

Tong Zhang

List of Publications by Year in descending order

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108
papers

6,977
citations

47006

47
h-index

62596

80
g-index

108
all docs

108
docs citations

108
times ranked

5790
citing authors

#	ARTICLE	IF	CITATIONS
1	TiO ₂ nanostructures with different crystal phases for sensitive acetone gas sensors. <i>Journal of Colloid and Interface Science</i> , 2022, 607, 357-366.	9.4	93
2	The synergistic effects of oxygen vacancy engineering and surface gold decoration on commercial SnO ₂ for ppb-level DMMP sensing. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 2703-2717.	9.4	19
3	Glucose-assisted combustion synthesis of oxygen vacancy enriched δ -MoO ₃ for ethanol sensing. <i>Journal of Alloys and Compounds</i> , 2022, 902, 163711.	5.5	14
4	Boosting room-temperature ppb-level NO ₂ sensing over reduced graphene oxide by co-decoration of δ -Fe ₂ O ₃ and SnO ₂ nanocrystals. <i>Journal of Colloid and Interface Science</i> , 2022, 612, 689-700.	9.4	29
5	A flexible humidity sensor based on self-supported polymer film. <i>Sensors and Actuators B: Chemical</i> , 2022, 358, 131438.	7.8	36
6	Study on a Humidity Sensor of Quartz Crystal Microbalance Modified With Multi-Pore Polydopamine. <i>IEEE Electron Device Letters</i> , 2022, 43, 611-614.	3.9	6
7	A dual-functional polyaniline film-based flexible electrochemical sensor for the detection of pH and lactate in sweat of the human body. <i>Talanta</i> , 2022, 242, 123289.	5.5	28
8	A flexible electrochemical biosensor based on functionalized poly(3,4-ethylenedioxythiophene) film to detect lactate in sweat of the human body. <i>Journal of Colloid and Interface Science</i> , 2022, 617, 454-462.	9.4	12
9	The synergistic effects of MoS ₂ and reduced graphene oxide on sensing performances for electrochemical chloramphenicol sensor. <i>FlatChem</i> , 2022, 33, 100364.	5.6	17
10	Self-assembly polyaniline films for the high-performance ammonia gas sensor. <i>Sensors and Actuators B: Chemical</i> , 2022, 365, 131928.	7.8	21
11	High Sensitive Humidity Sensors Based on Biomass Ionogels. <i>IEEE Sensors Journal</i> , 2022, 22, 12570-12575.	4.7	5
12	Study on a quartz crystal microbalance sensor based on chitosan-functionalized mesoporous silica for humidity detection. <i>Journal of Colloid and Interface Science</i> , 2021, 583, 340-350.	9.4	30
13	A universal sugar-blowing approach to synthesize fluorescent nitrogen-doped carbon nanodots for detection of Hg(II). <i>Applied Surface Science</i> , 2021, 544, 148725.	6.1	16
14	Porous Co ₃ O ₄ nanocrystals derived by metal-organic frameworks on reduced graphene oxide for efficient room-temperature NO ₂ sensing properties. <i>Journal of Alloys and Compounds</i> , 2021, 856, 158199.	5.5	30
15	The effect of shell thickness on gas sensing properties of core-shell fibers. <i>Sensors and Actuators B: Chemical</i> , 2021, 332, 129456.	7.8	11
16	Humidity-activated ammonia sensor with excellent selectivity for exhaled breath analysis. <i>Sensors and Actuators B: Chemical</i> , 2021, 334, 129625.	7.8	40
17	Selective ppb-level ozone gas sensor based on hierarchical branch-like In ₂ O ₃ nanostructure. <i>Sensors and Actuators B: Chemical</i> , 2021, 336, 129612.	7.8	88
18	Flexible humidity sensor based on modified cellulose paper. <i>Sensors and Actuators B: Chemical</i> , 2021, 339, 129879.	7.8	83

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19	Electrochemical chloramphenicol sensors-based on trace MoS ₂ modified carbon nanomaterials: Insight into carbon supports. Journal of Alloys and Compounds, 2021, 872, 159687.	5.5	29
20	Recent Progress of Nanostructured Sensing Materials from 0D to 3D: Overview of Structure-Property-Application Relationship for Gas Sensors. Small Methods, 2021, 5, e2100515.	8.6	162
21	The effect of different crystalline phases of In ₂ O ₃ on the ozone sensing performance. Journal of Hazardous Materials, 2021, 418, 126290.	12.4	40
22	Sb/Pd co-doped SnO ₂ nanoparticles for methane detection: resistance reduction and sensing performance studies. Nanotechnology, 2021, 32, 475506.	2.6	8
23	Humidity sensors based on metal organic frameworks derived polyelectrolyte films. Journal of Colloid and Interface Science, 2021, 602, 646-653.	9.4	17
24	Hydrogen bonds-induced room-temperature detection of DMMP based on polypyrrole-reduced graphene oxide hybrids. Sensors and Actuators B: Chemical, 2021, 346, 130518.	7.8	22
25	Nanosheet-assembled In ₂ O ₃ for sensitive and selective ozone detection at low temperature. Journal of Alloys and Compounds, 2021, 888, 161430.	5.5	14
26	A Flexible Pressure Sensor Based on Bimaterial Conductivity-Conversion Mechanism. IEEE Electron Device Letters, 2021, 42, 1857-1860.	3.9	6
27	Optical Waveguide Sensors for Measuring Human Temperature and Humidity with Gel Polymer Electrolytes. ACS Applied Materials & Interfaces, 2021, 13, 60384-60392.	8.0	9
28	Facile preparation of hierarchical structure based on p-type Co ₃ O ₄ as toluene detecting sensor. Applied Surface Science, 2020, 503, 144167.	6.1	81
29	Chitosan wrapped multiwalled carbon nanotubes as quartz crystal microbalance sensing material for humidity detection. Journal of Colloid and Interface Science, 2020, 560, 284-292.	9.4	63
30	Design strategy for ultrafast-response humidity sensors based on gel polymer electrolytes and application for detecting respiration. Sensors and Actuators B: Chemical, 2020, 304, 127270.	7.8	66
31	Humidity Sensors Based on 3D Porous Polyelectrolytes via Breath Figure Method. Advanced Electronic Materials, 2020, 6, 1900846.	5.1	19
32	Proton-Conductive Gas Sensor: a New Way to Realize Highly Selective Ammonia Detection for Analysis of Exhaled Human Breath. ACS Sensors, 2020, 5, 346-352.	7.8	66
33	Controllably fabricated single microwires from Pd-WO ₃ ·xH ₂ O nanoparticles by femtosecond laser for faster response ammonia sensors at room temperature. Sensors and Actuators B: Chemical, 2020, 316, 128122.	7.8	10
34	Influence of the exposed area on the sensing performance of the ammonia gas sensor based on Pd-WO ₃ ·xH ₂ O nanoparticles. Sensors and Actuators B: Chemical, 2020, 316, 128122.	2.6	9
35	Room temperature ammonia gas sensor based on ionic conductive biomass hydrogels. Sensors and Actuators B: Chemical, 2020, 320, 128318.	7.8	42
36	Rational design and tunable synthesis of Co ₃ O ₄ nanoparticle-incorporating into In ₂ O ₃ one-dimensional ribbon as effective sensing material for gas detection. Sensors and Actuators B: Chemical, 2020, 310, 127695.	7.8	40

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37	Flexible Piezoresistive Sensors based on Conducting Polymer-coated Fabric Applied to Human Physiological Signals Monitoring. <i>Journal of Bionic Engineering</i> , 2020, 17, 55-63.	5.0	33
38	An organometallic chemistry-assisted strategy for modification of zinc oxide nanoparticles by tin oxide nanoparticles: Formation of n-n heterojunction and boosting NO ₂ sensing properties. <i>Journal of Colloid and Interface Science</i> , 2020, 567, 328-338.	9.4	23
39	Capacitive humidity sensors based on mesoporous silica and poly(3,4-ethylenedioxythiophene) composites. <i>Journal of Colloid and Interface Science</i> , 2020, 565, 592-600.	9.4	46
40	In Situ Preparation of Porous Humidity Sensitive Composite via a One-Stone-Two-Birds Strategy. <i>Sensors and Actuators B: Chemical</i> , 2020, 316, 128159.	7.8	11
41	Dominant Role of Heterojunctions in Gas Sensing with Composite Materials. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 21127-21132.	8.0	24
42	Effect of Cation Substitution on the Gas-Sensing Performances of Ternary Spinel MCo ₂ O ₄ (M = Mn, Ni, and Zn) Multishelled Hollow Twin Spheres. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 28023-28032.	8.0	76
43	One-dimensional porous Co ₃ O ₄ rectangular rods for enhanced acetone gas sensing properties. <i>Sensors and Actuators B: Chemical</i> , 2019, 297, 126746.	7.8	44
44	Construction of ZnO/SnO ₂ Heterostructure on Reduced Graphene Oxide for Enhanced Nitrogen Dioxide Sensitive Performances at Room Temperature. <i>ACS Sensors</i> , 2019, 4, 2048-2057.	7.8	142
45	Improvement of gas sensing performance for tin dioxide sensor through construction of nanostructures. <i>Journal of Colloid and Interface Science</i> , 2019, 557, 673-682.	9.4	29
46	Study on highly selective sensing behavior of ppb-level oxidizing gas sensors based on Zn ₂ SnO ₄ nanoparticles immobilized on reduced graphene oxide under humidity conditions. <i>Sensors and Actuators B: Chemical</i> , 2019, 285, 590-600.	7.8	70
47	Ultrafast Response Polyelectrolyte Humidity Sensor for Respiration Monitoring. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 6483-6490.	8.0	201
48	Highly Sensitive and Selective Dopamine Detection Utilizing Nitrogen-Doped Mesoporous Carbon Prepared by a Molten Glucose-Assisted Hard-Template Approach. <i>ChemPlusChem</i> , 2019, 84, 845-852.	2.8	11
49	Constructing one dimensional Co ₃ O ₄ hierarchical nanofibers as efficient sensing materials for rapid acetone gas detection. <i>Journal of Alloys and Compounds</i> , 2019, 799, 513-520.	5.5	35
50	Investigation of the effect of oxygen-containing groups on reduced graphene oxide-based room-temperature NO ₂ sensor. <i>Journal of Alloys and Compounds</i> , 2019, 801, 142-150.	5.5	20
51	Facile construction of Co ₃ O ₄ porous microspheres with enhanced acetone gas sensing performances. <i>Materials Science in Semiconductor Processing</i> , 2019, 101, 10-15.	4.0	32
52	Mesoporous Magnesium Oxide Nanosheet Electrocatalysts for the Detection of Lead(II). <i>ACS Applied Nano Materials</i> , 2019, 2, 2606-2611.	5.0	11
53	Oxygen vacancy modulation of commercial SnO ₂ by an organometallic chemistry-assisted strategy for boosting acetone sensing performances. <i>Sensors and Actuators B: Chemical</i> , 2019, 290, 493-502.	7.8	52
54	Zn _x Co _{3-x} O ₄ bimetallic oxides derived from metal-organic frameworks for enhanced acetone sensing performances. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 3177-3183.	6.0	22

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55	A Composite Structure of <i>In Situ</i> Cross-Linked Poly(Ionic Liquid)s and Paper for Humidity-Monitoring Applications. <i>IEEE Sensors Journal</i> , 2019, 19, 833-837.	4.7	24
56	Cabbage-shaped zinc-cobalt oxide (ZnCo ₂ O ₄) sensing materials: Effects of zinc ion substitution and enhanced formaldehyde sensing properties. <i>Journal of Colloid and Interface Science</i> , 2019, 537, 520-527.	9.4	30
57	A yolk-double-shelled heterostructure-based sensor for acetone detecting application. <i>Journal of Colloid and Interface Science</i> , 2019, 539, 490-496.	9.4	27
58	A QCM humidity sensor constructed by graphene quantum dots and chitosan composites. <i>Sensors and Actuators A: Physical</i> , 2019, 287, 93-101.	4.1	64
59	MOF-Derived 1D Fe ₂ O ₃ /NiFe ₂ O ₄ heterojunction as efficient sensing materials of acetone vapors. <i>Sensors and Actuators B: Chemical</i> , 2019, 281, 885-892.	7.8	75
60	Controllable construction of multishelled p-type cuprous oxide with enhanced formaldehyde sensing. <i>Journal of Colloid and Interface Science</i> , 2019, 535, 58-65.	9.4	25
61	Carbon materials-functionalized tin dioxide nanoparticles toward robust, high-performance nitrogen dioxide gas sensor. <i>Journal of Colloid and Interface Science</i> , 2018, 524, 76-83.	9.4	27
62	Constructing Hierarchical Heterostructured Mn ₃ O ₄ /Zn ₂ SnO ₄ Materials for Efficient Gas Sensing Reaction. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800115.	3.7	42
63	Metal-Organic Frameworks-Derived Hierarchical Co ₃ O ₄ Structures as Efficient Sensing Materials for Acetone Detection. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 9765-9773.	8.0	215
64	Anchoring ultrafine Pd nanoparticles and SnO ₂ nanoparticles on reduced graphene oxide for high-performance room temperature NO ₂ sensing. <i>Journal of Colloid and Interface Science</i> , 2018, 514, 599-608.	9.4	60
65	Oxygen vacancy engineering for enhanced sensing performances: A case of SnO ₂ nanoparticles-reduced graphene oxide hybrids for ultrasensitive ppb-level room-temperature NO ₂ sensing. <i>Sensors and Actuators B: Chemical</i> , 2018, 266, 812-822.	7.8	109
66	Structure-driven efficient NiFe ₂ O ₄ materials for ultra-fast response electronic sensing platform. <i>Sensors and Actuators B: Chemical</i> , 2018, 255, 1436-1444.	7.8	65
67	Development of solution processible organic-inorganic hybrid materials with core-shell framework for humidity monitoring. <i>Sensors and Actuators B: Chemical</i> , 2018, 255, 2878-2885.	7.8	22
68	A formaldehyde sensor: Significant role of p-n heterojunction in gas-sensitive core-shell nanofibers. <i>Sensors and Actuators B: Chemical</i> , 2018, 258, 1230-1241.	7.8	93
69	Rapid sensitive sensing platform based on yolk-shell hybrid hollow sphere for detection of ethanol. <i>Sensors and Actuators B: Chemical</i> , 2018, 256, 479-487.	7.8	40
70	Investigation of Microstructure Effect on NO ₂ Sensors Based on SnO ₂ Nanoparticles/Reduced Graphene Oxide Hybrids. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 41773-41783.	8.0	100
71	NiO/NiCo ₂ O ₄ Truncated Nanocages with PdO Catalyst Functionalization as Sensing Layers for Acetone Detection. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 37242-37250.	8.0	69
72	Humidity sensors based on MCM-41/polypyrrole hybrid film via in-situ polymerization. <i>Sensors and Actuators B: Chemical</i> , 2018, 277, 584-590.	7.8	44

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73	An overview: Facet-dependent metal oxide semiconductor gas sensors. <i>Sensors and Actuators B: Chemical</i> , 2018, 277, 604-633.	7.8	286
74	Robust cobalt perforated with multi-walled carbon nanotubes as an effective sensing material for acetone detection. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 2563-2570.	6.0	11
75	Ultra-sensitive sensing platform based on Pt-ZnO-In ₂ O ₃ nanofibers for detection of acetone. <i>Sensors and Actuators B: Chemical</i> , 2018, 272, 185-194.	7.8	90
76	High-Performance QCM Humidity Sensors Using Acidized-Multiwalled Carbon Nanotubes as Sensing Film. <i>IEEE Sensors Journal</i> , 2018, 18, 5278-5283.	4.7	32
77	Functionalization of Hybrid 1D SnO ₂ @ZnO Nanofibers for Formaldehyde Detection. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800967.	3.7	22
78	Humidity Sensor Preparation by <i>In Situ</i> Click Polymerization. <i>IEEE Electron Device Letters</i> , 2018, 39, 1234-1237.	3.9	11
79	Hollow ZnSnO ₃ Cubes with Controllable Shells Enabling Highly Efficient Chemical Sensing Detection of Formaldehyde Vapors. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 14525-14533.	8.0	110
80	Drawn on Paper: A Reproducible Humidity Sensitive Device by Handwriting. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 28002-28009.	8.0	104
81	P-type Co ₃ O ₄ nanomaterials-based gas sensor: Preparation and acetone sensing performance. <i>Sensors and Actuators B: Chemical</i> , 2017, 242, 369-377.	7.8	184
82	High-performance reduced graphene oxide-based room-temperature NO ₂ sensors: A combined surface modification of SnO ₂ nanoparticles and nitrogen doping approach. <i>Sensors and Actuators B: Chemical</i> , 2017, 242, 269-279.	7.8	99
83	Horseshoe-shaped SnO ₂ with annulus-like mesoporous for ethanol gas sensing application. <i>Sensors and Actuators B: Chemical</i> , 2017, 240, 1321-1329.	7.8	76
84	Preparation of hydrophilic organic groups modified mesoporous silica materials and their humidity sensitive properties. <i>Sensors and Actuators B: Chemical</i> , 2017, 240, 681-688.	7.8	19
85	Preparation of organic-inorganic hybrid polymers and their humidity sensing properties. <i>Sensors and Actuators B: Chemical</i> , 2017, 242, 1108-1114.	7.8	37
86	Fast and real-time acetone gas sensor using hybrid ZnFe ₂ O ₄ /ZnO hollow spheres. <i>RSC Advances</i> , 2016, 6, 66738-66744.	3.6	37
87	Design of Core-Shell Heterostructure Nanofibers with Different Work Function and Their Sensing Properties to Trimethylamine. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 19799-19806.	8.0	93
88	Sulfonated graphene anchored with tin oxide nanoparticles for detection of nitrogen dioxide at room temperature with enhanced sensing performances. <i>Sensors and Actuators B: Chemical</i> , 2016, 228, 134-143.	7.8	73
89	Comparison of toluene sensing performances of zinc stannate with different morphology-based gas sensors. <i>Sensors and Actuators B: Chemical</i> , 2016, 227, 448-455.	7.8	62
90	Preparation of Ag nanoparticles-SnO ₂ nanoparticles-reduced graphene oxide hybrids and their application for detection of NO ₂ at room temperature. <i>Sensors and Actuators B: Chemical</i> , 2016, 222, 893-903.	7.8	122

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91	High performance room temperature NO ₂ sensors based on reduced graphene oxide-multiwalled carbon nanotubes-tin oxide nanoparticles hybrids. <i>Sensors and Actuators B: Chemical</i> , 2015, 211, 318-324.	7.8	111
92	Synthesis of core-shell Fe ₂ O ₃ @NiO nanofibers with hollow structures and their enhanced HCHO sensing properties. <i>Journal of Materials Chemistry A</i> , 2015, 3, 5635-5641.	10.3	83
93	Hierarchical structure with heterogeneous phase as high performance sensing materials for trimethylamine gas detecting. <i>Sensors and Actuators B: Chemical</i> , 2015, 220, 1224-1231.	7.8	55
94	Humidity sensors based on Li-loaded nanoporous polymers. <i>Sensors and Actuators B: Chemical</i> , 2014, 190, 523-528.	7.8	81
95	Ordered mesoporous Co ₃ O ₄ for high-performance toluene sensing. <i>Sensors and Actuators B: Chemical</i> , 2014, 197, 342-349.	7.8	78
96	Humidity sensor using a Li-loaded microporous organic polymer assembled by 1,3,5-trihydroxybenzene and terephthalic aldehyde. <i>RSC Advances</i> , 2014, 4, 28451.	3.6	26
97	Direct Writing on Paper of Foldable Capacitive Touch Pads with Silver Nanowire Inks. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 21721-21729.	8.0	220
98	Cross-linked p-type Co ₃ O ₄ octahedral nanoparticles in 1D n-type TiO ₂ nanofibers for high-performance sensing devices. <i>Journal of Materials Chemistry A</i> , 2014, 2, 10022.	10.3	135
99	Template-assisted self-assembly method to prepare three-dimensional reduced graphene oxide for dopamine sensing. <i>Sensors and Actuators B: Chemical</i> , 2014, 205, 120-126.	7.8	89
100	SnO ₂ nanoparticles-reduced graphene oxide nanocomposites for NO ₂ sensing at low operating temperature. <i>Sensors and Actuators B: Chemical</i> , 2014, 190, 472-478.	7.8	429
101	Nanoparticles-assembled Co ₃ O ₄ nanorods p-type nanomaterials: One-pot synthesis and toluene-sensing properties. <i>Sensors and Actuators B: Chemical</i> , 2014, 201, 1-6.	7.8	90
102	Enhancing NO ₂ gas sensing performances at room temperature based on reduced graphene oxide-ZnO nanoparticles hybrids. <i>Sensors and Actuators B: Chemical</i> , 2014, 202, 272-278.	7.8	322
103	Preparation of crumpled reduced graphene oxide-poly(p-phenylenediamine) hybrids for the detection of dopamine. <i>Journal of Materials Chemistry A</i> , 2013, 1, 13314.	10.3	60
104	Synthesis and toluene sensing properties of SnO ₂ nanofibers. <i>Sensors and Actuators B: Chemical</i> , 2009, 137, 471-475.	7.8	127
105	Humidity sensing properties of KCl-doped ZnO nanofibers with super-rapid response and recovery. <i>Sensors and Actuators B: Chemical</i> , 2009, 137, 649-655.	7.8	91
106	A humidity sensor based on KCl-doped SnO ₂ nanofibers. <i>Sensors and Actuators B: Chemical</i> , 2009, 138, 368-373.	7.8	153
107	Study on humidity sensitive property of K ₂ CO ₃ -SBA-15 composites. <i>Applied Surface Science</i> , 2009, 256, 280-283.	6.1	18
108	Study on humidity sensing property based on Li-doped mesoporous silica MCM-41. <i>Sensors and Actuators B: Chemical</i> , 2008, 133, 622-627.	7.8	47