

Heqing Yang

List of Publications by Year in descending order

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63
papers

1,690
citations

236925

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docs citations

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times ranked

2297
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#	ARTICLE	IF	CITATIONS
1	Controlled synthesis and gas-sensing properties of hollow sea urchin-like Fe_2O_3 nanostructures and Fe_2O_3 nanocubes. <i>Sensors and Actuators B: Chemical</i> , 2009, 141, 381-389.	7.8	157
2	Synthesis and sensing properties of spherical flowerlike architectures assembled with SnO_2 submicron rods. <i>Sensors and Actuators B: Chemical</i> , 2012, 173, 643-651.	7.8	105
3	Charge separation between wurtzite ZnO polar $\{001\}$ surfaces and their enhanced photocatalytic activity. <i>Applied Catalysis B: Environmental</i> , 2015, 163, 189-197.	20.2	102
4	Bifunctional Hydroxylamine Hydrochloride Incorporated Perovskite Films for Efficient and Stable Planar Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2018, 1, 900-909.	5.1	81
5	Synthesis and formation mechanism of flowerlike architectures assembled from ultrathin NiO nanoflakes and their adsorption to malachite green and acid red in water. <i>Chemical Engineering Journal</i> , 2014, 239, 141-148.	12.7	71
6	Synthesis of hollow microspheres constructed with Fe_2O_3 nanorods and their photocatalytic and magnetic properties. <i>Journal of Alloys and Compounds</i> , 2009, 477, 90-99.	5.5	63
7	Direct growth of ZnO nanodisk networks with an exposed $\{0001\}$ facet on Au comb-shaped interdigitating electrodes and the enhanced gas-sensing property of polar $\{0001\}$ surfaces. <i>Sensors and Actuators B: Chemical</i> , 2014, 195, 71-79.	7.8	59
8	Superior adsorption performance for triphenylmethane dyes on 3D architectures assembled by ZnO nanosheets as thin as ~ 1.5 nm. <i>Journal of Hazardous Materials</i> , 2016, 318, 732-741.	12.4	51
9	Enhancing the Sensing Properties of TiO_2 Nanosheets with Exposed $\{001\}$ Facets by a Hydrogenation and Sensing Mechanism. <i>Inorganic Chemistry</i> , 2017, 56, 1504-1510.	4.0	50
10	Superior photocatalytic activity of porous wurtzite ZnO nanosheets with exposed $\{001\}$ facets and a charge separation model between polar $\{001\}$ and $\{10\bar{1}0\}$ surfaces. <i>Journal of Hazardous Materials</i> , 2016, 318, 732-741.	12.7	48
11	Enhancing gas sensing performances and sensing mechanism at atomic and molecule level of WO_3 nanoparticles by hydrogenation. <i>Sensors and Actuators B: Chemical</i> , 2018, 273, 1786-1793.	7.8	48
12	Hydrothermal synthesis and gas sensing properties of single-crystalline ultralong ZnO nanowires. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 98, 635-641.	2.3	43
13	Visible-light photocatalysis in Cu_2Se nanowires with exposed $\{111\}$ facets and charge separation between $\{111\}$ and $\{1\bar{1}\bar{1}\}$ polar surfaces. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 13280-13289.	2.8	42
14	Superior photocatalytic activities of NiO octahedrons with loaded AgCl particles and charge separation between polar NiO $\{111\}$ surfaces. <i>Applied Catalysis B: Environmental</i> , 2015, 172-173, 165-173.	20.2	41
15	Hydrothermal fabrication and enhanced photocatalytic activity of hexagram shaped InOOH nanostructures with exposed $\{020\}$ facets. <i>Applied Catalysis B: Environmental</i> , 2013, 130-131, 178-186.	20.2	39
16	Responses of three-dimensional porous ZnO foam structures to the trace level of triethylamine and ethanol. <i>Sensors and Actuators B: Chemical</i> , 2016, 223, 650-657.	7.8	39
17	Enhanced Gas Sensitivity and Sensing Mechanism of Network Structures Assembled from Fe_2O_3 Nanosheets with Exposed $\{104\}$ Facets. <i>Langmuir</i> , 2017, 33, 8671-8678.	3.5	34
18	Controllable synthesis and shape-dependent photocatalytic activity of ZnO nanorods with a cone and different aspect ratios and of short-and-fat ZnO microrods by varying the reaction temperature and time. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 100, 1061-1067.	2.3	32

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19	Controlled Solvothermal Synthesis of Nanosheets, Nanobelts, and Ultralong Nanobelt Arrays with Honeycomb-Like Micropatterns of ZnSe on Zinc Substrate. <i>Inorganic Chemistry</i> , 2008, 47, 11950-11957.	4.0	31
20	Hydrogenated nanotubes/nanowires assembled from TiO ₂ nanoflakes with exposed {111} facets: excellent photo-catalytic CO ₂ reduction activity and charge separation mechanism between (111) and (1 $\bar{1}$,1 $\bar{1}$,1 $\bar{1}$,) polar surfaces. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14761-14775.	10.3	31
21	Enhanced gas sensing properties and sensing mechanism of the foam structures assembled from NiO nanoflakes with exposed {1 $\bar{1}$ 1} facets. <i>Applied Surface Science</i> , 2019, 470, 596-606.	6.1	31
22	Synthesis and enhanced photocatalytic activity of monodisperse flowerlike nanoarchitectures assembled from CdS nanoflakes with exposed {001} facets. <i>Materials Research Bulletin</i> , 2012, 47, 3070-3077.	5.2	27
23	Effect of TC(002) on the Output Current of a ZnO Thin-Film Nanogenerator and a New Piezoelectricity Mechanism at the Atomic Level. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 12656-12665.	8.0	27
24	Synthesis and photoluminescence of hollow microspheres constructed with ZnO nanorods by H ₂ bubble templates. <i>Chemical Physics Letters</i> , 2008, 455, 93-97.	2.6	26
25	Monodisperse rutile TiO ₂ nanorod-based microspheres with various diameters: hydrothermal synthesis, formation mechanism and diameter- and crystallinity-dependent photocatalytic properties. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 104, 149-158.	2.3	26
26	Enhanced Visible-Light Photocatalytic H ₂ Evolution in Cu ₂ O/Cu ₂ Se Multilayer Heterostructure Nanowires Having {111} Facets and Physical Mechanism. <i>Inorganic Chemistry</i> , 2018, 57, 8019-8027.	4.0	23
27	Synthesis and size-dependent magnetic properties of single-crystalline hematite nanodiscs. <i>Journal of Crystal Growth</i> , 2011, 328, 62-69.	1.5	22
28	Improving sensing performance of the ZnO foam structure with exposed {001} facets by hydrogenation and sensing mechanism at molecule level. <i>Applied Surface Science</i> , 2019, 479, 646-654.	6.1	22
29	Hydrogenated Cu ₂ O octahedrons with exposed {111} facets: Enhancing sensing performance and sensing mechanism of 1-coordinated Cu atom as a reactive center. <i>Sensors and Actuators B: Chemical</i> , 2020, 310, 127827.	7.8	22
30	Room-temperature synthesis, photoluminescence and photocatalytic properties of SnO nanosheet-based flowerlike architectures. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 107, 437-443.	2.3	20
31	The sensing reaction on the Ni-NiO (111) surface at atomic and molecule level and migration of electron. <i>Sensors and Actuators B: Chemical</i> , 2018, 273, 794-803.	7.8	19
32	Synthesis and photocatalytic activity of porous polycrystalline NiO nanowires. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 104, 69-75.	2.3	18
33	Increasing sensing sensitivity of the Fe \cdot -Fe ₂ O ₃ (104) surface by hydrogenation and the sensing reaction molecule mechanism. <i>Sensors and Actuators B: Chemical</i> , 2019, 281, 366-374.	7.8	17
34	Controlled synthesis and magnetic properties of Fe ₃ O ₄ walnut spherical particles and octahedral microcrystals. <i>Science in China Series D: Earth Sciences</i> , 2008, 51, 1911-1920.	0.9	16
35	Size-dependent optical properties and enhanced visible light photocatalytic activity of wurtzite CdSe hexagonal nanoflakes with dominant {001} facets. <i>Journal of Alloys and Compounds</i> , 2014, 610, 62-68.	5.5	16
36	Visible-light photocatalysis in CdTe nanoflakes with exposed {111} facets and charge separation between polar CdTe {111} surfaces. <i>Applied Catalysis B: Environmental</i> , 2017, 208, 94-103.	20.2	15

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37	Hydrogenated TiO ₂ nanosheet based flowerlike architectures: Enhanced sensing performances and sensing mechanism. <i>Journal of Alloys and Compounds</i> , 2018, 749, 543-555.	5.5	14
38	InOCl nanosheets with exposed {001} facets: Synthesis, electronic structure and surprisingly high photocatalytic activity. <i>Applied Catalysis B: Environmental</i> , 2014, 152-153, 390-396.	20.2	13
39	Vapor-liquid-solid growth and narrow-band ultraviolet photoluminescence of well-aligned GeO ₂ nanowire arrays with controllable aspect ratios. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 100, 493-499.	2.3	12
40	Solvothermal synthesis and enhanced photocatalytic activity of flowerlike nanoarchitectures assembled from anatase TiO ₂ nanoflakes. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2012, 44, 2110-2117.	2.7	12
41	Spatial charge separation between wurtzite CdS polar (0001) and (000 $\bar{1}$) facets: Enhanced visible-light photocatalytic activity. <i>Journal of Alloys and Compounds</i> , 2017, 700, 138-148.	5.5	10
42	The photovoltaic effect in a [001] orientated ZnO thin film and its physical mechanism. <i>RSC Advances</i> , 2017, 7, 9596-9604.	3.6	10
43	Flowerlike Cu ₂ Te architectures constructed from ultrathin nanoflakes as superior dye adsorbents for wastewater treatment. <i>RSC Advances</i> , 2016, 6, 79612-79619.	3.6	9
44	Enhancing gas sensitivity of CdO octahedrons having {111} facets by hydrogenation and sensing mechanism of 3-coordinated Cd atoms as the reactive centers. <i>Applied Surface Science</i> , 2020, 506, 144868.	6.1	9
45	Thermal oxide synthesis and characterization of Fe ₃ O ₄ nanorods and Fe ₂ O ₃ nanowires. <i>Science in China Series B: Chemistry</i> , 2009, 52, 599-604.	0.8	8
46	The Ag ⁺ induced solution-liquid-solid growth, photoluminescence and photocatalytic activity of twinned ZnSe nanowires. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 98, 801-810.	2.3	8
47	Enhanced response of hydrogenated Fe ₂ O ₃ nanostructured materials to volatile organic compound vapors and gas sensing mechanism. <i>Journal of Alloys and Compounds</i> , 2019, 806, 705-716.	5.5	8
48	Sol-Gel Synthesis of Luminescent InP Nanocrystals Embedded in Silica Glasses. <i>Journal of Nanoscience and Nanotechnology</i> , 2005, 5, 1737-1740.	0.9	7
49	Enhancing gas-sensing property and sensing mechanism at molecule level of the hollow microspheres assembled with ZnO nanoflakes exposing {001} facets. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 6118-6129.	2.2	7
50	Photogenerated Charge Separation between Polar Crystal Facets Under a Spontaneous Electric Field. <i>Advanced Optical Materials</i> , 2021, 9, 2001898.	7.3	7
51	Controlled growth and photoluminescence of highly oriented arrays of ZnO nanocones with different diameters. <i>Science in China Series D: Earth Sciences</i> , 2009, 52, 1264-1272.	0.9	6
52	In-situ growth and photoluminescence of \hat{I}^2 -Ga ₂ O ₃ cone-like nanowires on the surface of Ga substrates. <i>Science in China Series D: Earth Sciences</i> , 2009, 52, 1712-1721.	0.9	6
53	Increasing gas sensitivity of Co ₃ O ₄ octahedra by tuning Co-Co ₃ O ₄ (111) surface structure and sensing mechanism of 3-coordinated Co atom as an active center. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 8852-8864.	2.2	6
54	Synthesis, formation mechanism and electric property of hollow InP nanospheres. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 104, 61-68.	2.3	5

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55	Synthesis of ultralong NiSe nanobelts and their excellent adsorption properties towards malachite green in water. RSC Advances, 2016, 6, 104173-104182.	3.6	5
56	Enhanced gas sensing performances of hydrogenated MnO octahedrons with {111} facets and the sensing mechanism of unsaturated Mn as a reactive atom. Journal of Alloys and Compounds, 2021, 884, 160872.	5.5	4
57	Hydrothermal Synthesis and Magnetic Properties of Fe ₃ O ₄ Octahedral Microcrystals. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2012, 42, 732-735.	0.6	3
58	Enhanced Sensitivity of Hydrogenated Cu _{0.27} Co _{2.73} O ₄ Nanooctahedrons Having {111} Facets and the Sensing Mechanism of 3-Coordinated Co/Cu Atoms as Active Centers. Langmuir, 2021, 37, 12802-12811.	3.5	2
59	Sol-Gel Synthesis and Photoluminescence of III-V Semiconductor InAs Nanocrystals Embedded in Silica Glasses. Journal of Nanoscience and Nanotechnology, 2005, 5, 786-789.	0.9	1
60	Increasing sensitivity of ZnO nanoparticles by hydrogenation and sensing reaction mechanism. Journal of Materials Science: Materials in Electronics, 2019, 30, 17674-17681.	2.2	1
61	Effect of 8-coordinated Pb atom density at (001) surface on sensitivity in PbTiO ₃ nanosheets with polar {001} facets and gas sensing mechanism. Journal of Alloys and Compounds, 2021, 887, 161325.	5.5	1
62	Enhanced sensitivity of hydrogenated δ -Fe ₂ O ₃ nanoplates having {001} facets and the gas sensing mechanism. Journal of Materials Science: Materials in Electronics, 2022, 33, 3617-3630.	2.2	1
63	Enhanced visible-light photocatalytic activity of hydrogenated Fe ₃ O ₄ nanooctahedrons with {111} polar facets in degradation of Basic Fuchsin and the photocatalytic mechanism. Journal of Materials Science: Materials in Electronics, 2022, 33, 13095-13109.	2.2	1