

# Yoon-Bong Hahn

## List of Publications by Citations

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183  
papers

7,752  
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50  
h-index

79  
g-index

192  
ext. papers

8,687  
ext. citations

5.8  
avg, IF

6.52  
L-index

#	Paper	IF	Citations
183	Zinc oxide nanonail based chemical sensor for hydrazine detection. <i>Chemical Communications</i> , <b>2008</b> , 1663-38	3.8	401
182	Growth of aligned ZnO nanorods and nanopencils on ZnO/Si in aqueous solution: growth mechanism and structural and optical properties. <i>Nanotechnology</i> , <b>2007</b> , 18, 115603	3.4	211
181	Chemical and biological sensors based on metal oxide nanostructures. <i>Chemical Communications</i> , <b>2012</b> , 48, 10369-85	5.8	191
180	Graphene and its derivatives for solar cells application. <i>Nano Energy</i> , <b>2018</b> , 47, 51-65	17.1	189
179	Catalyst-free large-quantity synthesis of ZnO nanorods by a vapor-solid growth mechanism: Structural and optical properties. <i>Journal of Crystal Growth</i> , <b>2005</b> , 282, 131-136	1.6	171
178	Ultra-sensitive cholesterol biosensor based on low-temperature grown ZnO nanoparticles. <i>Electrochemistry Communications</i> , <b>2009</b> , 11, 118-121	5.1	170
177	Highly Efficient Non-Enzymatic Glucose Sensor Based on CuO Modified Vertically-Grown ZnO Nanorods on Electrode. <i>Scientific Reports</i> , <b>2017</b> , 7, 5715	4.9	161
176	Highly-sensitive cholesterol biosensor based on well-crystallized flower-shaped ZnO nanostructures. <i>Talanta</i> , <b>2009</b> , 78, 284-9	6.2	157
175	Low-Temperature Synthesis of Flower-Shaped CuO Nanostructures by Solution Process: Formation Mechanism and Structural Properties. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 5729-5735	3.8	155
174	Wide linear-range detecting nonenzymatic glucose biosensor based on CuO nanoparticles inkjet-printed on electrodes. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 10448-54	7.8	145
173	Flower-shaped CuO nanostructures: Structural, photocatalytic and XANES studies. <i>Catalysis Communications</i> , <b>2008</b> , 10, 11-16	3.2	142
172	Enzymatic glucose biosensor based on flower-shaped copper oxide nanostructures composed of thin nanosheets. <i>Electrochemistry Communications</i> , <b>2009</b> , 11, 278-281	5.1	138
171	Fabrication of ZnO nanowires using nanoscale spacer lithography for gas sensors. <i>Small</i> , <b>2008</b> , 4, 1105-9	11	124
170	Ultra-sensitive hydrazine chemical sensor based on high-aspect-ratio ZnO nanowires. <i>Talanta</i> , <b>2009</b> , 77, 1376-80	6.2	108
169	Catalyst-free synthesis of ZnO nanowires on Si by oxidation of Zn powders. <i>Journal of Crystal Growth</i> , <b>2005</b> , 277, 471-478	1.6	108
168	Highly sensitive hydrazine chemical sensor based on ZnO nanorods field-effect transistor. <i>Chemical Communications</i> , <b>2014</b> , 50, 1890-3	5.8	93
167	Fabrication of highly sensitive uric acid biosensor based on directly grown ZnO nanosheets on electrode surface. <i>Sensors and Actuators B: Chemical</i> , <b>2015</b> , 206, 146-151	8.5	92

166	High-performance cholesterol sensor based on the solution-gated field effect transistor fabricated with ZnO nanorods. <i>Biosensors and Bioelectronics</i> , <b>2013</b> , 45, 281-6	11.8	92
165	Deposition of nanomaterials: A crucial step in biosensor fabrication. <i>Materials Today Communications</i> , <b>2018</b> , 17, 289-321	2.5	92
164	Controlled selective growth of ZnO nanorod arrays and their field emission properties. <i>Nanotechnology</i> , <b>2007</b> , 18, 485307	3.4	90
163	Zinc oxide nanostructures and their applications. <i>Korean Journal of Chemical Engineering</i> , <b>2011</b> , 28, 1797-1813	1.3	89
162	A comprehensive in vitro and in vivo study of ZnO nanoparticles toxicity. <i>Journal of Materials Chemistry B</i> , <b>2013</b> , 1, 2985-2992	7.3	85
161	ZnO nanonails: synthesis and their application as glucose biosensor. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2008</b> , 8, 3216-21	1.3	80
160	Glucose-assisted synthesis of Cu <sub>2</sub> O shuriken-like nanostructures and their application as nonenzymatic glucose biosensors. <i>Sensors and Actuators B: Chemical</i> , <b>2014</b> , 203, 471-476	8.5	79
159	Improved selectivity and low concentration hydrogen gas sensor application of Pd sensitized heterojunction n-ZnO/p-NiO nanostructures. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 797, 456-464	5.7	78
158	Recent advances in nanowires-based field-effect transistors for biological sensor applications. <i>Biosensors and Bioelectronics</i> , <b>2018</b> , 100, 312-325	11.8	78
157	Fabrication of a non-enzymatic glucose sensor field-effect transistor based on vertically-oriented ZnO nanorods modified with Fe <sub>2</sub> O <sub>3</sub> . <i>Electrochemistry Communications</i> , <b>2017</b> , 77, 107-111	5.1	76
156	Photocatalytic degradation of methyl orange dye by ZnO nanoneedle under UV irradiation. <i>Materials Letters</i> , <b>2014</b> , 136, 171-174	3.3	76
155	Optical and electrical properties of ZnO nanowires grown on aluminium foil by non-catalytic thermal evaporation. <i>Nanotechnology</i> , <b>2007</b> , 18, 175606	3.4	74
154	A comprehensive biosensor integrated with a ZnO nanorod FET array for selective detection of glucose, cholesterol and urea. <i>Chemical Communications</i> , <b>2015</b> , 51, 11968-71	5.8	73
153	Growth, properties and dye-sensitized solar cells applications of ZnO nanorods grown by low-temperature solution process. <i>Superlattices and Microstructures</i> , <b>2009</b> , 45, 529-534	2.8	73
152	ZnO nanorods array based field-effect transistor biosensor for phosphate detection. <i>Journal of Colloid and Interface Science</i> , <b>2017</b> , 498, 292-297	9.3	71
151	Star-shaped ZnO nanostructures on silicon by cyclic feeding chemical vapor deposition. <i>Journal of Crystal Growth</i> , <b>2005</b> , 277, 479-484	1.6	71
150	Growth of Highly c-Axis-Oriented ZnO Nanorods on ZnO/Glass Substrate: Growth Mechanism, Structural, and Optical Properties. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 14715-14720	3.8	70
149	Ultra thin NiO nanosheets for high performance hydrogen gas sensor device. <i>Applied Surface Science</i> , <b>2020</b> , 506, 144971	6.7	70

148	Structural properties and growth mechanism of flower-like ZnO structures obtained by simple solution method. <i>Materials Research Bulletin</i> , <b>2008</b> , 43, 3483-3489	5.1	67
147	Nonenzymatic flexible field-effect transistor based glucose sensor fabricated using NiO quantum dots modified ZnO nanorods. <i>Journal of Colloid and Interface Science</i> , <b>2018</b> , 512, 21-28	9.3	66
146	High performance cholesterol sensor based on ZnO nanotubes grown on Si/Ag electrodes. <i>Electrochemistry Communications</i> , <b>2014</b> , 38, 4-7	5.1	64
145	Effect of ZnO nanoparticles aggregation on the toxicity in RAW 264.7 murine macrophage. <i>Journal of Hazardous Materials</i> , <b>2014</b> , 270, 110-7	12.8	63
144	Highly selective wide linear-range detecting glucose biosensors based on aspect-ratio controlled ZnO nanorods directly grown on electrodes. <i>Sensors and Actuators B: Chemical</i> , <b>2012</b> , 174, 195-201	8.5	63
143	Highly stable urea sensor based on ZnO nanorods directly grown on Ag/glass electrodes. <i>Sensors and Actuators B: Chemical</i> , <b>2014</b> , 194, 290-295	8.5	62
142	MgO polyhedral nanocages and nanocrystals based glucose biosensor. <i>Electrochemistry Communications</i> , <b>2009</b> , 11, 1353-1357	5.1	62
141	Air-stable, hole-conductor-free high photocurrent perovskite solar cells with CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /NiO nanoparticles composite. <i>Nano Energy</i> , <b>2016</b> , 27, 535-544	17.1	61
140	Time-dependent control of hole-opening degree of porous ZnO hollow microspheres. <i>Inorganic Chemistry</i> , <b>2012</b> , 51, 1104-10	5.1	55
139	Inkjet printed fractal-connected electrodes with silver nanoparticle ink. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2012</b> , 4, 3300-7	9.5	55
138	Rapid synthesis and dye-sensitized solar cell applications of hexagonal-shaped ZnO nanorods. <i>Electrochimica Acta</i> , <b>2009</b> , 54, 5358-5362	6.7	54
137	A new purification method of single-wall carbon nanotubes using H <sub>2</sub> S and O <sub>2</sub> mixture gas. <i>Chemical Physics Letters</i> , <b>2001</b> , 344, 18-22	2.5	52
136	Ultraviolet-Emitting ZnO Nanostructures on Steel Alloy Substrates: Growth and Properties. <i>Crystal Growth and Design</i> , <b>2008</b> , 8, 2741-2747	3.5	51
135	Nano-bitter gourd like structured CuO for enhanced hydrogen gas sensor application. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 22705-22714	6.7	51
134	Enhanced anticancer potency using an acid-responsive ZnO-incorporated liposomal drug-delivery system. <i>Nanoscale</i> , <b>2015</b> , 7, 4088-96	7.7	50
133	ZnO nanorods based hydrazine sensors. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2009</b> , 9, 4686-91	1.3	49
132	Electrical and gas sensing properties of ZnO nanorod arrays directly grown on a four-probe electrode system. <i>Electrochemistry Communications</i> , <b>2010</b> , 12, 475-478	5.1	49
131	Solution Process Synthesis of High Aspect Ratio ZnO Nanorods on Electrode Surface for Sensitive Electrochemical Detection of Uric Acid. <i>Scientific Reports</i> , <b>2017</b> , 7, 46475	4.9	48

130	Ambient-air-solution-processed efficient and highly stable perovskite solar cells based on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /xCl <sub>x</sub> -NiO composite with Al <sub>2</sub> O <sub>3</sub> /NiO interfacial engineering. <i>Nano Energy</i> , <b>2017</b> , 40, 408-417	17.1	48
129	Wide linear-range detecting high sensitivity cholesterol biosensors based on aspect-ratio controlled ZnO nanorods grown on silver electrodes. <i>Sensors and Actuators B: Chemical</i> , <b>2012</b> , 169, 382-386	8.5	48
128	Direct growth of GaN layer on carbon nanotube-graphene hybrid structure and its application for light emitting diodes. <i>Scientific Reports</i> , <b>2015</b> , 5, 7747	4.9	47
127	Fully-ambient-processed mesoscopic semitransparent perovskite solar cells by islands-structure-MAPbI <sub>3</sub> -xCl <sub>x</sub> -NiO composite and Al <sub>2</sub> O <sub>3</sub> /NiO interface engineering. <i>Nano Energy</i> , <b>2018</b> , 49, 59-66	17.1	45
126	Rapid methyl orange degradation using porous ZnO spheres photocatalyst. <i>Journal of Photochemistry and Photobiology B: Biology</i> , <b>2016</b> , 161, 312-7	6.7	45
125	Tailored lysozyme-ZnO nanoparticle conjugates as nanoantibiotics. <i>Chemical Communications</i> , <b>2014</b> , 50, 9298-301	5.8	45
124	A Highly Sensitive Nonenzymatic Sensor Based on Fe <sub>2</sub> O <sub>3</sub> Nanoparticle Coated ZnO Nanorods for Electrochemical Detection of Nitrite. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1700691	4.6	45
123	Synthesis of ZnO nanowires on Si substrate by thermal evaporation method without catalyst: Structural and optical properties. <i>Korean Journal of Chemical Engineering</i> , <b>2006</b> , 23, 499-504	2.8	44
122	Highly stable hydrazine chemical sensor based on vertically-aligned ZnO nanorods grown on electrode. <i>Journal of Colloid and Interface Science</i> , <b>2017</b> , 494, 153-158	9.3	43
121	Low-temperature sintering of highly conductive silver ink for flexible electronics. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 8522-8527	7.1	43
120	Ultraviolet-emitting javelin-like ZnO nanorods by thermal evaporation: Growth mechanism, structural and optical properties. <i>Chemical Physics Letters</i> , <b>2007</b> , 440, 110-115	2.5	43
119	Fabrication of sensitive non-enzymatic nitrite sensor using silver-reduced graphene oxide nanocomposite. <i>Journal of Colloid and Interface Science</i> , <b>2018</b> , 516, 67-75	9.3	42
118	Mesoporous ZnO nanoclusters as an ultra-active photocatalyst. <i>Ceramics International</i> , <b>2016</b> , 42, 9519-9526	5.2	41
117	Parametric study of cost-effective synthesis of crystalline copper nanoparticles and their crystallographic characterization. <i>Materials Chemistry and Physics</i> , <b>2011</b> , 125, 334-341	4.4	41
116	Stability Enhancement in Perovskite Solar Cells with Perovskite/Silver/Graphene Composites in the Active Layer. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 235-241	20.1	41
115	Development of Highly Sensitive and Selective Cholesterol Biosensor Based on Cholesterol Oxidase Co-Immobilized with Fe <sub>2</sub> O <sub>3</sub> Micro-Pine Shaped Hierarchical Structures. <i>Electrochimica Acta</i> , <b>2014</b> , 135, 396-403	6.7	39
114	Ammonium ion detection in solution using vertically grown ZnO nanorod based field-effect transistor. <i>RSC Advances</i> , <b>2016</b> , 6, 54836-54840	3.7	38
113	A robust enzymeless glucose sensor based on CuO nanoseed modified electrodes. <i>Dalton Transactions</i> , <b>2015</b> , 44, 12488-92	4.3	38

112	Growth mechanism and optical properties of aligned hexagonal ZnO nanoprisms synthesized by noncatalytic thermal evaporation. <i>Inorganic Chemistry</i> , <b>2008</b> , 47, 4088-94	5.1	38
111	Review Recent Advances in Nanostructured Graphitic Carbon Nitride as a Sensing Material for Heavy Metal Ions. <i>Journal of the Electrochemical Society</i> , <b>2020</b> , 167, 037519	3.9	38
110	Highly conductive and dispersible graphene and its application in P3HT-based solar cells. <i>Chemical Communications</i> , <b>2014</b> , 50, 8705-8	5.8	37
109	Selection of non-alloyed ohmic contacts for ZnO nanostructure based devices. <i>Nanotechnology</i> , <b>2007</b> , 18, 445710	3.4	37
108	Non-catalytic growth of high aspect-ratio ZnO nanowires by thermal evaporation. <i>Solid State Communications</i> , <b>2006</b> , 139, 447-451	1.6	37
107	Outstanding Antibiofilm Features of Quanta-CuO Film on Glass Surface. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 15128-37	9.5	35
106	Nozzle-jet printed flexible field-effect transistor biosensor for high performance glucose detection. <i>Journal of Colloid and Interface Science</i> , <b>2017</b> , 506, 188-196	9.3	35
105	SrTiO <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> -Graphene Electron Transport Layer for Highly Stable and Efficient Composites-Based Perovskite Solar Cells with 20.6% Efficiency. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 1903369	21.8	35
104	Low-temperature growth and properties of flower-shaped - Ni(OH) <sub>2</sub> and NiO structures composed of thin nanosheets networks. <i>Superlattices and Microstructures</i> , <b>2008</b> , 44, 216-222	2.8	34
103	High performance field-effect transistors fabricated with laterally grown ZnO nanorods in solution. <i>Nanotechnology</i> , <b>2011</b> , 22, 185310	3.4	33
102	Hexagonally patterned selective growth of well-aligned ZnO nanorod arrays. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 484, 17-20	5.7	33
101	Temperature-dependant non-catalytic growth of ultraviolet-emitting ZnO nanostructures on silicon substrate by thermal evaporation process. <i>Journal of Alloys and Compounds</i> , <b>2008</b> , 463, 516-521	5.7	32
100	Two-step growth of ZnO films on silicon by atomic layer deposition. <i>Korean Journal of Chemical Engineering</i> , <b>2005</b> , 22, 334-338	2.8	32
99	High response and low concentration hydrogen gas sensing properties using hollow ZnO particles transformed from polystyrene@ZnO core-shell structures. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 15677-15688	6.7	31
98	Growth of high aspect ratio ZnO nanorods by solution process: Effect of polyethyleneimine. <i>Journal of Solid State Chemistry</i> , <b>2012</b> , 189, 25-31	3.3	31
97	Efficient bulk heterojunction hybrid solar cells with graphene-silver nanoparticles composite synthesized by microwave-assisted reduction. <i>Nano Energy</i> , <b>2016</b> , 28, 179-187	17.1	31
96	Enhancement of power conversion efficiency with TiO <sub>2</sub> nanoparticles/nanotubes-silver nanoparticles composites in dye-sensitized solar cells. <i>Applied Surface Science</i> , <b>2018</b> , 429, 23-28	6.7	30
95	Seedless Pattern Growth of Quasi-Aligned ZnO Nanorod Arrays on Cover Glass Substrates in Solution. <i>Nanoscale Research Letters</i> , <b>2009</b> , 5, 669-74	5	30

94	A unified global self-consistent model of a capacitively and inductively coupled plasma etching system. <i>Korean Journal of Chemical Engineering</i> , <b>2000</b> , 17, 304-309	2.8	30
93	Fully nozzle-jet printed non-enzymatic electrode for biosensing application. <i>Journal of Colloid and Interface Science</i> , <b>2018</b> , 512, 480-488	9.3	29
92	Preparation of a Highly Conductive Seed Layer for Calcium Sensor Fabrication with Enhanced Sensing Performance. <i>ACS Sensors</i> , <b>2018</b> , 3, 772-778	9.2	28
91	Gas sensing properties of single crystalline ZnO nanowires grown by thermal evaporation technique. <i>Current Applied Physics</i> , <b>2013</b> , 13, 1769-1773	2.6	28
90	Copper oxide quantum dot ink for inkjet-driven digitally controlled high mobility field effect transistors. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 2112	7.1	27
89	The synthesis of ZnO nanowires and their subsequent use in high-current field-effect transistors formed by dielectrophoresis alignment. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2008</b> , 40, 866-872	3	27
88	Fully-ambient-air and antisolvent-free-processed stable perovskite solar cells with perovskite-based composites and interface engineering. <i>Nano Energy</i> , <b>2019</b> , 64, 103964	17.1	26
87	Silver-ethanolamine-formate complex based transparent and stable ink: Electrical assessment with microwave plasma vs thermal sintering. <i>Chemical Engineering Journal</i> , <b>2016</b> , 306, 796-805	14.7	26
86	Fabrication of a solution-gated transistor based on valinomycin modified iron oxide nanoparticles decorated zinc oxide nanorods for potassium detection. <i>Journal of Colloid and Interface Science</i> , <b>2018</b> , 518, 277-283	9.3	25
85	Highly stable and Efficient Perovskite Solar Cells Based on FAMA-Perovskite-Cu:NiO Composites with 20.7% Efficiency and 80.5% Fill Factor. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2000967	21.8	23
84	Green chemistry of glucose-capped ferromagnetic hcp-nickel nanoparticles and their reduced toxicity. <i>RSC Advances</i> , <b>2013</b> , 3, 9698	3.7	23
83	TiO <sub>2</sub> Nanoparticles/Nanotubes for Efficient Light Harvesting in Perovskite Solar Cells. <i>Nanomaterials</i> , <b>2019</b> , 9,	5.4	22
82	Effect of rapid thermal annealing on the structural and electrical properties of TiO <sub>2</sub> thin films prepared by plasma enhanced CVD. <i>Korean Journal of Chemical Engineering</i> , <b>1998</b> , 15, 217-222	2.8	22
81	Development of highly-stable binder-free chemical sensor electrodes for p-nitroaniline detection. <i>Journal of Colloid and Interface Science</i> , <b>2017</b> , 494, 300-306	9.3	21
80	Spruce branched Fe <sub>2</sub> O <sub>3</sub> nanostructures as potential scaffolds for a highly sensitive and selective glucose biosensor. <i>New Journal of Chemistry</i> , <b>2014</b> , 38, 5873-5879	3.6	21
79	Thermoelectric properties of SrTiO <sub>3</sub> nano-particles dispersed indium selenide bulk composites. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 223901	3.4	21
78	Optimization of the distance between source and substrate for device-grade SnS films grown by the thermal evaporation technique. <i>Journal of Physics Condensed Matter</i> , <b>2007</b> , 19, 306003	1.8	21
77	Ultrathin ternary metal oxide Bi <sub>2</sub> MoO <sub>6</sub> nanosheets for high performance asymmetric supercapacitor and gas sensor applications. <i>Applied Surface Science</i> , <b>2021</b> , 551, 149422	6.7	21

76	Synthesis of manganese oxide nanorods and its application for potassium ion sensing in water. <i>Journal of Colloid and Interface Science</i> , <b>2018</b> , 516, 364-370	9.3	20
75	Robust and multifunctional nanosheath for chemical and biological nanodevices. <i>Nano Letters</i> , <b>2012</b> , 12, 1891-7	11.5	20
74	Influence of aqueous hexamethylenetetramine on the morphology of self-assembled SnO <sub>2</sub> nanocrystals. <i>Materials Research Bulletin</i> , <b>2011</b> , 46, 609-614	5.1	20
73	Fabrication and enhanced carbon monoxide gas sensing performance of p-CuO/n-TiO <sub>2</sub> heterojunction device. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2021</b> , 612, 125962 <sup>5.1</sup>	5.1	20
72	Highly stable perovskite solar cells based on perovskite/NiO-graphene composites and NiO interface with 25.9 mA/cm <sup>2</sup> photocurrent density and 20.8% efficiency. <i>Nano Energy</i> , <b>2021</b> , 79, 105452	17.1	20
71	Cation-size mismatch and interface stabilization for efficient NiO <sub>x</sub> -based inverted perovskite solar cells with 21.9% efficiency. <i>Nano Energy</i> , <b>2021</b> , 88, 106285	17.1	20
70	Direct fabrication of ZnO nanorods array on-chip system in solution and their electrical properties. <i>Electrochemistry Communications</i> , <b>2012</b> , 18, 88-91	5.1	19
69	Etch-free selective area growth of well-aligned ZnO nanorod arrays by economical polymer mask for large-area solar cell applications. <i>Solar Energy Materials and Solar Cells</i> , <b>2012</b> , 98, 476-481	6.4	19
68	Structural evolution of SnO <sub>2</sub> nanostructure from core-shell faceted pyramids to nanorods and its gas-sensing properties. <i>Journal of Crystal Growth</i> , <b>2011</b> , 314, 171-179	1.6	19
67	Growth and optical properties of large-quantity single-crystalline ZnO rods by thermal evaporation. <i>Journal Physics D: Applied Physics</i> , <b>2007</b> , 40, 3478-3484	3	19
66	Front-illuminated dye-sensitized solar cells with Ag nanoparticle-functionalized freestanding TiO <sub>2</sub> nanotube arrays. <i>Chemical Physics Letters</i> , <b>2014</b> , 614, 78-81	2.5	18
65	Growth and formation mechanism of sea urchin-like ZnO nanostructures on Si. <i>Korean Journal of Chemical Engineering</i> , <b>2005</b> , 22, 489-493	2.8	18
64	Hybrid interfacial ETL engineering using PCBM-SnS <sub>2</sub> for High-Performance p-i-n structured planar perovskite solar cells. <i>Chemical Engineering Journal</i> , <b>2020</b> , 397, 125504	14.7	17
63	Large-quantity synthesis of ZnO hollow objects by thermal evaporation: Growth mechanism, structural and optical properties. <i>Applied Surface Science</i> , <b>2008</b> , 254, 3339-3346	6.7	17
62	Nozzle-Jet-Printed Silver/Graphene Composite-Based Field-Effect Transistor Sensor for Phosphate Ion Detection. <i>ACS Omega</i> , <b>2019</b> , 4, 8373-8380	3.9	16
61	Single ZnO nanobelt based field effect transistors (FETs). <i>Journal of Nanoscience and Nanotechnology</i> , <b>2009</b> , 9, 5745-51	1.3	16
60	Synthesis of ZnO nanoparticles and their ink-jetting behavior. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2012</b> , 12, 2380-6	1.3	16
59	Synthesis of ZnO nanowires on steel alloy substrate by thermal evaporation: Growth mechanism and structural and optical properties. <i>Korean Journal of Chemical Engineering</i> , <b>2006</b> , 23, 860-865	2.8	16



58	Hierarchically assembled ZnO nanosheets microspheres for enhanced glucose sensing performances. <i>Ceramics International</i> , <b>2016</b> , 42, 13464-13469	5.1	16
57	Cost-effective silver ink for printable and flexible electronics with robust mechanical performance. <i>Chemical Engineering Journal</i> , <b>2019</b> , 373, 355-364	14.7	15
56	Metal-ion doped p-type TiO <sub>2</sub> thin films and their applications for heterojunction devices. <i>Journal of Alloys and Compounds</i> , <b>2013</b> , 553, 188-193	5.7	15
55	Impact of chemical treatment on the surface, structure, optical and electrical properties of SnS thin films. <i>Applied Surface Science</i> , <b>2013</b> , 268, 317-322	6.7	14
54	Synthesis and characterization of triphenylamine-3-hexylthiophene oligomer hybrids: A triphenylamine core carrying three terthiophene branches and triphenylamine end-capped quaterthiophene. <i>Synthetic Metals</i> , <b>2008</b> , 158, 150-156	3.6	14
53	Suppression of Sn <sup>2+</sup> /Sn <sup>4+</sup> oxidation in tin-based perovskite solar cells with graphene-tin quantum dots composites in active layer. <i>Nano Energy</i> , <b>2021</b> , 90, 106495	17.1	14
52	Multi-synergetic ZnO platform for high performance cancer therapy. <i>Chemical Communications</i> , <b>2015</b> , 51, 2585-8	5.8	13
51	Fabrication of a robust and highly sensitive nitrate biosensor based on directly grown zinc oxide nanorods on a silver electrode. <i>New Journal of Chemistry</i> , <b>2017</b> , 41, 10992-10997	3.6	13
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