Ji-Wook Yoon

List of Publications by Year in descending order

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44 papers	2,974 citations	159358 30 h-index	243296 44 g-index
46 all docs	46 docs citations	46 times ranked	3037 citing authors

#	Article	IF	Citations
1	Ultraselective and sensitive detection of xylene and toluene for monitoring indoor air pollution using Cr-doped NiO hierarchical nanostructures. Nanoscale, 2013, 5, 7066.	2.8	225
2	A New Strategy for Humidity Independent Oxide Chemiresistors: Dynamic Selfâ€Refreshing of In₂O₃ Sensing Surface Assisted by Layerâ€byâ€Layer Coated CeO₂ Nanoclusters. Small, 2016, 12, 4229-4240.	5.2	195
3	Design of highly sensitive and selective Au@NiO yolkâ€“shell nanoreactors for gas sensor applications. Nanoscale, 2014, 6, 8292-8299.	2.8	174
4	Toward breath analysis on a chip for disease diagnosis using semiconductor-based chemiresistors: recent progress and future perspectives. Lab on A Chip, 2017, 17, 3537-3557.	3.1	162
5	Honeycomb-like Periodic Porous LaFeO₃ Thin Film Chemiresistors with Enhanced Gas-Sensing Performances. ACS Applied Materials & Interfaces, 2014, 6, 16217-16226.	4.0	149
6	Design of a highly sensitive and selective C2H5OH sensor using p-type Co3O4 nanofibers. Sensors and Actuators B: Chemical, 2012, 161, 570-577.	4.0	141
7	Ultrasensitive and ultraselective detection of H2S using electrospun CuO-loaded In2O3 nanofiber sensors assisted by pulse heating. Sensors and Actuators B: Chemical, 2015, 209, 934-942.	4.0	123
8	Highly Selective Xylene Sensor Based on NiO/NiMoO₄ Nanocomposite Hierarchical Spheres for Indoor Air Monitoring. ACS Applied Materials & Interfaces, 2016, 8, 34603-34611.	4.0	122
9	Ultra-selective detection of sub-ppm-level benzene using Pdâ€“SnO₂ yolkâ€“shell micro-reactors with a catalytic Co₃O₄ overlayer for monitoring air quality. Journal of Materials Chemistry A, 2017, 5, 1446-1454.	5.2	111
10	Role of Pd nanoparticles in gas sensing behaviour of Pd@In₂O₃ yolkâ€“shell nanoreactors. Journal of Materials Chemistry A, 2016, 4, 264-269.	5.2	109
11	Dual Role of Multiroom-Structured Sn-Doped NiO Microspheres for Ultrasensitive and Highly Selective Detection of Xylene. ACS Applied Materials & Interfaces, 2018, 10, 16605-16612.	4.0	96
12	Oneâ€Pot Synthesis of Pdâ€Loaded SnO₂ Yolkâ€“Shell Nanostructures for Ultraselective Methyl Benzene Sensors. Chemistry - A European Journal, 2014, 20, 2737-2741.	1.7	93
13	Exclusive and ultrasensitive detection of formaldehyde at room temperature using a flexible and monolithic chemiresistive sensor. Nature Communications, 2021, 12, 4955.	5.8	84
14	Electronic sensitization of the response to C₂H₅OH of p-type NiO nanofibers by Fe doping. Nanotechnology, 2013, 24, 444005.	1.3	81
15	Extremely sensitive ethanol sensor using Pt-doped SnO2 hollow nanospheres prepared by Kirkendall diffusion. Sensors and Actuators B: Chemical, 2016, 234, 353-360.	4.0	80
16	Highly sensitive and selective detection of ppb-level NO 2 using multi-shelled WO 3 yolkâ€“shell spheres. Sensors and Actuators B: Chemical, 2016, 229, 561-569.	4.0	80
17	Gas sensing characteristics of p-type Cr2O3 and Co3O4 nanofibers depending on inter-particle connectivity. Sensors and Actuators B: Chemical, 2014, 202, 263-271.	4.0	77
18	Trimodally porous SnO2 nanospheres with three-dimensional interconnectivity and size tunability: a one-pot synthetic route and potential application as an extremely sensitive ethanol detector. NPG Asia Materials, 2016, 8, e244-e244.	3.8	77

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19	Cr-doped Co3O4 nanorods as chemiresistor for ultraselective monitoring of methyl benzene. Sensors and Actuators B: Chemical, 2014, 201, 482-489.	4.0	72
20	Visible light assisted NO2 sensing at room temperature by CdS nanoflake array. Sensors and Actuators B: Chemical, 2018, 255, 2963-2970.	4.0	69
21	ÂA New Concept for Obtaining SnO₂ Fiberâ€inâ€Tube Nanostructures with Superior Electrochemical Properties. Chemistry - A European Journal, 2015, 21, 371-376.	1.7	61
22	High performance chemiresistive H₂S sensors using Ag-loaded SnO₂ yolkâ€“shell nanostructures. RSC Advances, 2014, 4, 16067-16074.	1.7	58
23	Kilogram-Scale Synthesis of Pd-Loaded Quintuple-Shelled Co₃O₄ Microreactors and Their Application to Ultrasensitive and Ultraselective Detection of Methylbenzenes. ACS Applied Materials & Interfaces, 2015, 7, 7717-7723.	4.0	56
24	Pure and Palladiumâ€Loaded Co₃O₄ Hollow Hierarchical Nanostructures with Giant and Ultraselective Chemiresistivity to Xylene and Toluene. Chemistry - A European Journal, 2015, 21, 5872-5878.	1.7	52
25	Molybdenum trioxide nanopaper as a dual gas sensor for detecting trimethylamine and hydrogen sulfide. RSC Advances, 2017, 7, 3680-3685.	1.7	52
26	A strategy for ultrasensitive and selective detection of methylamine using p-type Cr2O3: Morphological design of sensing materials, control of charge carrier concentrations, and configurational tuning of Au catalysts. Sensors and Actuators B: Chemical, 2017, 240, 1049-1057.	4.0	52
27	General Strategy for Designing Highly Selective Gas-Sensing Nanoreactors: Morphological Control of SnO₂ Hollow Spheres and Configurational Tuning of Au Catalysts. ACS Applied Materials & Interfaces, 2020, 12, 51607-51615.	4.0	42
28	Impedance spectroscopic analysis on effects of partial oxidation of TiN bottom electrode and microstructure of amorphous and crystalline HfO₂ thin films on their bipolar resistive switching. Nanoscale, 2014, 6, 6668-6678.	2.8	37
29	A Transparent Nanopatterned Chemiresistor: Visibleâ€Light Plasmonic Sensor for Traceâ€Level NO₂ Detection at Room Temperature. Small, 2021, 17, e2100438.	5.2	33
30	Hollow spheres of CoCr₂O₄â€“Cr₂O₃ mixed oxides with nanoscale heterojunctions for exclusive detection of indoor xylene. Journal of Materials Chemistry C, 2018, 6, 10767-10774.	2.7	31
31	Metal oxide patterns of one-dimensional nanofibers: on-demand, direct-write fabrication, and application as a novel platform for gas detection. Journal of Materials Chemistry A, 2019, 7, 24919-24928.	5.2	28
32	Highly selective, sensitive, and rapidly responding acetone sensor using ferroelectric Îµ-WO3 spheres doped with Nb for monitoring ketogenic diet efficiency. Sensors and Actuators B: Chemical, 2021, 338, 129823.	4.0	28
33	Superhigh sensing response and selectivity for hydrogen gas using PdPt@ZnO core-shell nanoparticles: Unique effect of alloyed ingredient from experimental and theoretical investigations. Sensors and Actuators B: Chemical, 2022, 354, 131083.	4.0	24
34	Selective dual detection of hydrogen sulfide and methyl mercaptan using CuO/CuFe2O4 nanopattern chemiresistors. Sensors and Actuators B: Chemical, 2021, 348, 130665.	4.0	20
35	Extremely selective detection of ppb levels of indoor xylene using CoCr₂O₄ hollow spheres activated by Pt doping. Chemical Communications, 2019, 55, 751-754.	2.2	18
36	Rapid synthesis of rhombohedral In2O3 nanoparticles via a microwave-assisted hydrothermal pathway and their application for conductometric ethanol sensing. Sensors and Actuators B: Chemical, 2021, 346, 130578.	4.0	15

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37	Core and dopant effects toward hydrogen gas sensing activity using Pd@N-CeO2 coreâ€“shell nanoflatforms. Journal of Industrial and Engineering Chemistry, 2021, 95, 325-332.	2.9	13
38	Highly Selective and Sensitive Detection of Breath Isoprene by Tailored Gas Reforming: A Synergistic Combination of Macroporous WO₃ Spheres and Au Catalysts. ACS Applied Materials & Interfaces, 2022, 14, 11587-11596.	4.0	9
39	A Volatile Organic Compound Sensor Using Porous Co3O4 Spheres. Journal of the Korean Ceramic Society, 2016, 53, 134-138.	1.1	7
40	Facile and rapid fabrication of porous CuBr films by solution oxidation and their application for the exclusive detection of NH₃ at room temperature. Journal of Materials Chemistry A, 2022, 10, 950-959.	5.2	7
41	Selective NO2Sensors Using MoS2-MoO2Composite Yolk-shell Spheres. Journal of Sensor Science and Technology, 2015, 24, 151-154.	0.1	3
42	Trimethylamine Sensing Characteristics of Molybdenum doped ZnO Hollow Nanofibers Prepared by Electrospinning. Journal of Sensor Science and Technology, 2015, 24, 419-422.	0.1	3
43	Highly Sensitive Trimethylamine Sensing Characteristics of V-doped NiO Porous Structures. Journal of Sensor Science and Technology, 2016, 25, 218-222.	0.1	0
44	NH3 sensing properties of porous CuBr films prepared by spin-coating. Journal of Sensor Science and Technology, 2021, 30, 451-455.	0.1	0