Alan Man Ching Ng

List of Publications by Year
in descending order

130	6,722	101496 36	62565 80
papers	citations	h-index	g-index

132	132	132	11192
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	ZnO nanostructures for optoelectronics: Material properties and device applications. Progress in Quantum Electronics, 2010, 34, 191-259.	3.5	931
2	ZnO nanostructures: growth, properties and applications. Journal of Materials Chemistry, 2012, 22, 6526.	6.7	584
3	Mechanisms of Antibacterial Activity of MgO: Nonâ€ROS Mediated Toxicity of MgO Nanoparticles Towards Escherichia coli. Small, 2014, 10, 1171-1183.	5.2	418
4	Is Excess PbI₂ Beneficial for Perovskite Solar Cell Performance?. Advanced Energy Materials, 2016, 6, 1502206.	10.2	322
5	Toxicity of Metal Oxide Nanoparticles: Mechanisms, Characterization, and Avoiding Experimental Artefacts. Small, 2015, 11, 26-44.	5.2	308
6	Strategies for improving the efficiency of semiconductor metal oxide photocatalysis. Materials Horizons, 2014, 1, 400.	6.4	296
7	Tuning the Absorption, Charge Transport Properties, and Solar Cell Efficiency with the Number of Thienyl Rings in Platinum-Containing Poly(aryleneethynylene)s. Journal of the American Chemical Society, 2007, 129, 14372-14380.	6.6	243
8	Effect of Native Defects on Photocatalytic Properties of ZnO. Journal of Physical Chemistry C, 2011, 115, 11095-11101.	1.5	238
9	Alkali Chlorides for the Suppression of the Interfacial Recombination in Inverted Planar Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1803872.	10.2	236
10	Encapsulation of Perovskite Solar Cells for High Humidity Conditions. ChemSusChem, 2016, 9, 2597-2603.	3.6	163
11	Visible-light photocatalysts: Prospects and challenges. APL Materials, 2020, 8, .	2.2	156
12	Novel Molecular Doping Mechanism for nâ€Doping of SnO₂ via Triphenylphosphine Oxide and Its Effect on Perovskite Solar Cells. Advanced Materials, 2019, 31, e1805944.	11.1	152
13	Native Defects in ZnO: Effect on Dye Adsorption and Photocatalytic Degradation. Journal of Physical Chemistry C, 2013, 117, 12218-12228.	1.5	133
14	Toxicity of ZnO and TiO2 to Escherichia coli cells. Scientific Reports, 2016, 6, 35243.	1.6	127
15	Antibacterial activity of ZnO nanoparticles with a modified surface under ambient illumination. Nanotechnology, 2012, 23, 475703.	1.3	126
16	NiOâ•ZnO light emitting diodes by solution-based growth. Applied Physics Letters, 2008, 92, 113505.	1.5	115
17	Photocatalytic activity of metal oxidesâ€”The role of holes and OH radicals. Applied Catalysis B: Environmental, 2011, 107, 150-157.	10.8	107
18	Undoped pâ€Type ZnO Nanorods Synthesized by a Hydrothermal Method. Advanced Functional Materials, 2008, 18, 1020-1030.	7.8	103

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19	Effect of ZnO Nanoparticle Properties on Dye-Sensitized Solar Cell Performance. ACS Applied Materials & Interfaces, 2012, 4, 1254-1261.	4.0	92
20	ZnO and TiO2 1D nanostructures for photocatalytic applications. Journal of Alloys and Compounds, 2011, 509, 1328-1332.	2.8	89
21	Green emission in ZnO nanostructuresâ€"Examination of the roles of oxygen and zinc vacancies. Applied Surface Science, 2013, 271, 202-209.	3.1	80
22	Long cycle life of CoMn₂O₄ lithium ion battery anodes with high crystallinity. Journal of Materials Chemistry A, 2015, 3, 14759-14767.	5.2	72
23	Stability issues of the next generation solar cells. Physica Status Solidi - Rapid Research Letters, 2016, 10, 281-299.	1.2	69
24	GaN/ZnO nanorod light emitting diodes with different emission spectra. Nanotechnology, 2009, 20, 445201.	1.3	68
25	Hydrogen peroxide treatment induced rectifying behavior of Auâˆ•n-ZnO contact. Applied Physics Letters, 2007, 90, 122101.	1.5	65
26	Ion-Desorption Efficiency and Internal-Energy Transfer in Surface-Assisted Laser Desorption/Ionization: More Implication(s) for the Thermal-Driven and Phase-Transition-Driven Desorption Process. Journal of Physical Chemistry C, 2015, 119, 23708-23720.	1.5	61
27	Toxicity of CeO2 nanoparticles â€“ The effect of nanoparticle properties. Journal of Photochemistry and Photobiology B: Biology, 2015, 145, 48-59.	1.7	49
28	Organometallic Polymer Lightâ€Emitting Diodes Derived from a Platinum(<scp>II</scp>) Polyyne Containing the Bithiazole Ring. Macromolecular Chemistry and Physics, 2008, 209, 1319-1332.	1.1	48
29	Au / n -ZnO rectifying contact fabricated with hydrogen peroxide pretreatment. Journal of Applied Physics, 2008, 103, .	1.1	47
30	Synthesis of conjugated polymers with pendant ruthenium terpyridine trithiocyanato complexes and their applications in heterojunction photovoltaic cells. Journal of Polymer Science Part A, 2008, 46, 1305-1317.	2.5	46
31	Splitting Water on Metal Oxide Surfaces. Journal of Physical Chemistry C, 2011, 115, 19710-19715.	1.5	45
32	Synthesis and properties of copper phthalocyanine nanowires. Thin Solid Films, 2007, 515, 5270-5274.	0.8	41
33	Mixed Spacer Cation Stabilization of Blueâ€Emitting n = 2 Ruddlesdenâ€“Popper Organicâ€“Inorganic Halide Perovskite Films. Advanced Optical Materials, 2020, 8, 1901679.	3.6	41
34	Encapsulation and Stability Testing of Perovskite Solar Cells for Real Life Applications. ACS Materials Au, 2022, 2, 215-236.	2.6	41
35	Antibacterial and photocatalytic activity of TiO2 and ZnO nanomaterials in phosphate buffer and saline solution. Applied Microbiology and Biotechnology, 2013, 97, 5565-5573.	1.7	38
36	Solution-based growth of ZnO nanorods for light-emitting devices: hydrothermal vs. electrodeposition. Applied Physics B: Lasers and Optics, 2010, 100, 851-858.	1.1	35

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37	Multifunctional Poly(Nâ€vinylcarbazole)â€Based Block Copolymers and their Nanofabrication and Photosensitizing Properties. Macromolecular Rapid Communications, 2009, 30, 622-626.	2.0	33
38	ZnO nanorod/GaN light-emitting diodes: The origin of yellow and violet emission bands under reverse and forward bias. Journal of Applied Physics, 2011, 110, .	1.1	31
39	The Influence of the ZnO Seed Layer on the ZnO Nanorod/GaN LEDs. Journal of the Electrochemical Society, 2010, 157, H308.	1.3	30
40	Hydrothermally synthesized CuxO as a catalyst for CO oxidation. Journal of Materials Chemistry A, 2015, 3, 3627-3632.	5.2	30
41	Metal oxide nanoparticles with low toxicity. Journal of Photochemistry and Photobiology B: Biology, 2015, 151, 17-24.	1.7	30
42	Enhanced conversion efficiency of polymeric photovoltaic cell by nanostructured antireflection coating. Organic Electronics, 2011, 12, 557-561.	1.4	29
43	Indium tin oxide nanowires growth by dc sputtering. Applied Physics A: Materials Science and Processing, 2011, 104, 1075-1080.	1.1	28
44	Perovskite Solar Cells: Alkali Chlorides for the Suppression of the Interfacial Recombination in Inverted Planar Perovskite Solar Cells (Adv. Energy Mater. 19/2019). Advanced Energy Materials, 2019, 9, 1970068.	10.2	28
45	Effect of Plasma Treatment on Native Defects and Photocatalytic Activities of Zinc Oxide Tetrapods. Journal of Physical Chemistry C, 2014, 118, 22760-22767.	1.5	27
46	Indium Tin Oxide Nanorod Electrodes for Polymer Photovoltaics. ACS Applied Materials & Interfaces, 2011, 3, 522-527.	4.0	26
47	Antibacterial activity of ZnO nanoparticles under ambient illumination â€" The effect of nanoparticle properties. Thin Solid Films, 2013, 542, 368-372.	0.8	25
48	Biocompatible and Biodegradable Magnesium Oxide Nanoparticles with In Vitro Photostable Near-Infrared Emission: Short-Term Fluorescent Markers. Nanomaterials, 2019, 9, 1360.	1.9	25
49	Near infrared emission in rubrene:fullerene heterojunction devices. Chemical Physics Letters, 2009, 474, 141-145.	1.2	24
50	Spectroscopic ellipsometry characterization of polymerâ€"fullerene blend films. Thin Solid Films, 2008, 517, 1047-1052.	0.8	23
51	TiO2â€"carbon nanotube composites for visible photocatalysts â€" Influence of TiO2 crystal structure. Current Applied Physics, 2013, 13, 1280-1287.	1.1	23
52	Structure-Dependent Photoluminescence in Low-Dimensional Ethylammonium, Propylammonium, and Butylammonium Lead Iodide Perovskites. ACS Applied Materials & Interfaces, 2020, 12, 5008-5016.	4.0	23
53	Organic Nanoclusters on Inorganic Nanostructures for Tailoring the Emission Properties of Organic Materials. Advanced Functional Materials, 2008, 18, 566-574.	7.8	22
54	In Situ Synthesis of Cu_xO/SnO_x@CNT and Cu_xO/SnO_x@SnO₂/CNT Nanocomposite Anodes for Lithium Ion Batteries by a Simple Chemical Treatment Process. ACS Applied Materials & Interfaces, 2014, 6, 13478-13486.	4.0	22

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55	Effect of starting properties and annealing on photocatalytic activity of ZnO nanoparticles. Applied Surface Science, 2013, 283, 914-923.	3.1	17
56	Graphene-oxide-wrapped ZnMn₂O₄ as a high performance lithium-ion battery anode. Nanotechnology, 2017, 28, 455401.	1.3	17
57	2-Step self-assembly method to fabricate broadband omnidirectional antireflection coating in large scale. Solar Energy Materials and Solar Cells, 2011, 95, 699-703.	3.0	16
58	Ruthenium Complex Containing Block Copolymer For the Enhancement of Carbon Nanotube Photoconductivity. ACS Applied Materials & Interfaces, 2012, 4, 74-80.	4.0	16
59	Effect of doping precursors on the optical properties of Ce-doped ZnO nanorods. Thin Solid Films, 2011, 520, 1125-1130.	0.8	15
60	Antibacterial and photocatalytic activities of TiO₂nanotubes. Journal of Experimental Nanoscience, 2013, 8, 859-867.	1.3	15
61	Generation of highly reactive oxygen species on metal-supported MgO(100) thin films. Physical Chemistry Chemical Physics, 2016, 18, 25373-25379.	1.3	15
62	Encapsulation of Perovskite Solar Cells for High Humidity Conditions. ChemSusChem, 2016, 9, 2518-2518.	3.6	15
63	Temperature and salinity jointly drive the toxicity of zinc oxide nanoparticles: a challenge to environmental risk assessment under global climate change. Environmental Science: Nano, 2020, 7, 2995-3006.	2.2	15
64	An alumina stabilized graphene oxide wrapped SnO₂ hollow sphere LIB anode with improved lithium storage. RSC Advances, 2015, 5, 100783-100789.	1.7	14
65	Hydrophobic Surface Coating Can Reduce Toxicity of Zinc Oxide Nanoparticles to the Marine Copepod Tigriopus japonicus. Environmental Science & Technology, 2021, 55, 6917-6925.	4.6	14
66	Hydrothermal treatment of ZnO nanostructures. Thin Solid Films, 2012, 520, 2656-2662.	0.8	13
67	Metalâ€Free and Metallated Polymers: Properties and Photovoltaic Performance. Macromolecular Chemistry and Physics, 2012, 213, 1300-1310.	1.1	12
68	Annealing-Induced Antibacterial Activity in TiO₂ under Ambient Light. Journal of Physical Chemistry C, 2017, 121, 24060-24068.	1.5	12
69	Effect of annealing on the performance of CrO3/ZnO light emitting diodes. Applied Physics Letters, 2009, 94, 203502.	1.5	11
70	Multicomponent antimicrobial transparent polymer coatings. Journal of Applied Polymer Science, 2011, 122, 1572-1578.	1.3	11
71	Metal oxide charge transport layers in perovskite solar cellsâ€”optimising low temperature processing and improving the interfaces towards low temperature processed, efficient and stable devices. JPhys Energy, 2021, 3, 012004.	2.3	11
72	Indium oxide, tin oxide and indium tin oxide nanostructure growth by vapor deposition. Current Applied Physics, 2012, 12, 697-706.	1.1	10

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73	Mesoporous silica nanosphere-based oxygen scavengers. Microporous and Mesoporous Materials, 2021, 327, 111426.	2.2	10
74	3,4,9,10-Perylenetetracarboxylicdiimide as an interlayer for ultraviolet organic light emitting diodes. Optics Communications, 2008, 281, 2498-2503.	1.0	9
75	Indium tin oxide nanorods by dc sputtering. Current Applied Physics, 2011, 11, 594-597.	1.1	9
76	A three-dimensional network of graphene/silicon/graphene sandwich sheets as anode for Li-ion battery. Thin Solid Films, 2020, 693, 137702.	0.8	9
77	Study of Laser-Debonded GaN LEDs. IEEE Transactions on Electron Devices, 2006, 53, 2266-2272.	1.6	8
78	Preparation of 8-hydroxyquinoline wires by decomposition of tris(8-hydroxyquinoline) aluminium. Journal of Experimental Nanoscience, 2012, 7, 578-585.	1.3	8
79	Indium oxide cubes prepared by hydrothermal synthesis as catalysts for CO oxidation. Materials Chemistry and Physics, 2015, 153, 243-247.	2.0	8
80	Effect of Tm doping on the properties of electrodeposited ZnO nanorods. Materials Chemistry and Physics, 2011, 125, 813-817.	2.0	7
81	Infrared photoluminescence from Î±- and Î²-copper phthalocyanine nanostructures. Optical Materials, 2010, 32, 924-927.	1.7	6
82	GaN/MgO/ZnO heterojunction light-emitting diodes. Thin Solid Films, 2013, 527, 303-307.	0.8	6
83	In situ synthesis of TiO₂(B) nanotube/nanoparticle composite anode materials for lithium ion batteries. Nanotechnology, 2015, 26, 425403.	1.3	6
84	Transmission electron microscopy artifacts in characterization of the nanomaterial-cell interactions. Applied Microbiology and Biotechnology, 2017, 101, 5469-5479.	1.7	6
85	Enhanced Light Emission Performance of Mixed Cation Perovskite Filmsâ€”The Effect of Solution Stoichiometry on Crystallization. Advanced Optical Materials, 2021, 9, 2100393.	3.6	6
86	Improvement in the Performance of Inverted 3D/2D Perovskite Solar Cells by Ambient Exposure. Solar Rrl, 2022, 6, .	3.1	6
87	Nitrogen doped-ZnO/n-GaN heterojunctions. Journal of Applied Physics, 2011, 109, 084330.	1.1	5
88	Correlation of quantum efficiency and photoluminescence lifetime of ZnO tetrapods grown at different temperatures. Journal of Applied Physics, 2012, 112, 023515.	1.1	5
89	The influence of TiO$_{2}$ nanostructure properties on the performance of TiO$_{2}$-based anodes in lithium ion battery applications. Turkish Journal of Physics, 2014, 38, 442-449.	0.5	5
90	Iron oxide/graphene composites as negative-electrode materials for lithium ion batteries â€“ optimum particle size for stable performance. RSC Advances, 2015, 5, 91466-91471.	1.7	5

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91	Hydrothermal vs. electrodeposited CuxO for photocatalytic applications under simulated solar illumination. Materials Chemistry and Physics, 2012, 135, 694-698.	2.0	4
92	Zinc oxide precursor treatment for improving dyeâ€sensitized solar cell efficiency. Physica Status Solidi (B): Basic Research, 2015, 252, 532-537.	0.7	4
93	Cavity design and optimization for organic microcavity OLEDs. , 2005, , .		3
94	Growth of Triangular ZnO Nanorods by Electrodeposition. Journal of the Electrochemical Society, 2010, 157, K269.	1.3	3
95	Optical properties of ZnO-based core-shell nanostructures. Thin Solid Films, 2011, 519, 2296-2301.	0.8	3
96	Recovery of clean ordered (111) surface of etched silicon. Applied Surface Science, 2013, 282, 156-160.	3.1	3
97	Spontaneous Formation of Nanocrystals in Amorphous Matrix: Alternative Pathway to Bright Emission in Quasiâ€2D Perovskites. Advanced Optical Materials, 2019, 7, 1900269.	3.6	3
98	Optimization of microcavity OLED by varying the thickness of multi-layered mirror. Optical and Quantum Electronics, 2007, 38, 1091-1099.	1.5	2
99	Angular dependence of the emission from low Q-factor organic microcavity light emitting diodes. Displays, 2008, 29, 358-364.	2.0	2
100	Effect of zinc precursor on the morphology and optical properties of ZnO nanostructures prepared by electrodeposition. AIP Conference Proceedings, 2011, , .	0.3	2
101	Organic quantum well light emitting diodes. , 2005, , .		1
102	Multi-objective optimization of microcavity OLEDs with DBR mirror. , 2007, , .		1
103	ZnO nanorods for light-emitting diode applications. , 2011, , .		1
104	Optimization of transparent electrode processing conditions for bulk heterojunction solar cells. Journal of Photonics for Energy, 2012, 2, 021005.	0.8	1
105	Influence of the polymer processing conditions on the performance of bulk heterojunction solar cells. , 2012, , .		1
106	Optical Properties of Oxide Nanomaterials. , 2013, , 387-430.		1
107	Effect of annealing on photocatalytic activities of hydrothermally grown ZnO nanorods. , 2013, , .		1
108	Influence of native defects on photocatalytic activity of ZnO. , 2013, , .		1

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109	Characterizations of tin oxide thin films prepared by different methods for perovskite solar cell applications. , 2022, , .		1
110	Metal oxide nanoparticles incorporated mesoporous silica nanospheres for oxygen scavenging. , 2022, , .		1
111	Top Emitting OLEDs with multi-layered Mirror Consisting of Metallic and Dielectric Layers. , 2006, , .		0
112	Effect of Anode Material and Cavity Design on the Performance of Microcavity OLEDs. , 2006, , .		0
113	3,4,9,10-Perylenetetracarboxylicdiimide/ZnO hybrid nanomaterials. Optical Materials, 2010, 32, 1578-1582.	1.7	0
114	P-GaNâˆ•ZnO nanorod heterojunction LEDsâ€”effect of carrier concentration in p-GaN. AIP Conference Proceedings, 2011, , .	0.3	0
115	Synthesis of tin oxide, indium oxide and tin-doped indium oxide nanowires by chemical vapor deposition. , 2011, , .		0
116	Electroluminescence of p-GaN/MgO/n-ZnO Heterojunction Light-emitting Diodes. Materials Research Society Symposia Proceedings, 2012, 1439, 109-114.	0.1	0
117	Influence of hydrothermal treatment on morphology and properties of ZnO nanostructures. Proceedings of SPIE, 2012, , .	0.8	0
118	Effect of transition metal oxide anode interlayer in bulk heterojunction solar cells. , 2013, , .		0
119	Influence of the solvent on the performance of the bulk heterojuction solar cells. , 2013, , .		0
120	Effect of electron collecting metal oxide layer in normal and inverted structure polymer solar cells. , 2013, , .		0
121	Influence of defects in ZnO nanomaterials on the performance of dye-sensitized solar cell and photocatalytic activity. , 2013, , .		0
122	Effect of electrical properties, transmittance, and morphology of ITO electrode on polymer solar cells characteristics. , 2013, , .		0
123	Plasma treatment ofp-GaN/n-ZnO nanorod light-emitting diodes. , 2014, , .		0
124	Effect of ZnO surface defects on efficiency and stability of ZnO-based perovskite solar cells. Proceedings of SPIE, 2017, , .	0.8	0
125	Cycling performance of Mn₂O₃ porous nanocubes and hollow spheres for lithium-ion batteries. Proceedings of SPIE, 2017, , .	0.8	0
126	Ruddlesdenâ€“Popper Perovskites: Spontaneous Formation of Nanocrystals in Amorphous Matrix: Alternative Pathway to Bright Emission in Quasiâ€2D Perovskites (Advanced Optical Materials 19/2019). Advanced Optical Materials, 2019, 7, 1970074.	3.6	0

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127	ZnO nanostructures for organometallic halide perovskite solar cells. , 2018, , .		0
128	Stability of perovskite solar cells on flexible substrates. , 2018, , .		0
129	Surface-plasmon-enhanced SnO2 nanofiber gas sensor. , 2018, , .		0
130	Environmentally friendly approach via solvent-free processed perovskite solar cells. , 2019, , .		0