Junghyo Nah

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2382632/publications.pdf

Version: 2024-02-01

92	14,522	147566	60497
papers	citations	31 h-index	81 g-index

95	95	95	20522
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Large-Area Synthesis of High-Quality and Uniform Graphene Films on Copper Foils. Science, 2009, 324, 1312-1314.	6.0	10,000
2	Realization of a high mobility dual-gated graphene field-effect transistor with Al2O3 dielectric. Applied Physics Letters, 2009, 94, .	1.5	827
3	Extremely Bendable, High-Performance Integrated Circuits Using Semiconducting Carbon Nanotube Networks for Digital, Analog, and Radio-Frequency Applications. Nano Letters, 2012, 12, 1527-1533.	4.5	292
4	Hemispherically Aggregated BaTiO₃ Nanoparticle Composite Thin Film for High-Performance Flexible Piezoelectric Nanogenerator. ACS Nano, 2014, 8, 2766-2773.	7.3	260
5	pâ€Type InP Nanopillar Photocathodes for Efficient Solarâ€Driven Hydrogen Production. Angewandte Chemie - International Edition, 2012, 51, 10760-10764.	7.2	245
6	Triboelectric Charging Sequence Induced by Surface Functionalization as a Method To Fabricate High Performance Triboelectric Generators. ACS Nano, 2015, 9, 4621-4627.	7.3	216
7	Formation of Triboelectric Series via Atomic-Level Surface Functionalization for Triboelectric Energy Harvesting. ACS Nano, 2017, 11, 6131-6138.	7.3	172
8	Coulomb drag of massless fermions in graphene. Physical Review B, 2011, 83, .	1.1	165
9	Lithium-Doped Zinc Oxide Nanowiresâ€“Polymer Composite for High Performance Flexible Piezoelectric Nanogenerator. ACS Nano, 2014, 8, 10844-10850.	7.3	136
10	Piezoelectric properties of CH₃NH₃PbI₃perovskite thin films and their applications in piezoelectric generators. Journal of Materials Chemistry A, 2016, 4, 756-763.	5.2	130
11	Electrically Activated Ultrathin PVDFâ€TrFE Air Filter for Highâ€Efficiency PM_{1.0} Filtration. Advanced Functional Materials, 2019, 29, 1903633.	7.8	100
12	Reusable Polybenzimidazole Nanofiber Membrane Filter for Highly Breathable PM_{2.5} Dust Proof Mask. ACS Applied Materials & Interfaces, 2019, 11, 2750-2757.	4.0	98
13	Air-Stable Humidity Sensor Using Few-Layer Black Phosphorus. ACS Applied Materials & Interfaces, 2017, 9, 10019-10026.	4.0	92
14	Remarkable Output Power Density Enhancement of Triboelectric Nanogenerators via Polarized Ferroelectric Polymers and Bulk MoS₂ Composites. ACS Nano, 2019, 13, 4640-4646.	7.3	92
15	Nanoscale InGaSb Heterostructure Membranes on Si Substrates for High Hole Mobility Transistors. Nano Letters, 2012, 12, 2060-2066.	4.5	85
16	IIIâ€“V Complementary Metalâ€“Oxideâ€“Semiconductor Electronics on Silicon Substrates. Nano Letters, 2012, 12, 3592-3595.	4.5	80
17	Self-Aligned, Extremely High Frequency IIIâ€“V Metal-Oxide-Semiconductor Field-Effect Transistors on Rigid and Flexible Substrates. Nano Letters, 2012, 12, 4140-4145.	4.5	73
18	Piezoelectric performance enhancement of ZnO flexible nanogenerator by a CuOâ€“ZnO pâ€“n junction formation. Journal of Materials Chemistry C, 2013, 1, 8103.	2.7	67

#	Article	IF	Citations
19	Catalytic synergy effect of MoS₂/reduced graphene oxide hybrids for a highly efficient hydrogen evolution reaction. RSC Advances, 2017, 7, 5480-5487.	1.7	67
20	High mobility strained germanium quantum well field effect transistor as the p-channel device option for low power (Vcc = 0.5 V) III–V CMOS architecture. , 2010, , .		61
21	Ferroelectric Zinc Oxide Nanowire Embedded Flexible Sensor for Motion and Temperature Sensing. ACS Applied Materials & Interfaces, 2017, 9, 9233-9238.	4.0	58
22	Lateral Spin Injection in Germanium Nanowires. Nano Letters, 2010, 10, 3297-3301.	4.5	55
23	Triboelectric contact surface charge modulation and piezoelectric charge inducement using polarized composite thin film for performance enhancement of triboelectric generators. Nano Energy, 2016, 25, 225-231.	8.2	55
24	A vanadium-doped ZnO nanosheetsâ€“polymer composite for flexible piezoelectric nanogenerators. Nanoscale, 2016, 8, 1314-1321.	2.8	54
25	Ultra-flexible nanofiber-based multifunctional motion sensor. Nano Energy, 2020, 72, 104672.	8.2	46
26	Microneedles integrated with a triboelectric nanogenerator: an electrically active drug delivery system. Nanoscale, 2018, 10, 13502-13510.	2.8	44
27	Thermal conductivity enhancement in electrospun poly(vinyl alcohol) and poly(vinyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 42	1.6	43
28	Quantum Size Effects on the Chemical Sensing Performance of Two-Dimensional Semiconductors. Journal of Physical Chemistry C, 2012, 116, 9750-9754.	1.5	41
29	Benchmarking the performance of ultrathin body InAs-on-insulator transistors as a function of body thickness. Applied Physics Letters, 2011, 99, .	1.5	40
30	High-Performance Piezoelectric Nanogenerators via Imprinted Solâ€“Gel BaTiO₃ Nanopillar Array. ACS Applied Materials & Interfaces, 2017, 9, 41099-41103.	4.0	36
31	Role of Confinement on Carrier Transport in Geâ€“Si_xGe_{1â€“x} Coreâ€“Shell Nanowires. Nano Letters, 2012, 12, 108-112.	4.5	34
32	Output power density enhancement of triboelectric nanogenerators via ferroelectric polymer composite interfacial layers. Nano Energy, 2020, 67, 104300.	8.2	33
33	$hbox{Ge-Si}_{x}hbox{Ge}_{1 - x}$ Coreâ€“Shell Nanowire Tunneling Field-Effect Transistors. IEEE Transactions on Electron Devices, 2010, 57, 1883-1888.	1.6	30
34	Triboelectric Hydrogen Gas Sensor with Pd Functionalized Surface. Nanomaterials, 2016, 6, 186.	1.9	29
35	Role of a buried indium zinc oxide layer in the performance enhancement of triboelectric nanogenerators. Nano Energy, 2019, 55, 501-505.	8.2	28
36	Enhanced Piezoelectric Output Performance of the SnS₂/SnS Heterostructure Thin-Film Piezoelectric Nanogenerator Realized by Atomic Layer Deposition. ACS Nano, 2021, 15, 10428-10436.	7.3	28

#	Article	IF	Citations
37	Fabrication of Biocompatible Polycaprolactoneâ€“Hydroxyapatite Composite Filaments for the FDM 3D Printing of Bone Scaffolds. Applied Sciences (Switzerland), 2021, 11, 6351.	1.3	28
38	Solvent-assisted optimal BaTiO₃ nanoparticles-polymer composite cluster formation for high performance piezoelectric nanogenerators. Nanotechnology, 2014, 25, 485401.	1.3	27
39	In situ formation of graphene/metal oxide composites for high-energy microsupercapacitors. NPG Asia Materials, 2020, 12, .	3.8	27
40	Polyvinylidene Fluoride Coreâ€“Shell Nanofiber Membranes with Highly Conductive Shells for Electromagnetic Interference Shielding. ACS Applied Materials & Interfaces, 2021, 13, 25428-25437.	4.0	25
41	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
42	Wireless Avionics Intracommunications: A Survey of Benefits, Challenges, and Solutions. IEEE Internet of Things Journal, 2021, 8, 7745-7767.	5.5	24
43	Realization of dual-gated Geâ€“SixGe1â^'x core-shell nanowire field effect transistors with highly doped source and drain. Applied Physics Letters, 2009, 94, 063117.	1.5	23
44	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
45	Hall mobility measurements in enhancement-mode GaAs field-effect transistors with Al2O3 gate dielectric. Applied Physics Letters, 2010, 97, .	1.5	22
46	Phosphorus-doped zinc oxide pâ€“n homojunction thin film for flexible piezoelectric nanogenerators. Nano Energy, 2015, 18, 126-132.	8.2	22
47	Lightâ€Permeable Air Filter with Selfâ€Polarized Nylonâ€11 Nanofibers for Enhanced Trapping of Particulate Matters. Advanced Materials Interfaces, 2019, 6, 1801832.	1.9	22
48	Scalable and enhanced triboelectric output power generation by surface functionalized nanoimprint patterns. Nanotechnology, 2016, 27, 205401.	1.3	20
49	Doping of Geâ€“SixGe1â^'x core-shell nanowires using low energy ion implantation. Applied Physics Letters, 2008, 93, 203108.	1.5	18
50	Enhanced Electrochemical Performance of Micro-Supercapacitors Via Laser-Scribed Cobalt/Reduced Graphene Oxide Hybrids. ACS Applied Materials & Interfaces, 2021, 13, 18821-18828.	4.0	18
51	Enhanced Output Performance of a Flexible Piezoelectric Nanogenerator Realized by Lithium-Doped Zinc Oxide Nanowires Decorated on MXene. ACS Applied Materials & Interfaces, 2022, 14, 26824-26832.	4.0	18
52	Scaling Properties of $hbox{Ge}$ â€“$hbox{Si}_{x}hbox{Ge}_{1 - x}$ Coreâ€“Shell Nanowire Field-Effect Transistors. IEEE Transactions on Electron Devices, 2010, 57, 491-495.	1.6	15
53	Li-doped Cu2O/ZnO heterojunction for flexible and semi-transparent piezoelectric nanogenerators. Ceramics International, 2017, 43, 2279-2287.	2.3	15
54	Ferroelectric nanoparticle-embedded sponge structure triboelectric generators. Nanotechnology, 2018, 29, 185402.	1.3	15

#	Article	IF	Citations
55	Spontaneously polarized lithium-doped zinc oxide nanowires as photoanodes for electrical water splitting. Journal of Materials Chemistry A, 2016, 4, 3223-3227.	5.2	14
56	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
57	Role of Metalâ€“Semiconductor Contact in Nanowire Field-Effect Transistors. IEEE Nanotechnology Magazine, 2010, 9, 237-242.	1.1	12
58	Robust Wireless Sensor and Actuator Networks for Networked Control Systems. Sensors, 2019, 19, 1535.	2.1	12
59	Induced dipole in vanadium-doped zinc oxide nanosheets and its effects on photoelectrochemical water splitting. Nanotechnology, 2017, 28, 395403.	1.3	11
60	Morphology-dependent spin Seebeck effect in yttrium iron garnet thin films prepared by metal-organic decomposition. Ceramics International, 2021, 47, 16770-16775.	2.3	11
61	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
62	Dark current improvement due to dry-etch process in InAs/GaSb type-II superlattice LWIR photodetector with nBn structure. Infrared Physics and Technology, 2018, 94, 161-164.	1.3	9
63	Polybenzimidazoleâ€“Benzophenone Composite Nanofiber Window Air Filter with Superb UV Resistance and High Chemical and Thermal Durability. ACS Applied Materials & Interfaces, 2020, 12, 23914-23922.	4.0	9
64	A Deionized Water-Infilled Dual-Layer Insulator-Applied Brain-Implanted UWB Antenna for Wireless Biotelemetry Applications. IEEE Transactions on Antennas and Propagation, 2022, 70, 6469-6478.	3.1	9
65	An ultraviolet and electric field activated photopolymerâ€“ferroelectric nanoparticle composite for the performance enhancement of triboelectric nanogenerators. Nanoscale, 2018, 10, 20995-21000.	2.8	7
66	Strain-induced the dark current characteristics in InAs/GaSb type-II superlattice for mid-wave detector. Journal of Semiconductors, 2020, 41, 062302.	2.0	7
67	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
68	Comparative advantages of a type-II superlattice barrier over an AlGaSb barrier for enhanced performance of InAs/GaSb LWIR nBn photodetectors. Optics Letters, 2021, 46, 3877.	1.7	7
69	Interfacial Mode Interactions of Surface Plasmon Polaritons on Gold Nanodome Films. ACS Applied Materials & Interfaces, 2016, 8, 20516-20521.	4.0	6
70	Effects of Î²-sheet crystals and a glycine-rich matrix on the thermal conductivity of spider dragline silk. International Journal of Biological Macromolecules, 2017, 96, 384-391.	3.6	6
71	A soft lithographic approach to fabricate InAs nanowire field-effect transistors. Scientific Reports, 2018, 8, 3204.	1.6	6
72	Transmission Scheduling Schemes of Industrial Wireless Sensors for Heterogeneous Multiple Control Systems. Sensors, 2018, 18, 4284.	2.1	5

#	Article	IF	Citations
73	Performance Enhancement of Flexible Polymer Triboelectric Generator through Polarization of the Embedded Ferroelectric Polymer Layer. Applied Sciences (Switzerland), 2021, 11, 1284.	1.3	4
74	Ge-Si<inf>x</inf>Ge<inf>1-x</inf> core-shell nanowire tunneling field-effect transistors. , 2010, , .		3
75	Realization and Scaling of ${m Ge}{hbox{--}}{m Si}_{1{hbox{-}}{m x}}{m Ge}_{m x}$ Core-Shell Nanowire n-FETs. IEEE Transactions on Electron Devices, 2013, 60, 4027-4033.	1.6	3
76	Design of the High-Speed PMSG with Two Different Shaft Material Considering Overhang Effect and Mechanical Characteristics. Applied Sciences (Switzerland), 2021, 11, 7670.	1.3	3
77	Surface leakage current reduction of InAsSb nBn MWIR HOT detector via hydrogen peroxide treatment. Infrared Physics and Technology, 2021, 112, 103597.	1.3	3
78	Thermal Conductivity Measurement of Ge-Si_xGe_{1-x} Core-Shell Nanowires Using Suspended Microdevices. Transactions of the Korean Society of Mechanical Engineers, B, 2015, 39, 825-829.	0.0	2
79	Thermal conductivity measurement and analysis of Ge-Si_xGe_{1â”x} coreâ€“shell nanowires. Applied Physics Express, 2019, 12, 045001.	1.1	1
80	Realization of a Gas Sensor Using Ultrathin InAs Nanoribbon Membranes for NO₂Detection at Parts-per-Billion Levels. Bulletin of the Korean Chemical Society, 2013, 34, 1021-1022.	1.0	1
81	Comparison of the Electromagnetic Characteristics of Single-Phase Linear Oscillating Machines according to Magnetic Flux Flow. Journal of Magnetics, 2018, 23, 523-528.	0.2	1
82	Semi-3D Analysis of a Permanent Magnet Synchronous Generator Considering Bolting and Overhang Structure. Energies, 2022, 15, 4374.	1.6	1
83	Impact of metal contact depth on device performance in back-gated semiconductor nanowire field effect transistors. , 2008, , .		0
84	Accurate inversion charge and mobility measurements in enhancement-mode GaAs field-effect transistors with high-k gate dielectrics. , 2009, , .		0
85	Growth and electronic properties of Ge-Si x Ge 1-x core-shell nanowire heterostructures. Proceedings of SPIE, 2009, , .	0.8	0
86	Opportunities for Group IV Nanowire Devices in Si CMOS Technology. ECS Transactions, 2009, 16, 735-740.	0.3	0
87	Top-gated Ge-Si<inf>x</inf>Ge<inf>1−x</inf> core-shell nanowire field-effect transistors with highly doped source and drain. , 2009, , .		0
88	(Invited) Electron Transport and Strain Mapping in Ge-SixGe1-x Core-Shell Nanowire Heterostructres. ECS Transactions, 2013, 50, 681-689.	0.3	0
89	CMOS Logic Devices and Gas Sensors Realized by Epitaxially Transferred 2-D III-V Nanoribbons on Insulator. ECS Transactions, 2013, 58, 95-101.	0.3	0
90	Interface States in Bilayer Graphene Encapsulated by Hexagonal Boron Nitride. ACS Applied Materials & Interfaces, 2018, 10, 40985-40989.	4.0	0

#	Article	IF	Citations
91	HOT MWIR Detector Development with InAs/InAsSb T2SL nBn Structure. , 2021, , .		0
92	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. International Journal of Engineering and Technology(UAE), 2018, 7, 184.	0.2	0