

Keon Jae Lee

List of Publications by Year in Descending Order

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Version: 2024-04-20

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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	Simultaneous emulation of synaptic and intrinsic plasticity using a memristive synapse.. <i>Nature Communications</i> , 2022 , 13, 2811	17.4	9
109	Light-material interfaces for self-powered optoelectronics. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 25694-25705	13	0
108	Memory-centric neuromorphic computing for unstructured data processing. <i>Nano Research</i> , 2021 , 14, 3126-3142	10	2
107	Flash-welded ultraflat silver nanowire network for flexible organic light-emitting diode and triboelectric tactile sensor. <i>APL Materials</i> , 2021 , 9, 061112	5.7	4
106	Metastable quantum dot for photoelectric devices via flash-induced one-step sequential self-formation. <i>Nano Energy</i> , 2021 , 84, 105889	17.1	5
105	Biomimetic and flexible piezoelectric mobile acoustic sensors with multiresonant ultrathin structures for machine learning biometrics. <i>Science Advances</i> , 2021 , 7,	14.3	39
104	A Flash-Induced Robust Cu Electrode on Glass Substrates and Its Application for Thin-Film LEDs. <i>Advanced Materials</i> , 2021 , 33, e2007186	24	6
103	Autonomous Microcapillary Drug Delivery System Self-Powered by a Flexible Energy Harvester. <i>Advanced Materials Technologies</i> , 2021 , 6, 2100526	6.8	2
102	Flashlight-material interaction for wearable and flexible electronics. <i>Materials Today</i> , 2021 , 51, 525-525	21.8	3
101	Optogenetic brain neuromodulation by stray magnetic field via flash-enhanced magneto-mechano-triboelectric nanogenerator. <i>Nano Energy</i> , 2020 , 75, 104951	17.1	23
100	TFT Channel Materials for Display Applications: From Amorphous Silicon to Transition Metal Dichalcogenides. <i>Advanced Materials</i> , 2020 , 32, e1907166	24	30
99	Wireless smart contact lens for diabetic diagnosis and therapy. <i>Science Advances</i> , 2020 , 6, eaba3252	14.3	127
98	Siloxane Hybrid Materials: Hierarchically Surface-Textured Ultrastable Hybrid Film for Large-Scale Triboelectric Nanogenerators (Adv. Funct. Mater. 49/2020). <i>Advanced Functional Materials</i> , 2020 , 30, 2070327	15.6	1
97	Speech Recognition: Flexible Piezoelectric Acoustic Sensors and Machine Learning for Speech Processing (Adv. Mater. 35/2020). <i>Advanced Materials</i> , 2020 , 32, 2070259	24	3
96	Hierarchically Surface-Textured Ultrastable Hybrid Film for Large-Scale Triboelectric Nanogenerators. <i>Advanced Functional Materials</i> , 2020 , 30, 2005610	15.6	15
95	Neuromedical Devices: Progress in Brain-Compatible Interfaces with Soft Nanomaterials (Adv. Mater. 35/2020). <i>Advanced Materials</i> , 2020 , 32, 2070262	24	0
94	Flexible Piezoelectric Acoustic Sensors and Machine Learning for Speech Processing. <i>Advanced Materials</i> , 2020 , 32, e1904020	24	64

93	Progress in Brain-Compatible Interfaces with Soft Nanomaterials. <i>Advanced Materials</i> , 2020 , 32, e19075224		17
92	Achieving high-resolution pressure mapping via flexible GaN/ ZnO nanowire LEDs array by piezo-phototronic effect. <i>Nano Energy</i> , 2019 , 58, 633-640	17.1	78
91	Flash-induced ultrafast recrystallization of perovskite for flexible light-emitting diodes. <i>Nano Energy</i> , 2019 , 61, 236-244	17.1	20
90	Micro Light-Emitting Diodes for Display and Flexible Biomedical Applications. <i>Advanced Functional Materials</i> , 2019 , 29, 1808075	15.6	73
89	Modulation of surface physics and chemistry in triboelectric energy harvesting technologies. <i>Science and Technology of Advanced Materials</i> , 2019 , 20, 758-773	7.1	65
88	Janus Graphene Liquid Crystalline Fiber with Tunable Properties Enabled by Ultrafast Flash Reduction. <i>Small</i> , 2019 , 15, e1901529	11	15
87	Flexible micro light-emitting diodes for wearable applications 2019 ,		3
86	Unconventional Inorganic-Based Memristive Devices for Advanced Intelligent Systems. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900080	6.8	9
85	An Ionic Capacitor for Integrated Iontronic Circuits. <i>Advanced Materials Technologies</i> , 2019 , 4, 1800494	6.8	12
84	Flexible Crossbar-Structured Phase Change Memory Array via Mo-Based Interfacial Physical Lift-Off. <i>Advanced Functional Materials</i> , 2019 , 29, 1806338	15.6	18
83	Wireless powered wearable micro light-emitting diodes. <i>Nano Energy</i> , 2019 , 55, 454-462	17.1	54
82	Performance improvement of flexible piezoelectric energy harvester for irregular human motion with energy extraction enhancement circuit. <i>Nano Energy</i> , 2019 , 58, 211-219	17.1	58
81	Self-powered flexible electronics beyond thermal limits. <i>Nano Energy</i> , 2019 , 56, 531-546	17.1	51
80	Laser Irradiation of Metal Oxide Films and Nanostructures: Applications and Advances. <i>Advanced Materials</i> , 2018 , 30, e1705148	24	110
79	Light-Emitting Diodes: Monolithic Flexible Vertical GaN Light-Emitting Diodes for a Transparent Wireless Brain Optical Stimulator (Adv. Mater. 28/2018). <i>Advanced Materials</i> , 2018 , 30, 1870208	24	2
78	Novel Electronics for Flexible and Neuromorphic Computing. <i>Advanced Functional Materials</i> , 2018 , 28, 1801690	15.6	74
77	Basilar membrane-inspired self-powered acoustic sensor enabled by highly sensitive multi tunable frequency band. <i>Nano Energy</i> , 2018 , 53, 198-205	17.1	51
76	Trichogenic Photostimulation Using Monolithic Flexible Vertical AlGaInP Light-Emitting Diodes. <i>ACS Nano</i> , 2018 , 12, 9587-9595	16.7	51

75	Flexible wireless powered drug delivery system for targeted administration on cerebral cortex. <i>Nano Energy</i> , 2018 , 51, 102-112	17.1	28
74	Optogenetic control of body movements via flexible vertical light-emitting diodes on brain surface. <i>Nano Energy</i> , 2018 , 44, 447-455	17.1	43
73	Flash-Induced Stretchable Cu Conductor via Multiscale-Interfacial Couplings. <i>Advanced Science</i> , 2018 , 5, 1801146	13.6	31
72	Machine learning-based self-powered acoustic sensor for speaker recognition. <i>Nano Energy</i> , 2018 , 53, 658-665	17.1	78
71	Monolithic Flexible Vertical GaN Light-Emitting Diodes for a Transparent Wireless Brain Optical Stimulator. <i>Advanced Materials</i> , 2018 , 30, e1800649	24	64
70	Versatile Transfer of an Ultralong and Seamless Nanowire Array Crystallized at High Temperature for Use in High-Performance Flexible Devices. <i>ACS Nano</i> , 2017 , 11, 1520-1529	16.7	41
69	Comprehensive biocompatibility of nontoxic and high-output flexible energy harvester using lead-free piezoceramic thin film. <i>APL Materials</i> , 2017 , 5, 074102	5.7	105
68	Performance-enhanced triboelectric nanogenerator enabled by wafer-scale nanogrates of multistep pattern downscaling. <i>Nano Energy</i> , 2017 , 35, 415-423	17.1	101
67	Xenon Flash Lamp-Induced Ultrafast Multilayer Graphene Growth. <i>Particle and Particle Systems Characterization</i> , 2017 , 34, 1600429	3.1	21
66	In Vivo Self-Powered Wireless Transmission Using Biocompatible Flexible Energy Harvesters. <i>Advanced Functional Materials</i> , 2017 , 27, 1700341	15.6	107
65	Flash Light Millisecond Self-Assembly of High Block Copolymers for Wafer-Scale Sub-10 nm Nanopatterning. <i>Advanced Materials</i> , 2017 , 29, 1700595	24	66
64	Plasmonic-Tuned Flash Cu Nanowelding with Ultrafast Photochemical-Reducing and Interlocking on Flexible Plastics. <i>Advanced Functional Materials</i> , 2017 , 27, 1701138	15.6	76
63	Laser-Material Interactions for Flexible Applications. <i>Advanced Materials</i> , 2017 , 29, 1606586	24	96
62	Piezoelectric Sensors: Self-Powered Real-Time Arterial Pulse Monitoring Using Ultrathin Epidermal Piezoelectric Sensors (Adv. Mater. 37/2017). <i>Advanced Materials</i> , 2017 , 29,	24	3
61	Self-Powered Real-Time Arterial Pulse Monitoring Using Ultrathin Epidermal Piezoelectric Sensors. <i>Advanced Materials</i> , 2017 , 29, 1702308	24	308
60	Nanotransplantation Printing of Crystallographic-Orientation-Controlled Single-Crystalline Nanowire Arrays on Diverse Surfaces. <i>ACS Nano</i> , 2017 , 11, 11642-11652	16.7	12
59	Flexible highly-effective energy harvester via crystallographic and computational control of nanointerfacial morphotropic piezoelectric thin film. <i>Nano Research</i> , 2017 , 10, 437-455	10	74
58	Flash-Induced Self-Limited Plasmonic Welding of Silver Nanowire Network for Transparent Flexible Energy Harvester. <i>Advanced Materials</i> , 2017 , 29, 1603473	24	153

57	High-Performance Flexible Thermoelectric Power Generator Using Laser Multiscanning Lift-Off Process. <i>ACS Nano</i> , 2016 , 10, 10851-10857	16.7	149
56	Self-Powered Devices: Self-Powered Wireless Sensor Node Enabled by an Aerosol-Deposited PZT Flexible Energy Harvester (Adv. Energy Mater. 13/2016). <i>Advanced Energy Materials</i> , 2016 , 6,	21.8	3
55	Simultaneous Roll Transfer and Interconnection of Flexible Silicon NAND Flash Memory. <i>Advanced Materials</i> , 2016 , 28, 8371-8378	24	38
54	Optogenetic Mapping of Functional Connectivity in Freely Moving Mice via Insertable Wrapping Electrode Array Beneath the Skull. <i>ACS Nano</i> , 2016 , 10, 2791-802	16.7	34
53	Laser Writing Block Copolymer Self-Assembly on Graphene Light-Absorbing Layer. <i>ACS Nano</i> , 2016 , 10, 3435-42	16.7	89
52	Stretchable piezoelectric nanocomposite generator. <i>Nano Convergence</i> , 2016 , 3, 12	9.2	71
51	Laser Crystallization of Organic-Inorganic Hybrid Perovskite Solar Cells. <i>ACS Nano</i> , 2016 , 10, 7907-14	16.7	95
50	Self-Powered Wireless Sensor Node Enabled by an Aerosol-Deposited PZT Flexible Energy Harvester. <i>Advanced Energy Materials</i> , 2016 , 6, 1600237	21.8	119
49	Tailoring the Magnetoelectric Properties of Pb(Zr,Ti)O ₃ Film Deposited on Amorphous Metglas Foil by Laser Annealing. <i>Journal of the American Ceramic Society</i> , 2016 , 99, 2680-2687	3.8	23
48	Laser-induced phase separation of silicon carbide. <i>Nature Communications</i> , 2016 , 7, 13562	17.4	47
47	Transparent Displays: Skin-Like Oxide Thin-Film Transistors for Transparent Displays (Adv. Funct. Mater. 34/2016). <i>Advanced Functional Materials</i> , 2016 , 26, 6319-6319	15.6	2
46	Reliable Memristive Switching Memory Devices Enabled by Densely Packed Silver Nanocone Arrays as Electric-Field Concentrators. <i>ACS Nano</i> , 2016 , 10, 9478-9488	16.7	71
45	A flexible energy harvester based on a lead-free and piezoelectric BCTZ nanoparticle-polymer composite. <i>Nanoscale</i> , 2016 , 8, 17632-17638	7.7	78
44	Skin-Like Oxide Thin-Film Transistors for Transparent Displays. <i>Advanced Functional Materials</i> , 2016 , 26, 6170-6178	15.6	101
43	A Reconfigurable Rectified Flexible Energy Harvester via Solid-State Single Crystal Grown PMN _{0.48} BZT. <i>Advanced Energy Materials</i> , 2015 , 5, 1500051	21.8	95
42	Self-powered deep brain stimulation via a flexible PIMNT energy harvester. <i>Energy and Environmental Science</i> , 2015 , 8, 2677-2684	35.4	156
41	Flexible one diode-one phase change memory array enabled by block copolymer self-assembly. <i>ACS Nano</i> , 2015 , 9, 4120-8	16.7	53
40	A hyper-stretchable elastic-composite energy harvester. <i>Advanced Materials</i> , 2015 , 27, 2866-75	24	281

39	Flexible piezoelectric thin-film energy harvesters and nanosensors for biomedical applications. <i>Advanced Healthcare Materials</i> , 2015 , 4, 646-58	10.1	187
38	Self-powered flexible inorganic electronic system. <i>Nano Energy</i> , 2015 , 14, 111-125	17.1	94
37	ACF-packaged ultrathin Si-based flexible NAND flash memory 2015 ,		6
36	Performance Enhancement of Electronic and Energy Devices via Block Copolymer Self-Assembly. <i>Advanced Materials</i> , 2015 , 27, 3982-98	24	79
35	Self-Structured Conductive Filament Nanoheater for Chalcogenide Phase Transition. <i>ACS Nano</i> , 2015 , 9, 6587-94	16.7	20
34	Highly-efficient, flexible piezoelectric PZT thin film nanogenerator on plastic substrates. <i>Advanced Materials</i> , 2014 , 26, 2514-20	24	538
33	Nanogenerators: Highly-Efficient, Flexible Piezoelectric PZT Thin Film Nanogenerator on Plastic Substrates (Adv. Mater. 16/2014). <i>Advanced Materials</i> , 2014 , 26, 2450-2450	24	9
32	Topographically-designed triboelectric nanogenerator via block copolymer self-assembly. <i>Nano Letters</i> , 2014 , 14, 7031-8	11.5	258
31	Flexible one diode-one resistor resistive switching memory arrays on plastic substrates. <i>RSC Advances</i> , 2014 , 4, 20017-20023	3.7	38
30	Reliable control of filament formation in resistive memories by self-assembled nanoinsulators derived from a block copolymer. <i>ACS Nano</i> , 2014 , 8, 9492-502	16.7	77
29	Self-powered fully-flexible light-emitting system enabled by flexible energy harvester. <i>Energy and Environmental Science</i> , 2014 , 7, 4035-4043	35.4	144
28	Flexible crossbar-structured resistive memory arrays on plastic substrates via inorganic-based laser lift-off. <i>Advanced Materials</i> , 2014 , 26, 7480-7	24	102
27	Laser-induced solid-phase doped graphene. <i>ACS Nano</i> , 2014 , 8, 7671-7	16.7	41
26	Self-powered cardiac pacemaker enabled by flexible single crystalline PMN-PT piezoelectric energy harvester. <i>Advanced Materials</i> , 2014 , 26, 4880-7	24	445
25	Electrical biomolecule detection using nanopatterned silicon via block copolymer lithography. <i>Small</i> , 2014 , 10, 337-43	11	42
24	Flexible Inorganic Piezoelectric Acoustic Nanosensors for Biomimetic Artificial Hair Cells. <i>Advanced Functional Materials</i> , 2014 , 24, 6914-6921	15.6	132
23	Sensors: Flexible Inorganic Piezoelectric Acoustic Nanosensors for Biomimetic Artificial Hair Cells (Adv. Funct. Mater. 44/2014). <i>Advanced Functional Materials</i> , 2014 , 24, 6898-6898	15.6	
22	Nanogenerators: Self-Powered Cardiac Pacemaker Enabled by Flexible Single Crystalline PMN-PT Piezoelectric Energy Harvester (Adv. Mater. 28/2014). <i>Advanced Materials</i> , 2014 , 26, 4754-4754	24	1

21	Large-Area and Flexible Lead-Free Nanocomposite Generator Using Alkaline Niobate Particles and Metal Nanorod Filler. <i>Advanced Functional Materials</i> , 2014 , 24, 2620-2629	15.6	176
20	Flexible Electronics: Flexible Crossbar-Structured Resistive Memory Arrays on Plastic Substrates via Inorganic-Based Laser Lift-Off (Adv. Mater. 44/2014). <i>Advanced Materials</i> , 2014 , 26, 7418-7418	24	1
19	Flexible and Large-Area Nanocomposite Generators Based on Lead Zirconate Titanate Particles and Carbon Nanotubes. <i>Advanced Energy Materials</i> , 2013 , 3, 1539-1544	21.8	184
18	Self-assembled incorporation of modulated block copolymer nanostructures in phase-change memory for switching power reduction. <i>ACS Nano</i> , 2013 , 7, 2651-8	16.7	66
17	In vivo silicon-based flexible radio frequency integrated circuits monolithically encapsulated with biocompatible liquid crystal polymers. <i>ACS Nano</i> , 2013 , 7, 4545-53	16.7	92
16	Current density enhancement nano-contact phase-change memory for low writing current. <i>Applied Physics Letters</i> , 2013 , 103, 033116	3.4	7
15	Low Power Phase Change Memory via Block Copolymer Self-assembly Technology. <i>Materials Research Society Symposia Proceedings</i> , 2013 , 1556, 1		
14	Nanocomposites: Flexible and Large-Area Nanocomposite Generators Based on Lead Zirconate Titanate Particles and Carbon Nanotubes (Adv. Energy Mater. 12/2013). <i>Advanced Energy Materials</i> , 2013 , 3, 1530-1530	21.8	5
13	Water-resistant flexible GaN LED on a liquid crystal polymer substrate for implantable biomedical applications. <i>Nano Energy</i> , 2012 , 1, 145-151	17.1	107
12	Flexible nanocomposite generator made of BaTiO ₃ nanoparticles and graphitic carbons. <i>Advanced Materials</i> , 2012 , 24, 2999-3004, 2937	24	511
11	Laser lift-off of GaN thin film and its application to the flexible light emitting diodes 2012 ,		17
10	Biointegrated flexible inorganic light emitting diodes. <i>Nanobiosensors in Disease Diagnosis</i> , 2012 , 5		6
9	Flexible memristive memory array on plastic substrates. <i>Nano Letters</i> , 2011 , 11, 5438-42	11.5	227
8	Piezoelectric BaTiO ₃ thin film nanogenerator on plastic substrates. <i>Nano Letters</i> , 2010 , 10, 4939-43	11.5	597
7	Complementary Logic Gates and Ring Oscillators on Plastic Substrates by Use of Printed Ribbons of Single-Crystalline Silicon. <i>IEEE Electron Device Letters</i> , 2008 , 29, 73-76	4.4	71
6	High-speed mechanically flexible single-crystal silicon thin-film transistors on plastic substrates. <i>IEEE Electron Device Letters</i> , 2006 , 27, 460-462	4.4	130
5	Transfer printing by kinetic control of adhesion to an elastomeric stamp. <i>Nature Materials</i> , 2006 , 5, 33-38	7	1093
4	A printable form of single-crystalline gallium nitride for flexible optoelectronic systems. <i>Small</i> , 2005 , 1, 1164-8	11	98

- 3 Self-Powered Flexible Full-Color Display via Dielectric-Tuned Hybrimer Triboelectric Nanogenerators. *ACS Energy Letters*,4097-4107 20.1 4
- 2 Flexible Self-Charging, Ultrafast, High-Power-Density Ceramic Capacitor System. *ACS Energy Letters*,1383-1391 12
- 1 Universal Patterning for 2D Van der Waals Materials via Direct Optical Lithography. *Advanced Functional Materials*,2105302 15.6 4