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	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
2	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
3	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
4	Role of the heterojunctions in In₂O₃-composite SnO₂nanorod sensors and their remarkable gas-sensing performance for NO_xat room temperature. Nanoscale, 2015, 7, 14643-14651.	2.8	122
5	Fabrication and characterization of a high-surface area MoS₂@WS₂ heterojunction for the ultra-sensitive NO₂ detection at room temperature. Journal of Materials Chemistry A, 2019, 7, 14602-14612.	5.2	116
6	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
7	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
8	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
9	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
10	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
11	Alumina decorated TiO2 nanotubes with ordered mesoporous walls as high sensitivity NOx gas sensors at room temperature. Nanoscale, 2013, 5, 8569.	2.8	94
12	Designed Synthesis of In₂O₃ Beads@TiO₂â€“In₂O₃ Composite Nanofibers for High Performance NO₂ Sensor at Room Temperature. ACS Applied Materials & Interfaces, 2015, 7, 27152-27159.	4.0	87
13	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
14	One-step synthesis of mesoporous Al₂O₃â€“In₂O₃nanofibres with remarkable gas-sensing performance to NO_xat room temperature. Journal of Materials Chemistry A, 2014, 2, 949-956.	5.2	84
15	Co₃O₄@PEI/Ti₃C₂T_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
16	Smallâ€sized and Contacting Ptâ€“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
17	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
18	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

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19	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
20	Three-dimensional hierarchical flower-like Mgâ€“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
21	Facile Synthesis of Highly Dispersed Co₃O₄ Nanoparticles on Expanded, Thin Black Phosphorus for a ppb-Level NO_x Gas Sensor. ACS Sensors, 2018, 3, 1576-1583.	4.0	65
22	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
23	One-step synthesis of hierarchical Î±-Ni(OH)2 flowerlike architectures and their gas sensing properties for NOx at room temperature. CrystEngComm, 2012, 14, 6843.	1.3	54
24	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
25	Efficient ultra-trace electrochemical detection of Cd2+, Pb2+Âand Hg2+Âbased on hierarchical porous S-doped C3N4 tube bundles/graphene nanosheets composite. Chemical Engineering Journal, 2021, 420, 130317.	6.6	54
26	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
27	Controllable synthesis of MoS₂@MoO₂ nanonetworks for enhanced NO₂ room temperature sensing in air. Nanoscale, 2019, 11, 8554-8564.	2.8	50
28	Heterostructured Co3O4/PEIâ€“CNTs composite: fabrication, characterization and CO gas sensors at room temperature. Journal of Materials Chemistry A, 2014, 2, 4558-4565.	5.2	49
29	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
30	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
31	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
32	Synthesis, characterization, and ammonia gas sensing properties of Co3O4@CuO nanochains. Journal of Materials Science, 2017, 52, 3757-3770.	1.7	45
33	Hydrothermally derived pâ€“n MoS₂â€“ZnO from pâ€“p MoS₂-ZIF-8 for an efficient detection of NO₂ at room temperature. Journal of Materials Chemistry A, 2021, 9, 14722-14730.	5.2	44
34	Rational Design of MoS₂/C₃N₄ Hybrid Aerogel with Abundant Exposed Edges for Highly Sensitive NO₂ Detection at Room Temperature. Chemistry of Materials, 2020, 32, 7215-7225.	3.2	43
35	Femtosecond laser micro-nano processing for boosting bubble releasing of gas evolution reactions. Nano Research, 2022, 15, 1672-1679.	5.8	43
36	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

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37	Electrospinning of mesoporous p-type In₂O₃/TiO₂composite nanofibers for enhancing NO_xgas sensing properties at room temperature. CrystEngComm, 2014, 16, 9116-9124.	1.3	41
38	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
39	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
40	Highly active and porous single-crystal In₂O₃ nanosheet for NO_x gas sensor with excellent response at room temperature. RSC Advances, 2017, 7, 33419-33425.	1.7	39
41	Outstanding gas sensing performance of CuO-CNTs nanocomposite based on asymmetrical schottky junctions. Applied Surface Science, 2018, 428, 415-421.	3.1	38
42	A facile route to carbide-based electrocatalytic nanocomposites. Journal of Materials Chemistry, 2012, 22, 5072.	6.7	37
43	Mesoporous In₂O₃ nanocrystals: synthesis, characterization and NO_x gas sensor at room temperature. New Journal of Chemistry, 2016, 40, 1306-1311.	1.4	37
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	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
46	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
47	Ni₂P 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
48	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
49	A 2D/2D/2D Ti₃C₂T_x@TiO₂@MoS₂ heterostructure as an ultrafast and high-sensitivity NO₂ gas sensor at room-temperature. Journal of Materials Chemistry A, 2022, 10, 11980-11989.	5.2	34
50	Design and construction of Co3O4/PEIâ€“CNTs composite exhibiting fast responding CO sensor at room temperature. CrystEngComm, 2013, 15, 4730.	1.3	33
51	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
52	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
53	N-doped three-dimensional needle-like CoS2 bridge connection Co3O4 coreâ€“shell structure as high-efficiency room temperature NO2 gas sensor. Journal of Hazardous Materials, 2022, 423, 127120.	6.5	30
54	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

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55	Porous 3D flower-like CoAl-LDH nanocomposite with excellent performance for NO₂ detection at room temperature. RSC Advances, 2019, 9, 21911-21921.	1.7	28
56	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
57	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
58	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
59	One-step synthesis of hierarchical Niâ€“Feâ€“Al layered double hydroxide with excellent sensing properties for NO_x at room temperature. RSC Advances, 2016, 6, 103192-103198.	1.7	24
60	A novel gas sensor based on porous Î±-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
61	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
62	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
63	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
64	Submicrochains composed of massage ball-like WO₃@CuWO₄ composites for high-efficiency CO gas sensing applications at room temperature. RSC Advances, 2016, 6, 69999-70007.	1.7	21
65	Enhanced NO₂ sensing performance of S-doped biomorphic SnO₂ with increased active sites and charge transfer at room temperature. Inorganic Chemistry Frontiers, 2020, 7, 2031-2042.	3.0	21
66	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
67	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
68	Enhanced room-temperature NO₂ sensing properties of biomorphic hierarchical mixed phase WO₃. Nanoscale, 2020, 12, 24285-24295.	2.8	19
69	Facile synthesis of CaOâ€“SnO2 nanocrystalline composite rods by electrospinning method with enhanced gas sensitive performance at room temperature. CrystEngComm, 2013, 15, 2482.	1.3	18
70	3D porous Î±-Ni(OH)₂ nanostructure interconnected with carbon black as a high-performance gas sensing material for NO₂ at room temperature. RSC Advances, 2015, 5, 101760-101767.	1.7	17
71	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
72	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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73	UiO-66-NH₂ Octahedral Nanocrystals Decorated with ZnFe₂O₄ Nanoparticles for Photocatalytic Alcohol Oxidation. ACS Applied Nano Materials, 2022, 5, 2231-2240.	2.4	17
74	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
75	Controllable Synthesis of a Porous PEI-Functionalized Co₃O₄/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
76	Nitrogen-doped multiwalled carbon nanotubes and their electrocatalysis towards oxidation of NO. Mikrochimica Acta, 2010, 170, 91-98.	2.5	14
77	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
78	A facile route to synthesise h-BN-FeB49 nanocomposites with magnetic and fluorescent properties. CrystEngComm, 2011, 13, 7153.	1.3	12
79	Facile preparation of porous In2TiO5â€“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
80	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
81	Biocarbon-templated synthesis of porous Niâ€“Co-O nanocomposites for room-temperature NH3 sensors. New Journal of Chemistry, 2018, 42, 17606-17614.	1.4	11
82	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
83	Detection of NOx down to ppb levels at room temperature based on highly mesoporous hierarchical Ni(OH)2â€“In(OH)3 double hydroxide composites. Journal of Materials Science: Materials in Electronics, 2015, 26, 6612-6624.	1.1	10
84	3â€‰D Interlayer Nanohybrids Composed of Sulfamicâ€Acidâ€Doped PEdot Grown on Expanded Graphite for Highâ€Performance Supercapacitors. ChemPlusChem, 2016, 81, 242-250.	1.3	10
85	Growth and characterization of BCN nanotubes with high boron and nitrogen content. Journal of Chemical Sciences, 2013, 125, 1169-1176.	0.7	8
86	Room-temperature efficient NO₂ gas sensors fabricated by porous 3D flower-like ZnAl-layered double hydroxides. New Journal of Chemistry, 2020, 44, 18469-18480.	1.4	8
87	Functionalization of multi-walled carbon nanotube for electrocatalytic oxidation of nitric oxide. Journal of Applied Electrochemistry, 2010, 40, 593-599.	1.5	7
88	Three-dimensional flower-like Mg(OH)₂@MoS₂ 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
89	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
90	Freeâ€Standing Ultrathin Cobalt Nanosheets Synthesized by Means of In Situ Reduction and Interfaceâ€Directed Assembly and Their Magnetic Properties. ChemPlusChem, 2013, 78, 481-485.	1.3	6

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91	Analog and Digital Bipolar Resistive Switching in Coâ€“Al-Layered Double Hydroxide Memristor. Nanomaterials, 2020, 10, 2095.	1.9	6
92	Electrochemical investigation of NO at single-wall carbon nanotubes modified electrodes. Journal of Chemical Sciences, 2010, 122, 401-408.	0.7	4
93	Controllable synthesis of an intercalated SnS₂/aEG structure for enhanced NO₂ gas sensing performance at room temperature. New Journal of Chemistry, 2020, 44, 8650-8659.	1.4	4
94	Controllable synthesis of a nanoparticle-modified thin-layer 3D flower-like CuZnAl-LDHs material with high NO₂ gas sensing performance at room temperature. New Journal of Chemistry, 2022, 46, 11510-11519.	1.4	4
95	Influence of adsorption small molecules atrazine on nonvolatile resistive switching behavior in Coâ€“Al layered double hydroxide films. Journal of Materials Science: Materials in Electronics, 2021, 32, 8304-8316.	1.1	1
96	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
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