

Mohammad Rezaul Karim

List of Publications by Year in descending order

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96
papers

3,736
citations

147566

31
h-index

133063

59
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98
all docs

98
docs citations

98
times ranked

4130
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient detection and adsorption of cadmium(II) ions using innovative nano-composite materials. <i>Chemical Engineering Journal</i> , 2018, 343, 118-127.	6.6	363
2	Inorganic-organic based novel nano-conjugate material for effective cobalt(II) ions capturing from wastewater. <i>Chemical Engineering Journal</i> , 2017, 324, 130-139.	6.6	265
3	Ligand field effect for Dysprosium(III) and Lutetium(III) adsorption and EXAFS coordination with novel composite nanomaterials. <i>Chemical Engineering Journal</i> , 2017, 320, 427-435.	6.6	256
4	Composite nanofibers membranes of poly(vinyl alcohol)/chitosan for selective lead(II) and cadmium(II) ions removal from wastewater. <i>Ecotoxicology and Environmental Safety</i> , 2019, 169, 479-486.	2.9	217
5	Fabrication and characterization of poly(vinyl alcohol)/alginate blend nanofibers by electrospinning method. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2010, 366, 135-140.	2.3	196
6	Synthesis and characterization of conducting polythiophene/carbon nanotubes composites. <i>Journal of Polymer Science Part A</i> , 2006, 44, 5283-5290.	2.5	168
7	SWNTs coated by conducting polyaniline: Synthesis and modified properties. <i>Synthetic Metals</i> , 2005, 151, 131-135.	2.1	114
8	Synthesis of core-shell silver-polyaniline nanocomposites by gamma radiolysis method. <i>Journal of Polymer Science Part A</i> , 2007, 45, 5741-5747.	2.5	106
9	Electrospinning fabrication and characterization of poly(vinyl alcohol)/montmorillonite/silver hybrid nanofibers for antibacterial applications. <i>Colloid and Polymer Science</i> , 2010, 288, 115-121.	1.0	92
10	A comprehensive defect study of tungsten disulfide (WS ₂) as electron transport layer in perovskite solar cells by numerical simulation. <i>Results in Physics</i> , 2019, 12, 1097-1103.	2.0	90
11	Preparation and characterization of electrospun pullulan/montmorillonite nanofiber mats in aqueous solution. <i>Carbohydrate Polymers</i> , 2009, 78, 336-342.	5.1	88
12	High yield activated porous coal carbon nanosheets from Boropukuria coal mine as supercapacitor material: Investigation of the charge storing mechanism at the interfacial region. <i>Journal of Energy Storage</i> , 2020, 32, 101908.	3.9	81
13	Radiolytic synthesis of conducting polypyrrole/carbon nanotube composites. <i>Materials Letters</i> , 2007, 61, 1688-1692.	1.3	77
14	Electrospinning fabrication and characterization of poly(vinyl alcohol)/montmorillonite nanofiber mats. <i>Journal of Applied Polymer Science</i> , 2009, 113, 1860-1867.	1.3	71
15	Fabrication of core-shell structured nanofibers of poly (lactic acid) and poly (vinyl alcohol) by coaxial electrospinning for tissue engineering. <i>European Polymer Journal</i> , 2018, 98, 483-491.	2.6	64
16	Preparation of conducting polyaniline/TiO ₂ composite submicron-rods by the ⁶⁰ Co-radiolysis oxidative polymerization method. <i>Reactive and Functional Polymers</i> , 2008, 68, 1371-1376.	2.0	61
17	A facile synthesis of polythiophene nanowires. <i>Synthetic Metals</i> , 2007, 157, 1008-1012.	2.1	60
18	Fabrication of 1,4-dioxane sensor based on microwave assisted PANi-SiO ₂ nanocomposites. <i>Talanta</i> , 2019, 193, 64-69.	2.9	53

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19	Effects of growth temperature on the photovoltaic properties of RF sputtered undoped NiO thin films. <i>Results in Physics</i> , 2019, 14, 102360.	2.0	51
20	Fabrication techniques and morphological analysis of perovskite absorber layer for high-efficiency perovskite solar cell: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 98, 469-488.	8.2	46
21	Synthesis of conducting polythiophene composites with multi-walled carbon nanotube by the γ -radiolysis polymerization method. <i>Materials Chemistry and Physics</i> , 2008, 112, 779-782.	2.0	45
22	Electrospinning and characterization of medium-molecular-weight poly(vinyl Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (alcohol)/high Polymer Science, 2009, 287, 751-758.	1.0	45
23	Synthesis of conducting polypyrrole by radiolysis polymerization method. <i>Polymers for Advanced Technologies</i> , 2007, 18, 916-920.	1.6	42
24	Preparation of superhydrophobic membranes by electrospinning of fluorinated silane functionalized pullulan. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2010, 362, 117-120.	2.3	40
25	Addition of Graphite Filler to Enhance Electrical, Morphological, Thermal, and Mechanical Properties in Poly (Ethylene Terephthalate): Experimental Characterization and Material Modeling. <i>Polymers</i> , 2019, 11, 1411.	2.0	40
26	Poly(vinyl alcohol)/chitosan oligosaccharide blend submicrometer fibers prepared from aqueous solutions by the electrospinning method. <i>Journal of Applied Polymer Science</i> , 2009, 111, 132-140.	1.3	39
27	Impact of CdTe thin film thickness in $Zn_xCd_{1-x}S/CdTe$ solar cell by RF sputtering. <i>Solar Energy</i> , 2019, 180, 559-566.	2.9	37
28	Sulfonated polyaniline-titanium dioxide nanocomposites synthesized by one-pot UV-curable polymerization method. <i>Synthetic Metals</i> , 2009, 159, 209-213.	2.1	36
29	Cadmium Selenide Quantum Dots for Solar Cell Applications: A Review. <i>Chemistry - an Asian Journal</i> , 2021, 16, 902-921.	1.7	36
30	Electrospun Bilayer PAN/Chitosan Nanofiber Membranes Incorporated with Metal Oxide Nanoparticles for Heavy Metal Ion Adsorption. <i>Coatings</i> , 2020, 10, 285.	1.2	35
31	Facile and efficient 3-chlorophenol sensor development based on photoluminescent core-shell CdSe/ZnS quantum dots. <i>Scientific Reports</i> , 2020, 10, 557.	1.6	33
32	Prospects of Back Surface Field Effect in Ultra-Thin High-Efficiency CdS/CdTe Solar Cells from Numerical Modeling. <i>International Journal of Photoenergy</i> , 2010, 2010, 1-8.	1.4	32
33	Preparation of TiO ₂ incorporated polyacrylonitrile electrospun nanofibers for adsorption of heavy metal ions. <i>Journal of Polymer Research</i> , 2018, 25, 1.	1.2	30
34	Fabrication of Ni-Co-Based Heterometallo-Supramolecular Polymer Films and the Study of Electron Transfer Kinetics for the Nonenzymatic Electrochemical Detection of Nitrite. <i>ACS Applied Polymer Materials</i> , 2020, 2, 273-284.	2.0	30
35	<i>In situ</i> intercalative polymerization of conducting polypyrrole/montmorillonite nanocomposites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2008, 46, 2279-2285.	2.4	29
36	Synthesis and characterization of silver/thiophene nanocomposites by UV-irradiation method. <i>Materials Letters</i> , 2007, 61, 2675-2678.	1.3	28

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37	Recent Developments of Flexible CdTe Solar Cells on Metallic Substrates: Issues and Prospects. <i>International Journal of Photoenergy</i> , 2012, 2012, 1-10.	1.4	28
38	Comparison of the adsorption orientation for 2-mercaptobenzothiazole and 2-mercaptobenzoxazole by SERS spectroscopy. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2007, 68, 1313-1319.	2.0	27
39	UV-curing synthesis of sulfonated polyaniline-silver nanocomposites by an <i>in situ</i> reduction method. <i>Polymers for Advanced Technologies</i> , 2009, 20, 639-644.	1.6	26
40	Effect of montmorillonite on wettability and microstructure properties of zein/montmorillonite nanocomposite nanofiber mats. <i>Journal of Composite Materials</i> , 2013, 47, 251-257.	1.2	26
41	Novel optimised highly aligned electrospun PEI-PAN nanofibre mats with excellent wettability. <i>Polymer</i> , 2019, 180, 121665.	1.8	25
42	Thermal Behavior with Mechanical Property of Fluorinated Silane Functionalized Superhydrophobic Pullulan/Poly(vinyl alcohol) Blends by Electrospinning Method. <i>Journal of Nanomaterials</i> , 2011, 2011, 1-7.	1.5	24
43	The fabrication of a chemical sensor with PANI-TiO ₂ nanocomposites. <i>RSC Advances</i> , 2020, 10, 12224-12233.	1.7	23
44	Synthesis and characterization of conducting polyaniline-activated carbon nanocomposites. <i>Journal of Applied Polymer Science</i> , 2007, 103, 1973-1977.	1.3	22
45	Synthesis and Characterizations of Poly(3-hexylthiophene) and Modified Carbon Nanotube Composites. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-8.	1.5	22
46	Air-stable perovskite photovoltaic cells with low temperature deposited NiOx as an efficient hole-transporting material. <i>Optical Materials Express</i> , 2020, 10, 1801.	1.6	19
47	Recent Progress, Challenges, and Opportunities of Membrane Distillation for Heavy Metals Removal. <i>Chemical Record</i> , 2022, 22, e202100323.	2.9	19
48	Fabrication of electrospun aligned nanofibers from conducting polyaniline copolymer/polyvinyl alcohol/chitosan oligosaccharide in aqueous solutions. <i>Synthetic Metals</i> , 2013, 178, 34-37.	2.1	17
49	Removal of cadmium ions from water using coaxially electrospun PAN/ZnO-encapsulated PVDF nanofiber membranes. <i>Polymer Bulletin</i> , 2022, 79, 2831-2850.	1.7	17
50	Impact of CdCl ₂ Treatment in CdTe Thin Film Grown on Ultra-Thin Glass Substrate via Close Spaced Sublimation. <i>Crystals</i> , 2021, 11, 390.	1.0	16
51	Electrospinning and Characterisation of Poly(vinyl alcohol) Blend Submicron Fibres in Aqueous Solutions. <i>Polymers and Polymer Composites</i> , 2009, 17, 47-54.	1.0	15
52	Conducting polyaniline-titanium dioxide nanocomposites prepared by inverted emulsion polymerization. <i>Polymer Composites</i> , 2010, 31, 83-88.	2.3	15
53	Hollow Reticular Shaped Highly Ordered Rice Husk Carbon for the Simultaneous Determination of Dopamine and Uric Acid. <i>Electroanalysis</i> , 2020, 32, 1957-1970.	1.5	15
54	A Comparison Method of Silver Nanoparticles Prepared by the Gamma Irradiation and in situ Reduction Methods. <i>Bulletin of the Korean Chemical Society</i> , 2010, 31, 1993-1996.	1.0	15

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55	Surface-enhanced Raman spectroscopy of Omethoate adsorbed on silver surface. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2011, 78, 179-184.	2.0	14
56	Tuning of spectral response by co-sensitization in black-dye based dye-sensitized solar cell. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 651-656.	0.8	14
57	Selective Detection of Dopamine at the AACVD Synthesized Palladium Nanoparticles and Understanding the Sensing Mechanism through Electrochemical and Computational Study. <i>Journal of the Electrochemical Society</i> , 2019, 166, B1528-B1542.	1.3	14
58	Computational Approach to Understanding the Electrocatalytic Reaction Mechanism for the Process of Electrochemical Oxidation of Nitrite at a Ni-Co-Based Heterometallo-Supramolecular Polymer. <i>ACS Omega</i> , 2020, 5, 12882-12891.	1.6	14
59	Magnetic/Polyetherimide-Acrylonitrile Composite Nanofibers for Nickel Ion Removal from Aqueous Solution. <i>Membranes</i> , 2021, 11, 50.	1.4	14
60	Silver Micro-Nanoparticle-Based Nanoarchitectures: Synthesis Routes, Biomedical Applications, and Mechanisms of Action. <i>Polymers</i> , 2021, 13, 2870.	2.0	13
61	Size-Dependent Effect of Nanoceria on Their Antibacterial Activity Towards <i>Escherichia coli</i> . <i>Science of Advanced Materials</i> , 2017, 9, 1248-1253.	0.1	13
62	Conducting and Biopolymer Based Electrospun Nanofiber Membranes for Wound Healing Applications. <i>Current Nanoscience</i> , 2016, 12, 220-227.	0.7	13
63	Nanofibre Mats in Aqueous Solution for Anti-bacterial Exploits. <i>Polymers and Polymer Composites</i> , 2011, 19, 753-762.	1.0	12
64	Ni and Co oxide water oxidation electrocatalysts: Effect of thermal treatment on catalytic activity and surface morphology. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 145, 111097.	8.2	11
65	Comparative study of ZnS thin films grown by chemical bath deposition and magnetron sputtering. , 2012, , .		10
66	Improving the Spectral Response of Black Dye by Cosensitization with a Simple Indoline Based Dye in Dye-Sensitized Solar Cell. <i>Journal of Chemistry</i> , 2013, 2013, 1-5.	0.9	10
67	Poly(vinyl alcohol)-Fe ₃ O ₄ Nanocomposites Prepared by the Electrospinning Technique. <i>Soft Materials</i> , 2010, 8, 197-206.	0.8	8
68	Effects of thermal annealing on structural and optical properties of sputtered CdS thin films for photovoltaic application. , 2012, , .		8
69	A Study on the Interfacial Compatibility, Microstructure and Physico-Chemical Properties of Polyimide/Organically Modified Silica Nanocomposite Membrane. <i>Polymers</i> , 2021, 13, 1328.	2.0	8
70	Synthesis and characterization of poly(3-octylthiophene)/single wall carbon nanotube composites for photovoltaic applications. <i>Journal of Applied Polymer Science</i> , 2010, 118, 1386-1394.	1.3	7
71	Progress and Prospects on the Fabrication of Graphene-Based Nanostructures for Energy Storage, Energy Conversion and Biomedical Applications. <i>Chemistry - an Asian Journal</i> , 2021, 16, 1365-1381.	1.7	7
72	Carbon Nanodots-Embedded Pullulan Nanofibers for Sulfathiazole Removal from Wastewater Streams. <i>Membranes</i> , 2022, 12, 228.	1.4	7

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73	An In-Depth Analysis of CdTe Thin-Film Deposition on Ultra-Thin Glass Substrates via Close-Spaced Sublimation (CSS). <i>Coatings</i> , 2022, 12, 589.	1.2	7
74	Amphiphilic Ruthenium(II) Terpyridine Sensitizers with Long Alkyl Chain Substituted β^2 -Diketonato Ligands: An Efficient Coadsorbent-Free Dye-Sensitized Solar Cells. <i>International Journal of Photoenergy</i> , 2011, 2011, 1-7.	1.4	6
75	Mixed Dyes for Dye-sensitized Solar Cells Applications. <i>Current Nanoscience</i> , 2019, >15, 501-505.	0.7	6
76	Thermoelectric Potential of Polymer-Scaffolded Ionic Liquid Membranes. <i>Journal of Electronic Materials</i> , 2014, 43, 1585-1589.	1.0	5
77	Synthesis of new simple hole-transport materials bearing benzodithiazole based core for perovskite solar cells. <i>Solar Energy</i> , 2019, 194, 431-435.	2.9	5
78	Optical and Transport Properties of Poly(3-Hexylthiophene)-Single-Walled-Carbon-Nanotube Composites. <i>Journal of Nanoelectronics and Optoelectronics</i> , 2011, 6, 288-292.	0.1	5
79	Multiwall Carbon Nanotube Coated with Conducting Polyaniline Nanocomposites for Quasi-Solid-State Dye-Sensitized Solar Cells. <i>Journal of Chemistry</i> , 2013, 2013, 1-5.	0.9	4
80	Synthesis and characterization of highly organized crystalline rutile nanoparticles by low-temperature dissolution-precipitation process. <i>Journal of Materials Research</i> , 2015, 30, 1887-1893.	1.2	4
81	Synthesis and Characterization of a Poly[(3-hexylthiophene-co-3-octylthiophene)]@SWNT Composite for Solar Cell Applications. <i>Journal of Nanoelectronics and Optoelectronics</i> , 2012, 7, 466-470.	0.1	4
82	Preparation of Buckyball-Shaped Conducting Polythiophene by the Gamma Radiation-Induced Polymerization Method. <i>Macromolecular Symposia</i> , 2007, 249-250, 234-240.	0.4	3
83	Quasi Solid-State Dye-Sensitized Solar Cell Incorporating Highly Conducting Polythiophene-Coated Carbon Nanotube Composites in Ionic Liquid. <i>Advances in Optoelectronics</i> , 2011, 2011, 1-7.	0.6	3
84	CdZnTe thin films growth by RF sputtering for CdTe solar cells. , 2013, , .		3
85	Laser from Optically Pumped Quantum Dot CdSe/ZnS in a Colloidal Liquid. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 6710-6713.	0.9	3
86	Conducting polyaniline-rutile TiO ₂ nanocomposites for the development of high-k dielectric materials. <i>Soft Materials</i> , 2016, 14, 238-243.	0.8	3
87	Optical Losses of Frontal Layers in Superstrate CdS/CdTe Solar Cells Using OPAL2. <i>Coatings</i> , 2021, 11, 943.	1.2	3
88	Study of CdTe film growth by CSS on three different types of CdS coated substrates. <i>Materials Today: Proceedings</i> , 2018, 5, 27833-27839.	0.9	2
89	Improved salt rejection, hydrophilicity and mechanical properties of novel thermoplastic polymer/chitosan nanofibre membranes. <i>Journal of Engineered Fibers and Fabrics</i> , 2020, 15, 155892502092317.	0.5	2
90	Shape controllable preparation and characterization of submicron lamellar and rod clusters of zinc oxide via conventional and microwave accelerated reaction methods. <i>Materials Letters</i> , 2013, 92, 376-378.	1.3	1

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91	Effects of cobalt and cobalt oxide buffer layers on nucleation and growth of hot filament chemical vapor deposition diamond films on silicon (100). Korean Journal of Chemical Engineering, 2014, 31, 1271-1275.	1.2	1
92	Biomolecule conjugated nanoparticle synthons for detection of food contaminants. Canadian Journal of Chemistry, 2015, 93, 925-928.	0.6	1
93	Corrosion inhibitory effect of thiourea on recrystallized E-34 microalloyed steels in acidic media. Anti-Corrosion Methods and Materials, 2015, 62, 212-219.	0.6	1
94	Preparation of Conducting Polyaniline/TiO ₂ Composite Nanorods by the Radiolysis Polymerization Method. , 2007, , .		0
95	A New Heteroleptic Biquinoline Ruthenium(II) Sensitizer for Near-IR Sensitization of Nanocrystalline TiO ₂ . Journal of Chemistry, 2013, 2013, 1-4.	0.9	0
96	Effect of Compression Pressure and Coal Binding on the Fuel Properties of Biomass Pellet. Solid Fuel Chemistry, 2021, 55, 429-438.	0.2	0