparticles and graphitic carbons. *Advanced Materials*, **2012**, 24, 2999-3004, 2937	24	511
66	Self-powered cardiac pacemaker enabled by flexible single crystalline PMN-PT piezoelectric energy harvester. *Advanced Materials*, **2014**, 26, 4880-7	24	445
65	High-Performance Dielectric Ceramic Films for Energy Storage Capacitors: Progress and Outlook. *Advanced Functional Materials*, **2018**, 28, 1803665	15.6	326
64	A hyper-stretchable elastic-composite energy harvester. *Advanced Materials*, **2015**, 27, 2866-75	24	281
63	Topographically-designed triboelectric nanogenerator via block copolymer self-assembly. *Nano Letters*, **2014**, 14, 7031-8	11.5	258
62	Flexible piezoelectric thin-film energy harvesters and nanosensors for biomedical applications. *Advanced Healthcare Materials*, **2015**, 4, 646-58	10.1	187
61	Virus-directed design of a flexible BaTiO3 nanogenerator. *ACS Nano*, **2013**, 7, 11016-25	16.7	187
60	Flexible and Large-Area Nanocomposite Generators Based on Lead Zirconate Titanate Particles and Carbon Nanotubes. *Advanced Energy Materials*, **2013**, 3, 1539-1544	21.8	184
59	Large-Area and Flexible Lead-Free Nanocomposite Generator Using Alkaline Niobate Particles and Metal Nanorod Filler. *Advanced Functional Materials*, **2014**, 24, 2620-2629	15.6	176
58	Self-powered deep brain stimulation via a flexible PIMNT energy harvester. *Energy and Environmental Science*, **2015**, 8, 2677-2684	35.4	156
57	Flash-Induced Self-Limited Plasmonic Welding of Silver Nanowire Network for Transparent Flexible Energy Harvester. *Advanced Materials*, **2017**, 29, 1603473	24	153
56	Self-powered fully-flexible light-emitting system enabled by flexible energy harvester. *Energy and Environmental Science*, **2014**, 7, 4035-4043	35.4	144
55	Flexible Inorganic Piezoelectric Acoustic Nanosensors for Biomimetic Artificial Hair Cells. *Advanced Functional Materials*, **2014**, 24, 6914-6921	15.6	132
54	Self-Powered Wireless Sensor Node Enabled by an Aerosol-Deposited PZT Flexible Energy Harvester. *Advanced Energy Materials*, **2016**, 6, 1600237	21.8	119
53	In Vivo Self-Powered Wireless Transmission Using Biocompatible Flexible Energy Harvesters. *Advanced Functional Materials*, **2017**, 27, 1700341	15.6	107

52	Comprehensive biocompatibility of nontoxic and high-output flexible energy harvester using lead-free piezoceramic thin film. *APL Materials*, **2017**, 5, 074102	5.7	105
51	A Reconfigurable Rectified Flexible Energy Harvester via Solid-State Single Crystal Grown PMNPZT. *Advanced Energy Materials*, **2015**, 5, 1500051	21.8	95
50	Self-powered flexible inorganic electronic system. *Nano Energy*, **2015**, 14, 111-125	17.1	94
49	In vivo silicon-based flexible radio frequency integrated circuits monolithically encapsulated with biocompatible liquid crystal polymers. *ACS Nano*, **2013**, 7, 4545-53	16.7	92
48	Multicomponent nanopatterns by directed block copolymer self-assembly. *ACS Nano*, **2013**, 7, 8899-907	16.7	86
47	Magnetic energy harvesting with magnetoelectrics: an emerging technology for self-powered autonomous systems. *Sustainable Energy and Fuels*, **2017**, 1, 2039-2052	5.8	66
46	Exceeding milli-watt powering magneto-mechano-electric generator for standalone-powered electronics. *Energy and Environmental Science*, **2018**, 11, 818-829	35.4	62
45	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	35.4	57
44	All-inkjet-printed flexible piezoelectric generator made of solvent evaporation assisted BaTiO3 hybrid material. *Nano Energy*, **2017**, 41, 337-343	17.1	45
43	Linear and Nonlinear Dielectric Ceramics for High-Power Energy Storage Capacitor Applications. *Journal of the Korean Ceramic Society*, **2019**, 56, 1-23	2.2	43
42	Nanowire-percolated piezoelectric copolymer-based highly transparent and flexible self-powered sensors. *Journal of Materials Chemistry A*, **2019**, 7, 25481-25489	13	43
41	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	9.5	43
40	Enhancement of Magnetoelectric Conversion Achieved by Optimization of Interfacial Adhesion Layer in Laminate Composites. *ACS Applied Materials & Interfaces*, **2018**, 10, 32323-32330	9.5	27
39	A Comparison Study of Fatigue Behavior of Hard and Soft Piezoelectric Single Crystal Macro-Fiber Composites for Vibration Energy Harvesting. *Sensors*, **2019**, 19,	3.8	25
38	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	2.9	24
37	Optogenetic brain neuromodulation by stray magnetic field via flash-enhanced magneto-mechano-triboelectric nanogenerator. *Nano Energy*, **2020**, 75, 104951	17.1	23
36	31-mode piezoelectric micromachined ultrasonic transducer with PZT thick film by granule spraying in vacuum process. *Applied Physics Letters*, **2017**, 110, 212903	3.4	22
35	Enhanced Self-Biased Magnetoelectric Coupling in Laser-Annealed Pb(Zr,Ti)O Thick Film Deposited on Ni Foil. *ACS Applied Materials & Interfaces*, **2018**, 10, 11018-11025	9.5	22

34	Heterostructures in two-dimensional colloidal metal chalcogenides: Synthetic fundamentals and applications. *Nano Research*, **2019**, 12, 1750-1769	10	19
33	Face-shear 36-mode magnetoelectric composites with piezoelectric single crystal and Metglas laminate. *Applied Physics Letters*, **2019**, 115, 102901	3.4	18
32	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	5.7	18
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	10	17
30	Inverse size-dependence of piezoelectricity in single BaTiO3 nanoparticles. *Nano Energy*, **2019**, 58, 78-84	17.1	17
29	Selective Phase Control of Dopant-Free Potassium Sodium Niobate Perovskites in Solution. *Inorganic Chemistry*, **2020**, 59, 3042-3052	5.1	16
28	Significant power enhancement of magneto-mechano-electric generators by magnetic flux concentration. *Energy and Environmental Science*, **2020**, 13, 4238-4248	35.4	15
27	Room-Temperature Solid-State Grown WO3 Film on Plastic Substrate for Extremely Sensitive Flexible NO2 Gas Sensors. *Advanced Materials Interfaces*, **2018**, 5, 1700811	4.6	15
26	(K,Na)NbO3-LiNbO3 nanocube-based flexible and lead-free piezoelectric nanocomposite energy harvesters. *Journal of the Korean Ceramic Society*, **2020**, 57, 401-408	2.2	12
25	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	2.2	12
24	Enhanced Mechanical Quality Factor of 32 Mode Mn Doped 71Pb(Mg1/3Nb2/3)O3 29PbZrTiO3 Piezoelectric Single Crystals. *Electronic Materials Letters*, **2020**, 16, 156-163	2.9	12
23	Flexible Self-Charging, Ultrafast, High-Power-Density Ceramic Capacitor System. *ACS Energy Letters*, 1383-1391	20.3	12
22	Effect of elastic modulus of cantilever beam on the performance of unimorph type piezoelectric energy harvester. *APL Materials*, **2018**, 6, 121107	5.7	11
21	Nanogenerators: Highly-Efficient, Flexible Piezoelectric PZT Thin Film Nanogenerator on Plastic Substrates (Adv. Mater. 16/2014). *Advanced Materials*, **2014**, 26, 2450-2450	24	9
20	Fatigue study and durability improvement of piezoelectric single crystal macro-fiber composite energy harvester. *Journal of the Korean Ceramic Society*, **2020**, 57, 645-650	2.2	7
19	Effect of Thickness Ratio in Piezoelectric/Elastic Cantilever Structure on the Piezoelectric Energy Harvesting Performance. *Electronic Materials Letters*, **2019**, 15, 61-69	2.9	7
18	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	6	6
17	Vacancy engineering in rock-salt type (IV-VI)x(V-VI) materials for high thermoelectric performance. *Nano Energy*, **2020**, 78, 105198	17.1	6

16	Enhancement of Energy-Harvesting Performance of Magneto-Mechano-Electric Generators through Optimization of the Interfacial Layer. *ACS Applied Materials & Interfaces*, **2021**, 13, 19983-19991	9.5	6
15	Nanocomposites: Flexible and Large-Area Nanocomposite Generators Based on Lead Zirconate Titanate Particles and Carbon Nanotubes (Adv. Energy Mater. 12/2013). *Advanced Energy Materials*, **2013**, 3, 1530-1530	21.8	5
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	6	4
13	Multiscale surface modified magneto-mechano-triboelectric nanogenerator enabled by eco-friendly NaCl imprinting stamp for self-powered IoT applications. *Nanoscale*, **2021**, 13, 8418-8424	7.7	4
12	Self-Powered Devices: Self-Powered Wireless Sensor Node Enabled by an Aerosol-Deposited PZT Flexible Energy Harvester (Adv. Energy Mater. 13/2016). *Advanced Energy Materials*, **2016**, 6,	21.8	3
11	Harvesting electrical energy using plasmon-enhanced light pressure in a platinum cut cone. *Optics Express*, **2021**, 29, 35161-35171	3.3	3
10	Lifetime estimation of single crystal macro-fiber composite-based piezoelectric energy harvesters using accelerated life testing. *Nano Energy*, **2021**, 88, 106279	17.1	3
9	Ultra-magnetic field sensitive magnetoelectric composite with sub-pT detection limit at low frequency enabled by flash photon annealing. *Nano Energy*, **2021**, 90, 106598	17.1	2
8	An easy approach to manufacture high quality zirconia-toughed alumina. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 784, 139328	5.3	2
7	High performance of polycrystalline piezoelectric ceramic-based magneto-mechano-electric energy generators. *Journal of Asian Ceramic Societies*,1-8	2.4	2
6	Effect of aspect ratio of piezoelectric constituents on the energy harvesting performance of magneto-mechano-electric generators. *Energy*, **2022**, 239, 122078	7.9	2
5	Exceeding 50 mW RMS-Output Magneto-Mechano-Electric Generator by Hybridizing Piezoelectric and Electromagnetic Induction Effects. *Advanced Functional Materials*,2112028	15.6	2
4	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	24	1
3	Conformably Skin-Adherent Piezoelectric Patch with Bioinspired Hierarchically Arrayed Microsuckers Enables Physical Energy Amplification. *ACS Energy Letters*, **2022**, 7, 1820-1827	20.1	1
2	Effect of Nb2O5 addition on microstructure and thermal/mechanical properties in zirconia-toughened alumina sintered at low temperature. *Ceramics International*, **2020**, 46, 23820-23827	5.1	0
1	Sensors: Flexible Inorganic Piezoelectric Acoustic Nanosensors for Biomimetic Artificial Hair Cells (Adv. Funct. Mater. 44/2014). *Advanced Functional Materials*, **2014**, 24, 6898-6898	15.6	