Chang Kyu Jeong

List of Publications by Year
in descending order

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81 papers	7,763 citations	53660 45 h-index	56606 83 g-index
86 all docs	86 docs citations	86 times ranked	6724 citing authors

#	Article	IF	Citations
1	Highlyâ€Efficient, Flexible Piezoelectric PZT Thin Film Nanogenerator on Plastic Substrates. Advanced Materials, 2014, 26, 2514-2520.	11.1	690
2	Selfâ€Powered Cardiac Pacemaker Enabled by Flexible Single Crystalline PMNâ€PT Piezoelectric Energy Harvester. Advanced Materials, 2014, 26, 4880-4887.	11.1	558
3	Selfâ€Powered Realâ€Time Arterial Pulse Monitoring Using Ultrathin Epidermal Piezoelectric Sensors. Advanced Materials, 2017, 29, 1702308.	11.1	495
4	A Hyperâ€Stretchable Elasticâ€Composite Energy Harvester. Advanced Materials, 2015, 27, 2866-2875.	11.1	350
5	Topographically-Designed Triboelectric Nanogenerator via Block Copolymer Self-Assembly. Nano Letters, 2014, 14, 7031-7038.	4.5	310
6	Flexible Piezoelectric Thinâ€Film Energy Harvesters and Nanosensors for Biomedical Applications. Advanced Healthcare Materials, 2015, 4, 646-658.	3.9	249
7	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
8	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
9	Virus-Directed Design of a Flexible BaTiO₃ Nanogenerator. ACS Nano, 2013, 7, 11016-11025.	7.3	208
10	Self-powered deep brain stimulation via a flexible PIMNT energy harvester. Energy and Environmental Science, 2015, 8, 2677-2684.	15.6	207
11	Flexible three-dimensional interconnected piezoelectric ceramic foam based composites for highly efficient concurrent mechanical and thermal energy harvesting. Energy and Environmental Science, 2018, 11, 2046-2056.	15.6	188
12	Self-powered fully-flexible light-emitting system enabled by flexible energy harvester. Energy and Environmental Science, 2014, 7, 4035-4043.	15.6	179
13	Selfâ€Powered Wireless Sensor Node Enabled by an Aerosolâ€Deposited PZT Flexible Energy Harvester. Advanced Energy Materials, 2016, 6, 1600237.	10.2	179
14	Flexible Inorganic Piezoelectric Acoustic Nanosensors for Biomimetic Artificial Hair Cells. Advanced Functional Materials, 2014, 24, 6914-6921.	7.8	176
15	Integrated Triboelectric Nanogenerators in the Era of the Internet of Things. Advanced Science, 2019, 6, 1802230.	5.6	174
16	In Vivo Selfâ€Powered Wireless Transmission Using Biocompatible Flexible Energy Harvesters. Advanced Functional Materials, 2017, 27, 1700341.	7.8	160
17	Leadâ€Free Perovskite Nanowireâ€Employed Piezopolymer for Highly Efficient Flexible Nanocomposite Energy Harvester. Small, 2018, 14, e1704022.	5.2	146
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	Performance-enhanced triboelectric nanogenerator enabled by wafer-scale nanogrates of multistep pattern downscaling. Nano Energy, 2017, 35, 415-423.	8.2	120
20	A Reconfigurable Rectified Flexible Energy Harvester via Solidâ€State Single Crystal Grown PMNâ€“PZT. Advanced Energy Materials, 2015, 5, 1500051.	10.2	116
21	A flexible energy harvester based on a lead-free and piezoelectric BCTZ nanoparticleâ€“polymer composite. Nanoscale, 2016, 8, 17632-17638.	2.8	114
22	Self-powered flexible inorganic electronic system. Nano Energy, 2015, 14, 111-125.	8.2	110
23	Flexible energy harvesting polymer composites based on biofibril-templated 3-dimensional interconnected piezoceramics. Nano Energy, 2018, 50, 35-42.	8.2	107
24	Stretchable piezoelectric nanocomposite generator. Nano Convergence, 2016, 3, 12.	6.3	104
25	Bioinspired elastic piezoelectric composites for high-performance mechanical energy harvesting. Journal of Materials Chemistry A, 2018, 6, 14546-14552.	5.2	104
26	Biomimetic and flexible piezoelectric mobile acoustic sensors with multiresonant ultrathin structures for machine learning biometrics. Science Advances, 2021, 7, .	4.7	104
27	Flexible vibrational energy harvesting devices using strain-engineered perovskite piezoelectric thin films. Nano Energy, 2019, 55, 182-192.	8.2	101
28	Plasmonicâ€Tuned Flash Cu Nanowelding with Ultrafast Photochemicalâ€Reducing and Interlocking on Flexible Plastics. Advanced Functional Materials, 2017, 27, 1701138.	7.8	98
29	Piezoelectric Energy Harvesting from Two-Dimensional Boron Nitride Nanoflakes. ACS Applied Materials & Interfaces, 2019, 11, 37920-37926.	4.0	98
30	Performance Enhancement of Electronic and Energy Devices via Block Copolymer Selfâ€Assembly. Advanced Materials, 2015, 27, 3982-3998.	11.1	91
31	Modulation of surface physics and chemistry in triboelectric energy harvesting technologies. Science and Technology of Advanced Materials, 2019, 20, 758-773.	2.8	90
32	Flexible highly-effective energy harvester via crystallographic and computational control of nanointerfacial morphotropic piezoelectric thin film. Nano Research, 2017, 10, 437-455.	5.8	86
33	Triboelectric Nanogenerator versus Piezoelectric Generator at Low Frequency (<4ÂHz): A Quantitative Comparison. IScience, 2020, 23, 101286.	1.9	84
34	Review on Electromechanical Coupling Properties of Biomaterials. ACS Applied Bio Materials, 2018, 1, 936-953.	2.3	80
35	Self-powered flexible electronics beyond thermal limits. Nano Energy, 2019, 56, 531-546.	8.2	74
36	Laser-directed synthesis of strain-induced crumpled MoS2 structure for enhanced triboelectrification toward haptic sensors. Nano Energy, 2020, 78, 105266.	8.2	74

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37	Nanowire-percolated piezoelectric copolymer-based highly transparent and flexible self-powered sensors. Journal of Materials Chemistry A, 2019, 7, 25481-25489.	5.2	69
38	Piezoelectric energy harvesting from a PMNâ€“PT single nanowire. RSC Advances, 2017, 7, 260-265.	1.7	65
39	Biomimetic Porifera Skeletal Structure of Lead-Free Piezocomposite Energy Harvesters. ACS Applied Materials & Interfaces, 2018, 10, 35539-35546.	4.0	65
40	Progress in lead-free piezoelectric nanofiller materials and related composite nanogenerator devices. Nanoscale Advances, 2020, 2, 3131-3149.	2.2	62
41	A microcube-based hybrid piezocomposite as a flexible energy generator. RSC Advances, 2017, 7, 32502-32507.	1.7	59
42	Optogenetic brain neuromodulation by stray magnetic field via flash-enhanced magneto-mechano-triboelectric nanogenerator. Nano Energy, 2020, 75, 104951.	8.2	54
43	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
44	Electrical Biomolecule Detection Using Nanopatterned SiliconÂvia Block Copolymer Lithography. Small, 2014, 10, 337-343.	5.2	48
45	Versatile Transfer of an Ultralong and Seamless Nanowire Array Crystallized at High Temperature for Use in High-Performance Flexible Devices. ACS Nano, 2017, 11, 1520-1529.	7.3	48
46	Hydrogel Ionic Diodes toward Harvesting Ultralowâ€Frequency Mechanical Energy. Advanced Materials, 2021, 33, e2103056.	11.1	48
47	Facile hydrothermal synthesis of BaZr_xTi_{1â^'x}O₃ nanoparticles and their application to a lead-free nanocomposite generator. RSC Advances, 2017, 7, 2851-2856.	1.7	44
48	Flashâ€Induced Stretchable Cu Conductor via Multiscaleâ€Interfacial Couplings. Advanced Science, 2018, 5, 1801146.	5.6	36
49	Out-of-plane piezoresponse of monolayer MoS2 on plastic substrates enabled by highly uniform and layer-controllable CVD. Applied Surface Science, 2019, 487, 1356-1361.	3.1	36
50	Flexible Self-Charging, Ultrafast, High-Power-Density Ceramic Capacitor System. ACS Energy Letters, 0, , 1383-1391.	8.8	36
51	Leadâ€Free Bi_{0.5}(Na_{0.78}K_{0.22})TiO₃ Nanoparticle Fillerâ€“Elastomeric Composite Films for Paperâ€Based Flexible Power Generators. Advanced Electronic Materials, 2020, 6, 1900950.	2.6	35
52	Triboelectrification of nanocomposites using identical polymer matrixes with different concentrations of nanoparticle fillers. Journal of Materials Chemistry A, 2021, 9, 8984-8990.	5.2	32
53	Dual-Structured Flexible Piezoelectric Film Energy Harvesters for Effectively Integrated Performance. Sensors, 2019, 19, 1444.	2.1	27
54	Xenon Flash Lampâ€Induced Ultrafast Multilayer Graphene Growth. Particle and Particle Systems Characterization, 2017, 34, 1600429.	1.2	26

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55	Toward bioimplantable and biocompatible flexible energy harvesters using piezoelectric ceramic materials. MRS Communications, 2020, 10, 365-378.	0.8	25
56	Selective Phase Control of Dopant-Free Potassium Sodium Niobate Perovskites in Solution. Inorganic Chemistry, 2020, 59, 3042-3052.	1.9	24
57	Inverse size-dependence of piezoelectricity in single BaTiO3 nanoparticles. Nano Energy, 2019, 58, 78-84.	8.2	23
58	Piezoelectric energy conversion by lead-free perovskite BaTiO3 nanotube arrays fabricated using electrochemical anodization. Applied Surface Science, 2020, 512, 144784.	3.1	23
59	Flexoelectric-boosted piezoelectricity of BaTiO3@SrTiO3 core-shell nanostructure determined by multiscale simulations for flexible energy harvesters. Nano Energy, 2021, 89, 106469.	8.2	23
60	BNNT-ZnO QDs nanocomposites for improving piezoelectric nanogenerator and piezoelectric properties of boron nitride nanotube. Nano Energy, 2022, 93, 106886.	8.2	23
61	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
62	(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
63	Triboelectrification: Backflow and Stuck Charges Are Key. ACS Energy Letters, 2021, 6, 2792-2799.	8.8	20
64	Role of oxygen vacancy defects in piezoelectric thermal stability characteristics of Mn-doped (K,Na,Li)NbO3 piezoceramics. Ceramics International, 2021, 47, 27803-27815.	2.3	18
65	Ultrahigh augmentation of flexible composite-based piezoelectric energy harvesting efficiency via polymer-impregnated nanoparticles network within 3D cellulose scaffold. Composites Part B: Engineering, 2022, 236, 109813.	5.9	18
66	Synthesis and characterization of carbon-coated Cu-Ni alloy nanoparticles and their application in conductive films. Applied Surface Science, 2021, 566, 150672.	3.1	17
67	Flash-welded ultraflat silver nanowire network for flexible organic light-emitting diode and triboelectric tactile sensor. APL Materials, 2021, 9, .	2.2	16
68	Ferroelectric Polymer Nanofibers Reminiscent of Morphotropic Phase Boundary Behavior for Improved Piezoelectric Energy Harvesting. Small, 2022, 18, e2104472.	5.2	16
69	Conformably Skin-Adherent Piezoelectric Patch with Bioinspired Hierarchically Arrayed Microsuckers Enables Physical Energy Amplification. ACS Energy Letters, 2022, 7, 1820-1827.	8.8	13
70	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
71	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
72	Nanointerfacial Layer Effect on Dielectric and Piezoelectric Responses in Chemical Solution-Derived Lead-Free Alkaline Niobate-Based Thin Films. ACS Applied Materials & Interfaces, 2021, 13, 22047-22058.	4.0	7

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73	Lead-free Bi0.5(Na1-K)0.5TiO3 relaxor ferroelectric ceramics for a wearable energy harvester. Ceramics International, 2022, 48, 6917-6922.	2.3	7
74	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
75	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
76	Piezoelectric Sensors: Selfâ€Powered Realâ€Time Arterial Pulse Monitoring Using Ultrathin Epidermal Piezoelectric Sensors (Adv. Mater. 37/2017). Advanced Materials, 2017, 29, .	11.1	4
77	Allâ€Inorganicâ€State Fabric Leadâ€Free Piezoelectric Nanogenerators. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	0.8	4
78	Strain mapping in a nanoscale-triangular SiGe pattern by dark-field electron holography with medium magnification mode. Microscopy (Oxford, England), 2016, 65, 499-507.	0.7	2
79	Communicationâ€”Power Enhancement of Fabric Triboelectric Energy Harvesters Using Ultraviolet Light and Fluoro-Based Treatment. ECS Journal of Solid State Science and Technology, 2022, 11, 055006.	0.9	2
80	Ferroelectric Polymer Nanofibers Reminiscent of Morphotropic Phase Boundary Behavior for Improved Piezoelectric Energy Harvesting (Small 15/2022). Small, 2022, 18, .	5.2	1
81	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