Keon Jae Lee

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

110 papers	9,652 citations	53 h-index	98 g-index
120 ext. papers	11,230 ext. citations	16.7 avg, IF	6.09 L-index

#	Paper	IF	Citations
110	Transfer printing by kinetic control of adhesion to an elastomeric stamp. *Nature Materials*, **2006**, 5, 33-38	27	1093
109	Piezoelectric $BaTiO_3$ thin film nanogenerator on plastic substrates. *Nano Letters*, **2010**, 10, 4939-43	11.5	597
108	Highly-efficient, flexible piezoelectric PZT thin film nanogenerator on plastic substrates. *Advanced Materials*, **2014**, 26, 2514-20	24	538
107	Flexible nanocomposite generator made of $BaTiO_3$ nanoparticles and graphitic carbons. *Advanced Materials*, **2012**, 24, 2999-3004, 2937	24	511
106	Self-powered cardiac pacemaker enabled by flexible single crystalline PMN-PT piezoelectric energy harvester. *Advanced Materials*, **2014**, 26, 4880-7	24	445
105	Self-Powered Real-Time Arterial Pulse Monitoring Using Ultrathin Epidermal Piezoelectric Sensors. *Advanced Materials*, **2017**, 29, 1702308	24	308
104	A hyper-stretchable elastic-composite energy harvester. *Advanced Materials*, **2015**, 27, 2866-75	24	281
103	Topographically-designed triboelectric nanogenerator via block copolymer self-assembly. *Nano Letters*, **2014**, 14, 7031-8	11.5	258
102	Flexible memristive memory array on plastic substrates. *Nano Letters*, **2011**, 11, 5438-42	11.5	227
101	Flexible piezoelectric thin-film energy harvesters and nanosensors for biomedical applications. *Advanced Healthcare Materials*, **2015**, 4, 646-58	10.1	187
100	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
99	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
98	Self-powered deep brain stimulation via a flexible PIMNT energy harvester. *Energy and Environmental Science*, **2015**, 8, 2677-2684	35.4	156
97	Flash-Induced Self-Limited Plasmonic Welding of Silver Nanowire Network for Transparent Flexible Energy Harvester. *Advanced Materials*, **2017**, 29, 1603473	24	153
96	High-Performance Flexible Thermoelectric Power Generator Using Laser Multiscanning Lift-Off Process. *ACS Nano*, **2016**, 10, 10851-10857	16.7	149
95	Self-powered fully-flexible light-emitting system enabled by flexible energy harvester. *Energy and Environmental Science*, **2014**, 7, 4035-4043	35.4	144
94	Flexible Inorganic Piezoelectric Acoustic Nanosensors for Biomimetic Artificial Hair Cells. *Advanced Functional Materials*, **2014**, 24, 6914-6921	15.6	132

93	High-speed mechanically flexible single-crystal silicon thin-film transistors on plastic substrates. *IEEE Electron Device Letters*, **2006**, 27, 460-462	4.4	130
92	Wireless smart contact lens for diabetic diagnosis and therapy. *Science Advances*, **2020**, 6, eaba3252	14.3	127
91	Self-Powered Wireless Sensor Node Enabled by an Aerosol-Deposited PZT Flexible Energy Harvester. *Advanced Energy Materials*, **2016**, 6, 1600237	21.8	119
90	Laser Irradiation of Metal Oxide Films and Nanostructures: Applications and Advances. *Advanced Materials*, **2018**, 30, e1705148	24	110
89	In Vivo Self-Powered Wireless Transmission Using Biocompatible Flexible Energy Harvesters. *Advanced Functional Materials*, **2017**, 27, 1700341	15.6	107
88	Water-resistant flexible GaN LED on a liquid crystal polymer substrate for implantable biomedical applications. *Nano Energy*, **2012**, 1, 145-151	17.1	107
87	Comprehensive biocompatibility of nontoxic and high-output flexible energy harvester using lead-free piezoceramic thin film. *APL Materials*, **2017**, 5, 074102	5.7	105
86	Flexible crossbar-structured resistive memory arrays on plastic substrates via inorganic-based laser lift-off. *Advanced Materials*, **2014**, 26, 7480-7	24	102
85	Performance-enhanced triboelectric nanogenerator enabled by wafer-scale nanogrates of multistep pattern downscaling. *Nano Energy*, **2017**, 35, 415-423	17.1	101
84	Skin-Like Oxide Thin-Film Transistors for Transparent Displays. *Advanced Functional Materials*, **2016**, 26, 6170-6178	15.6	101
83	A printable form of single-crystalline gallium nitride for flexible optoelectronic systems. *Small*, **2005**, 1, 1164-8	11	98
82	Laser-Material Interactions for Flexible Applications. *Advanced Materials*, **2017**, 29, 1606586	24	96
81	A Reconfigurable Rectified Flexible Energy Harvester via Solid-State Single Crystal Grown PMNPZT. *Advanced Energy Materials*, **2015**, 5, 1500051	21.8	95
80	Laser Crystallization of Organic-Inorganic Hybrid Perovskite Solar Cells. *ACS Nano*, **2016**, 10, 7907-14	16.7	95
79	Self-powered flexible inorganic electronic system. *Nano Energy*, **2015**, 14, 111-125	17.1	94
78	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
77	Laser Writing Block Copolymer Self-Assembly on Graphene Light-Absorbing Layer. *ACS Nano*, **2016**, 10, 3435-42	16.7	89
76	Performance Enhancement of Electronic and Energy Devices via Block Copolymer Self-Assembly. *Advanced Materials*, **2015**, 27, 3982-98	24	79

75	Achieving high-resolution pressure mapping via flexible GaN/ ZnO nanowire LEDs array by piezo-phototronic effect. *Nano Energy*, **2019**, 58, 633-640	17.1	78
74	A flexible energy harvester based on a lead-free and piezoelectric BCTZ nanoparticle-polymer composite. *Nanoscale*, **2016**, 8, 17632-17638	7.7	78
73	Machine learning-based self-powered acoustic sensor for speaker recognition. *Nano Energy*, **2018**, 53, 658-665	17.1	78
72	Reliable control of filament formation in resistive memories by self-assembled nanoinsulators derived from a block copolymer. *ACS Nano*, **2014**, 8, 9492-502	16.7	77
71	Plasmonic-Tuned Flash Cu Nanowelding with Ultrafast Photochemical-Reducing and Interlocking on Flexible Plastics. *Advanced Functional Materials*, **2017**, 27, 1701138	15.6	76
70	Novel Electronics for Flexible and Neuromorphic Computing. *Advanced Functional Materials*, **2018**, 28, 1801690	15.6	74
69	Flexible highly-effective energy harvester via crystallographic and computational control of nanointerfacial morphotropic piezoelectric thin film. *Nano Research*, **2017**, 10, 437-455	10	74
68	Micro Light-Emitting Diodes for Display and Flexible Biomedical Applications. *Advanced Functional Materials*, **2019**, 29, 1808075	15.6	73
67	Complementary Logic Gates and Ring Oscillators on Plastic Substrates by Use of Printed Ribbons of Single-Crystalline Silicon. *IEEE Electron Device Letters*, **2008**, 29, 73-76	4.4	71
66	Stretchable piezoelectric nanocomposite generator. *Nano Convergence*, **2016**, 3, 12	9.2	71
65	Reliable Memristive Switching Memory Devices Enabled by Densely Packed Silver Nanocone Arrays as Electric-Field Concentrators. *ACS Nano*, **2016**, 10, 9478-9488	16.7	71
64	Flash Light Millisecond Self-Assembly of High □Block Copolymers for Wafer-Scale Sub-10 nm Nanopatterning. *Advanced Materials*, **2017**, 29, 1700595	24	66
63	Self-assembled incorporation of modulated block copolymer nanostructures in phase-change memory for switching power reduction. *ACS Nano*, **2013**, 7, 2651-8	16.7	66
62	Modulation of surface physics and chemistry in triboelectric energy harvesting technologies. *Science and Technology of Advanced Materials*, **2019**, 20, 758-773	7.1	65
61	Flexible Piezoelectric Acoustic Sensors and Machine Learning for Speech Processing. *Advanced Materials*, **2020**, 32, e1904020	24	64
60	Monolithic Flexible Vertical GaN Light-Emitting Diodes for a Transparent Wireless Brain Optical Stimulator. *Advanced Materials*, **2018**, 30, e1800649	24	64
59	Performance improvement of flexible piezoelectric energy harvester for irregular human motion with energy extraction enhancement circuit. *Nano Energy*, **2019**, 58, 211-219	17.1	58
58	Wireless powered wearable micro light-emitting diodes. *Nano Energy*, **2019**, 55, 454-462	17.1	54

57	Flexible one diode-one phase change memory array enabled by block copolymer self-assembly. *ACS Nano*, **2015**, 9, 4120-8	16.7	53
56	Basilar membrane-inspired self-powered acoustic sensor enabled by highly sensitive multi tunable frequency band. *Nano Energy*, **2018**, 53, 198-205	17.1	51
55	Trichogenic Photostimulation Using Monolithic Flexible Vertical AlGaInP Light-Emitting Diodes. *ACS Nano*, **2018**, 12, 9587-9595	16.7	51
54	Self-powered flexible electronics beyond thermal limits. *Nano Energy*, **2019**, 56, 531-546	17.1	51
53	Laser-induced phase separation of silicon carbide. *Nature Communications*, **2016**, 7, 13562	17.4	47
52	Optogenetic control of body movements via flexible vertical light-emitting diodes on brain surface. *Nano Energy*, **2018**, 44, 447-455	17.1	43
51	Electrical biomolecule detection using nanopatterned silicon via block copolymer lithography. *Small*, **2014**, 10, 337-43	11	42
50	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	16.7	41
49	Laser-induced solid-phase doped graphene. *ACS Nano*, **2014**, 8, 7671-7	16.7	41
48	Biomimetic and flexible piezoelectric mobile acoustic sensors with multiresonant ultrathin structures for machine learning biometrics. *Science Advances*, **2021**, 7,	14.3	39
47	Simultaneous Roll Transfer and Interconnection of Flexible Silicon NAND Flash Memory. *Advanced Materials*, **2016**, 28, 8371-8378	24	38
46	Flexible one diode□one resistor resistive switching memory arrays on plastic substrates. *RSC Advances*, **2014**, 4, 20017-20023	3.7	38
45	Optogenetic Mapping of Functional Connectivity in Freely Moving Mice via Insertable Wrapping Electrode Array Beneath the Skull. *ACS Nano*, **2016**, 10, 2791-802	16.7	34
44	Flash-Induced Stretchable Cu Conductor via Multiscale-Interfacial Couplings. *Advanced Science*, **2018**, 5, 1801146	13.6	31
43	TFT Channel Materials for Display Applications: From Amorphous Silicon to Transition Metal Dichalcogenides. *Advanced Materials*, **2020**, 32, e1907166	24	30
42	Flexible wireless powered drug delivery system for targeted administration on cerebral cortex. *Nano Energy*, **2018**, 51, 102-112	17.1	28
41	Optogenetic brain neuromodulation by stray magnetic field via flash-enhanced magneto-mechano-triboelectric nanogenerator. *Nano Energy*, **2020**, 75, 104951	17.1	23
40	Tailoring the Magnetoelectric Properties of Pb(Zr,Ti)O3 Film Deposited on Amorphous Metglas Foil by Laser Annealing. *Journal of the American Ceramic Society*, **2016**, 99, 2680-2687	3.8	23

39	Xenon Flash Lamp-Induced Ultrafast Multilayer Graphene Growth. *Particle and Particle Systems Characterization*, **2017**, 34, 1600429	3.1	21
38	Flash-induced ultrafast recrystallization of perovskite for flexible light-emitting diodes. *Nano Energy*, **2019**, 61, 236-244	17.1	20
37	Self-Structured Conductive Filament Nanoheater for Chalcogenide Phase Transition. *ACS Nano*, **2015**, 9, 6587-94	16.7	20
36	Flexible Crossbar-Structured Phase Change Memory Array via Mo-Based Interfacial Physical Lift-Off. *Advanced Functional Materials*, **2019**, 29, 1806338	15.6	18
35	Laser lift-off of GaN thin film and its application to the flexible light emitting diodes **2012**,		17
34	Progress in Brain-Compatible Interfaces with Soft Nanomaterials. *Advanced Materials*, **2020**, 32, e1907522	24	17
33	Janus Graphene Liquid Crystalline Fiber with Tunable Properties Enabled by Ultrafast Flash Reduction. *Small*, **2019**, 15, e1901529	11	15
32	Hierarchically Surface-Textured Ultrastable Hybrid Film for Large-Scale Triboelectric Nanogenerators. *Advanced Functional Materials*, **2020**, 30, 2005610	15.6	15
31	Nanotransplantation Printing of Crystallographic-Orientation-Controlled Single-Crystalline Nanowire Arrays on Diverse Surfaces. *ACS Nano*, **2017**, 11, 11642-11652	16.7	12
30	Flexible Self-Charging, Ultrafast, High-Power-Density Ceramic Capacitor System. *ACS Energy Letters*,1383-1391	20.3	12
29	An Ionic Capacitor for Integrated Iontronic Circuits. *Advanced Materials Technologies*, **2019**, 4, 1800494	6.8	12
28	Nanogenerators: Highly-Efficient, Flexible Piezoelectric PZT Thin Film Nanogenerator on Plastic Substrates (Adv. Mater. 16/2014). *Advanced Materials*, **2014**, 26, 2450-2450	24	9
27	Unconventional Inorganic-Based Memristive Devices for Advanced Intelligent Systems. *Advanced Materials Technologies*, **2019**, 4, 1900080	6.8	9
26	Simultaneous emulation of synaptic and intrinsic plasticity using a memristive synapse.. *Nature Communications*, **2022**, 13, 2811	17.4	9
25	Current density enhancement nano-contact phase-change memory for low writing current. *Applied Physics Letters*, **2013**, 103, 033116	3.4	7
24	ACF-packaged ultrathin Si-based flexible NAND flash memory **2015**,		6
23	Biointegrated flexible inorganic light emitting diodes. *Nanobiosensors in Disease Diagnosis*, **2012**, 5		6
22	A Flash-Induced Robust Cu Electrode on Glass Substrates and Its Application for Thin-Film LEDs. *Advanced Materials*, **2021**, 33, e2007186	24	6

21	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
20	Metastable quantum dot for photoelectric devices via flash-induced one-step sequential self-formation. *Nano Energy*, **2021**, 84, 105889	17.1	5
19	Self-Powered Flexible Full-Color Display via Dielectric-Tuned Hybrimer Triboelectric Nanogenerators. *ACS Energy Letters*,4097-4107	20.1	4
18	Flash-welded ultraflat silver nanowire network for flexible organic light-emitting diode and triboelectric tactile sensor. *APL Materials*, **2021**, 9, 061112	5.7	4
17	Universal Patterning for 2D Van der Waals Materials via Direct Optical Lithography. *Advanced Functional Materials*,2105302	15.6	4
16	Piezoelectric Sensors: Self-Powered Real-Time Arterial Pulse Monitoring Using Ultrathin Epidermal Piezoelectric Sensors (Adv. Mater. 37/2017). *Advanced Materials*, **2017**, 29,	24	3
15	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
14	Flexible micro light-emitting diodes for wearable applications **2019**,		3
13	Speech Recognition: Flexible Piezoelectric Acoustic Sensors and Machine Learning for Speech Processing (Adv. Mater. 35/2020). *Advanced Materials*, **2020**, 32, 2070259	24	3
12	Flashlight-material interaction for wearable and flexible electronics. *Materials Today*, **2021**, 51, 525-525	21.8	3
11	Light-Emitting Diodes: Monolithic Flexible Vertical GaN Light-Emitting Diodes for a Transparent Wireless Brain Optical Stimulator (Adv. Mater. 28/2018). *Advanced Materials*, **2018**, 30, 1870208	24	2
10	Memory-centric neuromorphic computing for unstructured data processing. *Nano Research*, **2021**, 14, 3126-3142	10	2
9	Transparent Displays: Skin-Like Oxide Thin-Film Transistors for Transparent Displays (Adv. Funct. Mater. 34/2016). *Advanced Functional Materials*, **2016**, 26, 6319-6319	15.6	2
8	Autonomous Microcapillary Drug Delivery System Self-Powered by a Flexible Energy Harvester. *Advanced Materials Technologies*, **2021**, 6, 2100526	6.8	2
7	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
6	Flexible Electronics: Flexible Crossbar-Structured Resistive Memory Arrays on Plastic Substrates via Inorganic-Based Laser Lift-Off (Adv. Mater. 44/2014). *Advanced Materials*, **2014**, 26, 7418-7418	24	1
5	Siloxane Hybrid Materials: Hierarchically Surface-Textured Ultrastable Hybrid Film for Large-Scale Triboelectric Nanogenerators (Adv. Funct. Mater. 49/2020). *Advanced Functional Materials*, **2020**, 30, 2070327	15.6	1
4	Light-material interfaces for self-powered optoelectronics. *Journal of Materials Chemistry A*, **2021**, 9, 25694-25705	13	0

3	Neuromedical Devices: Progress in Brain-Compatible Interfaces with Soft Nanomaterials (Adv. Mater. 35/2020). *Advanced Materials*, **2020**, 32, 2070262	24	0
2	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	
1	Low Power Phase Change Memory via Block Copolymer Self-assembly Technology. *Materials Research Society Symposia Proceedings*, **2013**, 1556, 1		