Sun-Woo Choi

List of Publications by Year
in descending order

55 papers	2,223 citations	201674 27 h-index	214800 47 g-index
55 all docs	55 docs citations	55 times ranked	2227 citing authors

#	Article	IF	Citations
1	Synthesis of SnO₂â€“ZnO coreâ€“shell nanofibers via a novel two-step process and their gas sensing properties. Nanotechnology, 2009, 20, 465603.	2.6	241
2	Synthesis and Gas Sensing Properties of TiO₂â€“ZnO Coreâ€“Shell Nanofibers. Journal of the American Ceramic Society, 2009, 92, 2551-2554.	3.8	177
3	Dual Functional Sensing Mechanism in SnO₂â€“ZnO Coreâ€“Shell Nanowires. ACS Applied Materials & Interfaces, 2014, 6, 8281-8287.	8.0	125
4	Highly sensitive and selective H2 sensing by ZnO nanofibers and the underlying sensing mechanism. Journal of Hazardous Materials, 2015, 286, 229-235.	12.4	104
5	Prominent Reducing Gas-Sensing Performances of <i>n</i>-SnO₂ Nanowires by Local Creation of <i>p</i>â€“<i>n</i> Heterojunctions by Functionalization with <i>p</i>-Cr₂O₃ Nanoparticles. ACS Applied Materials & Interfaces, 2014, 6, 17723-17729.	8.0	101
6	An approach to detecting a reducing gas by radial modulation of electron-depleted shells in coreâ€“shell nanofibers. Journal of Materials Chemistry A, 2013, 1, 13588.	10.3	87
7	Synthesis and gas sensing performance of ZnOâ€“SnO2 nanofiberâ€“nanowire stem-branch heterostructure. Sensors and Actuators B: Chemical, 2013, 181, 787-794.	7.8	83
8	Highly sensitive and selective NO2 detection by Pt nanoparticles-decorated single-walled carbon nanotubes and the underlying sensing mechanism. Sensors and Actuators B: Chemical, 2017, 238, 1032-1042.	7.8	83
9	H2S sensing performance of electrospun CuO-loaded SnO2 nanofibers. Sensors and Actuators B: Chemical, 2012, 169, 54-60.	7.8	77
10	NO2-sensing performance of SnO2 microrods by functionalization of Ag nanoparticles. Journal of Materials Chemistry C, 2013, 1, 2834.	5.5	73
11	Junction-Tuned SnO₂ Nanowires and Their Sensing Properties. Journal of Physical Chemistry C, 2011, 115, 12774-12781.	3.1	72
12	Remarkable Improvement of Gas-Sensing Abilities in p-type Oxide Nanowires by Local Modification of the Hole-Accumulation Layer. ACS Applied Materials & Interfaces, 2015, 7, 647-652.	8.0	67
13	Bi-functional mechanism of H2S detection using CuOâ€“SnO2 nanowires. Journal of Materials Chemistry C, 2013, 1, 5454.	5.5	65
14	Significant enhancement of the NO2 sensing capability in networked SnO2 nanowires by Au nanoparticles synthesized via Î³-ray radiolysis. Journal of Hazardous Materials, 2011, 193, 243-248.	12.4	62
15	Striking sensing improvement of n-type oxide nanowires by electronic sensitization based on work function difference. Journal of Materials Chemistry C, 2015, 3, 1521-1527.	5.5	57
16	Functionalization of selectively grown networked SnO₂nanowires with Pd nanodots by Î³-ray radiolysis. Nanotechnology, 2011, 22, 225501.	2.6	51
17	Gas sensing properties of defect-induced single-walled carbon nanotubes. Sensors and Actuators B: Chemical, 2016, 228, 688-692.	7.8	48
18	A model for the enhancement of gas sensing properties in SnO₂â€“ZnO coreâ€“shell nanofibres. Journal Physics D: Applied Physics, 2011, 44, 205403.	2.8	47

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19	A novel approach to improving oxidizing-gas sensing ability of p-CuO nanowires using biased radial modulation of a hole-accumulation layer. Journal of Materials Chemistry C, 2014, 2, 8911-8917.	5.5	35
20	Enhancement of the benzene-sensing performance of Si nanowires through the incorporation of TeO2 heterointerfaces and Pd-sensitization. Sensors and Actuators B: Chemical, 2017, 244, 1085-1097.	7.8	35
21	Selective H2S-sensing performance of Si nanowires through the formation of ZnO shells with Au functionalization. Sensors and Actuators B: Chemical, 2019, 289, 1-14.	7.8	35
22	Facile and fast decoration of SnO2 nanowires with Pd embedded SnO2-x nanoparticles for selective NO2 gas sensing. Sensors and Actuators B: Chemical, 2021, 340, 129984.	7.8	35
23	Remarkable improvement of CO-sensing performances in single-walled carbon nanotubes due to modification of the conducting channel by functionalization of Au nanoparticles. Sensors and Actuators B: Chemical, 2016, 232, 625-632.	7.8	34
24	Room temperature monitoring of hydrogen peroxide vapor using platinum nanoparticles-decorated single-walled carbon nanotube networks. Sensors and Actuators B: Chemical, 2018, 256, 744-750.	7.8	32
25	ZnO Nanocluster-Functionalized Single-Walled Carbon Nanotubes Synthesized by Microwave Irradiation for Highly Sensitive NO₂ Detection at Room Temperature. ACS Omega, 2019, 4, 10677-10686.	3.5	30
26	Acceptor-Compensated Charge Transport and Surface Chemical Reactions in Au-Implanted SnO2 Nanowires. Scientific Reports, 2014, 4, 4622.	3.3	29
27	Dependence of gas sensing properties in ZnO nanofibers on size and crystallinity of nanograins. Journal of Materials Research, 2011, 26, 1662-1665.	2.6	28
28	Synthesis of Highly Crystalline Hollow <scp>TiO</scp>₂ Fibers Using Atomic Layer Deposition on Polymer Templates. Journal of the American Ceramic Society, 2011, 94, 1974-1977.	3.8	26
29	Enhanced sensing performances of networked SnO2 nanowires by surface modification with atmospheric pressure Arâ€"O2 plasma. Sensors and Actuators B: Chemical, 2013, 177, 654-658.	7.8	26
30	Room-temperature NO2 sensor based on electrochemically etched porous silicon. Journal of Alloys and Compounds, 2019, 811, 151975.	5.5	26
31	Dual sensitization of MWCNTs by co-decoration with p- and n-type metal oxide nanoparticles. Sensors and Actuators B: Chemical, 2018, 264, 150-163.	7.8	23
32	Selective detection of chlorine at room temperature utilizing single-walled carbon nanotubes functionalized with platinum nanoparticles synthesized via ultraviolet irradiation. Sensors and Actuators B: Chemical, 2017, 249, 414-422.	7.8	21
33	Improvement in Sensing Properties of SnO₂ Nanowires by Functionalizing with Pt Nanodots Synthesized by <i>&î³</i>-Ray Radiolysis. Journal of Nanoscience and Nanotechnology, 2012, 12, 1526-1529.	0.9	20
34	Nanograins in electrospun oxide nanofibers. Metals and Materials International, 2015, 21, 213-221.	3.4	15
35	Gas sensing behavior of p-NiO/n-ZnO composite nanofibers depending on varying p-NiO content: Selectivity and humidity-independence for oxidizing and reducing gas molecules. Sensors and Actuators B: Chemical, 2021, 349, 130813.	7.8	15
36	Strategy for sensitive and selective NO2 detection at low temperatures utilizing p-type TeO2 nanowire-based sensors by formation of discrete n-type ZnO nanoclusters. Ceramics International, 2020, 46, 19365-19374.	4.8	14

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37	Tailoring the Number of Junctions per Electrode Pair in Networked <scp>ZnO</scp> Nanowire Sensors. Journal of the American Ceramic Society, 2011, 94, 3922-3926.	3.8	13
38	Highly sensitive and selective ethanol detection at room temperature utilizing holey SWCNT-Sn/SnO2 nanocomposites synthesized by microwave irradiation. Sensors and Actuators B: Chemical, 2019, 290, 467-476.	7.8	13
39	The effect of platinum precursor concentrations on chlorine sensing characteristics of platinum nanoparticlesâˆ'loaded single walled carbon nanotubes. Applied Surface Science, 2018, 433, 480-486.	6.1	12
40	NO₂ gas sensing properties of ZnO sheathed CuO nanorods. Surface and Interface Analysis, 2012, 44, 1534-1537.	1.8	11
41	Controlling the size of nanograins in TiO2 nanofibers. Metals and Materials International, 2010, 16, 785-788.	3.4	9
42	Growth of ZnO Nanobrushes Using a Twoâ€•Step Aqueous Solution Method. Journal of the American Ceramic Society, 2010, 93, 3190-3194.	3.8	8
43	Epitaxial Growth of ZnO Films on ZnO-Buffered Al2O3 (0001) in Water at 95Â°C. Journal of the American Ceramic Society, 2011, 94, 978-981.	3.8	8
44	Characterization of luminescence properties of exfoliated mica via sonication technique. Chemical Physics, 2019, 522, 238-241.	1.9	8
45	Platinum nanoparticle-functionalized tin dioxide nanowires via radiolysis and their sensing capability. Journal of Materials Research, 2012, 27, 1688-1694.	2.6	7
46	Two-Dimensional calcium silicate nanosheets for trapping atmospheric water molecules in humidity-immune gas sensors. Journal of Hazardous Materials, 2022, 432, 128671.	12.4	7
47	The Effects of Growth Temperature on the Fieldâ€Emission Properties of ZnO Nanoneedle Arrays. Journal of the American Ceramic Society, 2009, 92, 2982-2986.	3.8	6
48	Realisation of highly sensitive and selective NO2 detection at room temperature utilizing defect-induced single-walled carbon nanotubes combined with Pt functionalisation. Applied Surface Science, 2022, 590, 153068.	6.1	6
49	Dispersion of multi-walled carbon nanotubes mechanically milled under different process conditions. Materials Chemistry and Physics, 2019, 236, 121798.	4.0	5
50	Fast Semiconductorâ€"Metal Bidirectional Transition by Flame Chemical Vapor Deposition. ACS Omega, 2019, 4, 11824-11831.	3.5	3
51	New type of doping effect via metallization of surface reduction in SnO2. Scientific Reports, 2019, 9, 8129.	3.3	3
52	Interface treatment using amorphous-carbon and its applications. Scientific Reports, 2020, 10, 4093.	3.3	3
53	Synthesis of Au/SnO2 nanostructures allowing process variable control. Scientific Reports, 2020, 10, 346.	3.3	2
54	Morphological and Electrical Characteristics of Multiâ€•walled Carbon Nanotubes and their Composites Depending on Catalyst Calcination Temperature. Bulletin of the Korean Chemical Society, 2019, 40, 1020-1024.	1.9	0

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55	Fabrication and Characterization of MWCNTs by Syngas and Temperature Conditions. Bulletin of the Korean Chemical Society, 2020, 41, 279-283.	1.9	0