

# Junghyo Nah

## List of Publications by Year in Descending Order

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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.

83 papers	12,421 citations	28 h-index	95 g-index
95 ext. papers	13,639 ext. citations	7.4 avg, IF	5.84 L-index

#	Paper	IF	Citations
83	A Deionized Water Infilled Dual-Layer Insulator Applied Brain-implanted UWB Antenna for Wireless Biotelemetry Applications. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2022</b> , 1-1	4.9	0
82	Enhanced Electrochemical Performance of Micro-Supercapacitors Via Laser-Scribed Cobalt/Reduced Graphene Oxide Hybrids. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 18821-18828	9.5	6
81	Polyvinylidene Fluoride Core-Shell Nanofiber Membranes with Highly Conductive Shells for Electromagnetic Interference Shielding. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 25428-25437	9.5	4
80	Enhanced Piezoelectric Output Performance of the SnS/SnS Heterostructure Thin-Film Piezoelectric Nanogenerator Realized by Atomic Layer Deposition. <i>ACS Nano</i> , <b>2021</b> , 15, 10428-10436	16.7	7
79	Morphology-dependent spin Seebeck effect in yttrium iron garnet thin films prepared by metal-organic decomposition. <i>Ceramics International</i> , <b>2021</b> , 47, 16770-16775	5.1	1
78	Fabrication of Biocompatible Polycaprolactone/Hydroxyapatite Composite Filaments for the FDM 3D Printing of Bone Scaffolds. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 6351	2.6	8
77	. <i>IEEE Internet of Things Journal</i> , <b>2021</b> , 8, 7745-7767	10.7	11
76	Comparative advantages of a type-II superlattice barrier over an AlGaSb barrier for enhanced performance of InAs/GaSb LWIR nBn photodetectors. <i>Optics Letters</i> , <b>2021</b> , 46, 3877-3880	3	3
75	Design of the High-Speed PMSG with Two Different Shaft Material Considering Overhang Effect and Mechanical Characteristics. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 7670	2.6	1
74	Performance Enhancement of Flexible Polymer Triboelectric Generator through Polarization of the Embedded Ferroelectric Polymer Layer. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 1284	2.6	2
73	Surface leakage current reduction of InAsSb nBn MWIR HOT detector via hydrogen peroxide treatment. <i>Infrared Physics and Technology</i> , <b>2021</b> , 112, 103597	2.7	1
72	Polybenzimidazole-Benzophenone Composite Nanofiber Window Air Filter with Superb UV Resistance and High Chemical and Thermal Durability. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 23914-23922	9.5	5
71	Strain-induced the dark current characteristics in InAs/GaSb type-II superlattice for mid-wave detector. <i>Journal of Semiconductors</i> , <b>2020</b> , 41, 062302	2.3	2
70	Ultra-flexible nanofiber-based multifunctional motion sensor. <i>Nano Energy</i> , <b>2020</b> , 72, 104672	17.1	20
69	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2020</b> , 30, 1-5	1.8	4
68	Output power density enhancement of triboelectric nanogenerators via ferroelectric polymer composite interfacial layers. <i>Nano Energy</i> , <b>2020</b> , 67, 104300	17.1	16
67	In situ formation of graphene/metal oxide composites for high-energy microsupercapacitors. <i>NPG Asia Materials</i> , <b>2020</b> , 12,	10.3	14

66	Thermal conductivity measurement and analysis of Ge-Si x Ge <sub>1-x</sub> core-shell nanowires. <i>Applied Physics Express</i> , <b>2019</b> , 12, 045001	2.4	
65	Robust Wireless Sensor and Actuator Networks for Networked Control Systems. <i>Sensors</i> , <b>2019</b> , 19,	3.8	11
64	Remarkable Output Power Density Enhancement of Triboelectric Nanogenerators via Polarized Ferroelectric Polymers and Bulk MoS Composites. <i>ACS Nano</i> , <b>2019</b> , 13, 4640-4646	16.7	54
63	Electrically Activated Ultrathin PVDF-TrFE Air Filter for High-Efficiency PM1.0 Filtration. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1903633	15.6	62
62	Thermal conductivity enhancement in electrospun poly(vinyl alcohol) and poly(vinyl alcohol)/cellulose nanocrystal composite nanofibers. <i>Scientific Reports</i> , <b>2019</b> , 9, 3026	4.9	28
61	Role of a buried indium zinc oxide layer in the performance enhancement of triboelectric nanogenerators. <i>Nano Energy</i> , <b>2019</b> , 55, 501-505	17.1	18
60	Light-Permeable Air Filter with Self-Polarized Nylon-11 Nanofibers for Enhanced Trapping of Particulate Matters. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1801832	4.6	12
59	Reusable Polybenzimidazole Nanofiber Membrane Filter for Highly Breathable PM Dust Proof Mask. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 2750-2757	9.5	60
58	A soft lithographic approach to fabricate InAs nanowire field-effect transistors. <i>Scientific Reports</i> , <b>2018</b> , 8, 3204	4.9	5
57	Ferroelectric nanoparticle-embedded sponge structure triboelectric generators. <i>Nanotechnology</i> , <b>2018</b> , 29, 185402	3.4	8
56	Investigation of 3-D Printed, Electrically Small, and Thin Magnetic Dipole Antenna. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2018</b> , 17, 654-657	3.8	8
55	Transmission Scheduling Schemes of Industrial Wireless Sensors for Heterogeneous Multiple Control Systems. <i>Sensors</i> , <b>2018</b> , 18,	3.8	3
54	An ultraviolet and electric field activated photopolymer-ferroelectric nanoparticle composite for the performance enhancement of triboelectric nanogenerators. <i>Nanoscale</i> , <b>2018</b> , 10, 20995-21000	7.7	4
53	Interface States in Bilayer Graphene Encapsulated by Hexagonal Boron Nitride. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 40985-40989	9.5	
52	Most facile synthesis of Zn-Al:LDHs nanosheets at room temperature via environmentally friendly process and their high power generation by flexoelectricity. <i>Materials Today Energy</i> , <b>2018</b> , 10, 254-263	7	8
51	The influence of substrate-dependent triboelectric charging of graphene on the electric potential generation by the flow of electrolyte droplets. <i>Nano Energy</i> , <b>2018</b> , 54, 66-72	17.1	13
50	Dark current improvement due to dry-etch process in InAs/GaSb type-II superlattice LWIR photodetector with nBn structure. <i>Infrared Physics and Technology</i> , <b>2018</b> , 94, 161-164	2.7	7
49	Microneedles integrated with a triboelectric nanogenerator: an electrically active drug delivery system. <i>Nanoscale</i> , <b>2018</b> , 10, 13502-13510	7.7	25

48	Catalytic synergy effect of MoS <sub>2</sub> /reduced graphene oxide hybrids for a highly efficient hydrogen evolution reaction. <i>RSC Advances</i> , <b>2017</b> , 7, 5480-5487	3.7	47
47	Effects of B-sheet crystals and a glycine-rich matrix on the thermal conductivity of spider dragline silk. <i>International Journal of Biological Macromolecules</i> , <b>2017</b> , 96, 384-391	7.9	3
46	Ferroelectric Zinc Oxide Nanowire Embedded Flexible Sensor for Motion and Temperature Sensing. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 9233-9238	9.5	41
45	Air-Stable Humidity Sensor Using Few-Layer Black Phosphorus. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 10019-10026	9.5	68
44	Formation of Triboelectric Series via Atomic-Level Surface Functionalization for Triboelectric Energy Harvesting. <i>ACS Nano</i> , <b>2017</b> , 11, 6131-6138	16.7	109
43	Induced dipole in vanadium-doped zinc oxide nanosheets and its effects on photoelectrochemical water splitting. <i>Nanotechnology</i> , <b>2017</b> , 28, 395403	3.4	10
42	High-Performance Piezoelectric Nanogenerators via Imprinted Sol-Gel BaTiO Nanopillar Array. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 41099-41103	9.5	24
41	Li-doped Cu <sub>2</sub> O/ZnO heterojunction for flexible and semi-transparent piezoelectric nanogenerators. <i>Ceramics International</i> , <b>2017</b> , 43, 2279-2287	5.1	13
40	A vanadium-doped ZnO nanosheets-polymer composite for flexible piezoelectric nanogenerators. <i>Nanoscale</i> , <b>2016</b> , 8, 1314-21	7.7	42
39	Spontaneously polarized lithium-doped zinc oxide nanowires as photoanodes for electrical water splitting. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 3223-3227	13	12
38	Piezoelectric properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite thin films and their applications in piezoelectric generators. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 756-763	13	95
37	Triboelectric Hydrogen Gas Sensor with Pd Functionalized Surface. <i>Nanomaterials</i> , <b>2016</b> , 6,	5.4	19
36	Triboelectric contact surface charge modulation and piezoelectric charge inducement using polarized composite thin film for performance enhancement of triboelectric generators. <i>Nano Energy</i> , <b>2016</b> , 25, 225-231	17.1	44
35	Scalable and enhanced triboelectric output power generation by surface functionalized nanoimprint patterns. <i>Nanotechnology</i> , <b>2016</b> , 27, 205401	3.4	18
34	Interfacial Mode Interactions of Surface Plasmon Polaritons on Gold Nanodome Films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 20516-21	9.5	6
33	Triboelectric charging sequence induced by surface functionalization as a method to fabricate high performance triboelectric generators. <i>ACS Nano</i> , <b>2015</b> , 9, 4621-7	16.7	160
32	Phosphorus-doped zinc oxide p-n homojunction thin film for flexible piezoelectric nanogenerators. <i>Nano Energy</i> , <b>2015</b> , 18, 126-132	17.1	19
31	Thermal Conductivity Measurement of Ge-SixGe1-x Core-Shell Nanowires Using Suspended Microdevices. <i>Transactions of the Korean Society of Mechanical Engineers, B</i> , <b>2015</b> , 39, 825-829	0.5	2

30	Hemispherically aggregated BaTiO <sub>3</sub> nanoparticle composite thin film for high-performance flexible piezoelectric nanogenerator. <i>ACS Nano</i> , <b>2014</b> , 8, 2766-73	16.7	220
29	Lithium-doped zinc oxide nanowires-polymer composite for high performance flexible piezoelectric nanogenerator. <i>ACS Nano</i> , <b>2014</b> , 8, 10844-50	16.7	106
28	Solvent-assisted optimal BaTiO <sub>3</sub> nanoparticles-polymer composite cluster formation for high performance piezoelectric nanogenerators. <i>Nanotechnology</i> , <b>2014</b> , 25, 485401	3.4	22
27	Realization and Scaling of $\text{Ge}_{1-x}\text{Si}_x/\text{Ge}_x$ Core-Shell Nanowire n-FETs. <i>IEEE Transactions on Electron Devices</i> , <b>2013</b> , 60, 4027-4033	2.9	3
26	Piezoelectric performance enhancement of ZnO flexible nanogenerator by a CuO/ZnO p-n junction formation. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 8103	7.1	56
25	CMOS Logic Devices and Gas Sensors Realized by Epitaxially Transferred 2-D III-V Nanoribbons on Insulator. <i>ECS Transactions</i> , <b>2013</b> , 58, 95-101	1	
24	Realization of a Gas Sensor Using Ultrathin InAs Nanoribbon Membranes for NO <sub>2</sub> Detection at Parts-per-Billion Levels. <i>Bulletin of the Korean Chemical Society</i> , <b>2013</b> , 34, 1021-1022	1.2	
23	Nanoscale InGaSb heterostructure membranes on Si substrates for high hole mobility transistors. <i>Nano Letters</i> , <b>2012</b> , 12, 2060-6	11.5	74
22	Role of confinement on carrier transport in Ge-Si(x)Ge(1-x) core-shell nanowires. <i>Nano Letters</i> , <b>2012</b> , 12, 108-12	11.5	32
21	Self-aligned, extremely high frequency III-V metal-oxide-semiconductor field-effect transistors on rigid and flexible substrates. <i>Nano Letters</i> , <b>2012</b> , 12, 4140-5	11.5	67
20	p-Type InP Nanopillar Photocathodes for Efficient Solar-Driven Hydrogen Production. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 10918-10922	3.6	34
19	p-Type InP nanopillar photocathodes for efficient solar-driven hydrogen production. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 10760-4	16.4	226
18	Extremely bendable, high-performance integrated circuits using semiconducting carbon nanotube networks for digital, analog, and radio-frequency applications. <i>Nano Letters</i> , <b>2012</b> , 12, 1527-33	11.5	258
17	III-V complementary metal-oxide-semiconductor electronics on silicon substrates. <i>Nano Letters</i> , <b>2012</b> , 12, 3592-5	11.5	74
16	Quantum Size Effects on the Chemical Sensing Performance of Two-Dimensional Semiconductors. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 9750-9754	3.8	36
15	Benchmarking the performance of ultrathin body InAs-on-insulator transistors as a function of body thickness. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 103507	3.4	37
14	Coulomb drag of massless fermions in graphene. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	145
13	Role of Metal/Semiconductor Contact in Nanowire Field-Effect Transistors. <i>IEEE Nanotechnology Magazine</i> , <b>2010</b> , 9, 237-242	2.6	11

12	Lateral spin injection in germanium nanowires. <i>Nano Letters</i> , <b>2010</b> , 10, 3297-301	11.5	54
11	Hall mobility measurements in enhancement-mode GaAs field-effect transistors with Al <sub>2</sub> O <sub>3</sub> gate dielectric. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 213506	3-4	19
10	<b>2010</b> ,		45
9	Ge-SixGe1-x core-shell nanowire tunneling field-effect transistors <b>2010</b> ,		1
8	Enhanced-Performance Germanium Nanowire Tunneling Field-Effect Transistors Using Flash-Assisted Rapid Thermal Process. <i>IEEE Electron Device Letters</i> , <b>2010</b> , 31, 1359-1361	4-4	19
7	Scaling Properties of $\text{Ge}_x\text{Si}_{1-x}\text{Ge}_{1-x}$ Core-Shell Nanowire Field-Effect Transistors. <i>IEEE Transactions on Electron Devices</i> , <b>2010</b> , 57, 491-495	2.9	14
6	$\text{Ge}_x\text{Si}_{1-x}\text{Ge}_{1-x}$ Core-Shell Nanowire Tunneling Field-Effect Transistors. <i>IEEE Transactions on Electron Devices</i> , <b>2010</b> , 57, 1883-1888	2.9	24
5	Realization of dual-gated Ge <sub>0.9</sub> Si <sub>0.1</sub> core-shell nanowire field effect transistors with highly doped source and drain. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 063117	3-4	21
4	Opportunities for Group IV Nanowire Devices in Si CMOS Technology. <i>ECS Transactions</i> , <b>2009</b> , 16, 735-740		
3	Large-area synthesis of high-quality and uniform graphene films on copper foils. <i>Science</i> , <b>2009</b> , 324, 1312-1313	3-3	8900
2	Realization of a high mobility dual-gated graphene field-effect transistor with Al <sub>2</sub> O <sub>3</sub> dielectric. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 062107	3-4	737
1	Doping of Ge <sub>0.9</sub> Si <sub>0.1</sub> core-shell nanowires using low energy ion implantation. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 203108	3-4	17