

# Junghyo Nah

## List of Publications by Year in descending order

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92  
papers

14,522  
citations

147566

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60497

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95  
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95  
docs citations

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times ranked

20522  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Deionized Water-Infilled Dual-Layer Insulator-Applied Brain-Implanted UWB Antenna for Wireless Biotelemetry Applications. <i>IEEE Transactions on Antennas and Propagation</i> , 2022, 70, 6469-6478.	3.1	9
2	Enhanced Output Performance of a Flexible Piezoelectric Nanogenerator Realized by Lithium-Doped Zinc Oxide Nanowires Decorated on MXene. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 26824-26832.	4.0	18
3	Semi-3D Analysis of a Permanent Magnet Synchronous Generator Considering Bolting and Overhang Structure. <i>Energies</i> , 2022, 15, 4374.	1.6	1
4	Wireless Avionics Intracommunications: A Survey of Benefits, Challenges, and Solutions. <i>IEEE Internet of Things Journal</i> , 2021, 8, 7745-7767.	5.5	24
5	Enhanced Electrochemical Performance of Micro-Supercapacitors Via Laser-Scribed Cobalt/Reduced Graphene Oxide Hybrids. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 18821-18828.	4.0	18
6	Polyvinylidene Fluoride Core-Shell Nanofiber Membranes with Highly Conductive Shells for Electromagnetic Interference Shielding. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 25428-25437.	4.0	25
7	Enhanced Piezoelectric Output Performance of the SnS <sub>2</sub> /SnS Heterostructure Thin-Film Piezoelectric Nanogenerator Realized by Atomic Layer Deposition. <i>ACS Nano</i> , 2021, 15, 10428-10436.	7.3	28
8	Morphology-dependent spin Seebeck effect in yttrium iron garnet thin films prepared by metal-organic decomposition. <i>Ceramics International</i> , 2021, 47, 16770-16775.	2.3	11
9	Fabrication of Biocompatible Polycaprolactone-Hydroxyapatite Composite Filaments for the FDM 3D Printing of Bone Scaffolds. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 6351.	1.3	28
10	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> , 2021, 46, 3877.	1.7	7
11	Design of the High-Speed PMSG with Two Different Shaft Material Considering Overhang Effect and Mechanical Characteristics. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 7670.	1.3	3
12	Performance Enhancement of Flexible Polymer Triboelectric Generator through Polarization of the Embedded Ferroelectric Polymer Layer. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 1284.	1.3	4
13	Surface leakage current reduction of InAsSb nBn MWIR HOT detector via hydrogen peroxide treatment. <i>Infrared Physics and Technology</i> , 2021, 112, 103597.	1.3	3
14	HOT MWIR Detector Development with InAs/InAsSb T2SL nBn Structure. , 2021, , .		0
15	Output power density enhancement of triboelectric nanogenerators via ferroelectric polymer composite interfacial layers. <i>Nano Energy</i> , 2020, 67, 104300.	8.2	33
16	In situ formation of graphene/metal oxide composites for high-energy microsupercapacitors. <i>NPG Asia Materials</i> , 2020, 12, .	3.8	27
17	Polybenzimidazole-Benzophenone Composite Nanofiber Window Air Filter with Superb UV Resistance and High Chemical and Thermal Durability. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 23914-23922.	4.0	9
18	Strain-induced the dark current characteristics in InAs/GaSb type-II superlattice for mid-wave detector. <i>Journal of Semiconductors</i> , 2020, 41, 062302.	2.0	7

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19	Ultra-flexible nanofiber-based multifunctional motion sensor. Nano Energy, 2020, 72, 104672.	8.2	46
20	Experimental Verification and Analytical Study of Influence of Rotor Eccentricity on Electromagnetic Characteristics of Permanent Magnet Machine. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-5.	1.1	7
21	Electrically Activated Ultrathin PVDF/TrFE Air Filter for High-Efficiency PM <sub>1.0</sub> Filtration. Advanced Functional Materials, 2019, 29, 1903633.	7.8	100
22	Thermal conductivity measurement and analysis of Ge-Si <sub>1-x</sub> Ge <sub>1-x</sub> core-shell nanowires. Applied Physics Express, 2019, 12, 045001.	1.1	1
23	Robust Wireless Sensor and Actuator Networks for Networked Control Systems. Sensors, 2019, 19, 1535.	2.1	12
24	Remarkable Output Power Density Enhancement of Triboelectric Nanogenerators via Polarized Ferroelectric Polymers and Bulk MoS <sub>2</sub> Composites. ACS Nano, 2019, 13, 4640-4646.	7.3	92
25	Thermal conductivity enhancement in electrospun poly(vinyl alcohol) and poly(vinyl Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 50	1.6	43
26	Role of a buried indium zinc oxide layer in the performance enhancement of triboelectric nanogenerators. Nano Energy, 2019, 55, 501-505.	8.2	28
27	Light-Permeable Air Filter with Self-Polarized Nylon-11 Nanofibers for Enhanced Trapping of Particulate Matters. Advanced Materials Interfaces, 2019, 6, 1801832.	1.9	22
28	Reusable Polybenzimidazole Nanofiber Membrane Filter for Highly Breathable PM <sub>2.5</sub> Dust Proof Mask. ACS Applied Materials & Interfaces, 2019, 11, 2750-2757.	4.0	98
29	A soft lithographic approach to fabricate InAs nanowire field-effect transistors. Scientific Reports, 2018, 8, 3204.	1.6	6
30	Ferroelectric nanoparticle-embedded sponge structure triboelectric generators. Nanotechnology, 2018, 29, 185402.	1.3	15
31	Investigation of 3-D Printed, Electrically Small, and Thin Magnetic Dipole Antenna. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 654-657.	2.4	10
32	Transmission Scheduling Schemes of Industrial Wireless Sensors for Heterogeneous Multiple Control Systems. Sensors, 2018, 18, 4284.	2.1	5
33	An ultraviolet and electric field activated photopolymer-ferroelectric nanoparticle composite for the performance enhancement of triboelectric nanogenerators. Nanoscale, 2018, 10, 20995-21000.	2.8	7
34	Interface States in Bilayer Graphene Encapsulated by Hexagonal Boron Nitride. ACS Applied Materials & Interfaces, 2018, 10, 40985-40989.	4.0	0
35	Most facile synthesis of Zn-Al:LDHs nanosheets at room temperature via environmentally friendly process and their high power generation by flexoelectricity. Materials Today Energy, 2018, 10, 254-263.	2.5	14
36	The influence of substrate-dependent triboelectric charging of graphene on the electric potential generation by the flow of electrolyte droplets. Nano Energy, 2018, 54, 66-72.	8.2	24

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37	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> , 2018, 94, 161-164.	1.3	9
38	Microneedles integrated with a triboelectric nanogenerator: an electrically active drug delivery system. <i>Nanoscale</i> , 2018, 10, 13502-13510.	2.8	44
39	Design of Axial Flux Type Permanent Magnet Coupling with Halbach Magnet Array for Optimal Performance Considering Eddy Current Loss Reduction Using 3-D Finite Element Method. <i>International Journal of Engineering and Technology(UAE)</i> , 2018, 7, 184.	0.2	0
40	Comparison of the Electromagnetic Characteristics of Single-Phase Linear Oscillating Machines according to Magnetic Flux Flow. <i>Journal of Magnetism</i> , 2018, 23, 523-528.	0.2	1
41	Catalytic synergy effect of MoS <sub>2</sub> /reduced graphene oxide hybrids for a highly efficient hydrogen evolution reaction. <i>RSC Advances</i> , 2017, 7, 5480-5487.	1.7	67
42	Effects of $\beta$ -sheet crystals and a glycine-rich matrix on the thermal conductivity of spider dragline silk. <i>International Journal of Biological Macromolecules</i> , 2017, 96, 384-391.	3.6	6
43	Ferroelectric Zinc Oxide Nanowire Embedded Flexible Sensor for Motion and Temperature Sensing. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 9233-9238.	4.0	58
44	Air-Stable Humidity Sensor Using Few-Layer Black Phosphorus. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 10019-10026.	4.0	92
45	Formation of Triboelectric Series via Atomic-Level Surface Functionalization for Triboelectric Energy Harvesting. <i>ACS Nano</i> , 2017, 11, 6131-6138.	7.3	172
46	Induced dipole in vanadium-doped zinc oxide nanosheets and its effects on photoelectrochemical water splitting. <i>Nanotechnology</i> , 2017, 28, 395403.	1.3	11
47	High-Performance Piezoelectric Nanogenerators via Imprinted Sol-Gel BaTiO <sub>3</sub> Nanopillar Array. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 41099-41103.	4.0	36
48	Li-doped Cu <sub>2</sub> O/ZnO heterojunction for flexible and semi-transparent piezoelectric nanogenerators. <i>Ceramics International</i> , 2017, 43, 2279-2287.	2.3	15
49	Triboelectric Hydrogen Gas Sensor with Pd Functionalized Surface. <i>Nanomaterials</i> , 2016, 6, 186.	1.9	29
50	Triboelectric contact surface charge modulation and piezoelectric charge inducement using polarized composite thin film for performance enhancement of triboelectric generators. <i>Nano Energy</i> , 2016, 25, 225-231.	8.2	55
51	Scalable and enhanced triboelectric output power generation by surface functionalized nanoimprint patterns. <i>Nanotechnology</i> , 2016, 27, 205401.	1.3	20
52	Interfacial Mode Interactions of Surface Plasmon Polaritons on Gold Nanodome Films. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 20516-20521.	4.0	6
53	A vanadium-doped ZnO nanosheets-polymer composite for flexible piezoelectric nanogenerators. <i>Nanoscale</i> , 2016, 8, 1314-1321.	2.8	54
54	Spontaneously polarized lithium-doped zinc oxide nanowires as photoanodes for electrical water splitting. <i>Journal of Materials Chemistry A</i> , 2016, 4, 3223-3227.	5.2	14

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55	Piezoelectric properties of $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite thin films and their applications in piezoelectric generators. <i>Journal of Materials Chemistry A</i> , 2016, 4, 756-763.	5.2	130
56	Triboelectric Charging Sequence Induced by Surface Functionalization as a Method To Fabricate High Performance Triboelectric Generators. <i>ACS Nano</i> , 2015, 9, 4621-4627.	7.3	216
57	Phosphorus-doped zinc oxide $\text{p-n}$ homojunction thin film for flexible piezoelectric nanogenerators. <i>Nano Energy</i> , 2015, 18, 126-132.	8.2	22
58	Thermal Conductivity Measurement of $\text{Ge-Si}_x\text{Ge}_{1-x}$ Core-Shell Nanowires Using Suspended Microdevices. <i>Transactions of the Korean Society of Mechanical Engineers, B</i> , 2015, 39, 825-829.	0.0	2
59	Solvent-assisted optimal $\text{BaTiO}_3$ nanoparticles-polymer composite cluster formation for high performance piezoelectric nanogenerators. <i>Nanotechnology</i> , 2014, 25, 485401.	1.3	27
60	Hemispherically Aggregated $\text{BaTiO}_3$ Nanoparticle Composite Thin Film for High-Performance Flexible Piezoelectric Nanogenerator. <i>ACS Nano</i> , 2014, 8, 2766-2773.	7.3	260
61	Lithium-Doped Zinc Oxide Nanowires-Polymer Composite for High Performance Flexible Piezoelectric Nanogenerator. <i>ACS Nano</i> , 2014, 8, 10844-10850.	7.3	136
62	Realization and Scaling of $\text{Ge}_m\text{Si}_{1-x}\text{Ge}_x$ Core-Shell Nanowire $\text{n-FETs}$ . <i>IEEE Transactions on Electron Devices</i> , 2013, 60, 4027-4033.	1.6	3
63	Piezoelectric performance enhancement of $\text{ZnO}$ flexible nanogenerator by a $\text{Cu-ZnO}$ junction formation. <i>Journal of Materials Chemistry C</i> , 2013, 1, 8103.	2.7	67
64	(Invited) Electron Transport and Strain Mapping in $\text{Ge-Si}_x\text{Ge}_{1-x}$ Core-Shell Nanowire Heterostructures. <i>ECS Transactions</i> , 2013, 50, 681-689.	0.3	0
65	CMOS Logic Devices and Gas Sensors Realized by Epitaxially Transferred 2-D III-V Nanoribbons on Insulator. <i>ECS Transactions</i> , 2013, 58, 95-101.	0.3	0
66	Realization of a Gas Sensor Using Ultrathin $\text{InAs}$ Nanoribbon Membranes for $\text{NO}_2$ Detection at Parts-per-Billion Levels. <i>Bulletin of the Korean Chemical Society</i> , 2013, 34, 1021-1022.	1.0	1
67	Nanoscale $\text{InGaSb}$ Heterostructure Membranes on Si Substrates for High Hole Mobility Transistors. <i>Nano Letters</i> , 2012, 12, 2060-2066.	4.5	85
68	Role of Confinement on Carrier Transport in $\text{Ge-Si}_x\text{Ge}_{1-x}$ Core-Shell Nanowires. <i>Nano Letters</i> , 2012, 12, 108-112.	4.5	34
69	Self-Aligned, Extremely High Frequency III-V Metal-Oxide-Semiconductor Field-Effect Transistors on Rigid and Flexible Substrates. <i>Nano Letters</i> , 2012, 12, 4140-4145.	4.5	73
70	$\text{p-n}$ Type $\text{InP}$ Nanopillar Photocathodes for Efficient Solar-Driven Hydrogen Production. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 10760-10764.	7.2	245
71	Extremely Bendable, High-Performance Integrated Circuits Using Semiconducting Carbon Nanotube Networks for Digital, Analog, and Radio-Frequency Applications. <i>Nano Letters</i> , 2012, 12, 1527-1533.	4.5	292
72	III-V Complementary Metal-Oxide-Semiconductor Electronics on Silicon Substrates. <i>Nano Letters</i> , 2012, 12, 3592-3595.	4.5	80

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73	Quantum Size Effects on the Chemical Sensing Performance of Two-Dimensional Semiconductors. Journal of Physical Chemistry C, 2012, 116, 9750-9754.	1.5	41
74	Benchmarking the performance of ultrathin body InAs-on-insulator transistors as a function of body thickness. Applied Physics Letters, 2011, 99, .	1.5	40
75	Coulomb drag of massless fermions in graphene. Physical Review B, 2011, 83, .	1.1	165
76	Scaling Properties of $\text{Si}_x\text{Ge}_{1-x}$ Core-Shell Nanowire Field-Effect Transistors. IEEE Transactions on Electron Devices, 2010, 57, 491-495.	1.6	15
77	$\text{Si}_x\text{Ge}_{1-x}$ Core-Shell Nanowire Tunneling Field-Effect Transistors. IEEE Transactions on Electron Devices, 2010, 57, 1883-1888.	1.6	30
78	Role of Metal-Semiconductor Contact in Nanowire Field-Effect Transistors. IEEE Nanotechnology Magazine, 2010, 9, 237-242.	1.1	12
79	Lateral Spin Injection in Germanium Nanowires. Nano Letters, 2010, 10, 3297-3301.	4.5	55
80	Hall mobility measurements in enhancement-mode GaAs field-effect transistors with Al <sub>2</sub> O <sub>3</sub> gate dielectric. Applied Physics Letters, 2010, 97, .	1.5	22
81	High mobility strained germanium quantum well field effect transistor as the p-channel device option for low power ( $V_{cc} = 0.5$ V) CMOS architecture. , 2010, , .		61
82	Ge-Si <sub>x</sub> Ge <sub>1-x</sub> core-shell nanowire tunneling field-effect transistors. , 2010, , .		3
83	Enhanced-Performance Germanium Nanowire Tunneling Field-Effect Transistors Using Flash-Assisted Rapid Thermal Process. IEEE Electron Device Letters, 2010, 31, 1359-1361.	2.2	23
84	Accurate inversion charge and mobility measurements in enhancement-mode GaAs field-effect transistors with high-k gate dielectrics. , 2009, , .		0
85	Realization of dual-gated $\text{Si}_x\text{Ge}_{1-x}$ core-shell nanowire field effect transistors with highly doped source and drain. Applied Physics Letters, 2009, 94, 063117.	1.5	23
86	Growth and electronic properties of Ge-Si <sub>x</sub> Ge <sub>1-x</sub> core-shell nanowire heterostructures. Proceedings of SPIE, 2009, , .	0.8	0
87	Opportunities for Group IV Nanowire Devices in Si CMOS Technology. ECS Transactions, 2009, 16, 735-740.	0.3	0
88	Large-Area Synthesis of High-Quality and Uniform Graphene Films on Copper Foils. Science, 2009, 324, 1312-1314.	6.0	10,000
89	Top-gated Ge-Si <sub>x</sub> Ge <sub>1-x</sub> core-shell nanowire field-effect transistors with highly doped source and drain. , 2009, , .		0
90	Realization of a high mobility dual-gated graphene field-effect transistor with Al <sub>2</sub> O <sub>3</sub> dielectric. Applied Physics Letters, 2009, 94, .	1.5	827

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91	Impact of metal contact depth on device performance in back-gated semiconductor nanowire field effect transistors. , 2008, , .		0
92	Doping of Ge <sup>1</sup> Si <sup>x</sup> Ge <sup>1-x</sup> core-shell nanowires using low energy ion implantation. Applied Physics Letters, 2008, 93, 203108.	1.5	18