

Tong Zhang

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3684101/publications.pdf>

Version: 2024-02-01

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	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
2	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
3	An overview: Facet-dependent metal oxide semiconductor gas sensors. <i>Sensors and Actuators B: Chemical</i> , 2018, 277, 604-633.	7.8	286
4	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
5	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
6	Ultrafast Response Polyelectrolyte Humidity Sensor for Respiration Monitoring. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 6483-6490.	8.0	201
7	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
8	Recent Progress of Nanostructured Sensing Materials from 0D to 3D: Overview of Structure-Property-Application Relationship for Gas Sensors. <i>Small Methods</i> , 2021, 5, e2100515.	8.6	162
9	A humidity sensor based on KCl-doped SnO ₂ nanofibers. <i>Sensors and Actuators B: Chemical</i> , 2009, 138, 368-373.	7.8	153
10	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
11	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
12	Synthesis and toluene sensing properties of SnO ₂ nanofibers. <i>Sensors and Actuators B: Chemical</i> , 2009, 137, 471-475.	7.8	127
13	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
14	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
15	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
16	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
17	Drawn on Paper: A Reproducible Humidity Sensitive Device by Handwriting. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 28002-28009.	8.0	104
18	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

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	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
22	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
23	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
24	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
25	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
26	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
27	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
28	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
29	Flexible humidity sensor based on modified cellulose paper. <i>Sensors and Actuators B: Chemical</i> , 2021, 339, 129879.	7.8	83
30	Humidity sensors based on Li-loaded nanoporous polymers. <i>Sensors and Actuators B: Chemical</i> , 2014, 190, 523-528.	7.8	81
31	Facile preparation of hierarchical structure based on p-type Co ₃ O ₄ as toluene detecting sensor. <i>Applied Surface Science</i> , 2020, 503, 144167.	6.1	81
32	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
33	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
34	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
35	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
36	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

#	ARTICLE	IF	CITATIONS
37	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
38	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
39	Design strategy for ultrafast-response humidity sensors based on gel polymer electrolytes and application for detecting respiration. <i>Sensors and Actuators B: Chemical</i> , 2020, 304, 127270.	7.8	66
40	Proton-Conductive Gas Sensor: a New Way to Realize Highly Selective Ammonia Detection for Analysis of Exhaled Human Breath. <i>ACS Sensors</i> , 2020, 5, 346-352.	7.8	66
41	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
42	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
43	Chitosan wrapped multiwalled carbon nanotubes as quartz crystal microbalance sensing material for humidity detection. <i>Journal of Colloid and Interface Science</i> , 2020, 560, 284-292.	9.4	63
44	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
45	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
46	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
47	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
48	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
49	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
50	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
51	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
52	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
53	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
54	Room temperature ammonia gas sensor based on ionic conductive biomass hydrogels. <i>Sensors and Actuators B: Chemical</i> , 2020, 320, 128318.	7.8	42

#	ARTICLE	IF	CITATIONS
55	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
56	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. <i>Sensors and Actuators B: Chemical</i> , 2020, 310, 127695.	7.8	40
57	Humidity-activated ammonia sensor with excellent selectivity for exhaled breath analysis. <i>Sensors and Actuators B: Chemical</i> , 2021, 334, 129625.	7.8	40
58	The effect of different crystalline phases of In ₂ O ₃ on the ozone sensing performance. <i>Journal of Hazardous Materials</i> , 2021, 418, 126290.	12.4	40
59	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
60	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
61	A flexible humidity sensor based on self-supported polymer film. <i>Sensors and Actuators B: Chemical</i> , 2022, 358, 131438.	7.8	36
62	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
63	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
64	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
65	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
66	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
67	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
68	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
69	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
70	Electrochemical chloramphenicol sensors-based on trace MoS ₂ modified carbon nanomaterials: Insight into carbon supports. <i>Journal of Alloys and Compounds</i> , 2021, 872, 159687.	5.5	29
71	Boosting room-temperature ppb-level NO ₂ sensing over reduced graphene oxide by co-decoration of Fe_2O_3 and SnO ₂ nanocrystals. <i>Journal of Colloid and Interface Science</i> , 2022, 612, 689-700.	9.4	29
72	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

#	ARTICLE	IF	CITATIONS
73	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
74	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
75	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
76	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
77	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
78	Dominant Role of Heterojunctions in Gas Sensing with Composite Materials. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 21127-21132.	8.0	24
79	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
80	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
81	Functionalization of Hybrid 1D SnO ₂ @ZnO Nanofibers for Formaldehyde Detection. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800967.	3.7	22
82	Zn _x Co _{3-3x} 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
83	Hydrogen bonds-induced room-temperature detection of DMMP based on polypyrrole-reduced graphene oxide hybrids. <i>Sensors and Actuators B: Chemical</i> , 2021, 346, 130518.	7.8	22
84	Self-assembly polyaniline films for the high-performance ammonia gas sensor. <i>Sensors and Actuators B: Chemical</i> , 2022, 365, 131928.	7.8	21
85	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
86	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
87	Humidity Sensors Based on 3D Porous Polyelectrolytes via Breath Figure Method. <i>Advanced Electronic Materials</i> , 2020, 6, 1900846.	5.1	19
88	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
89	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
90	Humidity sensors based on metal organic frameworks derived polyelectrolyte films. <i>Journal of Colloid and Interface Science</i> , 2021, 602, 646-653.	9.4	17

#	ARTICLE	IF	CITATIONS
91	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
92	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
93	Nanosheet-assembled In ₂ O ₃ for sensitive and selective ozone detection at low temperature. <i>Journal of Alloys and Compounds</i> , 2021, 888, 161430.	5.5	14
94	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
95	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
96	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
97	Humidity Sensor Preparation by <i>In Situ</i> Click Polymerization. <i>IEEE Electron Device Letters</i> , 2018, 39, 1234-1237.	3.9	11
98	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
99	Mesoporous Magnesium Oxide Nanosheet Electrocatalysts for the Detection of Lead(II). <i>ACS Applied Nano Materials</i> , 2019, 2, 2606-2611.	5.0	11
100	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
101	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
102	Controllably fabricated single microwires from Pd-WO ₃ ·xH ₂ O nanoparticles by femtosecond laser for faster response ammonia sensors at room temperature. <i>Sensors and Actuators B: Chemical</i> , 2020, 316, 128122.	7.8	10
103	http://www.w3.org/1998/Math/MathML altimg="si2.svg" 0001	2.6	9
104	Optical Waveguide Sensors for Measuring Human Temperature and Humidity with Gel Polymer Electrolytes . <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 60384-60392.	8.0	9
105	Sb/Pd co-doped SnO ₂ nanoparticles for methane detection: resistance reduction and sensing performance studies. <i>Nanotechnology</i> , 2021, 32, 475506.	2.6	8
106	A Flexible Pressure Sensor Based on Bimaterial Conductivity-Conversion Mechanism. <i>IEEE Electron Device Letters</i> , 2021, 42, 1857-1860.	3.9	6
107	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
108	High Sensitive Humidity Sensors Based on Biomass Ionogels. <i>IEEE Sensors Journal</i> , 2022, 22, 12570-12575.	4.7	5