Keying Shi

List of Publications by Year
in descending order

97 papers	4,565 citations	94381 37 h-index	110317 64 g-index
97 all docs	97 docs citations	97 times ranked	5454 citing authors

#	Article	IF	Citations
1	Femtosecond laser micro-nano processing for boosting bubble releasing of gas evolution reactions. Nano Research, 2022, 15, 1672-1679.	5.8	43
2	N-doped three-dimensional needle-like CoS2 bridge connection Co3O4 core–shell structure as high-efficiency room temperature NO2 gas sensor. Journal of Hazardous Materials, 2022, 423, 127120.	6.5	30
3	Monodispersed ultra-thin BiOCl nanosheets with (110) facets exposed in situ self-assembled on reduced graphene oxide to enhance NO2 sensing performance at room temperature. Sensors and Actuators B: Chemical, 2022, 351, 130932.	4.0	14
4	A 2D/2D/2D $Ti_3C_2T_x$@TiO_2@MoS_2 heterostructure as an ultrafast and high-sensitivity NO_2 gas sensor at room-temperature. Journal of Materials Chemistry A, 2022, 10, 11980-11989.	5.2	34
5	UiO-66-NH_2 Octahedral Nanocrystals Decorated with $ZnFe_2O_4$ Nanoparticles for Photocatalytic Alcohol Oxidation. ACS Applied Nano Materials, 2022, 5, 2231-2240.	2.4	17
6	Controllable Synthesis of a Porous PEI-Functionalized Co_3O_4/rGO Nanocomposite as an Electrochemical Sensor for Simultaneous as Well as Individual Detection of Heavy Metal Ions. ACS Omega, 2022, 7, 5870-5882.	1.6	15
7	Growth of flower-like BiOCl on 3D honeycomb-like N-doped graphitic carbon for greatly enhanced NO gas sensing performance at room temperature. Microporous and Mesoporous Materials, 2022, , 111964.	2.2	1
8	Controllable synthesis of a nanoparticle-modified thin-layer 3D flower-like CuZnAl-LDHs material with high NO_2 gas sensing performance at room temperature. New Journal of Chemistry, 2022, 46, 11510-11519.	1.4	4
9	Room-temperature gas sensors based on three-dimensional Co3O4/Al2O3@Ti3C2T MXene nanocomposite for highly sensitive NO detection. Sensors and Actuators B: Chemical, 2022, 368, 132206.	4.0	25
10	High-dispersed Fe2O3/Fe nanoparticles residing in 3D honeycomb-like N-doped graphitic carbon as high-performance room-temperature NO2 sensor. Journal of Hazardous Materials, 2021, 405, 124252.	6.5	32
11	Metal-organic framework material derived Co3O4 coupled with graphitic carbon nitride as highly sensitive NO2 gas sensor at room temperature. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 612, 125972.	2.3	24
12	Co_3O_4@PEI/$Ti_3C_2T_x$ MXene nanocomposites for a highly sensitive NO_x gas sensor with a low detection limit. Journal of Materials Chemistry A, 2021, 9, 6335-6344.	5.2	84
13	Hydrothermally derived p–n MoS_2–ZnO from p–p MoS_2-ZIF-8 for an efficient detection of NO_2 at room temperature. Journal of Materials Chemistry A, 2021, 9, 14722-14730.	5.2	44
14	Influence of adsorption small molecules atrazine on nonvolatile resistive switching behavior in Co–Al layered double hydroxide films. Journal of Materials Science: Materials in Electronics, 2021, 32, 8304-8316.	1.1	1
15	Rational fabrication of a g-C3N4/NiO hierarchical nanocomposite with a large surface area for the effective detection of NO2 gas at room temperature. Applied Surface Science, 2021, 550, 149368.	3.1	49
16	Synthesis of hierarchically porous Co3O4/Biomass carbon composites derived from MOFs and their highly NO2 gas sensing performance. Microporous and Mesoporous Materials, 2021, 321, 111108.	2.2	15
17	High selectivity of Ag-doped Fe2O3 hollow nanofibers in H2S detection at room operating temperature. Sensors and Actuators B: Chemical, 2021, 341, 129919.	4.0	58
18	Thin-layered MoS2 nanoflakes vertically grown on SnO2 nanotubes as highly effective room-temperature NO2 gas sensor. Journal of Hazardous Materials, 2021, 416, 125830.	6.5	97

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19	Efficient ultra-trace electrochemical detection of Cd2+, Pb2+ and Hg2+ based on hierarchical porous S-doped C3N4 tube bundles/graphene nanosheets composite. Chemical Engineering Journal, 2021, 420, 130317.	6.6	54
20	Controllable synthesis of intercalated Î³-Bi2MoO6/graphene nanosheet composites for high performance NO2 gas sensor at room temperature. Carbon, 2020, 157, 22-32.	5.4	41
21	Room-temperature efficient NO_2 gas sensors fabricated by porous 3D flower-like ZnAl-layered double hydroxides. New Journal of Chemistry, 2020, 44, 18469-18480.	1.4	8
22	Enhanced room-temperature NO_2 sensing properties of biomorphic hierarchical mixed phase WO_3. Nanoscale, 2020, 12, 24285-24295.	2.8	19
23	Rational Design of MoS_2/C_3N_4 Hybrid Aerogel with Abundant Exposed Edges for Highly Sensitive NO_2 Detection at Room Temperature. Chemistry of Materials, 2020, 32, 7215-7225.	3.2	43
24	Analog and Digital Bipolar Resistive Switching in Co–Al-Layered Double Hydroxide Memristor. Nanomaterials, 2020, 10, 2095.	1.9	6
25	Controllable synthesis of an intercalated SnS_2/aEG structure for enhanced NO_2 gas sensing performance at room temperature. New Journal of Chemistry, 2020, 44, 8650-8659.	1.4	4
26	Monodispersed Nickel Phosphide Nanocrystals in Situ Grown on Reduced Graphene Oxide with Controllable Size and Composition as a Counter Electrode for Dye-Sensitized Solar Cells. ACS Sustainable Chemistry and Engineering, 2020, 8, 5920-5926.	3.2	27
27	3D flower-like NiCo-LDH composites for a high-performance NO2 gas sensor at room temperature. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 603, 125142.	2.3	34
28	Three-dimensional flower-like Ni9S8/NiAl2O4 nanocomposites composed of ultra-thin porous nanosheets: Fabricated, characterized and ultra-fast NOx gas sensors at room temperature. Journal of Alloys and Compounds, 2020, 825, 154151.	2.8	11
29	Biomorphic synthesis of 3D mesoporous SnO2 with substantially increased gas-sensing performance at room temperature using a simple one-pot hydrothermal method. Applied Surface Science, 2020, 512, 145657.	3.1	42
30	Edge-exposed MoS2 nanospheres assembled with SnS2 nanosheet to boost NO2 gas sensing at room temperature. Journal of Hazardous Materials, 2020, 393, 122325.	6.5	86
31	Controllable synthesis of an intercalated ZIF-67/EG structure for the detection of ultratrace Cd2+, Cu2+, Hg2+ and Pb2+ ions. Chemical Engineering Journal, 2020, 395, 125216.	6.6	147
32	Enhanced NO_2 sensing performance of S-doped biomorphic SnO_2 with increased active sites and charge transfer at room temperature. Inorganic Chemistry Frontiers, 2020, 7, 2031-2042.	3.0	21
33	Controlled preparation of multiple mesoporous CoAl-LDHs nanosheets for the high performance of NO_x detection at room temperature. RSC Advances, 2020, 10, 34466-34473.	1.7	7
34	3D flower-like NiZnAl multimetal oxide constructed by ultra-thin porous nanosheets: A long-term and stable sensing material for NOx at room temperature. Sensors and Actuators B: Chemical, 2019, 300, 126899.	4.0	17
35	Porous 3D flower-like CoAl-LDH nanocomposite with excellent performance for NO_2 detection at room temperature. RSC Advances, 2019, 9, 21911-21921.	1.7	28
36	Semi-quantitative design of black phosphorous field-effect transistor sensors for heavy metal ion detection in aqueous media. Molecular Systems Design and Engineering, 2019, 4, 491-502.	1.7	17

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37	Fabrication and characterization of a high-surface area MoS_2@WS_2 heterojunction for the ultra-sensitive NO_2 detection at room temperature. Journal of Materials Chemistry A, 2019, 7, 14602-14612.	5.2	116
38	Expanded graphite/NiAl layered double hydroxide nanowires for ultra-sensitive, ultra-low detection limits and selective NO_x gas detection at room temperature. RSC Advances, 2019, 9, 8768-8777.	1.7	19
39	Controllable synthesis of MoS_2@MoO_2 nanonetworks for enhanced NO_2 room temperature sensing in air. Nanoscale, 2019, 11, 8554-8564.	2.8	50
40	One-step synthesis of palladium oxide-functionalized tin dioxide nanotubes: Characterization and high nitrogen dioxide gas sensing performance at room temperature. Journal of Colloid and Interface Science, 2019, 537, 79-90.	5.0	30
41	Intercalation of Bi2O3/Bi2S3 nanoparticles into highly expanded MoS2 nanosheets for greatly enhanced gas sensing performance at room temperature. Journal of Hazardous Materials, 2019, 363, 335-345.	6.5	41
42	3D-multilayer MoS2 nanosheets vertically grown on highly mesoporous cubic In2O3 for high-performance gas sensing at room temperature. Applied Surface Science, 2019, 466, 1-11.	3.1	51
43	Ni_2P Entwined by Graphite Layers as a Low-Pt Electrocatalyst in Acidic Media for Oxygen Reduction. ACS Applied Materials & Interfaces, 2018, 10, 9999-10010.	4.0	34
44	Facile route to synthesize porous hierarchical Co3O4/CuO nanosheets with high porosity and excellent NOx sensing properties at room temperature. Applied Surface Science, 2018, 450, 91-101.	3.1	37
45	Outstanding gas sensing performance of CuO-CNTs nanocomposite based on asymmetrical schottky junctions. Applied Surface Science, 2018, 428, 415-421.	3.1	38
46	Highly selective detection of NH3 and H2S using the pristine CuO and mesoporous In2O3@CuO multijunctions nanofibers at room temperature. Sensors and Actuators B: Chemical, 2018, 255, 1819-1830.	4.0	74
47	Multilayer flower like MoS2 conjugated with thin layer In(OH)3 for high-performance NOx gas sensor at room temperature. Journal of Alloys and Compounds, 2018, 735, 1439-1448.	2.8	22
48	Biocarbon-templated synthesis of porous Ni–Co-O nanocomposites for room-temperature NH3 sensors. New Journal of Chemistry, 2018, 42, 17606-17614.	1.4	11
49	Novel Co3O4 nanocrystalline chain material as a high performance gas sensor at room temperature. Journal of Alloys and Compounds, 2018, 768, 190-197.	2.8	29
50	3D interlayer nanohybrids composed of reduced graphenescheme oxide/SnO2/PPy grown from expanded graphite for the detection of ultra-trace Cd2+, Cu2+, Hg2+ and Pb2+ ions. Sensors and Actuators B: Chemical, 2018, 274, 285-295.	4.0	35
51	Facile Synthesis of Highly Dispersed Co_3O_4 Nanoparticles on Expanded, Thin Black Phosphorus for a ppb-Level NO_x Gas Sensor. ACS Sensors, 2018, 3, 1576-1583.	4.0	65
52	Synthesis, characterization, and ammonia gas sensing properties of Co3O4@CuO nanochains. Journal of Materials Science, 2017, 52, 3757-3770.	1.7	45
53	Synthesis of NiO@CuO nanocomposite as high-performance gas sensing material for NO2 at room temperature. Applied Surface Science, 2017, 412, 230-237.	3.1	67
54	Three-dimensional flower-like $Mg(OH)_2$@MoS_2 nanocomposite: fabrication, characterization and high-performance sensing properties for NO_x at room temperature. New Journal of Chemistry, 2017, 41, 12071-12078.	1.4	7

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55	Highly active and porous single-crystal In_2O_3 nanosheet for NO_x gas sensor with excellent response at room temperature. RSC Advances, 2017, 7, 33419-33425.	1.7	39
56	Novel p-n heterojunction Co3O4/AlOOH composites materials for gas sensing at room temperature. Journal of Alloys and Compounds, 2017, 727, 514-521.	2.8	22
57	One-step Synthesis of Ordered Pd@TiO2 Nanofibers Array Film as Outstanding NH3 Gas Sensor at Room Temperature. Scientific Reports, 2017, 7, 14688.	1.6	11
58	Submicrochains composed of massage ball-like WO_3@$CuWO_4$ composites for high-efficiency CO gas sensing applications at room temperature. RSC Advances, 2016, 6, 69999-70007.	1.7	21
59	One-step synthesis of hierarchical Ni–Fe–Al layered double hydroxide with excellent sensing properties for NO_x at room temperature. RSC Advances, 2016, 6, 103192-103198.	1.7	24
60	3‰D Interlayer Nanohybrids Composed of Sulfamic–Acid–Doped PEdot Grown on Expanded Graphite for High–Performance Supercapacitors. ChemPlusChem, 2016, 81, 242-250.	1.3	10
61	Ultrasensitive Mercury Ion Detection Using DNA-Functionalized Molybdenum Disulfide Nanosheet/Gold Nanoparticle Hybrid Field-Effect Transistor Device. ACS Sensors, 2016, 1, 295-302.	4.0	103
62	Facile preparation of porous In2TiO5–rutile composite nanotubes by electrospinning and sensitivity enhancement in NO2 gas at room temperature. Journal of Colloid and Interface Science, 2016, 466, 72-79.	5.0	11
63	A novel gas sensor based on porous α-Ni(OH)$_2$ ultrathin nanosheet/reduced graphene oxide composites for room temperature detection of NO_x. New Journal of Chemistry, 2016, 40, 4678-4686.	1.4	24
64	Templated synthesis of 3D hierarchical porous Co3O4 materials and their NH3 sensor at room temperature. Microporous and Mesoporous Materials, 2016, 225, 154-163.	2.2	46
65	Mesoporous In_2O_3 nanocrystals: synthesis, characterization and NO_x gas sensor at room temperature. New Journal of Chemistry, 2016, 40, 1306-1311.	1.4	37
66	Three-dimensional hierarchical flower-like Mg–Al-layered double hydroxides: Fabrication, characterization and enhanced sensing properties to NO x at room temperature. Journal of Alloys and Compounds, 2016, 658, 561-568.	2.8	65
67	Si doped highly crystalline mesoporous In2O3 nanowires: synthesis, characterization and ultra-high response to NOx at room temperature. RSC Advances, 2015, 5, 15515-15523.	1.7	20
68	Role of the heterojunctions in In_2O_3-composite SnO_2 nanorod sensors and their remarkable gas-sensing performance for NO_x at room temperature. Nanoscale, 2015, 7, 14643-14651.	2.8	122
69	Detection of NOx down to ppb levels at room temperature based on highly mesoporous hierarchical Ni(OH)2–In(OH)3 double hydroxide composites. Journal of Materials Science: Materials in Electronics, 2015, 26, 6612-6624.	1.1	10
70	3D porous α-Ni(OH)$_2$ nanostructure interconnected with carbon black as a high-performance gas sensing material for NO_2 at room temperature. RSC Advances, 2015, 5, 101760-101767.	1.7	17
71	Designed Synthesis of In_2O_3 Beads@TiO_2–In_2O_3 Composite Nanofibers for High Performance NO_2 Sensor at Room Temperature. ACS Applied Materials & Interfaces, 2015, 7, 27152-27159.	4.0	87
72	Highly mesoporous hierarchical nickel and cobalt double hydroxide composite: fabrication, characterization and ultrafast NOx gas sensors at room temperature. Journal of Materials Chemistry A, 2014, 2, 4961.	5.2	74

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73	Heterostructured Co3O4/PEI–CNTs composite: fabrication, characterization and CO gas sensors at room temperature. Journal of Materials Chemistry A, 2014, 2, 4558-4565.	5.2	49
74	Electrospinning of mesoporous p-type In_2O_3/TiO_2 composite nanofibers for enhancing NO_x gas sensing properties at room temperature. CrystEngComm, 2014, 16, 9116-9124.	1.3	41
75	One-pot synthesis of a nitrogen and phosphorus-dual-doped carbon nanotube array as a highly effective electrocatalyst for the oxygen reduction reaction. Journal of Materials Chemistry A, 2014, 2, 15448-15453.	5.2	54
76	One-step synthesis of mesoporous $Al_2O_3–In_2O_3$ nanofibres with remarkable gas-sensing performance to NO_x at room temperature. Journal of Materials Chemistry A, 2014, 2, 949-956.	5.2	84
77	Facile synthesis of novel 3D nanoflower-like CuxO/multilayer graphene composites for room temperature NOx gas sensor application. Nanoscale, 2014, 6, 7369.	2.8	130
78	Alumina decorated TiO2 nanotubes with ordered mesoporous walls as high sensitivity NOx gas sensors at room temperature. Nanoscale, 2013, 5, 8569.	2.8	94
79	Growth of small sized CeO2 particles in the interlayers of expanded graphite for high-performance room temperature NOx gas sensors. Journal of Materials Chemistry A, 2013, 1, 12742.	5.2	96
80	Growth and characterization of BCN nanotubes with high boron and nitrogen content. Journal of Chemical Sciences, 2013, 125, 1169-1176.	0.7	8
81	Facile synthesis of CaO–SnO2 nanocrystalline composite rods by electrospinning method with enhanced gas sensitive performance at room temperature. CrystEngComm, 2013, 15, 2482.	1.3	18
82	Single-step pyrolytic preparation of Mo2C/graphitic carbon nanocomposite as catalyst carrier for the direct liquid-feed fuel cells. RSC Advances, 2013, 3, 4771.	1.7	27
83	Free–Standing Ultrathin Cobalt Nanosheets Synthesized by Means of In Situ Reduction and Interface–Directed Assembly and Their Magnetic Properties. ChemPlusChem, 2013, 78, 481-485.	1.3	6
84	Design and construction of Co3O4/PEI–CNTs composite exhibiting fast responding CO sensor at room temperature. CrystEngComm, 2013, 15, 4730.	1.3	33
85	Highly dispersed Ni-decorated porous hollow carbon nanofibers: fabrication, characterization, and NOx gas sensors at room temperature. Journal of Materials Chemistry, 2012, 22, 24814.	6.7	35
86	A facile route to carbide-based electrocatalytic nanocomposites. Journal of Materials Chemistry, 2012, 22, 5072.	6.7	37
87	One-step synthesis of hierarchical α-Ni(OH)2 flowerlike architectures and their gas sensing properties for NOx at room temperature. CrystEngComm, 2012, 14, 6843.	1.3	54
88	Facile synthesis of SnO2 nanocrystalline tubes by electrospinning and their fast response and high sensitivity to NOx at room temperature. CrystEngComm, 2012, 14, 2739.	1.3	111
89	Nitrogen-doped graphene with high nitrogen level via a one-step hydrothermal reaction of graphene oxide with urea for superior capacitive energy storage. RSC Advances, 2012, 2, 4498.	1.7	696
90	Small–Sized and Contacting Pt–WC Nanostructures on Graphene as Highly Efficient Anode Catalysts for Direct Methanol Fuel Cells. Chemistry - A European Journal, 2012, 18, 7443-7451.	1.7	83

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91	A facile route to synthesise h-BN-FeB49 nanocomposites with magnetic and fluorescent properties. CrystEngComm, 2011, 13, 7153.	1.3	12
92	Nitrogen-doped multiwalled carbon nanotubes and their electrocatalysis towards oxidation of NO. Mikrochimica Acta, 2010, 170, 91-98.	2.5	14
93	Electrochemical investigation of NO at single-wall carbon nanotubes modified electrodes. Journal of Chemical Sciences, 2010, 122, 401-408.	0.7	4
94	Functionalization of multi-walled carbon nanotube for electrocatalytic oxidation of nitric oxide. Journal of Applied Electrochemistry, 2010, 40, 593-599.	1.5	7
95	Synthesis of large surface area LaFeO3 nanoparticles by SBA-16 template method as high active visible photocatalysts. Journal of Nanoparticle Research, 2010, 12, 967-974.	0.8	112
96	Controlled Growth of Mesostructured Crystalline Iron Oxide Nanowires and Fe-Filled Carbon Nanotube Arrays Templated by Mesoporous Silica SBA-16 Film. Journal of Physical Chemistry B, 2005, 109, 2546-2551.	1.2	47
97	Three-dimensional mesoporous ultra-thin monometallic cobalt layered double hydroxides nanomaterials as efficient NO2 gas sensor at room temperature. CrystEngComm, 0, , .	1.3	0