

Shahrom Mahmud

List of Publications by Year in descending order

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papers

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citations

236925

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91
all docs

91
docs citations

91
times ranked

6559
citing authors

#	ARTICLE	IF	CITATIONS
1	Review on Zinc Oxide Nanoparticles: Antibacterial Activity and Toxicity Mechanism. Nano-Micro Letters, 2015, 7, 219-242.	27.0	2,782
2	Antimicrobial, rheological, and physicochemical properties of sago starch films filled with nanorod-rich zinc oxide. Journal of Food Engineering, 2012, 113, 511-519.	5.2	193
3	Physical properties of fish gelatin-based bio-nanocomposite films incorporated with ZnO nanorods. Nanoscale Research Letters, 2013, 8, 364.	5.7	144
4	Antibacterial responses of zinc oxide structures against Staphylococcus aureus, Pseudomonas aeruginosa and Streptococcus pyogenes. Ceramics International, 2014, 40, 2993-3001.	4.8	103
5	Application of antimicrobial active packaging film made of semolina flour, nano zinc oxide and nano-kaolin to maintain the quality of low-moisture mozzarella cheese during low-temperature storage. Journal of the Science of Food and Agriculture, 2019, 99, 2716-2725.	3.5	57
6	Preparation and characterization of bionanocomposite films reinforced with nano kaolin. Journal of Food Science and Technology, 2016, 53, 1111-1119.	2.8	54
7	High-Performance Dye-Sensitized Solar Cells Based on Morphology-Controllable Synthesis of ZnO-ZnS Heterostructure Nanocone Photoanodes. PLoS ONE, 2015, 10, e0123433.	2.5	45
8	Facile synthesis of vertically aligned cone-shaped ZnO/ZnS core/shell arrays using the two-step aqueous solution approach. Materials Letters, 2015, 147, 34-37.	2.6	44
9	Field emission in lateral silicon diode fabricated by atomic force microscopy lithography. Electronics Letters, 2012, 48, 712.	1.0	43
10	Synthesis of needle-shape ZnO-ZnS core-shell heterostructures and their optical and field emission properties. Electronic Materials Letters, 2015, 11, 957-963.	2.2	43
11	One-dimensional growth of zinc oxide nanostructures from large micro-particles in a highly rapid synthesis. Journal of Alloys and Compounds, 2011, 509, 4035-4040.	5.5	42
12	Optimisation of nanooxide mask fabricated by atomic force microscopy nanolithography: a response surface methodology application. Micro and Nano Letters, 2012, 7, 325.	1.3	42
13	Optical properties of well-aligned ZnO nanostructure arrays synthesized by an electric field-assisted aqueous solution method. Ceramics International, 2014, 40, 11193-11198.	4.8	42
14	Well-aligned ZnO nanoneedle arrays grown on polycarbonate substrates via electric field-assisted chemical method. Materials Letters, 2015, 146, 65-68.	2.6	41
15	Direct growth of flower-like ZnO nanostructures on porous silicon substrate using a facile low-temperature technique. Materials Letters, 2015, 160, 444-447.	2.6	41
16	Controlling the shape and gap width of silicon electrodes using local anodic oxidation and anisotropic TMAH wet etching. Semiconductor Science and Technology, 2012, 27, 065001.	2.0	40
17	A novel method for synthesis of well-aligned hexagonal cone-shaped ZnO nanostructures in field emission applications. Materials Letters, 2014, 125, 147-150.	2.6	39
18	Fabrication of nanogap electrodes via nano-oxidation mask by scanning probe microscopy nanolithography. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2011, 10, 043002.	0.9	38

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19	Quantum size effect on ZnO nanoparticle-based discs synthesized by mechanical milling. <i>Applied Surface Science</i> , 2012, 258, 8026-8031.	6.1	38
20	Improving the physical and protective functions of semolina films by embedding a blend nanofillers (ZnO-nr and nano-kaolin). <i>Food Packaging and Shelf Life</i> , 2017, 12, 66-75.	7.5	38
21	Physico-mechanical and microstructural properties of semolina flour films as influenced by different sorbitol/glycerol concentrations. <i>International Journal of Food Properties</i> , 2018, 21, 983-995.	3.0	38
22	Nanostructure of ZnO Fabricated via French Process and its Correlation to Electrical Properties of Semiconducting Varistors. <i>Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry</i> , 2006, 36, 155-159.	0.6	32
23	Effect of surface modification and UVA photoactivation on antibacterial bioactivity of zinc oxide powder. <i>Applied Surface Science</i> , 2014, 292, 405-412.	6.1	32
24	Preferential cytotoxicity of ZnO nanoparticle towards cervical cancer cells induced by ROS-mediated apoptosis and cell cycle arrest for cancer therapy. <i>Journal of Nanoparticle Research</i> , 2016, 18, 1.	1.9	29
25	Effects of precursor concentrations on the optical and morphological properties of ZnO nanorods on glass substrate for UV photodetector. <i>Superlattices and Microstructures</i> , 2017, 111, 536-545.	3.1	29
26	Characterization of Semolina Protein Film with Incorporated Zinc Oxide Nano Rod Intended for Food Packaging. <i>Polish Journal of Food and Nutrition Sciences</i> , 2017, 67, 183-190.	1.7	27
27	The effect of emitter geometry on lateral field emission diodes fabricated by AFM-based electrochemical nanolithography. <i>Journal of Solid State Electrochemistry</i> , 2014, 18, 1695-1700.	2.5	20
28	Fabrication and characterization of novel semolina-based antimicrobial films derived from the combination of ZnO nanorods and nanokaolin. <i>Journal of Food Science and Technology</i> , 2017, 54, 105-113.	2.8	19
29	In-vitro efficacy of different morphology zinc oxide nanopowders on <i>Streptococcus sobrinus</i> and <i>Streptococcus mutans</i> . <i>Materials Science and Engineering C</i> , 2017, 78, 868-877.	7.3	19
30	Enhancement in the Electrical and Thermal Properties of Ethylene Vinyl Acetate (EVA) Co-Polymer by Zinc Oxide Nanoparticles. <i>Open Journal of Composite Materials</i> , 2015, 05, 79-91.	0.8	19
31	Electron spectroscopy imaging and surface defect configuration of zinc oxide nanostructures under different annealing ambient. <i>Applied Surface Science</i> , 2013, 265, 137-144.	6.1	17
32	Fabrication of UV photodetector using needle-shaped ZnO nanostructure arrays prepared on porous silicon substrate by a facile low-temperature method. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 4999-5008.	2.2	17
33	Growth model for nanomallets of zinc oxide from a catalyst-free combust-oxidised process. <i>Journal of Crystal Growth</i> , 2006, 287, 118-123.	1.5	16
34	Particle size and annealing ambient effect on properties of ZnO-Bi ₂ O ₃ -Mn ₂ O ₃ varistor derived from ZnO micro- and nanoparticle powders. <i>Superlattices and Microstructures</i> , 2014, 69, 212-225.	3.1	16
35	Effect of Particle Morphology on the Properties of Polypropylene/Nanometric Zinc Oxide (PP/Nanozno) Composites. <i>Advanced Composites Letters</i> , 2009, 18, 096369350901800.	1.3	14
36	Impact of sintering temperature on the structural, electrical, and optical properties of doped ZnO nanoparticle-based discs. <i>Applied Surface Science</i> , 2012, 261, 128-136.	6.1	14

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37	Structural morphology and in vitro toxicity studies of nano- and micro-sized zinc oxide structures. <i>Journal of Environmental Chemical Engineering</i> , 2015, 3, 436-444.	6.7	14
38	Properties of NiO nanostructured growth using thermal dry oxidation of nickel metal thin film for hydrogen gas sensing at room temperature. <i>Materials Research Express</i> , 2017, 4, 075009.	1.6	13
39	The effect of loading rates and particle geometry on compressive properties of polypropylene/zinc oxide nanocomposites: Experimental and numerical prediction. <i>Polymer Composites</i> , 2012, 33, 99-108.	4.6	12
40	Surface morphological and mechanical properties of zinc oxide eugenol using different types of ZnO nanopowder. <i>Materials Science and Engineering C</i> , 2019, 100, 645-654.	7.3	12
41	Novel Pluronic F127-coated ZnO nanoparticles: Synthesis, characterization, and their in vitro cytotoxicity evaluation. <i>Polymers for Advanced Technologies</i> , 2021, 32, 2541-2551.	3.2	12
42	Fabrication of an Electrically-Resistive, Varistor-Polymer Composite. <i>International Journal of Molecular Sciences</i> , 2012, 13, 15640-15652.	4.1	11
43	Optical and structural properties of well-aligned ZnO nanoneedle arrays grown on porous silicon substrates by electric field-assisted aqueous solution method. <i>Ceramics International</i> , 2017, 43, 1488-1494.	4.8	10
44	Ultraviolet Protection Properties of Commercial Sunscreens and Sunscreens Containing ZnO Nanorods. <i>Journal of Physics: Conference Series</i> , 2018, 1083, 012012.	0.4	9
45	Effects of high-oxygen thermal annealing on structural, electrical and optical properties of undoped ZnO discs made from 40-nm ZnO nanoparticles. <i>Indian Journal of Physics</i> , 2013, 87, 523-531.	1.8	8
46	Comparative study on the effects of different annealing conditions on the surface morphology, crystallinity, and optical properties of ZnO micro/nanoparticle-based discs. <i>Applied Surface Science</i> , 2012, 258, 9954-9960.	6.1	7
47	Static and dynamic compressive properties of polypropylene/zinc oxide nanocomposites. <i>Polymer Engineering and Science</i> , 2014, 54, 949-960.	3.1	5
48	Growth Model for Nanoplates and Nanoboxes of Zinc Oxide from a Catalyst-Free Combustion-Oxidized Process. <i>Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry</i> , 2006, 36, 17-22.	0.6	4
49	Nanotriangles of Zinc Oxide. , 0, , .		4
50	Increase in Upturn Power Dissipation of Surge Suppressors Due to Highly Defective Nanostructure of Zinc Oxide. <i>Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry</i> , 2006, 36, 59-64.	0.6	4
51	Molecular dynamics simulations and photoluminescence measurements of annealed ZnO surfaces. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 90, 28-36.	2.7	4
52	Investigation on effects of solder paste voids on thermal and optical performance of white high-power surface-mounted device LEDs. <i>Soldering and Surface Mount Technology</i> , 2019, 32, 104-114.	1.5	4
53	Cytotoxicity determination of nano-zinc oxide eugenol on human gingival fibroblast cells. <i>Materials Chemistry and Physics</i> , 2021, 268, 124649.	4.0	4
54	Characterization of ZnO Nanopowder and Antibacterial Response against <i>Staphylococcus aureus</i> under UVA Illumination. <i>Advanced Materials Research</i> , 0, 795, 148-152.	0.3	3

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55	Structural morphology of zinc oxide structures with antibacterial application of calamine lotion. AIP Conference Proceedings, 2015, , .	0.4	3
56	Optimum Annealing Temperature for Transformation of NiO Nanoflakes from Chemically Grown Ni(OH) ₂ ; Nanostructure Thin Film. Journal of Nano Research, 0, 49, 75-84.	0.8	3
57	The Study on the Effect of Wet and Dry Oxidation of Nickel Thin Film on Sensitivity of EGFET Based pH Sensor. Solid State Phenomena, 0, 290, 199-207.	0.3	3
58	Chemical Sensing Performance of Flower-Like ZnO/PSi Nanostructures via Electrochemical Impedance Spectroscopy Technique. Journal of Electronic Materials, 2019, 48, 1604-1611.	2.2	3
59	Novel modelling for high-field current-voltage characteristics of semiconducting varistors. , 2004, , .		2
60	Toxicity evaluation of ZnO nanostructures on L929 fibroblast cell line using MTS assay. AIP Conference Proceedings, 2015, , .	0.4	2
61	Structural, Electrical and Optical Properties of NiO Nanostructured Growth Using Thermal Wet Oxidation of Nickel Metal Thin Film. Journal of Nano Research, 2017, 49, 56-65.	0.8	2
62	Cytotoxicity evaluation of ZnO-eugenol (ZOE) using different ZnO structure on human gingival fibroblast. AIP Conference Proceedings, 2017, , .	0.4	2
63	Effects of Annealing Treatment on Structural, Optical and Morphology Characteristics of ZnO Nanostructures. Advanced Materials Research, 0, 626, 967-970.	0.3	1
64	Optical Properties and Antibacterial Bioactivity of ZnO Nanopowder Annealed in Different Ambient. Advanced Materials Research, 2012, 626, 324-328.	0.3	1
65	Photoluminescence and Raman Studies of Annealed ZnO Nanostructures. Advanced Materials Research, 2012, 501, 179-183.	0.3	1
66	Post-Growth Annealing Effects on the Photoluminescence of ZnO Nanoparticle-Based Discs. Advanced Materials Research, 2012, 626, 844-848.	0.3	1
67	A Comparative Study between the Effects of Oxidizing and Reducing Atmospheres on the Properties of ZnO-Bi ₂ O ₃ -Mn ₂ O ₃ Varistor Fabricated from Micro and Nanoparticles Size of ZnO. Advanced Materials Research, 0, 925, 428-432.	0.3	1
68	Physico-chemical characteristics of ZnO nanoparticles-based discs and toxic effect on human cervical cancer HeLa cells. , 2014, , .		1
69	Heat transfer enhancement in MOSFET mounted on different FR4 substrates by thermal transient measurement. Chinese Physics B, 2017, 26, 098901.	1.4	1
70	Effect of etching time on characterizations of porous silicon passivated by a nano-silver layer. Journal of Physics: Conference Series, 2020, 1529, 032106.	0.4	1
71	Impact of thermal interface material on luminous flux curve of InGaAlP low-power light-emitting diodes. Soldering and Surface Mount Technology, 2021, ahead-of-print, .	1.5	1
72	Research on dynamic thermal performance of high-power ThinGaN vertical light-emitting diodes with different submounts. Semiconductor Science and Technology, 2020, 35, 125009.	2.0	1

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73	Impact of high-oxygen thermal annealing on the structural, optical and electrical properties of ZnO discs made from 20-nm ZnO nanoparticles. , 2012, , .		0
74	Density impact of doped ZnO discs on the structural, electrical and optical properties in the ohmic region. , 2012, , .		0
75	Varistor-Like Effect in Zinc Oxide Bionanocomposite. Advanced Materials Research, 0, 626, 743-746.	0.3	0
76	Effects of Annealing Treatment on Photoluminescence and Structural Properties of ZnO Nanostructures. Advanced Materials Research, 0, 501, 184-188.	0.3	0
77	Effect of temperature treatment on the properties of ZnO nanoparticle-Bi ₂ O ₃ -Mn ₂ O ₃ varistor ceramics. , 2012, , .		0
78	Structural, Optical and Antibacterial Properties of ZnO Commercial Powder Grades. Advanced Materials Research, 2013, 795, 19-23.	0.3	0
79	Analysis of Stress and Strain in ZnO Nanoparticle-Bi ₂ O ₃ -Mn ₂ O ₃ Varistor Ceramics at Different Annealing Temperatures. Advanced Materials Research, 0, 795, 35-41.		0
80	Enhanced Photoconductivity and Antibacterial Response of Rubber-Grade ZnO upon UVA Illumination. Advanced Materials Research, 0, 925, 33-37.	0.3	0
81	Substrate Effect on Growth Behaviour of Well-Aligned ZnO Nanorods Using an Aqueous Solution Method. Applied Mechanics and Materials, 0, 695, 147-150.	0.2	0
82	In-vitro antibacterial study of zinc oxide nanostructures on Streptococcus sobrinus. , 2014, , .		0
83	In vitro cytotoxicity tests of ZnO-Bi ₂ O ₃ -Mn ₂ O ₃ -based varistor fabricated from ZnO micro and nanoparticle powders on L929 mouse cells. , 2014, , .		0
84	Photoconductivity of Pharma-Grade ZnO under UVA and White Light Exposure. Advanced Materials Research, 2015, 1108, 73-78.	0.3	0
85	Effects of frit addition on the surface morphology and structural properties of ZnO-Bi ₂ O ₃ -Mn ₂ O ₃ discs. AIP Conference Proceedings, 2015, , .	0.4	0
86	Characterization and <i>In Vitro</i> Toxicity of French Process Zinc Oxide Nanoparticles with High Surficial Zinc. Solid State Phenomena, 2019, 290, 274-279.	0.3	0
87	Cytotoxicity of Pharma Grade ZnO with Higher Surficial Oxygen on L929 Mouse Cell. Solid State Phenomena, 0, 290, 286-291.	0.3	0
88	Evaluation of junction temperature of LED package as a function of input current and ambient temperature. AIP Conference Proceedings, 2019, , .	0.4	0
89	Investigation on the Structural and Optical Properties of NiO Nanoflakes. Chemical Bath Deposition of Ni(OH) ₂ Thin Films. Ukrainian Journal of Physics, 2017, 62, 970-977.	0.2	0
90	Structural, Electrical and Optical Properties of NiO Nanostructured Growth Using Thermal Wet and Dry Oxidation of Nickel Metal Thin Film. Journal of Nanoelectronics and Optoelectronics, 2018, 13, 628-636.	0.5	0

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91	Enhancement of luminous flux of InGaAlP-based low-power SMD LEDs using substrates with different thermal resistances. <i>Microelectronics International</i> , 2021, 38, 6-13.	0.6	0