Woong-Ki Hong

List of Publications by Year
in descending order

84 papers	3,476 citations	147726 31 h-index	138417 58 g-index
85 all docs	85 docs citations	85 times ranked	6272 citing authors

#	Article	IF	Citations
1	Silver nanowire-network-film-coated soft substrates with wrinkled surfaces for use as stretchable surface enhanced Raman scattering sensors. Journal of Alloys and Compounds, 2021, 859, 157862.	2.8	18
2	Phase Transition-Induced Temperature-Dependent Phonon Shifts in Molybdenum Disulfide Monolayers Interfaced with a Vanadium Dioxide Film. ACS Applied Materials & Interfaces, 2021, 13, 3426-3434.	4.0	3
3	Enhanced Ultraviolet Photoresponse Characteristics of Indium Gallium Zinc Oxide Photo-Thin-Film Transistors Enabled by Surface Functionalization of Biomaterials for Real-Time Ultraviolet Monitoring. ACS Applied Materials & Interfaces, 2021, 13, 47784-47792.	4.0	6
4	Highly sensitive multiplex-detection of surface-enhanced Raman scattering via self-assembly arrays of porous AuAg nanoparticles with built-in nanogaps. Journal of Alloys and Compounds, 2021, 888, 161504.	2.8	16
5	Core-shell heterostructure-enabled stress engineering in vanadium dioxide nanobeams. Applied Materials Today, 2021, 25, 101244.	2.3	2
6	Plasmonic Coreâ€“Shellâ€“Satellites with Abundant Electromagnetic Hotspots for Highly Sensitive and Reproducible SERS Detection. International Journal of Molecular Sciences, 2021, 22, 12191.	1.8	7
7	Deep-ultraviolet sensing characteristics of transparent and flexible IGZO thin film transistors. Journal of Alloys and Compounds, 2020, 817, 152788.	2.8	37
8	Negative differential resistance behavior in a single-crystalline vanadium dioxide nanobeam without epitaxial interfacial strain. Applied Surface Science, 2020, 509, 144779.	3.1	6
9	Carrier conduction mechanisms of WSe2/p-type Ge epilayer heterojunction depending on the measurement temperature and applied bias. Journal of Alloys and Compounds, 2020, 842, 155843.	2.8	14
10	Effects of Applied Voltages on the Charge Transport Properties in a ZnO Nanowire Field Effect Transistor. Materials, 2020, 13, 268.	1.3	11
11	Automated Assembly of Wafer-Scale 2D TMD Heterostructures of Arbitrary Layer Orientation and Stacking Sequence Using Water Dissoluble Salt Substrates. Nano Letters, 2020, 20, 3925-3934.	4.5	25
12	Dose-dependent effect of proton irradiation on electrical properties of WSe₂ ambipolar field effect transistors. Nanoscale, 2019, 11, 13961-13967.	2.8	5
13	Protein Biophotosensitizer-Based IGZO Photo-thin Film Transistors for Monitoring Harmful Ultraviolet Light. ACS Applied Bio Materials, 2019, 2, 3030-3037.	2.3	7
14	Two-dimensional arrays self-assembled via interference of concentration modulation waves in drying solutions. Materials Horizons, 2019, 6, 507-514.	6.4	2
15	Self-protective GaInN-based light-emitting diodes with VO2 nanowires. Nanoscale, 2019, 11, 18444-18448.	2.8	0
16	Electrochemical and electrocatalytic reaction characteristics of boron-incorporated graphene viaÂa simple spin-on dopant process. Journal of Materials Chemistry A, 2018, 6, 7351-7356.	5.2	23
17	Formation of a core-shell-like vanadium dioxide nanobeam via reduction and surface oxidation and its metal-insulator phase transition behavior. Applied Surface Science, 2018, 455, 1185-1191.	3.1	5
18	Temperature-dependent electronic charge transport characteristics at MoS2/p-type Ge heterojunctions. Journal of Alloys and Compounds, 2018, 757, 221-227.	2.8	24

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19	Voltage sweep direction-dependent metal-insulator transition in a single-crystalline VO 2 nanobeam embedded in a insulating layer. Journal of Alloys and Compounds, 2017, 720, 445-450.	2.8	6
20	Wettability effects of graphene oxide aqueous solution in photodetectors based on graphene oxide/silicon heterojunctions via ultraviolet ozone treatment. Journal of Alloys and Compounds, 2017, 698, 384-389.	2.8	10
21	Thermodynamically Stable Synthesis of Largeâ€Scale and Highly Crystalline Transition Metal Dichalcogenide Monolayers and their Unipolar nâ€“n Heterojunction Devices. Advanced Materials, 2017, 29, 1702206.	11.1	116
22	Ultraviolet Wavelength-Dependent Optoelectronic Properties in Two-Dimensional NbSe₂â€“WSe₂ van der Waals Heterojunction-Based Field-Effect Transistors. ACS Applied Materials & Interfaces, 2017, 9, 41537-41545.	4.0	23
23	Metastable state-induced consecutive step-like negative differential resistance behaviors in single crystalline VO₂ nanobeams. Nanoscale, 2017, 9, 8200-8206.	2.8	9
24	Influence of the contact interface on the electrical characteristics of a ZnO microwire with silver paste electrodes. Journal of Alloys and Compounds, 2016, 681, 75-80.	2.8	12
25	Robust and stretchable indium gallium zinc oxide-based electronic textiles formed by cilia-assisted transfer printing. Nature Communications, 2016, 7, 11477.	5.8	73
26	The influence of interfacial tensile strain on the charge transport characteristics of MoS₂-based vertical heterojunction devices. Nanoscale, 2016, 8, 17598-17607.	2.8	15
27	Interface effect in pentacene field-effect transistors from high energy proton beam irradiation. Organic Electronics, 2015, 27, 240-246.	1.4	7
28	Enhanced energy harvesting based on surface morphology engineering of P(VDF-TrFE) film. Nano Energy, 2015, 16, 524-532.	8.2	60
29	Substrate-mediated strain effect on the role of thermal heating and electric field on metal-insulator transition in vanadium dioxide nanobeams. Scientific Reports, 2015, 5, 10861.	1.6	14
30	Interplay between temperature effects and surface recombination process in UV photoresponse of ZnO nanowires. Applied Surface Science, 2015, 324, 512-516.	3.1	7
31	Defect-mediated modulation of optical properties in vertically aligned ZnO nanowires via substrate-assisted Ga incorporation. Nanotechnology, 2015, 26, 145202.	1.3	10
32	Hydrogen plasma-mediated modification of the electrical transport properties of ZnO nanowire field effect transistors. Nanotechnology, 2015, 26, 125202.	1.3	11
33	Electrical and Optical Characterization of MoS₂ with Sulfur Vacancy Passivation by Treatment with Alkanethiol Molecules. ACS Nano, 2015, 9, 8044-8053.	7.3	185
34	Enhancement of photodetection characteristics of MoS₂field effect transistors using surface treatment with copper phthalocyanine. Nanoscale, 2015, 7, 18780-18788.	2.8	101
35	Electrochemical properties for high surface area and improved electrical conductivity of platinum-embedded porous carbon nanofibers. Journal of Power Sources, 2015, 274, 536-541.	4.0	62
36	Emerging Applications of Liquid Crystals Based on Nanotechnology. Materials, 2014, 7, 2044-2061.	1.3	13

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37	In situ probing of doping- and stress-mediated phase transitions in a single-crystalline VO2 nanobeam by spatially resolved Raman spectroscopy. Nanoscale, 2014, 6, 8068.	2.8	32
38	Irradiation Effects of High-Energy Proton Beams on MoS₂ Field Effect Transistors. ACS Nano, 2014, 8, 2774-2781.	7.3	100
39	Photoelectron Spectroscopic Imaging and Device Applications of Large-Area Patternable Single-Layer MoS₂ Synthesized by Chemical Vapor Deposition. ACS Nano, 2014, 8, 4961-4968.	7.3	117
40	Characteristics of a pressure sensitive touch sensor using a piezoelectric PVDF-TrFE/MoS₂ stack. Nanotechnology, 2013, 24, 475501.	1.3	39
41	Electric Stress-Induced Threshold Voltage Instability of Multilayer MoS₂ Field Effect Transistors. ACS Nano, 2013, 7, 7751-7758.	7.3	190
42	Highly Flexible and Transparent Multilayer MoS₂ Transistors with Graphene Electrodes. Small, 2013, 9, 3295-3300.	5.2	189
43	Hydrogen-Induced Morphotropic Phase Transformation of Single-Crystalline Vanadium Dioxide Nanobeams. Nano Letters, 2013, 13, 1822-1828.	4.5	53
44	Probing the photothermally induced phase transitions in single-crystalline vanadium dioxide nanobeams. Nanotechnology, 2013, 24, 345701.	1.3	18
45	Strain effects in a single ZnO microwire with wavy configurations. Nanotechnology, 2013, 24, 455703.	1.3	6
46	Investigation of threshold voltage instability induced by gate bias stress in ZnO nanowire field effect transistors. Nanotechnology, 2012, 23, 485201.	1.3	14
47	Proton Irradiation-Induced Electrostatic Modulation in ZnO Nanowire Field-Effect Transistors With Bilayer Gate Dielectric. IEEE Nanotechnology Magazine, 2012, 11, 918-923.	1.1	3
48	UV photoconductivity characteristics of ZnO nanowire field effect transistor treated by proton irradiation. Thin Solid Films, 2012, 520, 3624-3628.	0.8	4
49	Nonvolatile Memory Functionality of ZnO Nanowire Transistors Controlled by Mobile Protons. ACS Nano, 2011, 5, 558-564.	7.3	40
50	Enhancement in the photodetection of ZnO nanowires by introducing surface-roughness-induced traps. Nanotechnology, 2011, 22, 205204.	1.3	52
51	Efficient bulk-heterojunction photovoltaic cells with transparent multi-layer graphene electrodes. Organic Electronics, 2010, 11, 1864-1869.	1.4	113
52	Tuning of the Electronic Characteristics of ZnO Nanowire Field Effect Transistors by Proton Irradiation. ACS Nano, 2010, 4, 811-818.	7.3	62
53	Large-scale patterned multi-layer graphene films as transparent conducting electrodes for GaN light-emitting diodes. Nanotechnology, 2010, 21, 175201.	1.3	259
54	Novel Nonvolatile Memory with Multibit Storage Based on a ZnO Nanowire Transistor. Nano Letters, 2010, 10, 4316-4320.	4.5	96

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55	Electrical properties of ZnO nanowire field effect transistors with varying high-kâ€ˆAl2O3 dielectric thickness. Journal of Applied Physics, 2010, 107, .	1.1	27
56	Logic inverters composed of controlled depletion-mode and enhancement-mode ZnO nanowire transistors. Applied Physics Letters, 2009, 94, 173118.	1.5	32
57	The influence of surface chemical dynamics on electrical and optical properties of ZnO nanowire field effect transistors. Nanotechnology, 2009, 20, 505202.	1.3	23
58	Tuning of operation mode of ZnO nanowire field effect transistors by solvent-driven surface treatment. Nanotechnology, 2009, 20, 475702.	1.3	21
59	Hybrid Complementary Logic Circuits of Oneâ€Dimensional Nanomaterials with Adjustment of Operation Voltage. Advanced Materials, 2009, 21, 2156-2160.	11.1	30
60	Influence of surface structure on the phonon-assisted emission process in the ZnO nanowires grown on homoepitaxial films. Applied Physics Letters, 2009, 94, .	1.5	46
61	Noise in ZnO Nanowire Field Effect Transistors. Journal of Nanoscience and Nanotechnology, 2009, 9, 1041-1044.	0.9	1
62	Effects of surface roughness on the electrical characteristics of ZnO nanowire field effect transistors. Applied Surface Science, 2008, 254, 7559-7564.	3.1	28
63	Fabrication of TiO2 nanotubes by using electrodeposited ZnO nanorod template and their application to hybrid solar cells. Electrochimica Acta, 2008, 53, 2560-2566.	2.6	70
64	Piezoelectric Effect on the Electronic Transport Characteristics of ZnO Nanowire Fieldâ€Effect Transistors on Bent Flexible Substrates. Advanced Materials, 2008, 20, 4557-4562.	11.1	88
65	Electrical Properties of Surface-Tailored ZnO Nanowire Field-Effect Transistors. IEEE Transactions on Electron Devices, 2008, 55, 3020-3029.	1.6	44
66	Metrology for the Electrical Characterization of Semiconductor Nanowires. IEEE Transactions on Electron Devices, 2008, 55, 3086-3095.	1.6	17
67	Tunable Electronic Transport Characteristics of Surface-Architecture-Controlled ZnO Nanowire Field Effect Transistors. Nano Letters, 2008, 8, 950-956.	4.5	235
68	Measurements for the reliability and electrical characterization of semiconductor nanowires. , 2008, , .		0
69	Passivation effects on ZnO nanowire field effect transistors under oxygen, ambient, and vacuum environments. Applied Physics Letters, 2008, 92, 263109.	1.5	93
70	Effect of High-Energy Proton Irradiation of ZnO-Nanowire Field-Effect Transistors. Journal of the Korean Physical Society, 2008, 52, 848-852.	0.3	4
71	Random Telegraph Signals and 1/f Noise in ZnO Nanowire Field Effect Transistors. , 2007, , .		0
72	Channel-length and gate-bias dependence of contact resistance and mobility for In2O3 nanowire field effect transistors. Journal of Applied Physics, 2007, 102, 084508.	1.1	28

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73	Low frequency noise characterizations of ZnO nanowire field effect transistors. Journal of Applied Physics, 2007, 101, 044313.	1.1	51
74	Effects of channel-length scaling on In2O3 nanowire field effect transistors studied by conducting atomic force microscopy. Applied Physics Letters, 2007, 90, 173106.	1.5	27
75	Realization of highly reproducible ZnO nanowire field effect transistors with n-channel depletion and enhancement modes. Applied Physics Letters, 2007, 90, 243103.	1.5	52
76	Fabrication and characterization of directly-assembled ZnO nanowire field effect transistors with polymer gate dielectrics. Journal of Nanoscience and Nanotechnology, 2007, 7, 4101-5.	0.9	0
77	Characterization of ZnO nanowire field-effect transistors exposed to high energy proton radiation. , 2006, , .		0
78	Electronic transport in indium oxide nanowire field effect transistors. , 2006, , .		0
79	Radiation hardness of the electrical properties of carbon nanotube network field effect transistors under high-energy proton irradiation. Nanotechnology, 2006, 17, 5675-5680.	1.3	54
80	Reflective and Low-Resistance Znâˆ•Rh Contacts to p-Type GaN for Flip-Chip Light-Emitting Diodes. Electrochemical and Solid-State Letters, 2005, 8, G227.	2.2	8
81	Highly Reflective and Low Resistance Indium Tin Oxide/Ag Ohmic Contacts to p-Type GaN for Flip-Chip Light Emitting Diodes. Electrochemical and Solid-State Letters, 2005, 8, G320.	2.2	18
82	High transparency of Agâˆ•Znâ€“Ni solidâ€“solution ohmic contacts for GaN-based ultraviolet light-emitting diodes. Applied Physics Letters, 2005, 86, 102102.	1.5	4
83	Low-resistance Al-based reflectors for high-power GaN-based flip-chip light-emitting diodes. Applied Physics Letters, 2005, 86, 133503.	1.5	23
84	Formation of High-Quality Ag-Based Ohmic Contact to p-Type GaN for UV LEDs Using a Tin-Zinc Oxide Interlayer. Electrochemical and Solid-State Letters, 2005, 8, G280.	2.2	7