Won-Tae Koo

List of Publications by Year
in descending order

54 papers	4,014 citations	101543 36 h-index	149698 56 g-index
57 all docs	57 docs citations	57 times ranked	4453 citing authors

#	Article	IF	Citations
1	Surface hydration of fibrous filters by using water-absorbing metalâ€“organic frameworks for efficient ultrafine particulate matter removal. Chemical Engineering Journal, 2022, 446, 136710.	12.7	13
2	2D layer assembly of Pt-ZnO nanoparticles on reduced graphene oxide for flexible NO2 sensors. Sensors and Actuators B: Chemical, 2021, 331, 129371.	7.8	52
3	Large-area synthesis of nanoscopic catalyst-decorated conductive MOF film using microfluidic-based solution shearing. Nature Communications, 2021, 12, 4294.	12.8	36
4	Confinement of Ultrasmall Bimetallic Nanoparticles in Conductive Metalâ€“Organic Frameworks via Siteâ€Specific Nucleation. Advanced Materials, 2021, 33, e2101216.	21.0	23
5	Confinement of Ultrasmall Bimetallic Nanoparticles in Conductive Metalâ€“Organic Frameworks via Siteâ€Specific Nucleation (Adv. Mater. 38/2021). Advanced Materials, 2021, 33, 2170302.	21.0	3
6	Chemiresistive acetylene sensor fabricated from Ga-doped ZnO nanofibers functionalized with Pt catalysts. Sensors and Actuators B: Chemical, 2021, 343, 130137.	7.8	16
7	Pore-Size-Tuned Graphene Oxide Membrane as a Selective Molecular Sieving Layer: Toward Ultraselective Chemiresistors. Analytical Chemistry, 2020, 92, 957-965.	6.5	38
8	Hydrogen Sensors from Composites of Ultra-small Bimetallic Nanoparticles and Porous Ion-Exchange Polymers. CheM, 2020, 6, 2746-2758.	11.7	19
9	Hydrogen Sensors Based on MoS₂ Hollow Architectures Assembled by Pickering Emulsion. ACS Nano, 2020, 14, 9652-9661.	14.6	47
10	Chemiresistive Hydrogen Sensors: Fundamentals, Recent Advances, and Challenges. ACS Nano, 2020, 14, 14284-14322.	14.6	143
11	Single-Atom Pt Stabilized on One-Dimensional Nanostructure Support via Carbon Nitride/SnO₂ Heterojunction Trapping. ACS Nano, 2020, 14, 11394-11405.	14.6	98
12	The Design and Science of Polyelemental Nanoparticles. ACS Nano, 2020, 14, 6407-6413.	14.6	53
13	Heterogeneous, Porous 2D Oxide Sheets via Rapid Galvanic Replacement: Toward Superior HCHO Sensing Application. Advanced Functional Materials, 2019, 29, 1903012.	14.9	41
14	Chemiresistors: Catalytic Metal Nanoparticles Embedded in Conductive Metalâ€“Organic Frameworks for Chemiresistors: Highly Active and Conductive Porous Materials (Adv. Sci. 21/2019). Advanced Science, 2019, 6, 1970126.	11.2	3
15	2D Oxide Sensors: Heterogeneous, Porous 2D Oxide Sheets via Rapid Galvanic Replacement: Toward Superior HCHO Sensing Application (Adv. Funct. Mater. 42/2019). Advanced Functional Materials, 2019, 29, 1970290.	14.9	0
16	Catalytic Metal Nanoparticles Embedded in Conductive Metalâ€“Organic Frameworks for Chemiresistors: Highly Active and Conductive Porous Materials. Advanced Science, 2019, 6, 1900250.	11.2	59
17	Universal Synthesis of Porous Inorganic Nanosheets via Graphene-Cellulose Templating Route. ACS Applied Materials & Interfaces, 2019, 11, 34100-34108.	8.0	13
18	High-Resolution, Fast, and Shape-Conformable Hydrogen Sensor Platform: Polymer Nanofiber Yarn Coupled with Nanograined Pd@Pt. ACS Nano, 2019, 13, 6071-6082.	14.6	68

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19	Metal-Organic Frameworks for Chemiresistive Sensors. CheM, 2019, 5, 1938-1963.	11.7	419
20	Heterogeneous Metal Oxideâ€“Graphene Thorn-Bush Single Fiber as a Freestanding Chemiresistor. ACS Applied Materials & Interfaces, 2019, 11, 10208-10217.	8.0	27
21	Hierarchically interconnected porosity control of catalyst-loaded WO3 nanofiber scaffold: Superior acetone sensing layers for exhaled breath analysis. Sensors and Actuators B: Chemical, 2018, 259, 616-625.	7.8	53
22	Nanoscale PtO₂ Catalysts-Loaded SnO₂ Multichannel Nanofibers toward Highly Sensitive Acetone Sensor. ACS Applied Materials & Interfaces, 2018, 10, 2016-2025.	8.0	96
23	Pt-Functionalized PdO Nanowires for Room Temperature Hydrogen Gas Sensors. ACS Sensors, 2018, 3, 2152-2158.	7.8	70
24	Glassâ€Fabric Reinforced Ag Nanowire/Siloxane Composite Heater Substrate: Subâ€10 nm Metal@Metal Oxide Nanosheet for Sensitive Flexible Sensing Platform. Small, 2018, 14, e1802260.	10.0	17
25	Gas Sensors: Fewâ€Layered WS₂ Nanoplates Confined in Co, Nâ€Doped Hollow Carbon Nanocages: Abundant WS₂ Edges for Highly Sensitive Gas Sensors (Adv. Funct. Mater.) Tj ETQq1 1 0.784314 rgBT /Over	14.9	1
26	Sub-Parts-per-Million Hydrogen Sulfide Colorimetric Sensor: Lead Acetate Anchored Nanofibers toward Halitosis Diagnosis. Analytical Chemistry, 2018, 90, 8769-8775.	6.5	47
27	Hierarchical Metalâ€“Organic Framework-Assembled Membrane Filter for Efficient Removal of Particulate Matter. ACS Applied Materials & Interfaces, 2018, 10, 19957-19963.	8.0	74
28	Bimodally Porous WO₃ Microbelts Functionalized with Pt Catalysts for Selective H₂S Sensors. ACS Applied Materials & Interfaces, 2018, 10, 20643-20651.	8.0	87
29	Bioinspired Cocatalysts Decorated WO₃ Nanotube Toward Unparalleled Hydrogen Sulfide Chemiresistor. ACS Sensors, 2018, 3, 1164-1173.	7.8	36
30	In Situ Coupling of Multidimensional MOFs for Heterogeneous Metal-Oxide Architectures: Toward Sensitive Chemiresistors. ACS Central Science, 2018, 4, 929-937.	11.3	59
31	Chitosan-templated Pt nanocatalyst loaded mesoporous SnO₂ nanofibers: a superior chemiresistor toward acetone molecules. Nanoscale, 2018, 10, 13713-13721.	5.6	60
32	Fewâ€Layered WS₂ Nanoplates Confined in Co, Nâ€Doped Hollow Carbon Nanocages: Abundant WS₂ Edges for Highly Sensitive Gas Sensors. Advanced Functional Materials, 2018, 28, 1802575.	14.9	93
33	Pt nanoparticles functionalized tungsten oxynitride hybrid chemiresistor: Low-temperature NO2 sensing. Sensors and Actuators B: Chemical, 2018, 273, 1269-1277.	7.8	23
34	An Impedance-Transduced Chemiresistor with a Porous Carbon Channel for Rapid, Nonenzymatic, Glucose Sensing. Analytical Chemistry, 2018, 90, 9338-9346.	6.5	13
35	Perovskite La_{0.75}Sr_{0.25}Cr_{0.5}Mn_{0.5}O_{3â^Î´} sensitized SnO₂ fiber-in-tube scaffold: highly selective and sensitive formaldehyde sensing. Journal of Materials Chemistry A, 2018, 6, 10543-10551.	10.3	29
36	Feasible Defect Engineering by Employing Metal Organic Framework Templates into One-Dimensional Metal Oxides for Battery Applications. ACS Applied Materials & Interfaces, 2018, 10, 20540-20549.	8.0	46

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37	Graphene oxide templating: facile synthesis of morphology engineered crumpled SnO₂ nanofibers for superior chemiresistors. Journal of Materials Chemistry A, 2018, 6, 13825-13834.	10.3	28
38	Nanoscale PdO Catalyst Functionalized Co₃O₄ Hollow Nanocages Using MOF Templates for Selective Detection of Acetone Molecules in Exhaled Breath. ACS Applied Materials & Interfaces, 2017, 9, 8201-8210.	8.0	240
39	Metalâ€“Organic Framework Templated Catalysts: Dual Sensitization of PdOâ€“ZnO Composite on Hollow SnO₂ Nanotubes for Selective Acetone Sensors. ACS Applied Materials & Interfaces, 2017, 9, 18069-18077.	8.0	173
40	Electrospun Nanostructures for High Performance Chemiresistive and Optical Sensors. Macromolecular Materials and Engineering, 2017, 302, 1600569.	3.6	55
41	Metal-Organic Framework Templated Synthesis of Ultrasmall Catalyst Loaded ZnO/ZnCo2O4 Hollow Spheres for Enhanced Gas Sensing Properties. Scientific Reports, 2017, 7, 45074.	3.3	92
42	MOF derived ZnCo₂O₄ porous hollow spheres functionalized with Ag nanoparticles for a long-cycle and high-capacity lithium ion battery anode. Journal of Materials Chemistry A, 2017, 5, 22717-22725.	10.3	69
43	Metalâ€“Organic Framework-Templated PdO-Co₃O₄ Nanocubes Functionalized by SWCNTs: Improved NO₂ Reaction Kinetics on Flexible Heating Film. ACS Applied Materials & Interfaces, 2017, 9, 40593-40603.	8.0	55
44	Accelerating Palladium Nanowire H₂ Sensors Using Engineered Nanofiltration. ACS Nano, 2017, 11, 9276-9285.	14.6	190
45	Hollow Pdâ€“Ag Composite Nanowires for Fast Responding and Transparent Hydrogen Sensors. ACS Applied Materials & Interfaces, 2017, 9, 39464-39474.	8.0	82
46	Elaborate Manipulation for Sub-10 nm Hollow Catalyst Sensitized Heterogeneous Oxide Nanofibers for Room Temperature Chemical Sensors. ACS Applied Materials & Interfaces, 2017, 9, 24821-24829.	8.0	12
47	Exceptional Highâ€Performance of Ptâ€Based Bimetallic Catalysts for Exclusive Detection of Exhaled Biomarkers. Advanced Materials, 2017, 29, 1700737.	21.0	113
48	Metal Organic Framework-Templated Chemiresistor: Sensing Type Transition from P-to-N Using Hollow Metal Oxide Polyhedron via Galvanic Replacement. Journal of the American Chemical Society, 2017, 139, 11868-11876.	13.7	136
49	Heterogeneous Sensitization of Metalâ€“Organic Framework Driven Metal@Metal Oxide Complex Catalysts on an Oxide Nanofiber Scaffold Toward Superior Gas Sensors. Journal of the American Chemical Society, 2016, 138, 13431-13437.	13.7	352
50	Metal Chelation Assisted In Situ Migration and Functionalization of Catalysts on Peapod-Like Hollow SnO₂toward a Superior Chemical Sensor. Small, 2016, 12, 5989-5997.	10.0	61
51	Hybrid crystalline-ITO/metal nanowire mesh transparent electrodes and their application for highly flexible perovskite solar cells. NPG Asia Materials, 2016, 8, e282-e282.	7.9	89
52	Highly sensitive and selective acetone sensing performance of WO3 nanofibers functionalized by Rh2O3 nanoparticles. Sensors and Actuators B: Chemical, 2016, 224, 185-192.	7.8	106
53	Catalyst-decorated hollow WO 3 nanotubes using layer-by-layer self-assembly on polymeric nanofiber templates and their application in exhaled breath sensor. Sensors and Actuators B: Chemical, 2016, 223, 301-310.	7.8	97
54	Catalyst-loaded porous WO₃ nanofibers using catalyst-decorated polystyrene colloid templates for detection of biomarker molecules. Chemical Communications, 2015, 51, 2609-2612.	4.1	57