

Dong-Zhi Zhang

List of Publications by Citations

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140
papers

6,919
citations

48
h-index

79
g-index

160
ext. papers

9,466
ext. citations

7
avg, IF

7.05
L-index

| # | Paper | IF | Citations |
|-----|--|------|-----------|
| 140 | Humidity-sensing properties of chemically reduced graphene oxide/polymer nanocomposite film sensor based on layer-by-layer nano self-assembly. <i>Sensors and Actuators B: Chemical</i> , 2014 , 197, 66-72 | 8.5 | 346 |
| 139 | Facile Fabrication of MoS ₂ -Modified SnO ₂ Hybrid Nanocomposite for Ultrasensitive Humidity Sensing. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 14142-9 | 9.5 | 317 |
| 138 | Fabrication and characterization of an ultrasensitive humidity sensor based on metal oxide/graphene hybrid nanocomposite. <i>Sensors and Actuators B: Chemical</i> , 2016 , 225, 233-240 | 8.5 | 286 |
| 137 | Quantitative detection of formaldehyde and ammonia gas via metal oxide-modified graphene-based sensor array combining with neural network model. <i>Sensors and Actuators B: Chemical</i> , 2017 , 240, 55-65 | 8.5 | 213 |
| 136 | Facile fabrication of high-performance QCM humidity sensor based on layer-by-layer self-assembled polyaniline/graphene oxide nanocomposite film. <i>Sensors and Actuators B: Chemical</i> , 2018 , 255, 1869-1877 | 8.5 | 205 |
| 135 | Room-temperature high-performance acetone gas sensor based on hydrothermal synthesized SnO ₂ -reduced graphene oxide hybrid composite. <i>RSC Advances</i> , 2015 , 5, 3016-3022 | 3.7 | 203 |
| 134 | Ultrahigh performance humidity sensor based on layer-by-layer self-assembly of graphene oxide/polyelectrolyte nanocomposite film. <i>Sensors and Actuators B: Chemical</i> , 2014 , 203, 263-270 | 8.5 | 203 |
| 133 | Room-temperature SO ₂ gas-sensing properties based on a metal-doped MoS ₂ nanoflower: an experimental and density functional theory investigation. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 20666-20677 | 13.2 | 202 |
| 132 | Layer-by-Layer Self-assembly of CoO Nanorod-Decorated MoS Nanosheet-Based Nanocomposite toward High-Performance Ammonia Detection. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 6462-6471 | 9.5 | 183 |
| 131 | Room temperature hydrogen gas sensor based on palladium decorated tin oxide/molybdenum disulfide ternary hybrid via hydrothermal route. <i>Sensors and Actuators B: Chemical</i> , 2017 , 242, 15-24 | 8.5 | 151 |
| 130 | Flexible self-powered high-performance ammonia sensor based on Au-decorated MoSe ₂ nanoflowers driven by single layer MoS ₂ -flake piezoelectric nanogenerator. <i>Nano Energy</i> , 2019 , 65, 103974 | 17.1 | 136 |
| 129 | High-performance flexible self-powered tin disulfide nanoflowers/reduced graphene oxide nanohybrid-based humidity sensor driven by triboelectric nanogenerator. <i>Nano Energy</i> , 2020 , 67, 104251 | 17.1 | 128 |
| 128 | Air-Stable Black Phosphorus Devices for Ion Sensing. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 24396-402 | 9.5 | 125 |
| 127 | Multifunctional Latex/Polytetrafluoroethylene-Based Triboelectric Nanogenerator for Self-Powered Organ-like MXene/Metal-Organic Framework-Derived CuO Nanohybrid Ammonia Sensor. <i>ACS Nano</i> , 2021 , 15, 2911-2919 | 16.7 | 118 |
| 126 | Flexible and highly sensitive H ₂ S gas sensor based on in-situ polymerized SnO ₂ /rGO/PANI ternary nanocomposite with application in halitosis diagnosis. <i>Sensors and Actuators B: Chemical</i> , 2019 , 289, 32-41 | 8.5 | 116 |
| 125 | Hierarchical Self-Assembled SnS Nanoflower/ZnSnO Hollow Sphere Nanohybrid for Humidity-Sensing Applications. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 32631-32639 | 9.5 | 114 |
| 124 | Metal-organic frameworks-derived hollow zinc oxide/cobalt oxide nanoheterostructure for highly sensitive acetone sensing. <i>Sensors and Actuators B: Chemical</i> , 2019 , 283, 42-51 | 8.5 | 113 |

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| 123 | Recent advances in phosphorene as a sensing material. <i>Nano Today</i> , 2018 , 20, 13-32 | 17.9 | 105 |
| 122 | Facile fabrication of polyaniline/multi-walled carbon nanotubes/molybdenum disulfide ternary nanocomposite and its high-performance ammonia-sensing at room temperature. <i>Sensors and Actuators B: Chemical</i> , 2018 , 258, 895-905 | 8.5 | 102 |
| 121 | Carbon monoxide gas sensing at room temperature using copper oxide-decorated graphene hybrid nanocomposite prepared by layer-by-layer self-assembly. <i>Sensors and Actuators B: Chemical</i> , 2017 , 247, 875-882 | 8.5 | 98 |
| 120 | Room-temperature highly sensitive CO gas sensor based on Ag-loaded zinc oxide/molybdenum disulfide ternary nanocomposite and its sensing properties. <i>Sensors and Actuators B: Chemical</i> , 2017 , 253, 1120-1128 | 8.5 | 96 |
| 119 | Characterization of a hybrid composite of SnO ₂ nanocrystal-decorated reduced graphene oxide for ppm-level ethanol gas sensing application. <i>RSC Advances</i> , 2015 , 5, 18666-18672 | 3.7 | 96 |
| 118 | Room-temperature high-performance ammonia gas sensor based on layer-by-layer self-assembled molybdenum disulfide/zinc oxide nanocomposite film. <i>Journal of Alloys and Compounds</i> , 2017 , 698, 476-483 | 5.7 | 93 |
| 117 | W18O ₄₉ /Ti ₃ C ₂ T _x Mxene nanocomposites for highly sensitive acetone gas sensor with low detection limit. <i>Sensors and Actuators B: Chemical</i> , 2020 , 304, 127274 | 8.5 | 93 |
| 116 | High-performance QCM humidity sensor based on graphene oxide/tin oxide/polyaniline ternary nanocomposite prepared by in-situ oxidative polymerization method. <i>Sensors and Actuators B: Chemical</i> , 2018 , 262, 531-541 | 8.5 | 89 |
| 115 | Layer-by-layer assembled In ₂ O ₃ nanocubes/flower-like MoS ₂ nanofilm for room temperature formaldehyde sensing. <i>Sensors and Actuators B: Chemical</i> , 2018 , 273, 176-184 | 8.5 | 85 |
| 114 | Fabrication of polypyrrole/Zn ₂ SnO ₄ nanofilm for ultra-highly sensitive ammonia sensing application. <i>Sensors and Actuators B: Chemical</i> , 2018 , 274, 575-586 | 8.5 | 82 |
| 113 | Diversiform metal oxide-based hybrid nanostructures for gas sensing with versatile prospects. <i>Coordination Chemistry Reviews</i> , 2020 , 413, 213272 | 23.2 | 79 |
| 112 | Nanoheterostructure Construction and DFT Study of Ni-Doped InO Nanocubes/WS Hexagon Nanosheets for Formaldehyde Sensing at Room Temperature. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 11979-11989 | 9.5 | 77 |
| 111 | MOF-derived indium oxide hollow microtubes/MoS ₂ nanoparticles for NO ₂ gas sensing. <i>Sensors and Actuators B: Chemical</i> , 2019 , 300, 127037 | 8.5 | 75 |
| 110 | High-performance sulfur dioxide sensing properties of layer-by-layer self-assembled titania-modified graphene hybrid nanocomposite. <i>Sensors and Actuators B: Chemical</i> , 2017 , 245, 560-567 | 8.5 | 71 |
| 109 | Facile fabrication of ZnO nanocrystalline-modified graphene hybrid nanocomposite toward methane gas sensing application. <i>Journal of Materials Science: Materials in Electronics</i> , 2015 , 26, 5937-5945 | 2.1 | 69 |
| 108 | Ultrahigh-performance impedance humidity sensor based on layer-by-layer self-assembled tin disulfide/titanium dioxide nanohybrid film. <i>Sensors and Actuators B: Chemical</i> , 2018 , 266, 52-62 | 8.5 | 69 |
| 107 | Metal-organic frameworks-derived zinc oxide nanopolyhedra/S, N: graphene quantum dots/polyaniline ternary nanohybrid for high-performance acetone sensing. <i>Sensors and Actuators B: Chemical</i> , 2019 , 288, 232-242 | 8.5 | 68 |
| 106 | Electrospinning of Flexible Poly(vinyl alcohol)/MXene Nanofiber-Based Humidity Sensor Self-Powered by Monolayer Molybdenum Diselenide Piezoelectric Nanogenerator. <i>Nano-Micro Letters</i> , 2021 , 13, 57 | 19.5 | 67 |

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| 105 | Ultra-sensitive suspended atomically thin-layered black phosphorus mercury sensors. <i>Biosensors and Bioelectronics</i> , 2017 , 98, 68-75 | 11.8 | 66 |
| 104 | Characterization of nickel oxide decorated-reduced graphene oxide nanocomposite and its sensing properties toward methane gas detection. <i>Journal of Materials Science: Materials in Electronics</i> , 2016 , 27, 3723-3730 | 2.1 | 64 |
| 103 | Fabrication of platinum-loaded cobalt oxide/molybdenum disulfide nanocomposite toward methane gas sensing at low temperature. <i>Sensors and Actuators B: Chemical</i> , 2017 , 252, 624-632 | 8.5 | 60 |
| 102 | Layer-by-Layer Self-Assembly of Zinc Oxide/Graphene Oxide Hybrid Toward Ultrasensitive Humidity Sensing. <i>IEEE Electron Device Letters</i> , 2016 , 37, 916-919 | 4.4 | 57 |
| 101 | Ozone gas sensing properties of metal-organic frameworks-derived In ₂ O ₃ hollow microtubes decorated with ZnO nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2019 , 301, 127081 | 8.5 | 57 |
| 100 | A First-Principles Study of the SF ₆ Decomposed Products Adsorbed Over Defective WS ₂ Monolayer as Promising Gas Sensing Device. <i>IEEE Transactions on Device and Materials Reliability</i> , 2019 , 19, 473-483 | 1.6 | 56 |
| 99 | Ultrasensitive H ₂ S gas detection at room temperature based on copper oxide/molybdenum disulfide nanocomposite with synergistic effect. <i>Sensors and Actuators B: Chemical</i> , 2019 , 287, 346-355 | 8.5 | 55 |
| 98 | Humidity-sensing performance of layer-by-layer self-assembled tungsten disulfide/tin dioxide nanocomposite. <i>Sensors and Actuators B: Chemical</i> , 2018 , 265, 529-538 | 8.5 | 55 |
| 97 | Hierarchical Nanoheterostructure of Tungsten Disulfide Nanoflowers Doped with Zinc Oxide Hollow Spheres: Benzene Gas Sensing Properties and First-Principles Study. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 31245-31256 | 9.5 | 55 |
| 96 | Fabrication of Pd-Decorated MoSe ₂ Nanoflowers and Density Functional Theory Simulation Toward Ammonia Sensing. <i>IEEE Electron Device Letters</i> , 2019 , 40, 616-619 | 4.4 | 54 |
| 95 | Multifunctional poly(vinyl alcohol)/Ag nanofibers-based triboelectric nanogenerator for self-powered MXene/tungsten oxide nanohybrid NO ₂ gas sensor. <i>Nano Energy</i> , 2021 , 89, 106410 | 17.1 | 54 |
| 94 | High sensitivity portable capacitive humidity sensor based on In ₂ O ₃ nanocubes-decorated GO nanosheets and its wearable application in respiration detection. <i>Sensors and Actuators B: Chemical</i> , 2019 , 299, 126973 | 8.5 | 53 |
| 93 | Carbon monoxide gas sensing properties of metal-organic frameworks-derived tin dioxide nanoparticles/molybdenum diselenide nanoflowers. <i>Sensors and Actuators B: Chemical</i> , 2020 , 304, 127369 | 8.5 | 53 |
| 92 | Fabrication of tin disulfide/graphene oxide nanoflower on flexible substrate for ultrasensitive humidity sensing with ultralow hysteresis and good reversibility. <i>Sensors and Actuators B: Chemical</i> , 2019 , 287, 398-407 | 8.5 | 45 |
| 91 | Fabrication of Pd-decorated TiO ₂ /MoS ₂ ternary nanocomposite for enhanced benzene gas sensing performance at room temperature. <i>Talanta</i> , 2018 , 182, 324-332 | 6.2 | 44 |
| 90 | Humidity Sensing Properties of Metal Organic Framework-Derived Hollow Ball-Like TiO ₂ Coated QCM Sensor. <i>IEEE Sensors Journal</i> , 2019 , 19, 2909-2915 | 4 | 38 |
| 89 | Fabrication and characterization of layer-by-layer nano self-assembled ZnO nanorods/carbon nanotube film sensor for ethanol gas sensing application at room temperature. <i>Journal of Materials Science: Materials in Electronics</i> , 2015 , 26, 7445-7451 | 2.1 | 36 |
| 88 | Graphene field-effect transistors with tunable sensitivity for high performance Hg (II) sensing. <i>Applied Physics Letters</i> , 2016 , 109, 153101 | 3.4 | 34 |

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| 87 | Facile fabrication of graphene oxide/Nafion/indium oxide for humidity sensing with highly sensitive capacitance response. <i>Sensors and Actuators B: Chemical</i> , 2019 , 292, 187-195 | 8.5 | 33 |
| 86 | Facile Fabrication of Polyaniline Nanocapsule Modified Zinc Oxide Hexagonal Microdiscs for H ₂ S Gas Sensing Applications. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 1906-1913 | 3.9 | 32 |
| 85 | Diversiform sensors and sensing systems driven by triboelectric and piezoelectric nanogenerators. <i>Coordination Chemistry Reviews</i> , 2021 , 427, 213597 | 23.2 | 32 |
| 84 | Fabrication of iron-doped titanium dioxide quantum dots/molybdenum disulfide nanoflower for ethanol gas sensing. <i>Journal of Colloid and Interface Science</i> , 2018 , 529, 556-567 | 9.3 | 32 |
| 83 | MXene/Co ₃ O ₄ composite based formaldehyde sensor driven by ZnO/MXene nanowire arrays piezoelectric nanogenerator. <i>Sensors and Actuators B: Chemical</i> , 2021 , 339, 129923 | 8.5 | 31 |
| 82 | Flexible integrated black phosphorus sensor arrays for high performance ion sensing. <i>Sensors and Actuators B: Chemical</i> , 2018 , 273, 358-364 | 8.5 | 30 |
| 81 | Facile synthesis and ammonia gas sensing properties of NiO nanoparticles decorated MoS ₂ nanosheets heterostructure. <i>Journal of Materials Science: Materials in Electronics</i> , 2019 , 30, 573-581 | 2.1 | 30 |
| 80 | Flexible humidity sensing and portable applications based on MoSe ₂ nanoflowers/copper tungstate nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2020 , 304, 127234 | 8.5 | 30 |
| 79 | In-situ polymerization of metal organic frameworks-derived ZnCo ₂ O ₄ /polypyrrole nanofilm on QCM electrodes for ultra-highly sensitive humidity sensing application. <i>Sensors and Actuators A: Physical</i> , 2019 , 295, 687-695 | 3.9 | 29 |
| 78 | Layer-by-layer self-assembly of tricobalt tetroxide-polymer nanocomposite toward high-performance humidity-sensing. <i>Journal of Alloys and Compounds</i> , 2017 , 711, 652-658 | 5.7 | 27 |
| 77 | Hierarchical assembly of urchin-like alpha-iron oxide hollow microspheres and molybdenum disulfide nanosheets for ethanol gas sensing. <i>Journal of Colloid and Interface Science</i> , 2018 , 523, 217-225 | 9.3 | 27 |
| 76 | Ethanol gas sensing properties of lead sulfide quantum dots-decorated zinc oxide nanorods prepared by hydrothermal process combining with successive ionic-layer adsorption and reaction method. <i>Journal of Colloid and Interface Science</i> , 2018 , 528, 184-191 | 9.3 | 27 |
| 75 | A High-performance Room Temperature Benzene Gas Sensor Based on CoTiO ₃ Covered TiO ₂ Nanospheres Decorated With Pd Nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2021 , 350, 130830 | 8.5 | 27 |
| 74 | Room temperature ammonia gas sensor based on polyaniline/copper ferrite binary nanocomposites. <i>Sensors and Actuators B: Chemical</i> , 2020 , 322, 128615 | 8.5 | 26 |
| 73 | Quartz Crystal Microbalance Sensor for Humidity Sensing Based on Layer-by-Layer Self-Assembled PDDAC/Graphene Oxide Film. <i>IEEE Sensors Journal</i> , 2018 , 18, 9471-9476 | 4 | 26 |
| 72 | Flexible wearable humidity sensor based on cerium oxide/graphitic carbon nitride nanocomposite self-powered by motion-driven alternator and its application for human physiological detection. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 5619-5629 | 13 | 25 |
| 71 | High-sensitivity resistive humidity sensor based on graphitic carbon nitride nanosheets and its application. <i>Sensors and Actuators B: Chemical</i> , 2020 , 315, 128058 | 8.5 | 24 |
| 70 | Microwave-assisted hydrothermal synthesis of copper oxide-based gas-sensitive nanostructures. <i>Rare Metals</i> , 2021 , 40, 1477-1493 | 5.5 | 24 |

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| 69 | Fabrication of palladium/zinc oxide/reduced graphene oxide hybrid for hydrogen gas detection at low working temperature. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 1667-1673 | 2.1 | 23 |
| 68 | Flexible MoS ₂ sensor arrays for high performance label-free ion sensing. <i>Sensors and Actuators A: Physical</i> , 2019 , 286, 51-58 | 3.9 | 23 |
| 67 | UV illumination-enhanced ultrasensitive ammonia gas sensor based on (001)TiO ₂ /MXene heterostructure for food spoilage detection. <i>Journal of Hazardous Materials</i> , 2022 , 423, 127160 | 12.8 | 23 |
| 66 | Humidity-sensing properties of hierarchical ZnO/MWCNTs/ZnO nanocomposite film sensor based on electrostatic layer-by-layer self-assembly. <i>Journal of Materials Science: Materials in Electronics</i> , 2016 , 27, 2481-2487 | 2.1 | 22 |
| 65 | Tungsten trioxide nanoparticles decorated tungsten disulfide nanoheterojunction for highly sensitive ethanol gas sensing application. <i>Applied Surface Science</i> , 2020 , 503, 144063 | 6.7 | 22 |
| 64 | Liquefied Petroleum Gas Sensing Properties of ZnO/PPy/PbS QDs Nanocomposite Prepared by Self-Assembly Combining With SILAR Method. <i>IEEE Sensors Journal</i> , 2019 , 19, 2855-2862 | 4 | 22 |
| 63 | Experimental and density functional theory investigation of Pt-loaded titanium dioxide/molybdenum disulfide nanohybrid for SO ₂ gas sensing. <i>New Journal of Chemistry</i> , 2019 , 43, 4900-4907 ²¹ | 3.6 | 21 |
| 62 | Self-assembly fabrication of titanium dioxide nanospheres-decorated tungsten diselenide hexagonal nanosheets for ethanol gas sensing application. <i>Applied Surface Science</i> , 2020 , 527, 146781 | 6.7 | 21 |
| 61 | Towards intrinsic MoS ₂ devices for high performance arsenite sensing. <i>Applied Physics Letters</i> , 2016 , 109, 063110 | 3.4 | 21 |
| 60 | Polydopamine-modified SnO ₂ nanofiber composite coated QCM gas sensor for high-performance formaldehyde sensing. <i>Sensors and Actuators B: Chemical</i> , 2021 , 345, 130299 | 8.5 | 21 |
| 59 | Humidity-Sensing Properties of One-Step Hydrothermally Synthesized Tin Dioxide-Decorated Graphene Nanocomposite on Polyimide Substrate. <i>Journal of Electronic Materials</i> , 2016 , 45, 4275-4281 | 1.9 | 20 |
| 58 | In situ polymerized polyaniline/MXene (V ₂ C) as building blocks of supercapacitor and ammonia sensor self-powered by electromagnetic-triboelectric hybrid generator. <i>Nano Energy</i> , 2021 , 88, 106242 | 17.1 | 20 |
| 57 | Nitrogen Dioxide-Sensing Properties at Room Temperature of Metal Oxide-Modified Graphene Composite via One-Step Hydrothermal Method. <i>Journal of Electronic Materials</i> , 2016 , 45, 4324-4330 | 1.9 | 19 |
| 56 | Acetylene Gas-Sensing Properties of Layer-by-Layer Self-Assembled Ag-Decorated Tin Dioxide/Graphene Nanocomposite Film. <i>Nanomaterials</i> , 2017 , 7, | 5.4 | 19 |
| 55 | A high-stability weighing paper/polytetrafluoroethylene-based triboelectric nanogenerator for self-powered In ₂ O ₃ nanocubes/SnS ₂ nanoflower NO ₂ gas sensors. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 14495-14506 | 13 | 18 |
| 54 | Characterization of layer-by-layer nano self-assembled carbon nanotube/polymer film sensor for ethanol gas sensing properties. <i>Microsystem Technologies</i> , 2014 , 20, 379-385 | 1.7 | 17 |
| 53 | Green light-driven enhanced ammonia sensing at room temperature based on seed-mediated growth of gold-ferrosoferric oxide dumbbell-like heteronanostructures. <i>Nanoscale</i> , 2020 , 12, 18815-18823 | 7.7 | 17 |
| 52 | Room-Temperature Benzene Sensing with Au-Doped ZnO Nanorods/Exfoliated WSe Nanosheets and Density Functional Theory Simulations. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 33392-33403 | 8.5 | 17 |

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| 51 | Cobalt-doped indium oxide/molybdenum disulfide ternary nanocomposite toward carbon monoxide gas sensing. <i>Journal of Alloys and Compounds</i> , 2019 , 777, 443-453 | 5.7 | 17 |
| 50 | A humidity sensing and respiratory monitoring system constructed from quartz crystal microbalance sensors based on a chitosan/polypyrrole composite film. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 14524-14533 | 13 | 17 |
| 49 | Characterization of CuO/reduced graphene oxide sandwiched nanostructure and its hydrogen sensing characteristics. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 2763-2768 | 2.1 | 16 |
| 48 | Tunable mechanical properties of layer-by-layer self-assembled carbon nanotube/polymer nanocomposite membranes for M/NEMS. <i>Sensors and Actuators A: Physical</i> , 2012 , 185, 101-108 | 3.9 | 16 |
| 47 | Ammonia gas sensing properties and density functional theory investigation of coral-like Au-SnSe ₂ Schottky junction. <i>Sensors and Actuators B: Chemical</i> , 2021 , 332, 129440 | 8.5 | 15 |
| 46 | Highly sensitive ammonia gas sensor based on metal-organic frameworks-derived CoSe ₂ @nitrogen-doped amorphous carbon decorated with multi-walled carbon nanotubes. <i>Journal of Alloys and Compounds</i> , 2021 , 860, 158252 | 5.7 | 15 |
| 45 | Enhanced SO ₂ gas sensing properties of metal organic frameworks-derived titanium dioxide/reduced graphene oxide nanostructure. <i>Journal of Materials Science: Materials in Electronics</i> , 2019 , 30, 11070-11078 | 2.1 | 14 |
| 44 | Ammonia sensing properties of metal-organic frameworks-derived zinc oxide/reduced graphene oxide nanocomposite. <i>Journal of Materials Science: Materials in Electronics</i> , 2020 , 31, 4463-4472 | 2.1 | 14 |
| 43 | Construction of Co ₃ O ₄ nanorods/In ₂ O ₃ nanocubes heterojunctions for efficient sensing of NO ₂ gas at low temperature. <i>Journal of Materials Science: Materials in Electronics</i> , 2018 , 29, 19558-19566 | 2.1 | 14 |
| 42 | Layer-by-Layer Nanoassembly Fabrication and Humidity Sensing Behaviors of Multi-Walled Carbon Nanotubes/Polyelectrolyte Hybrid Film. <i>Journal of Nanoscience and Nanotechnology</i> , 2016 , 16, 6705-6710 | 1.3 | 13 |
| 41 | Polypyrrole-Modified Tin Disulfide Nanoflower-Based Quartz Crystal Microbalance Sensor for Humidity Sensing. <i>IEEE Sensors Journal</i> , 2019 , 19, 9166-9171 | 4 | 12 |
| 40 | Fabrication of polypyrrole/graphene oxide hybrid nanocomposite for ultrasensitive humidity sensing with unprecedented sensitivity. <i>Journal of Materials Science: Materials in Electronics</i> , 2019 , 30, 4967-4976 | 2.1 | 12 |
| 39 | Flexible Strain Sensor Based on Layer-by-Layer Self-Assembled Graphene/Polymer Nanocomposite Membrane and Its Sensing Properties. <i>Journal of Electronic Materials</i> , 2018 , 47, 2263-2270 | 1.9 | 12 |
| 38 | Hydrogen sulfide gas sensing properties of metal organic framework-derived Fe ₂ O ₃ hollow nanospheres decorated with MoSe ₂ nanoflowers. <i>Sensors and Actuators B: Chemical</i> , 2021 , 344, 130221 | 8.5 | 12 |
| 37 | Carbon microsphere-templated synthesis of ZnCo ₂ O ₄ hollow spheres functionalized with Ag nanoparticles for sub-ppm-level acetone gas detection. <i>Ceramics International</i> , 2020 , 46, 15176-15182 | 5.1 | 11 |
| 36 | Ultra-highly sensitive humidity sensing by polydopamine/graphene oxide nanostructure on quartz crystal microbalance. <i>Applied Surface Science</i> , 2021 , 538, 147816 | 6.7 | 11 |
| 35 | Sulfur dioxide gas sensing at room temperature based on tin selenium/tin dioxide hybrid prepared via hydrothermal and surface oxidation treatment. <i>Rare Metals</i> , 2021 , 40, 1588-1596 | 5.5 | 11 |
| 34 | A fast self-healing multifunctional polyvinyl alcohol nano-organic composite hydrogel as a building block for highly sensitive strain/pressure sensors. <i>Journal of Materials Chemistry A</i> , | 13 | 11 |

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| 33 | A high-performance room temperature methanol gas sensor based on alpha-iron oxide/polyaniline/PbS quantum dots nanofilm. <i>Journal of Materials Science: Materials in Electronics</i> , 2019 , 30, 17907-17915 | 2.1 | 10 |
| 32 | Soft Measurement of Water Content in Oil-Water Two-Phase Flow Based on RS-SVM Classifier and GA-NN Predictor. <i>Measurement Science Review</i> , 2014 , 14, 219-226 | 1.7 | 10 |
| 31 | A self-powered 2D-material sensor unit driven by a SnSe piezoelectric nanogenerator. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 4716-4723 | 13 | 10 |
| 30 | High-performance NO ₂ gas sensor based on bimetallic oxide CuWO ₄ decorated with reduced graphene oxide. <i>Journal of Materials Science: Materials in Electronics</i> , 2020 , 31, 6706-6715 | 2.1 | 9 |
| 29 | Highly Sensitive QCM Humidity Sensor Based on MOFs-Derived SnO ₂ /Chitosan Hybrid Film. <i>IEEE Sensors Journal</i> , 2021 , 21, 4385-4390 | 4 | 9 |
| 28 | Illumination impact on monolayer MoS ₂ chemical sensor arrays. <i>Sensors and Actuators A: Physical</i> , 2018 , 283, 34-41 | 3.9 | 8 |
| 27 | Green light-driven acetone gas sensor based on electrospun CdS nanospheres/CoO nanofibers hybrid for the detection of exhaled diabetes biomarker. <i>Journal of Colloid and Interface Science</i> , 2022 , 606, 261-271 | 9.3 | 8 |
| 26 | Hydrothermal Fabrication of Ag-Decorated MoSe ₂ /Reduced Graphene Oxide Ternary Hybrid for HB Gas Sensing. <i>IEEE Sensors Journal</i> , 2020 , 20, 13262-13268 | 4 | 7 |
| 25 | Self-powered multifunctional monitoring and analysis system based on dual-triboelectric nanogenerator and chitosan/activated carbon film humidity sensor. <i>Nano Energy</i> , 2022 , 94, 106881 | 17.1 | 7 |
| 24 | High-sensitive NO ₂ sensor based on p-NiCo ₂ O ₄ /n-WO ₃ heterojunctions. <i>Sensors and Actuators B: Chemical</i> , 2021 , 352, 130912 | 8.5 | 7 |
| 23 | Self-powered ethanol gas sensor based on the piezoelectric Ag/ZnO nanowire arrays at room temperature. <i>Journal of Materials Science: Materials in Electronics</i> , 2021 , 32, 7739-7750 | 2.1 | 7 |
| 22 | UV enhanced NO ₂ gas sensing at room temperature based on coral-like tin diselenide/MOFs-derived nanoflower-like tin dioxide heteronanostructures. <i>Sensors and Actuators B: Chemical</i> , 2021 , 131049 | 8.5 | 6 |
| 21 | Rotating triboelectric-electromagnetic nanogenerator driven by tires for self-powered MXene-based flexible wearable electronics. <i>Chemical Engineering Journal</i> , 2022 , 136914 | 14.7 | 6 |
| 20 | Highly sensitive ammonia sensor based on PSS doped ZIF-8-derived porous carbon/polyaniline hybrid film coated on quartz crystal microbalance. <i>Sensors and Actuators B: Chemical</i> , 2022 , 357, 131419 | 8.5 | 5 |
| 19 | Adsorption of atmospheric gas molecules (NH ₃ , H ₂ S, CO, H ₂ , CH ₄ , NO, NO ₂ , C ₆ H ₆ and C ₃ H ₆ O) on two-dimensional polyimide with hydrogen bonding: a first-principles study. <i>New Journal of Chemistry</i> , 2021 , 45, 5240-5251 | 3.6 | 5 |
| 18 | An Electrochemical Nonenzymatic Microsensor Modified by Nickel Cobaltate Nanospheres for Glucose Sensing in Urine. <i>IEEE Sensors Journal</i> , 2021 , 21, 13074-13081 | 4 | 4 |
| 17 | Adsorption of gas molecules (NH ₃ , C ₂ H ₆ O, C ₃ H ₆ O, CO, H ₂ S) on a noble metal (Ag, Au, Pt, Pd, Ru)-doped MoSe ₂ monolayer: a first-principles study. <i>New Journal of Chemistry</i> , 2021 , 45, 12367-12376 | 3.6 | 4 |
| 16 | High-performance humidity sensor based on graphitic carbon nitride/polyethylene oxide and construction of sensor array for non-contact humidity detection. <i>Sensors and Actuators B: Chemical</i> , 2021 , 344, 130219 | 8.5 | 4 |

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| 15 | An in situ polymerized polypyrrole/halloysite nanotube-silver nanoflower based flexible wearable pressure sensor with a large measurement range and high sensitivity. <i>Journal of Materials Chemistry C</i> , | 7.1 | 4 |
| 14 | Construction and DFT study of Pd decorated WSe ₂ nanosheets for highly sensitive CO detection at room temperature. <i>Sensors and Actuators B: Chemical</i> , 2022 , 360, 131634 | 8.5 | 4 |
| 13 | Ultra-sensitive, stretchable, and bidirectional wearable strain sensor for human motion detection. <i>Journal of Materials Chemistry C</i> , 2022 , 10, 7076-7086 | 7.1 | 4 |
| 12 | Performance prediction of 2D vertically stacked MoS ₂ -WS ₂ heterostructures base on first-principles theory and Pearson correlation coefficient. <i>Applied Surface Science</i> , 2022 , 596, 153498 | 6.7 | 4 |
| 11 | Flexible Pressure Sensor Based on Molybdenum Diselide/Multi-Walled Carbon Nanotubes for Human Motion Detection. <i>IEEE Sensors Journal</i> , 2021 , 21, 10491-10497 | 4 | 3 |
| 10 | Sensor array based on metal oxide modified graphene for the detection of multi-component mixed gas 2016 , | | 2 |
| 9 | Construction of MoO ₃ /MoSe ₂ nanocomposite-based gas sensor for low detection limit trimethylamine sensing at room temperature. <i>Journal of Materials Science: Materials in Electronics</i> , 2021 , 32, 17301-17310 | 2.1 | 2 |
| 8 | Two-step hydrothermal fabrication of CeO ₂ -loaded MoS ₂ nanoflowers for ethanol gas sensing application. <i>Applied Surface Science</i> , 2021 , 568, 150942 | 6.7 | 2 |
| 7 | Fabrication and properties of room temperature ammonia gas sensor based on SnO ₂ modified WSe ₂ nanosheets heterojunctions. <i>Applied Surface Science</i> , 2022 , 153564 | 6.7 | 2 |
| 6 | Controllable fabrication and electromechanical characterization of electrophoresis assembled single-walled carbon nanotube-polymer film transducers. <i>Microsystem Technologies</i> , 2013 , 19, 1041-1047 ^{1.7} | | 1 |
| 5 | Sliding-Window Recursive PLS Based Soft Sensing Model and Its Application to the Quality Control of Rubber Mixing Process. <i>Communications in Computer and Information Science</i> , 2009 , 16-24 | 0.3 | 1 |
| 4 | Highly sensitive xylene gas sensor based on NiO-NiCo ₂ O ₄ hierarchical spherical structure constructed with nanorods. <i>IEEE Sensors Journal</i> , 2022 , 1-1 | 4 | 1 |
| 3 | Room Temperature Acetone-Sensing Properties of Ru-Doped MoSe ₂ Nanoflowers: Experimental and Density Functional Theory Study. <i>IEEE Electron Device Letters</i> , 2021 , 42, 739-742 | 4.4 | 0 |
| 2 | Hydrogen Sulfide Gas Sensor Based on Graphitic Nitrogen Carbide/Alpha-Iron Oxide Binary Nanostructure. <i>IEEE Sensors Journal</i> , 2021 , 21, 4250-4256 | 4 | 0 |
| 1 | High-performance ammonia gas sensor based on bimetallic oxide Zn ₂ SnO ₄ decorated with reduced graphene oxide. <i>Journal of Materials Science: Materials in Electronics</i> , 2021 , 32, 20139-20148 | 2.1 | 0 |