

Nguyen Van Hieu

List of Publications by Year in descending order

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93
papers

4,386
citations

76294

40
h-index

114418

63
g-index

93
all docs

93
docs citations

93
times ranked

4763
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly sensitive thin film NH ₃ gas sensor operating at room temperature based on SnO ₂ /MWCNTs composite. <i>Sensors and Actuators B: Chemical</i> , 2008, 129, 888-895.	4.0	204
2	Design of SnO ₂ /ZnO hierarchical nanostructures for enhanced ethanol gas-sensing performance. <i>Sensors and Actuators B: Chemical</i> , 2012, 174, 594-601.	4.0	174
3	Comparative study of gas sensor performance of SnO ₂ nanowires and their hierarchical nanostructures. <i>Sensors and Actuators B: Chemical</i> , 2010, 150, 112-119.	4.0	135
4	Preparing large-scale WO ₃ nanowire-like structure for high sensitivity NH ₃ gas sensor through a simple route. <i>Current Applied Physics</i> , 2011, 11, 657-661.	1.1	135
5	Enhanced performance of SnO ₂ nanowires ethanol sensor by functionalizing with La ₂ O ₃ . <i>Sensors and Actuators B: Chemical</i> , 2008, 133, 228-234.	4.0	128
6	Effective decoration of Pd nanoparticles on the surface of SnO ₂ nanowires for enhancement of CO gas-sensing performance. <i>Journal of Hazardous Materials</i> , 2014, 265, 124-132.	6.5	125
7	DNA sensor development based on multi-wall carbon nanotubes for label-free influenza virus (type A) detection. <i>Journal of Immunological Methods</i> , 2009, 350, 118-124.	0.6	119
8	Chlorine Gas Sensing Performance of On-Chip Grown ZnO, WO ₃ , and SnO ₂ Nanowire Sensors. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 4828-4837.	4.0	116
9	Gas-sensing properties of tin oxide doped with metal oxides and carbon nanotubes: A competitive sensor for ethanol and liquid petroleum gas. <i>Sensors and Actuators B: Chemical</i> , 2010, 144, 450-456.	4.0	110
10	Synthesis of oleic acid-stabilized silver nanoparticles and analysis of their antibacterial activity. <i>Materials Science and Engineering C</i> , 2010, 30, 910-916.	3.8	103
11	On-chip fabrication of SnO ₂ -nanowire gas sensor: The effect of growth time on sensor performance. <i>Sensors and Actuators B: Chemical</i> , 2010, 146, 361-367.	4.0	102
12	Thin film polypyrrole/SWCNTs nanocomposites-based NH ₃ sensor operated at room temperature. <i>Sensors and Actuators B: Chemical</i> , 2009, 140, 500-507.	4.0	99
13	Outstanding gas-sensing performance of graphene/SnO ₂ nanowire Schottky junctions. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	93
14	Facile on-chip electrospinning of ZnFe ₂ O ₄ nanofiber sensors with excellent sensing performance to H ₂ S down ppb level. <i>Journal of Hazardous Materials</i> , 2018, 360, 6-16.	6.5	87
15	Selective detection of carbon dioxide using LaOCl-functionalized SnO ₂ nanowires for air-quality monitoring. <i>Talanta</i> , 2012, 88, 152-159.	2.9	77
16	Electrochemical detection of short HIV sequences on chitosan/Fe ₃ O ₄ nanoparticle based screen printed electrodes. <i>Materials Science and Engineering C</i> , 2011, 31, 477-485.	3.8	76
17	Gas sensing properties at room temperature of a quartz crystal microbalance coated with ZnO nanorods. <i>Sensors and Actuators B: Chemical</i> , 2011, 153, 188-193.	4.0	74
18	On-chip growth of wafer-scale planar-type ZnO nanorod sensors for effective detection of CO gas. <i>Sensors and Actuators B: Chemical</i> , 2013, 181, 529-536.	4.0	74

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19	Synthesis, characterization, and comparative gas-sensing properties of Fe ₂ O ₃ prepared from Fe ₃ O ₄ and Fe ₃ O ₄ -chitosan. <i>Journal of Alloys and Compounds</i> , 2012, 523, 120-126.	2.8	72
20	Diameter controlled synthesis of tungsten oxide nanorod bundles for highly sensitive NO ₂ gas sensors. <i>Sensors and Actuators B: Chemical</i> , 2013, 183, 372-380.	4.0	70
21	Controllable growth of ZnO nanowires grown on discrete islands of Au catalyst for realization of planar-type micro gas sensors. <i>Sensors and Actuators B: Chemical</i> , 2014, 193, 888-894.	4.0	69
22	Mixed SnO ₂ /TiO ₂ included with carbon nanotubes for gas-sensing application. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 41, 258-263.	1.3	67
23	Controlled synthesis of ultrathin MoS ₂ nanoflowers for highly enhanced NO ₂ sensing at room temperature. <i>RSC Advances</i> , 2020, 10, 12759-12771.	1.7	67
24	Comparative study on the gas-sensing performance of ZnO/SnO ₂ external and ZnO@SnO ₂ internal heterojunctions for ppb H ₂ S and NO ₂ gases detection. <i>Sensors and Actuators B: Chemical</i> , 2021, 334, 129606.	4.0	65
25	In-situ decoration of Pd nanocrystals on crystalline mesoporous NiO nanosheets for effective hydrogen gas sensors. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 12090-12100.	3.8	61
26	Electrochemical synthesis of polyaniline nanowires on Pt interdigitated microelectrode for room temperature NH ₃ gas sensor application. <i>Current Applied Physics</i> , 2012, 12, 1011-1016.	1.1	60
27	A morphological control of tungsten oxide nanowires by thermal evaporation method for sub-ppm NO ₂ gas sensor application. <i>Sensors and Actuators B: Chemical</i> , 2012, 171-172, 760-768.	4.0	59
28	First-principles study of the structural and electronic properties of graphene/MoS ₂ interfaces. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	57
29	Selective discrimination of hazardous gases using one single metal oxide resistive sensor. <i>Sensors and Actuators B: Chemical</i> , 2018, 277, 121-128.	4.0	54
30	Facile synthesis of SnO ₂ @ZnO core-shell nanowires for enhanced ethanol-sensing performance. <i>Current Applied Physics</i> , 2013, 13, 1637-1642.	1.1	53
31	Novel Self-Heated Gas Sensors Using on-Chip Networked Nanowires with Ultralow Power Consumption. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 6153-6162.	4.0	53
32	Superior enhancement of NO ₂ gas response using n-p-n transition of carbon nanotubes/SnO ₂ nanowires heterojunctions. <i>Sensors and Actuators B: Chemical</i> , 2017, 238, 1120-1127.	4.0	53
33	Simple post-synthesis of mesoporous p-type Co ₃ O ₄ nanochains for enhanced H ₂ S gas sensing performance. <i>Sensors and Actuators B: Chemical</i> , 2018, 270, 158-166.	4.0	53
34	Comparative study on CO ₂ and CO sensing performance of LaOCl-coated ZnO nanowires. <i>Journal of Hazardous Materials</i> , 2013, 244-245, 209-216.	6.5	51
35	Comparative NO ₂ gas-sensing performance of the self-heated individual, multiple and networked SnO ₂ nanowire sensors fabricated by a simple process. <i>Sensors and Actuators B: Chemical</i> , 2014, 201, 7-12.	4.0	51
36	Giant enhancement of H ₂ S gas response by decorating n-type SnO ₂ nanowires with p-type NiO nanoparticles. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	48

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37	Nanoporous and crystal evolution in nickel oxide nanosheets for enhanced gas-sensing performance. <i>Sensors and Actuators B: Chemical</i> , 2018, 273, 784-793.	4.0	47
38	Facile synthesis of p-type semiconducting cupric oxide nanowires and their gas-sensing properties. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2009, 42, 146-149.	1.3	45
39	Gas sensor based on nanoporous hematite nanoparticles: Effect of synthesis pathways on morphology and gas sensing properties. <i>Current Applied Physics</i> , 2012, 12, 1355-1360.	1.1	42
40	Controlled synthesis of manganese tungstate nanorods for highly selective NH ₃ gas sensor. <i>Journal of Alloys and Compounds</i> , 2018, 735, 787-794.	2.8	41
41	Room temperature highly toxic NO ₂ gas sensors based on rootstock/scion nanowires of SnO ₂ /ZnO, ZnO/SnO ₂ , SnO ₂ /SnO ₂ and, ZnO/ZnO. <i>Sensors and Actuators B: Chemical</i> , 2021, 348, 130652.	4.0	40
42	Crystalline mesoporous tungsten oxide nanoplate monoliths synthesized by directed soft template method for highly sensitive NO ₂ gas sensor applications. <i>Materials Research Bulletin</i> , 2013, 48, 440-448.	2.7	39
43	Synthesis of single-crystal SnO ₂ nanowires for NO _x gas sensors application. <i>Ceramics International</i> , 2012, 38, 6557-6563.	2.3	37
44	Self-heated Ag-decorated SnO ₂ nanowires with low power consumption used as a predictive virtual multisensor for H ₂ S-selective sensing. <i>Analytica Chimica Acta</i> , 2019, 1069, 108-116.	2.6	37
45	Low-temperature growth and ethanol-sensing characteristics of quasi-one-dimensional ZnO nanostructures. <i>Physica B: Condensed Matter</i> , 2008, 403, 50-56.	1.3	36
46	Scalable Fabrication of High-Performance NO ₂ Gas Sensors Based on Tungsten Oxide Nanowires by On-Chip Growth and RuO ₂ -Functionalization. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 12022-12030.	4.0	36
47	A facile thermal evaporation route for large-area synthesis of tin oxide nanowires: Characterizations and their use for liquid petroleum gas sensor. <i>Current Applied Physics</i> , 2010, 10, 636-641.	1.1	35
48	Conducting polymer film-based immunosensors using carbon nanotube/antibodies doped polypyrrole. <i>Applied Surface Science</i> , 2011, 257, 9817-9824.	3.1	35
49	Modified interdigitated arrays by novel poly(1,8-diaminonaphthalene)/carbon nanotubes composite for selective detection of mercury(II). <i>Talanta</i> , 2011, 85, 2445-2450.	2.9	35
50	Effective design and fabrication of low-power-consumption self-heated SnO ₂ nanowire sensors for reducing gases. <i>Sensors and Actuators B: Chemical</i> , 2019, 295, 144-152.	4.0	35
51	Inclusion of SWCNTs in Nb/Pt co-doped TiO ₂ thin-film sensor for ethanol vapor detection. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 2950-2958.	1.3	34
52	Scalable fabrication of SnO ₂ thin films sensitized with CuO islands for enhanced H ₂ S gas sensing performance. <i>Applied Surface Science</i> , 2015, 324, 280-285.	3.1	34
53	General and scalable route to synthesize nanowire-structured semiconducting metal oxides for gas-sensor applications. <i>Journal of Alloys and Compounds</i> , 2013, 549, 260-268.	2.8	32
54	Comparative effects of synthesis parameters on the NO ₂ gas-sensing performance of on-chip grown ZnO and Zn ₂ SnO ₄ nanowire sensors. <i>Journal of Alloys and Compounds</i> , 2018, 765, 1237-1242.	2.8	32

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55	Significantly enhanced NO ₂ gas-sensing performance of nanojunction-networked SnO ₂ nanowires by pulsed UV-radiation. <i>Sensors and Actuators A: Physical</i> , 2021, 327, 112759.	2.0	31
56	Highly reproducible synthesis of very large-scale tin oxide nanowires used for screen-printed gas sensor. <i>Sensors and Actuators B: Chemical</i> , 2010, 144, 425-431.	4.0	29
57	Shape and size controlled synthesis of Au nanorods: H ₂ S gas-sensing characterizations and antibacterial application. <i>Journal of Alloys and Compounds</i> , 2015, 635, 265-271.	2.8	29
58	Facile preparation of a DNA sensor for rapid herpes virus detection. <i>Materials Science and Engineering C</i> , 2010, 30, 1145-1150.	3.8	27
59	Detection of pathogenic microorganisms using biosensor based on multi-walled carbon nanotubes dispersed in DNA solution. <i>Current Applied Physics</i> , 2012, 12, 1553-1560.	1.1	27
60	Micro-wheels composed of self-assembled tungsten oxide nanorods for highly sensitive detection of low level toxic chlorine gas. <i>RSC Advances</i> , 2015, 5, 25204-25207.	1.7	27
61	Novel silver nanoparticles: synthesis, properties and applications. <i>International Journal of Nanotechnology</i> , 2011, 8, 278.	0.1	26
62	Effective hydrogen gas nanosensor based on bead-like nanowires of platinum-decorated tin oxide. <i>Sensors and Actuators B: Chemical</i> , 2012, 173, 211-217.	4.0	26
63	Polyaniline Nanowires-Based Electrochemical Immunosensor for Label Free Detection of Japanese Encephalitis Virus. <i>Analytical Letters</i> , 2013, 46, 1229-1240.	1.0	26
64	Ultrasensitive NO ₂ gas sensors using hybrid heterojunctions of multi-walled carbon nanotubes and on-chip grown SnO ₂ nanowires. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	26
65	An effective H ₂ S sensor based on SnO ₂ nanowires decorated with NiO nanoparticles by electron beam evaporation. <i>RSC Advances</i> , 2019, 9, 13887-13895.	1.7	26
66	On-chip growth of single phase Zn ₂ SnO ₄ nanowires by thermal evaporation method for gas sensor application. <i>Journal of Alloys and Compounds</i> , 2017, 708, 470-475.	2.8	23
67	Ultralow power consumption gas sensor based on a self-heated nanojunction of SnO ₂ nanowires. <i>RSC Advances</i> , 2018, 8, 36323-36330.	1.7	23
68	Density-controllable growth of SnO ₂ nanowire junction-bridging across electrode for low-temperature NO ₂ gas detection. <i>Journal of Materials Science</i> , 2013, 48, 7253-7259.	1.7	21
69	Single-crystal zinc oxide nanorods with nanovoids as highly sensitive NO ₂ nanosensors. <i>Materials Letters</i> , 2013, 94, 41-43.	1.3	21
70	Nanoporous hematite nanoparticles: Synthesis and applications for benzylolation of benzene and aromatic compounds. <i>Journal of Alloys and Compounds</i> , 2014, 582, 83-87.	2.8	21
71	Konjac glucomannan-templated synthesis of three-dimensional NiO nanostructures assembled from porous NiO nanoplates for gas sensors. <i>RSC Advances</i> , 2019, 9, 9584-9593.	1.7	21
72	Impact parameters on hybridization process in detecting influenza virus (type A) using conductimetric-based DNA sensor. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2009, 41, 1567-1571.	1.3	17

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73	A new fluorescent chemosensor for Hg ²⁺ in aqueous solution. <i>Luminescence</i> , 2013, 28, 222-225.	1.5	17
74	Isotropic metamaterial absorber using cut-wire-pair structures. <i>Applied Physics Express</i> , 2015, 8, 032001.	1.1	17
75	Dip-coating decoration of Ag ₂ O nanoparticles on SnO ₂ nanowires for high-performance H ₂ S gas sensors. <i>RSC Advances</i> , 2020, 10, 17713-17723.	1.7	17
76	Broadband Negative Permeability by Hybridized Cut-Wire Pair Metamaterials. <i>Applied Physics Express</i> , 2012, 5, 112001.	1.1	15
77	The quantum acoustomagnetolectric field in a quantum well with a parabolic potential. <i>Superlattices and Microstructures</i> , 2012, 52, 921-930.	1.4	15
78	Full-Layer Controlled Synthesis and Transfer of Large-Scale Monolayer Graphene for Nitrogen Dioxide and Ammonia Sensing. <i>Analytical Letters</i> , 2014, 47, 280-294.	1.0	15
79	A comparative study on the NH ₃ gas-sensing properties of ZnO, SnO ₂ , and WO ₃ nanowires. <i>International Journal of Nanotechnology</i> , 2011, 8, 174.	0.1	13
80	CuO Nanofibers Prepared by Electrospinning for Gas Sensing Application: Effect of Copper Salt Concentration. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 7910-7918.	0.9	11
81	Effect of current crowding on electromigration lifetime investigated by simulation and experiment. <i>Computational Materials Science</i> , 2010, 49, S235-S238.	1.4	8
82	The quantum acoustoelectric current in a doped superlattice GaAs:Si/GaAs:Be. <i>Superlattices and Microstructures</i> , 2013, 63, 121-130.	1.4	8
83	Single crystal cupric oxide nanowires: Length- and density-controlled growth and gas-sensing characteristics. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2014, 58, 16-23.	1.3	8
84	First-principles study of electronic properties of AB-stacked bilayer armchair graphene nanoribbons under out-plane strain. <i>Indian Journal of Physics</i> , 2018, 92, 447-452.	0.9	7
85	Calculations of the acoustoelectric current in a quantum well by using a quantum kinetic equation. <i>Journal of the Korean Physical Society</i> , 2012, 61, 2026-2031.	0.3	6
86	Tungsten Oxide Urchin-Flowers and Nanobundles: Effect of Synthesis Conditions and Heat Treatment on Assembly and Gas-Sensing Characteristics. <i>Science of Advanced Materials</i> , 2014, 6, 1081-1090.	0.1	6
87	Electrochemical Behavior and Electronucleation of Copper Nanoparticles from CuCl ₂ ·2H ₂ O Using a Choline Chloride-Urea Eutectic Mixture. <i>Journal of Nanomaterials</i> , 2021, 2021, 1-14.	1.5	3
88	A Simple Method for Production of High Aspect Ratio ZnO Nanowires with Uniform Structure for NO ₂ Gas Sensors. <i>Science of Advanced Materials</i> , 2014, 6, 1659-1667.	0.1	3
89	Formation of source and drain of a-Si:H TFT by ion implantation through metal technique. <i>Physica B: Condensed Matter</i> , 2007, 392, 38-42.	1.3	1
90	Systematic Study of the 4f Electronic State in RRhIn ₅ and RCu ₂ Si ₂ (R: Rare Earth). <i>E-Journal of Surface Science and Nanotechnology</i> , 2011, 9, 446-453.	0.1	1

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91	Synthesis and Gas Sensing Properties of SnO ₂ Nanostructures by Thermal Evaporation. Advanced Materials Research, 0, 620, 350-355.	0.3	1
92	Novel portable electrical detection system for DNA SENSOR application. Journal of Experimental Nanoscience, 2014, 9, 652-660.	1.3	1
93	The Enhanced Gas Sensing Characteristics of La ₂ O ₃ -Doped SnO ₂ by the Addition of Multi Wall Carbon Nanotubes. Sensor Letters, 2011, 9, 283-287.	0.4	0