Kazuki Nagashima

List of Publications by Year
in descending order

68 papers	2,373 citations	201674 27 h-index	214800 47 g-index
68 all docs	68 docs citations	68 times ranked	2894 citing authors

#	Article	IF	Citations
1	Resistive Switching Multistate Nonvolatile Memory Effects in a Single Cobalt Oxide Nanowire. Nano Letters, 2010, 10, 1359-1363.	9.1	239
2	Unveiling massive numbers of cancer-related urinary-microRNA candidates via nanowires. Science Advances, 2017, 3, e1701133.	10.3	170
3	Nonvolatile Bipolar Resistive Memory Switching in Single Crystalline NiO Heterostructured Nanowires. Journal of the American Chemical Society, 2009, 131, 3434-3435.	13.7	147
4	Resistive-Switching Memory Effects of NiO Nanowire/Metal Junctions. Journal of the American Chemical Society, 2010, 132, 6634-6635.	13.7	125
5	Intrinsic Mechanisms of Memristive Switching. Nano Letters, 2011, 11, 2114-2118.	9.1	110
6	Unipolar resistive switching characteristics of room temperature grown SnO2 thin films. Applied Physics Letters, 2009, 94, .	3.3	96
7	Epitaxial growth of MgO nanowires by pulsed laser deposition. Journal of Applied Physics, 2007, 101, 124304.	2.5	69
8	Crystal-Plane Dependence of Critical Concentration for Nucleation on Hydrothermal ZnO Nanowires. Journal of Physical Chemistry C, 2013, 117, 1197-1203.	3.1	67
9	All-nanocellulose nonvolatile resistive memory. NPG Asia Materials, 2016, 8, e310-e310.	7.9	64
10	DNA Manipulation and Separation in Sublithographic-Scale Nanowire Array. ACS Nano, 2013, 7, 3029-3035.	14.6	61
11	Effect of the Heterointerface on Transport Properties of in Situ Formed MgO/Titanate Heterostructured Nanowires. Journal of the American Chemical Society, 2008, 130, 5378-5382.	13.7	60
12	Mechanism and control of sidewall growth and catalyst diffusion on oxide nanowire vapor-liquid-solid growth. Applied Physics Letters, 2008, 93, .	3.3	56
13	Nanoscale Thermal Management of Single SnO₂ Nanowire: pico-Joule Energy Consumed Molecule Sensor. ACS Sensors, 2016, 1, 997-1002.	7.8	56
14	Paper-Based Disposable Molecular Sensor Constructed from Oxide Nanowires, Cellulose Nanofibers, and Pencil-Drawn Electrodes. ACS Applied Materials & Interfaces, 2019, 11, 15044-15050.	8.0	54
15	Control of magnesium oxide nanowire morphologies by ambient temperature. Applied Physics Letters, 2007, 90, 233103.	3.3	51
16	Artificial visual systems enabled by quasiâ€“two-dimensional electron gases in oxide superlattice nanowires. Science Advances, 2020, 6, .	10.3	51
17	Crucial role of interdiffusion on magnetic properties of in situ formed MgOâ^•Fe3â^'Î´O4 heterostructured nanowires. Applied Physics Letters, 2008, 92, 173119.	3.3	47
18	Spatial Nonuniformity in Resistive-Switching Memory Effects of NiO. Journal of the American Chemical Society, 2011, 133, 12482-12485.	13.7	46

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19	Rational Concept for Designing Vaporâ€“Liquidâ€“Solid Growth of Single Crystalline Metal Oxide Nanowires. Nano Letters, 2015, 15, 6406-6412.	9.1	46
20	Dual Defects of Cation and Anion in Memristive Nonvolatile Memory of Metal Oxides. Journal of the American Chemical Society, 2012, 134, 2535-2538.	13.7	44
21	Impact of Preferential Indium Nucleation on Electrical Conductivity of Vaporâ€“Liquidâ€“Solid Grown Indiumâ€“Tin Oxide Nanowires. Journal of the American Chemical Society, 2013, 135, 7033-7038.	13.7	44
22	Enhancement of Oxide VLS Growth by Carbon on Substrate Surface. Journal of Physical Chemistry C, 2008, 112, 18923-18926.	3.1	41
23	Prominent Thermodynamical Interaction with Surroundings on Nanoscale Memristive Switching of Metal Oxides. Nano Letters, 2012, 12, 5684-5690.	9.1	40
24	Synthesis of Monodispersedly Sized ZnO Nanowires from Randomly Sized Seeds. Nano Letters, 2020, 20, 599-605.	9.1	40
25	Perovskite Coreâ€“Shell Nanowire Transistors: Interfacial Transfer Doping and Surface Passivation. ACS Nano, 2020, 14, 12749-12760.	14.6	34
26	Rational Concept for Reducing Growth Temperature in Vaporâ€“Liquidâ€“Solid Process of Metal Oxide Nanowires. Nano Letters, 2016, 16, 7495-7502.	9.1	33
27	Fundamental Strategy for Creating VLS Grown TiO₂ Single Crystalline Nanowires. Journal of Physical Chemistry C, 2012, 116, 24367-24372.	3.1	28
28	Carrier type dependence on spatial asymmetry of unipolar resistive switching of metal oxides. Applied Physics Letters, 2013, 103, .	3.3	24
29	Specific surface effect on transport properties of NiO/MgO heterostructured nanowires. Applied Physics Letters, 2009, 95, 133110.	3.3	23
30	Facile and scalable patterning of sublithographic scale uniform nanowires by ultra-thin AAO free-standing membrane. RSC Advances, 2012, 2, 10618.	3.6	22
31	Rational Method of Monitoring Molecular Transformations on Metal-Oxide Nanowire Surfaces. Nano Letters, 2019, 19, 2443-2449.	9.1	21
32	Nanocellulose Paper Semiconductor with a 3D Network Structure and Its Nanoâ€“Microâ€“Macro Trans-Scale Design. ACS Nano, 2022, 16, 8630-8640.	14.6	21
33	Study on transport pathway in oxide nanowire growth by using spacing-controlled regular array. Applied Physics Letters, 2011, 99, 193105.	3.3	20
34	A flux induced crystal phase transition in the vaporâ€“liquidâ€“solid growth of indium-tin oxide nanowires. Nanoscale, 2014, 6, 7033.	5.6	20
35	Phosphonic Acid Modified ZnO Nanowire Sensors: Directing Reaction Pathway of Volatile Carbonyl Compounds. ACS Applied Materials & Interfaces, 2020, 12, 44265-44272.	8.0	19
36	Discriminating BTX Molecules by the Nonselective Metal Oxide Sensor-Based Smart Sensing System. ACS Sensors, 2021, 6, 4167-4175.	7.8	19

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37	Ammonia-Induced Seed Layer Transformations in a Hydrothermal Growth Process of Zinc Oxide Nanowires. Journal of Physical Chemistry C, 2020, 124, 20563-20568.	3.1	18
38	Engineering Nanowire-Mediated Cell Lysis for Microbial Cell Identification. ACS Nano, 2019, 13, 2262-2273.	14.6	17
39	Modulation of Thermoelectric Power Factor via Radial Dopant Inhomogeneity in B-Doped Si Nanowires. Journal of the American Chemical Society, 2014, 136, 14100-14106.	13.7	16
40	Nanowire-based sensor electronics for chemical and biological applications. Analyst, The, 2021, 146, 6684-6725.	3.5	16
41	Self-assembled Nanowire Arrays as Three-dimensional Nanopores for Filtration of DNA Molecules. Analytical Sciences, 2015, 31, 153-157.	1.6	13
42	Redox-Inactive CO₂ Determines Atmospheric Stability of Electrical Properties of ZnO Nanowire Devices through a Room-Temperature Surface Reaction. ACS Applied Materials & Interfaces, 2019, 11, 40260-40266.	8.0	12
43	Face-selective tungstate ions drive zinc oxide nanowire growth direction and dopant incorporation. Communications Materials, 2020, 1, .	6.9	12
44	Advanced Photoassisted Atomic Switches Produced Using ITO Nanowire Electrodes and Molten Photoconductive Organic Semiconductors. Advanced Materials, 2013, 25, 5893-5897.	21.0	11
45	Identifying DNA methylation in a nanochannel. Science and Technology of Advanced Materials, 2016, 17, 644-649.	6.1	11
46	Controlling Bi-Provoked Nanostructure Formation in GaAs/GaAsBi Coreâ€"Shell Nanowires. Nano Letters, 2019, 19, 8510-8518.	9.1	11
47	A thermally robust and strongly oxidizing surface of WO₃hydrate nanowires for electrical aldehyde sensing with long-term stability. Journal of Materials Chemistry A, 2021, 9, 5815-5824.	10.3	11
48	Impurity induced periodic mesostructures in Sb-doped SnO2 nanowires. Journal of Crystal Growth, 2010, 312, 3251-3256.	1.5	10
49	Waterâ€"Organic Cosolvent Effect on Nucleation of Solution-Synthesized ZnO Nanowires. ACS Omega, 2019, 4, 8299-8304.	3.5	10
50	Unusual Sequential Annealing Effect in Achieving High Thermal Stability of Conductive Al-Doped ZnO Nanofilms. ACS Applied Electronic Materials, 2020, 2, 2064-2070.	4.3	10
51	Image Processing and Machine Learning for Automated Identification of Chemo-/Biomarkers in Chromatographyâ€"Mass Spectrometry. Analytical Chemistry, 2021, 93, 14708-14715.	6.5	9
52	Breath odor-based individual authentication by an artificial olfactory sensor system and machine learning. Chemical Communications, 2022, 58, 6377-6380.	4.1	9
53	Face-Selective Crystal Growth of Hydrothermal Tungsten Oxide Nanowires for Sensing Volatile Molecules. ACS Applied Nano Materials, 2020, 3, 10252-10260.	5.0	8
54	Tailoring Nucleation at Two Interfaces Enables Single Crystalline NiO Nanowires via Vaporâ€"Liquidâ€"Solid Route. ACS Applied Materials & Interfaces, 2016, 8, 27892-27899.	8.0	6

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55	Oxygen-Induced Reversible Sn-Dopant Deactivation between Indium Tin Oxide and Single-Crystalline Oxide Nanowire Leading to Interfacial Switching. ACS Applied Materials & Interfaces, 2020, 12, 52929-52936.	8.0	6
56	Impact of Lateral SnO₂ Nanofilm Channel Geometry on a 1024 Crossbar Chemical Sensor Array. ACS Sensors, 2022, 7, 460-468.	7.8	6
57	Unusual Oxygen Partial Pressure Dependence of Electrical Transport of Single-Crystalline Metal Oxide Nanowires Grown by the Vaporâ€"Liquidâ€"Solid Process. Nano Letters, 2019, 19, 1675-1681.	9.1	5
58	The impact of surface Cu²⁺ of ZnO/(Cu_{1âˆ’x}Zn_x)O heterostructured nanowires on the adsorption and chemical transformation of carbonyl compounds. Chemical Science, 2021, 12, 5073-5081.	7.4	5
59	Robust and Electrically Conductive ZnO Thin Films and Nanostructures: Their Applications in Thermally and Chemically Harsh Environments. ACS Applied Electronic Materials, 2021, 3, 2925-2940.	4.3	5
60	Enhancement of pH Tolerance in Conductive Al-Doped ZnO Nanofilms via Sequential Annealing. ACS Applied Electronic Materials, 2021, 3, 955-962.	4.3	4
61	Rational Strategy for Space-Confined Seeded Growth of ZnO Nanowires in Meter-Long Microtubes. ACS Applied Materials & Interfaces, 2021, 13, 16812-16819.	8.0	4
62	ZnO/SiO₂ core/shell nanowires for capturing CpG rich single-stranded DNAs. Analytical Methods, 2021, 13, 337-344.	2.7	4
63	Maximizing Conversion of Surface Click Reactions for Versatile Molecular Modification on Metal Oxide Nanowires. Langmuir, 2021, 37, 5172-5179.	3.5	3
64	Mechanistic Approach for Long-Term Stability of a Polyethylene Glycolâ€"Carbon Black Nanocomposite Sensor. ACS Sensors, 2022, 7, 151-158.	7.8	3
65	Water-Selective Nanostructured Dehumidifiers for Molecular Sensing Spaces. ACS Sensors, 2022, 7, 534-544.	7.8	3
66	Edge-Topological Regulation for <i>in Situ</i> Fabrication of Bridging Nanosensors. Nano Letters, 2022, 22, 2569-2577.	9.1	3
67	Surface Dissociation Effect on Phosphonic Acid Self-Assembled Monolayer Formation on ZnO Nanowires. ACS Omega, 2022, 7, 1462-1467.	3.5	3
68	Growth Kinetics and Magnetic Property of Single-Crystal Fe Nanowires Grown via Vaporâ€"Solid Mechanism Using Chemically Synthesized FeO Nanoparticle Catalysts. Crystal Growth and Design, 2019, 19, 7257-7263.	3.0	1