

Shengping Ruan

List of Publications by Year in descending order

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227
papers

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44069

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229
all docs

229
docs citations

229
times ranked

7324
citing authors

#	ARTICLE	IF	CITATIONS
1	Role of tungsten oxide in inverted polymer solar cells. Applied Physics Letters, 2009, 94, .	3.3	294
2	Performance improvement of inverted polymer solar cells with different top electrodes by introducing a MoO ₃ buffer layer. Applied Physics Letters, 2008, 93, .	3.3	211
3	Enhanced H ₂ S sensing characteristics of CuO-NiO core-shell microspheres sensors. Sensors and Actuators B: Chemical, 2015, 209, 515-523.	7.8	177
4	TiO ₂ based metal-semiconductor-metal ultraviolet photodetectors. Applied Physics Letters, 2007, 90, 201118.	3.3	170
5	Microwave absorptive behavior of ZnCo-substituted W-type Ba hexaferrite nanocrystalline composite material. Journal of Magnetism and Magnetic Materials, 2000, 212, 175-177.	2.3	162
6	Metal-semiconductor-metal TiO ₂ ultraviolet detectors with Ni electrodes. Applied Physics Letters, 2009, 94, .	3.3	140
7	On the high response towards TEA of gas sensors based on Ag-loaded 3D porous ZnO microspheres. Sensors and Actuators B: Chemical, 2018, 270, 492-499.	7.8	124
8	Xylene gas sensor based on Au-loaded WO ₃ ·H ₂ O nanocubes with enhanced sensing performance. Sensors and Actuators B: Chemical, 2017, 238, 364-373.	7.8	118
9	High sensitive and fast formaldehyde gas sensor based on Ag-doped LaFeO ₃ nanofibers. Journal of Alloys and Compounds, 2017, 695, 1122-1127.	5.5	102
10	Preparation of Pd nanoparticle-decorated hollow SnO ₂ nanofibers and their enhanced formaldehyde sensing properties. Journal of Alloys and Compounds, 2015, 651, 690-698.	5.5	99
11	Hierarchical Fe ₃ O ₄ @Co ₃ O ₄ core-shell microspheres: Preparation and acetone sensing properties. Sensors and Actuators B: Chemical, 2014, 199, 346-353.	7.8	98
12	Semitransparent inverted polymer solar cells with MoO ₃ /Ag/MoO ₃ as transparent electrode. Applied Physics Letters, 2009, 95, .	3.3	91
13	Electrospun nanofibers of p-type NiO/n-type ZnO heterojunction with different NiO content and its influence on trimethylamine sensing properties. Sensors and Actuators B: Chemical, 2015, 207, 90-96.	7.8	91
14	High performance humidity sensor based on metal organic framework MIL-101(Cr) nanoparticles. Journal of Alloys and Compounds, 2017, 695, 520-525.	5.5	82
15	Highly Efficient Semitransparent Polymer Solar Cells with Color Rendering Index Approaching 100 Using One-Dimensional Photonic Crystal. ACS Applied Materials & Interfaces, 2015, 7, 9920-9928.	8.0	81
16	A novel humidity sensor based on NH ₂ -MIL-125(Ti) metal organic framework with high responsiveness. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	76
17	Photocatalytic degradation of C.I. Acid Orange 52 in the presence of Zn-doped TiO ₂ prepared by a stearic acid gel method. Dyes and Pigments, 2008, 77, 204-209.	3.7	74
18	Self-sacrificing templated formation of Co ₃ O ₄ /ZnCo ₂ O ₄ composite hollow nanostructures for highly sensitive detecting acetone vapor. Sensors and Actuators B: Chemical, 2018, 273, 1202-1210.	7.8	69

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19	Semitransparent polymer solar cells using V ₂ O ₅ /Ag/V ₂ O ₅ as transparent anodes. <i>Organic Electronics</i> , 2011, 12, 1223-1226.	2.6	68
20	Performance improvement of TiO ₂ /P3HT solar cells using CuPc as a sensitizer. <i>Applied Physics Letters</i> , 2008, 92, 073307.	3.3	67
21	Semitransparent Polymer Solar Cells with 5% Power Conversion Efficiency Using Photonic Crystal Reflector. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 599-605.	8.0	66
22	Ethanol sensing properties of LaCoFe _{1-x} O ₃ nanoparticles: Effects of calcination temperature, Co-doping, and carbon nanotube-treatment. <i>Sensors and Actuators B: Chemical</i> , 2011, 155, 232-238.	7.8	65
23	Synthesis of Ni-doped $\text{La}_{1-x}\text{Mo}_x\text{O}_3$ nanolamella and their improved gas sensing properties. <i>Sensors and Actuators B: Chemical</i> , 2017, 252, 757-763.	7.8	65
24	Self-Sacrificial Template-Driven LaFeO ₃ /Fe ₂ O ₃ Porous Nano-Octahedrons for Acetone Sensing. <i>ACS Applied Nano Materials</i> , 2018, 1, 4671-4681.	5.0	65
25	Surface state studies of TiO ₂ nanoparticles and photocatalytic degradation of methyl orange in aqueous TiO ₂ dispersions. <i>Materials Chemistry and Physics</i> , 2001, 69, 7-9.	4.0	64
26	Semitransparent inverted polymer solar cells using MoO ₃ /Ag/WO ₃ as highly transparent anodes. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 877-880.	6.2	64
27	Coordination Polymer-Derived Multishelled Mixed Ni-Co Oxide Microspheres for Robust and Selective Detection of Xylene. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 15314-15321.	8.0	64
28	Self-template derived ZnFe ₂ O ₄ double-shell microspheres for chemresistive gas sensing. <i>Sensors and Actuators B: Chemical</i> , 2018, 265, 625-631.	7.8	64
29	Metal-organic framework-derived Co ₃ O ₄ /CoFe ₂ O ₄ double-shelled nanocubes for selective detection of sub-ppm-level formaldehyde. <i>Sensors and Actuators B: Chemical</i> , 2019, 298, 126887.	7.8	62
30	Schottky Diode Ultraviolet Detector Based on TiO_2 Nanowire Array. <i>IEEE Electron Device Letters</i> , 2012, 33, 83-85.	3.9	60
31	Performance improvement of inverted polymer solar cells thermally evaporating nickel oxide as an anode buffer layer. <i>Solar Energy Materials and Solar Cells</i> , 2012, 98, 212-215.	6.2	60
32	Xylene gas sensor based on $\text{La}_{1-x}\text{Mo}_x\text{O}_3/\text{La}_{1-x}\text{Fe}_x\text{O}_3$ heterostructure with high response and low operating temperature. <i>RSC Advances</i> , 2015, 5, 39442-39448.	3.6	60
33	Gas Sensors Based on Metal Sulfide Zn _{1-x} Cd _x S Nanowires with Excellent Performance. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 20793-20800.	8.0	60
34	Synthesis and characterization of Cr-doped WO ₃ nanofibers for conductometric sensors with high xylene sensitivity. <i>Sensors and Actuators B: Chemical</i> , 2018, 265, 355-364.	7.8	60
35	Fe ₂ O ₃ nanoparticles-decorated MoO ₃ nanobelts for enhanced chemiresistive gas sensing. <i>Journal of Alloys and Compounds</i> , 2019, 782, 672-678.	5.5	60
36	Effects of the optical microcavity on the performance of ITO-free polymer solar cells with WO ₃ /Ag/WO ₃ transparent electrode. <i>Solar Energy Materials and Solar Cells</i> , 2012, 100, 226-230.	6.2	59

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37	Enhanced toluene sensing performance of gold-functionalized WO ₃ ·H ₂ O nanosheets. Sensors and Actuators B: Chemical, 2016, 223, 761-767.	7.8	58
38	Improved gas sensing properties of silver-functionalized ZnSnO ₃ hollow nanocubes. Inorganic Chemistry Frontiers, 2018, 5, 2123-2131.	6.0	56
39	V-doped In ₂ O ₃ nanofibers for H ₂ S detection at low temperature. Ceramics International, 2014, 40, 6685-6689.	4.8	55
40	Highly stabilized and rapid sensing acetone sensor based on Au nanoparticle-decorated flower-like ZnO microstructures. Journal of Alloys and Compounds, 2015, 650, 37-44.	5.5	55
41	Synergistically improved formaldehyde gas sensing properties of SnO ₂ microspheres by indium and palladium co-doping. Ceramics International, 2015, 41, 7329-7336.	4.8	55
42	Highly efficient rapid ethanol sensing based on In ₂ NiO ₃ nanofibers. Sensors and Actuators B: Chemical, 2012, 166-167, 83-88.	7.8	54
43	The significant improvement for BTX (benzene, toluene and xylene) sensing performance based on Au-decorated hierarchical ZnO porous rose-like architectures. Sensors and Actuators B: Chemical, 2018, 262, 86-94.	7.8	53
44	A novel humidity sensor based on NaTaO ₃ nanocrystalline. Sensors and Actuators B: Chemical, 2012, 174, 485-489.	7.8	52
45	Highly Efficient Low-Bandgap Polymer Solar Cells with Solution-Processed and Annealing-Free Phosphomolybdic Acid as Hole-Transport Layers. ACS Applied Materials & Interfaces, 2015, 7, 5367-5372.	8.0	52
46	One-step synthesis and gas sensing properties of hierarchical Fe doped Co ₃ O ₄ nanostructures. Journal of Alloys and Compounds, 2017, 723, 779-786.	5.5	52
47	High performance ultraviolet detector based on TiO ₂ /ZnO heterojunction. Journal of Alloys and Compounds, 2015, 618, 551-554.	5.5	51
48	Improved gas sensing performance with Pd-doped WO ₃ ·H ₂ O nanomaterials for the detection of xylene. Sensors and Actuators B: Chemical, 2017, 244, 837-848.	7.8	50
49	Metal-organic framework-derived ZnO/ZnCo ₂ O ₄ microspheres modified by catalytic PdO nanoparticles for sub-ppm-level formaldehyde detection. Sensors and Actuators B: Chemical, 2020, 315, 128118.	7.8	50
50	Synthesis, characterization, and gas-sensing property for HCHO of Ag-doped In ₂ O ₃ nanocrystalline powders. Materials Chemistry and Physics, 2009, 117, 489-493.	4.0	47
51	Oxygen vacancies dominated CuO@ZnFe ₂ O ₄ yolk-shell microspheres for robust and selective detection of xylene. Sensors and Actuators B: Chemical, 2019, 295, 117-126.	7.8	47
52	Performance Improvement of Polymer Solar Cells by Surface-Energy-Induced Dual Plasmon Resonance. ACS Applied Materials & Interfaces, 2016, 8, 6183-6189.	8.0	46
53	Highly efficient and high transmittance semitransparent polymer solar cells with one-dimensional photonic crystals as distributed Bragg reflectors. Organic Electronics, 2014, 15, 470-477.	2.6	45
54	Preparation and Xylene Sensing Properties of Co ₃ O ₄ Nanofibers. International Journal of Applied Ceramic Technology, 2014, 11, 619-625.	2.1	45

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55	Surface Plasmon Resonance Enhanced Polymer Solar Cells by Thermally Evaporating Au into Buffer Layer. ACS Applied Materials & Interfaces, 2015, 7, 18866-18871.	8.0	45
56	Enhanced ethyl acetate sensing performance of Al-doped In ₂ O ₃ microcubes. Sensors and Actuators B: Chemical, 2017, 253, 461-469.	7.8	45
57	Enhanced gas sensing properties for formaldehyde based on ZnO/Zn ₂ SnO ₄ composites from one-step hydrothermal synthesis. Journal of Alloys and Compounds, 2021, 850, 156606.	5.5	45
58	Excellent gas sensing and optical properties of single-crystalline cadmium sulfide nanowires. RSC Advances, 2014, 4, 61691-61697.	3.6	44
59	Influences of different interdigital spacing on the performance of UV photodetectors based on ZnO nanofibers. Applied Surface Science, 2014, 307, 20-23.	6.1	44
60	Synthesis of au-decorated SnO ₂ crystallites with exposed (221) facets and their enhanced acetylene sensing properties. Sensors and Actuators B: Chemical, 2020, 307, 127629.	7.8	44
61	Visible-light photodetector with enhanced performance based on a ZnO@CdS heterostructure. Journal of Materials Chemistry C, 2015, 3, 2231-2236.	5.5	43
62	Xylene gas sensor based on Ni doped TiO ₂ bowl-like submicron particles with enhanced sensing performance. RSC Advances, 2015, 5, 28105-28110.	3.6	43
63	Preparation of three-dimensional Ce-doped Sn ₃ O ₄ hierarchical microsphere and its application on formaldehyde gas sensor. Journal of Alloys and Compounds, 2017, 726, 1092-1100.	5.5	41
64	Semitransparent inverted polymer solar cells using MoO ₃ /Ag/V ₂ O ₅ as transparent anodes. Solar Energy Materials and Solar Cells, 2012, 97, 59-63.	6.2	40
65	Special nanostructure control of ethanol sensing characteristics based on Au@In ₂ O ₃ sensor with good selectivity and rapid response. RSC Advances, 2015, 5, 9884-9890.	3.6	40
66	Synthesis of SnO ₂ nano-dodecahedrons with high-energy facets and their sensing properties to SO ₂ at low temperature. Journal of Alloys and Compounds, 2017, 723, 595-601.	5.5	40
67	Hexagonal ZnO nanorings: synthesis, formation mechanism and trimethylamine sensing properties. RSC Advances, 2015, 5, 80561-80567.	3.6	38
68	Semitransparent polymer solar cells with one-dimensional (WO ₃ /LiF)/N photonic crystals. Applied Physics Letters, 2012, 101, .	3.3	37
69	HCHO sensing properties of Ag-doped In ₂ O ₃ nanofibers synthesized by electrospinning. Materials Letters, 2009, 63, 1750-1753.	2.6	36
70	Ultraviolet photodetector with high internal gain enhanced by TiO ₂ /SrTiO ₃ heterojunction. Optics Express, 2012, 20, 5936.	3.4	36
71	Simultaneous improvement in efficiency and transmittance of low bandgap semitransparent polymer solar cells with one-dimensional photonic crystals. Solar Energy Materials and Solar Cells, 2013, 117, 198-202.	6.2	36
72	Synthesis of hierarchical 3D porous ZnO microspheres decorated by ultra-small Au nanoparticles and its highly enhanced acetylene gas sensing ability. Journal of Alloys and Compounds, 2018, 731, 1029-1036.	5.5	36

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73	Fe ₃ O ₄ @NiO core-shell composites: Hydrothermal synthesis and toluene sensing properties. Materials Letters, 2014, 132, 167-170.	2.6	35
74	Humidity sensing properties of FeCl ₃ -NH ₂ -MIL-125(Ti) composites. Sensors and Actuators B: Chemical, 2014, 201, 281-285.	7.8	34
75	Xylene sensor based on In_2MoO_7 nanobelts with fast response and low operating temperature. RSC Advances, 2015, 5, 18655-18659.	3.6	33
76	An easily prepared carbon quantum dots and employment for inverted organic photovoltaic devices. Chemical Engineering Journal, 2017, 315, 621-629.	12.7	33
77	Open-circuit voltage enhancement of inverted polymer bulk heterojunction solar cells by doping NaYF ₄ nanoparticles/PVP composites. Journal of Materials Chemistry, 2012, 22, 22382.	6.7	32
78	A new type of acetylene gas sensor based on a hollow heterostructure. RSC Advances, 2015, 5, 61521-61527.	3.6	32
79	Unique Gold Nanorods Embedded Active Layer Enabling Strong Plasmonic Effect To Improve the Performance of Polymer Photovoltaic Devices. Journal of Physical Chemistry C, 2016, 120, 6198-6205.	3.1	32
80	Annealing-Free ZnO:PEI Composite Cathode Interfacial Layer for Efficient Organic Solar Cells. ACS Photonics, 2017, 4, 2952-2958.	6.6	32
81	Tailoring Spatial Distribution of the Optical Field Intensity in Semitransparent Inverted Organic Solar Cells. Journal of Physical Chemistry C, 2011, 115, 12611-12615.	3.1	31
82	TiO ₂ ultraviolet detector based on LaAlO ₃ substrate with low dark current. Journal of Alloys and Compounds, 2013, 580, 614-617.	5.5	31
83	One-step synthesis and the enhanced xylene-sensing properties of Fe-doped MoO_3 nanobelts. RSC Advances, 2016, 6, 106364-106369.	3.6	31
84	Engineering Co ³⁺ cations in Co ₃ O ₄ multishelled microspheres by Mn doping: The roles of Co ³⁺ and oxygen species for sensitive xylene detection. Sensors and Actuators B: Chemical, 2020, 308, 127651.	7.8	31
85	Enhanced Electron Extraction Capability of Polymer Solar Cells via Employing Electrostatically Self-Assembled Molecule on Cathode Interfacial Layer. ACS Applied Materials & Interfaces, 2016, 8, 8224-8231.	8.0	29
86	The effects of Zr-doping on improving the sensitivity and selectivity of a one-dimensional In_2MoO_7 -based xylene gas sensor. Inorganic Chemistry Frontiers, 2020, 7, 1704-1712.	6.0	29
87	Decreased Charge Transport Barrier and Recombination of Organic Solar Cells by Constructing Interfacial Nanojunction with Annealing-Free ZnO and Al Layers. ACS Applied Materials & Interfaces, 2017, 9, 22068-22075.	8.0	28
88	An organic-inorganic hybrid UV photodetector based on a TiO ₂ nanobowl array with high spectrum selectivity. RSC Advances, 2013, 3, 21413.	3.6	27
89	Facile fabrication of NaTaO ₃ film and its photoelectric properties. Journal of Alloys and Compounds, 2014, 602, 322-325.	5.5	27
90	Template-free synthesis of Cu ₂ O@Co ₃ O ₄ core-shell composites and their application in gas sensing. RSC Advances, 2014, 4, 24211-24216.	3.6	27

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91	Ultraviolet detector based on TiO ₂ nanowire array/polymer hybrids with low dark current. Journal of Alloys and Compounds, 2015, 618, 233-235.	5.5	27
92	Trapped Electron-Induced Hole Injection in Perovskite Photodetector with Controllable Gain. Advanced Optical Materials, 2018, 6, 1701189.	7.3	27
93	Synthesis of CuO/CdS composite nanowires and their ultrasensitive ethanol sensing properties. Inorganic Chemistry Frontiers, 2019, 6, 238-247.	6.0	27
94	Metal-organic framework derived core-shell PrFeO ₃ -functionalized γ -Fe ₂ O ₃ nano-octahedrons as high performance ethyl acetate sensors. Sensors and Actuators B: Chemical, 2019, 297, 126738.	7.8	27
95	The role of Ag nanoparticles in inverted polymer solar cells: Surface plasmon resonance and backscattering centers. Applied Physics Letters, 2013, 102, .	3.3	26
96	Effects of growth substrates on the morphologies of TiO ₂ nanowire arrays and the performance of assembled UV detectors. Applied Surface Science, 2014, 315, 55-58.	6.1	26
97	Humidity sensing properties of MoO ₃ -NiO nanocomposite materials. Ceramics International, 2015, 41, 4348-4353.	4.8	26
98	Hierarchical Co ₃ O ₄ @NiMoO ₄ core-shell nanowires for chemiresistive sensing of xylene vapor. Mikrochimica Acta, 2019, 186, 222.	5.0	26
99	Multiple microwave frequencies measurement based on stimulated Brillouin scattering with improved measurement range. Optics Express, 2013, 21, 31740.	3.4	25
100	Enhanced performance of a TiO ₂ ultraviolet detector modified with graphene oxide. RSC Advances, 2015, 5, 83795-83800.	3.6	25
101	The Performance Enhancement of Polymer Solar Cells by Introducing Cadmium-Free Quantum Dots. Journal of Physical Chemistry C, 2015, 119, 26747-26752.	3.1	25
102	Boosted Electron Transport and Enlarged Built-In Potential by Eliminating the Interface Barrier in Organic Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 8830-8837.	8.0	25
103	Light harvesting enhancement toward low IPCE region of semitransparent polymer solar cells via one-dimensional photonic crystal reflectors. Solar Energy Materials and Solar Cells, 2014, 127, 27-32.	6.2	24
104	Hydrothermal synthesis and enhanced xylene-sensing properties of pompon-like Cr-doped Co ₃ O ₄ hierarchical nanostructures. RSC Advances, 2016, 6, 22889-22895.	3.6	24
105	Zr _{0.27} Ti _{0.73} O ₂ -Based MSM Ultraviolet Detectors With Pt Electrodes. IEEE Electron Device Letters, 2011, 32, 653-655.	3.9	23
106	Low temperature operating In ₂ xNiO ₃ sensors with high response and good selectivity for NO ₂ gas. Journal of Alloys and Compounds, 2013, 581, 653-658.	5.5	23
107	High response solar-blind ultraviolet photodetector based on Zr _{0.5} Ti _{0.5} O ₂ film. Applied Surface Science, 2013, 268, 312-316.	6.1	23
108	Performance improvement of inverted polymer solar cells by doping Au nanoparticles into TiO ₂ cathode buffer layer. Applied Physics Letters, 2013, 103, .	3.3	23

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109	Highly efficient ITO-free polymer solar cells based on metal resonant microcavity using WO ₃ /Au/WO ₃ as transparent electrodes. <i>Organic Electronics</i> , 2014, 15, 1545-1551.	2.6	23
110	The preparation of Cr ₂ O ₃ @WO ₃ hierarchical nanostructures and their application in the detection of volatile organic compounds (VOCs). <i>RSC Advances</i> , 2015, 5, 61528-61534.	3.6	23
111	Synthesis and enhanced gas sensing properties of Au-nanoparticle decorated CdS nanowires. <i>RSC Advances</i> , 2016, 6, 70907-70912.	3.6	23
112	G-C ₃ N ₄ /In ₂ O ₃ composite for effective formaldehyde detection. <i>Sensors and Actuators B: Chemical</i> , 2022, 358, 131414.	7.8	23
113	Organics filled one-dimensional TiO ₂ nanowires array ultraviolet detector with enhanced photo-conductivity and dark-resistivity. <i>Nanoscale</i> , 2017, 9, 9095-9103.	5.6	22
114	Improving the charge carrier transport of organic solar cells by incorporating a deep energy level molecule. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 245-250.	2.8	22
115	Novel ultraviolet photodetector with ultrahigh photosensitivity employing SILAR-deposited ZnS film on MgZnO. <i>Journal of Alloys and Compounds</i> , 2020, 832, 155022.	5.5	22
116	Electrospun ZnO Nanofibers-Based Ultraviolet Detector with High Responsivity. <i>Journal of the American Ceramic Society</i> , 2013, 96, 3183-3187.	3.8	21
117	An ultrawide tunable range single passband microwave photonic filter based on stimulated Brillouin scattering. <i>Optics Express</i> , 2013, 21, 2718.	3.4	21
118	Humidity sensor based on AlPO ₄₋₅ zeolite with high responsivity and its sensing mechanism. <i>Sensors and Actuators B: Chemical</i> , 2015, 212, 242-247.	7.8	20
119	Improving the efficiency of inverted polymer solar cells by introducing inorganic dopants. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 7960-7965.	2.8	20
120	Improved Power Conversion Efficiency of Inverted Organic Solar Cells by Incorporating Au Nanorods into Active Layer. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 15848-15854.	8.0	20
121	Synthesis and highly enhanced acetylene sensing properties of Au nanoparticle-decorated hexagonal ZnO nanorings. <i>RSC Advances</i> , 2015, 5, 87132-87138.	3.6	20
122	High performance ultraviolet detector based on SrTiO ₃ /TiO ₂ heterostructure fabricated by two steps in situ hydrothermal method. <i>Journal of Alloys and Compounds</i> , 2015, 650, 97-101.	5.5	20
123	The effect of self-depleting in UV photodetector based on simultaneously fabricated TiO ₂ /NiO pn heterojunction and Ni/Au composite electrode. <i>Nanotechnology</i> , 2017, 28, 365505.	2.6	20
124	Construction of p-n heterojunctions by modifying MOF-derived γ -Fe ₂ O ₃ with partially covered cobalt tungstate for high-performance ethyl acetate detection. <i>Sensors and Actuators B: Chemical</i> , 2021, 344, 130129.	7.8	20
125	Combining plasmonic trap filling and optical backscattering for highly efficient third generation solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 3995-4002.	10.3	19
126	ZrO ₂ -TiO ₂ -Based Ultraviolet Detectors Series. <i>IEEE Electron Device Letters</i> , 2011, 32, 934-936.	3.9	18

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127	Synthesis and photovoltaic properties of dithieno[3,2-b:2'-b']silole-based conjugated copolymers. <i>Journal of Materials Chemistry A</i> , 2015, 3, 13794-13800.	10.3	18
128	Small molecules based on tetrazine unit for efficient performance solution-processed organic solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 155, 30-37.	6.2	18
129	Suppressing TiO ₂ /Perovskite Interfacial Electron Trapping in Perovskite Solar Cell for Efficient Charge Extraction and Improved Device Performance. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 11295-11302.	6.7	18
130	Effects of surface self-assembled NH ₄ ⁺ on the performance of TiO ₂ -based ultraviolet photodetectors. <i>Journal of Alloys and Compounds</i> , 2014, 601, 104-107.	5.5	17
131	Versatile dual organic interface layer for performance enhancement of polymer solar cells. <i>Journal of Power Sources</i> , 2016, 333, 99-106.	7.8	17
132	Passivation agent with dipole moment for surface modification towards efficient and stable perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2022, 64, 55-61.	12.9	17
133	Schottky barrier characteristics and internal gain mechanism of TiO ₂ UV detectors. <i>Applied Optics</i> , 2012, 51, 894.	1.8	16
134	Humidity sensing properties of SrTiO ₃ nanospheres with high sensitivity and rapid response. <i>RSC Advances</i> , 2015, 5, 22879-22883.	3.6	16
135	Efficiency Improvement of Organic Solar Cells via Introducing Combined Anode Buffer Layer To Facilitate Hole Extraction. <i>Journal of Physical Chemistry C</i> , 2016, 120, 13954-13962.	3.1	16
136	Delicate Energy-Level Adjustment and Interfacial Defect Passivation of ZnO Electron Transport Layers in Organic Solar Cells by Constructing ZnO/In Nanojunctions. <i>Journal of Physical Chemistry C</i> , 2019, 123, 16546-16555.	3.1	16
137	Short-circuit current density improvement of inverted polymer solar cells using PbPc to enhance photon absorption over 600 nm. <i>Solar Energy Materials and Solar Cells</i> , 2010, 94, 2451-2454.	6.2	15
138	Efficiency enhancement of inverted organic solar cells by introducing PFDTBT quantum dots into PCDTBT:PC71BM active layer. <i>Organic Electronics</i> , 2014, 15, 2632-2638.	2.6	15
139	Ultrahigh responsivity UV detector based on TiO ₂ /Pt-doped TiO ₂ multilayer nanofilms. <i>Journal of Alloys and Compounds</i> , 2014, 616, 155-158.	5.5	15
140	Performance improvement of inverted polymer solar cells thermally evaporating CuI as an anode buffer layer. <i>Synthetic Metals</i> , 2014, 198, 1-5.	3.9	15
141	Low-temperature synthesis of WO ₃ nanolamella and their sensing properties for xylene. <i>RSC Advances</i> , 2015, 5, 85598-85605.	3.6	15
142	UV detector based on an FTO/TiO ₂ /MoO ₃ heterojunction with a potential well trapping electrons in the dark. <i>Nanotechnology</i> , 2019, 30, 465501.	2.6	15
143	Three dimensions sphere formaldehyde nanosensor applications: preparation and sensing properties. <i>RSC Advances</i> , 2015, 5, 50336-50343.	3.6	14
144	Improved color rendering index of low band gap semi-transparent polymer solar cells using one-dimensional photonic crystals. <i>RSC Advances</i> , 2015, 5, 54638-54644.	3.6	14

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145	Synthesis of sea urchin-like microsphere of CdS and its gas sensing properties. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2019, 243, 206-213.	3.5	14
146	Mesoporous titanium niobium nitrides supported Pt nanoparticles for highly selective and sensitive formaldehyde sensing. Journal of Materials Chemistry A, 2021, 9, 19840-19846.	10.3	14
147	Influences of surface capping with electrostatically self-assembled PEI on the photoresponse of a TiO ₂ thin film. Chemical Communications, 2013, 49, 6328.	4.1	13
148	Improved Efficiency in Dithieno[3,2-b:2'-b',3'-d']silole-Based Polymer Solar Cells by the Insertion of ZnO Optical Spacer. Journal of Physical Chemistry C, 2015, 119, 20817-20822.	3.1	13
149	Polyelectrolyte interlayers with a broad processing window for high efficiency inverted organic solar cells towards mass production. Journal of Materials Chemistry A, 2018, 6, 17662-17670.	10.3	13
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