

Muhammad Rafique

List of Publications by Year in descending order

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102
papers

3,339
citations

159585

30
h-index

168389

53
g-index

102
all docs

102
docs citations

102
times ranked

3057
citing authors

#	ARTICLE	IF	CITATIONS
1	NiO and Ag-Cd co-doped NiO nanoparticles: study of photocatalytic degradation of rhodamine B dye for wastewater treatment. International Journal of Environmental Science and Technology, 2023, 20, 2021-2036.	3.5	14
2	Role of Nanotechnology in Photocatalysis. , 2022, , 578-589.		40
3	Plant-mediated green synthesis of zinc oxide nanoparticles from <i>Syzygium Cumini</i> for seed germination and wastewater purification. International Journal of Environmental Analytical Chemistry, 2022, 102, 23-38.	3.3	83
4	Green synthesis of TiO ₂ nanoparticles using lemon peel extract: their optical and photocatalytic properties. International Journal of Environmental Analytical Chemistry, 2022, 102, 434-442.	3.3	70
5	First principle computation of half metallicity and mechanical properties of a new series of half Heusler alloys KMnZ (Z = B, Si, Ge, As) for spintronics. Indian Journal of Physics, 2022, 96, 115-126.	1.8	9
6	Role of Nanomaterials in the Detoxification of Harmful Dyes. , 2022, , 373-386.		0
7	A review on sources of heavy metals, their toxicity and removal technique using physico-chemical processes from wastewater. Environmental Science and Pollution Research, 2022, 29, 16772-16781.	5.3	32
8	Influence of Sintering Temperature on the Structural, Morphological, and Electrochemical Properties of NiO-YSZ Anode Synthesized by the Autocombustion Route. Metals, 2022, 12, 219.	2.3	3
9	Photocatalysis and perovskite oxide-based materials: a remedy for a clean and sustainable future. RSC Advances, 2022, 12, 7009-7039.	3.6	63
10	Influence of Low Sintering Temperature on BaCe _{0.2} Zr _{0.6} Y _{0.2} O _{3-δ} IT-SOFC Perovskite Electrolyte Synthesized by Co-Precipitation Method. Materials, 2022, 15, 3585.	2.9	7
11	Semiconductor nanomaterials for the detoxification of dyes in real wastewater under visible-light photocatalysis. International Journal of Environmental Analytical Chemistry, 2021, 101, 1735-1749.	3.3	37
12	Evaluation of densification effects on the properties of 8 mol % yttria stabilized zirconia electrolyte synthesized by cost effective coprecipitation route. Ceramics International, 2021, 47, 2857-2863.	4.8	15
13	Fabrication of novel perovskite oxide Ba _x Mn _{1-x} O ₃ electrode for supercapacitors. International Journal of Energy Research, 2021, 45, 4145-4154.	4.5	12
14	Investigation of in-vitro antibacterial and seed germination properties of green synthesized pure and nickel doped ZnO nanoparticles. Physica B: Condensed Matter, 2021, 601, 412563.	2.7	36
15	Structural, electronic, magnetic and thermoelectric properties of full heusler alloys Co ₂ YZ (Z = S, Tj) ETQq1 1 0.784314 rgBT / Overlo	2.7	18
16	Electrochemical evaluation of mixed ionic electronic perovskite cathode LaNi _{1-x} Co _x O _{3-δ} for IT-SOFC synthesized by high temperature decomposition. International Journal of Hydrogen Energy, 2021, 46, 10448-10456.	7.1	29
17	Idiosyncratic cellulose acetate nanocomposite membranes: synthesis and performance control study for desalination. Environmental Technology (United Kingdom), 2021, 42, 1336-1352.	2.2	8
18	Electrochemical study of Mo-doped Co ₃ O ₄ nanostructures synthesized by sol-gel method. Journal of Materials Science: Materials in Electronics, 2021, 32, 3512-3521.	2.2	10

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19	Hydrothermal synthesis of an efficient and visible light responsive pure and strontium doped zinc oxide nano-hexagonal photocatalysts for photodegradation of Rhodamine B dye. Applied Nanoscience (Switzerland), 2021, 11, 1045-1056.	3.1	9
20	Evaluation of BaCo _{0.4} Fe _{0.4} Zr _{0.2} Ni _x O _{3-δ} perovskite cathode using nickel as a sintering aid for IT-SOFC. RSC Advances, 2021, 11, 14475-14483.	3.6	8
21	Role of Nano-Photocatalysts in Detoxification of Toxic Heavy Metals. Current Analytical Chemistry, 2021, 17, 126-137.	1.2	5
22	Investigations on synergistic and antioxidant actions of medicinal plant based biosynthesis of Zinc Oxide Nanoparticles against E.coli and K. pneumonia bacteria. Combinatorial Chemistry and High Throughput Screening, 2021, 24, .	1.1	2
23	Novel Cr and Sn co-doped Co ₃ O ₄ polygon-based electrode material for supercapacitor application. Journal of Materials Science: Materials in Electronics, 2021, 32, 11467-11477.	2.2	5
24	Mechanistic investigation of Mg ²⁺ -ion-induced ZnO nanorods for enhanced photocatalytic performance. Applied Nanoscience (Switzerland), 2021, 11, 1917-1927.	3.1	0
25	Facile and Novel Synthesis of Spiky Gold Nanoparticles as an Efficient Antimicrobial Agent against Pseudomonas Aeruginosa. Combinatorial Chemistry and High Throughput Screening, 2021, 24, .	1.1	0
26	Stimulated band structure by external isotropic static pressure and its impact on optoelectronic properties of PbZrO ₃ : An ab-initio calculation. Optik, 2021, 241, 167024.	2.9	3
27	Novel, facile and first time synthesis of zinc oxide nanoparticles using leaves extract of Citrus reticulata for photocatalytic and antibacterial activity. Optik, 2021, 243, 167495.	2.9	14
28	Fabrication of direct Z-scheme MoO ₃ /MoS ₂ photocatalyst for synergistically enhanced H ₂ production. International Journal of Hydrogen Energy, 2021, 46, 39822-39829.	7.1	17
29	Phase stability, band gap engineering and optical response of Li-, Be- and Mg-doped SrZrO ₃ perovskite: Theoretical perspective with GGA-PBE. European Physical Journal Plus, 2021, 136, 1.	2.6	5
30	Plant-Mediated Green Synthesis of Zinc Oxide Nanoparticles Using Peel Extract of Citrus reticulata for Boosting Seed Germination of Brassica nigra Seeds. Journal of Nanoscience and Nanotechnology, 2021, 21, 3573-3579.	0.9	5
31	Structural and Magnetic Behavior of MoS ₂ on Doping of Transition Metals: a DFT Study. Journal of Superconductivity and Novel Magnetism, 2021, 34, 3441-3453.	1.8	6
32	Electrochemical Investigations of BaCe _{0.7-x} Sm _x Zr _{0.2} Y _{0.1} O _{3-δ} Sintered at a Low Sintering Temperature as a Perovskite Electrolyte for IT-SOFCs. Sustainability, 2021, 13, 12595.	3.2	9
33	Hydrogen Production Through Water Splitting Using Nanomaterials Under Solar Energy. , 2020, , 132-135.		2
34	First-principles investigation of structural, electronic, optical and thermal properties of Zinc doped SrTiO ₃ . Optik, 2020, 201, 163481.	2.9	26
35	Evaluation of BaZr _{0.8} X _{0.2} (X= Y, Gd, Sm) proton conducting electrolytes sintered at low temperature for IT-SOFC synthesized by Acost effective combustion method. Journal of Alloys and Compounds, 2020, 815, 152389.	5.5	43
36	Activated carbon doped WO ₃ for photocatalytic degradation of rhodamine-B. Applied Nanoscience (Switzerland), 2020, 10, 869-877.	3.1	34

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37	Gallium vacancies role in hydrogen storage of single-crystalline GaN hexagonal micro-sheets. International Journal of Hydrogen Energy, 2020, 45, 4731-4742.	7.1	18
38	Eco-friendly green and biosynthesis of copper oxide nanoparticles using Citrofortunella microcarpa leaves extract for efficient photocatalytic degradation of Rhodamin B dye form textile wastewater. Optik, 2020, 208, 164053.	2.9	97
39	Interfacial coupling effect of Ag ₂ O nanorods over MoS ₂ microflowers for improved photocatalytic activity. Ceramics International, 2020, 46, 6856-6859.	4.8	15
40	Mixed solvent based surface modification of CuS nanostructures for an excellent photocatalytic application. Inorganic Chemistry Communication, 2020, 121, 108205.	3.9	14
41	Photocatalytic degradation and hydrogen evolution using bismuth tungstate based nanocomposites under visible light irradiation. International Journal of Hydrogen Energy, 2020, 45, 22833-22847.	7.1	32
42	Photonic and optoelectronic properties of layered semiconductors. Applied Nanoscience (Switzerland), 2020, 10, 3933-3938.	3.1	2
43	Synthesis methods of nanostructures. , 2020, , 45-56.		5
44	Carbonaceous nanomaterials as photocatalysts. , 2020, , 97-117.		1
45	Photocatalytic nanomaterials for degradation of organic pollutants and heavy metals. , 2020, , 119-138.		23
46	Photocatalytic nanomaterials for the removal of pharmaceuticals. , 2020, , 191-202.		1
47	Recent advances in the development of photocatalysis and future perspectives. , 2020, , 221-223.		2
48	Cogent synergic effect of TiS ₂ /g-C ₃ N ₄ composite with enhanced electrochemical performance for supercapacitor. Ceramics International, 2020, 46, 27601-27607.	4.8	39
49	Nanostructure materials and their classification by dimensionality. , 2020, , 27-44.		2
50	Nanomaterials for photocatalysis. , 2020, , 65-76.		19
51	Synthesis, characterization and antibacterial activity of NiO NPs against pathogen. Inorganic Chemistry Communication, 2020, 122, 108300.	3.9	18
52	History and fundamentals of nanoscience and nanotechnology. , 2020, , 1-25.		3
53	Cubic to pseudo-cubic tetragonal phase transformation with lithium and beryllium doping in CaTiO ₃ and its impact on electronic and optical properties: a DFT approach. Bulletin of Materials Science, 2020, 43, 1.	1.7	9
54	Highly efficient and visible light-driven nickel-doped vanadium oxide photocatalyst for degradation of Rhodamine B Dye. Applied Nanoscience (Switzerland), 2020, 10, 2365-2374.	3.1	23

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55	A Comprehensive Study on Methods and Materials for Photocatalytic Water Splitting and Hydrogen Production as a Renewable Energy Resource. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2020, 30, 3837-3861.	3.7	56
56	Novel Citrus aurantifolia leaves based biosynthesis of copper oxide nanoparticles for environmental and wastewater purification as an efficient photocatalyst and antibacterial agent. <i>Optik</i> , 2020, 219, 165138.	2.9	35
57	Study the effect of magnesium doping concentration on structural and optoelectronic response of NaCa _{1-x} Mg _x F ₃ fluoro-perovskite: First-principles computation. <i>Optik</i> , 2020, 218, 164990.	2.9	15
58	Visible light responsive photocatalytic hydrogen evolution using MoS ₂ incorporated ZnO. <i>Applied Nanoscience (Switzerland)</i> , 2020, 10, 3925-3931.	3.1	18
59	Facile hydrothermal synthesis of highly efficient and visible light-driven Ni-doped V ₂ O ₅ photocatalyst for degradation of Rhodamine B dye. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 12913-12925.	2.2	16
60	Effect of external pressure on the structural stability, electronic structure, band gap engineering and optical properties of LiNbO ₃ : An ab-initio calculation. <i>Materials Today Communications</i> , 2020, 23, 100919.	1.9	25
61	Surface-Enhanced Raman Scattering (SERS) on 1D Nano-gratings. <i>Plasmonics</i> , 2020, 15, 1053-1059.	3.4	17
62	Surface plasmon based 1D-grating device for efficient sensing using noble metals. <i>Optical and Quantum Electronics</i> , 2020, 52, 1.	3.3	7
63	First-principles computation of magnesium doped CaZrO ₃ perovskite: A study of phase transformation, bandgap engineering and optical response for optoelectronic applications. <i>Solid State Communications</i> , 2020, 313, 113907.	1.9	29
64	Effect of anomalous behavior of Be-doping on structural stability, bandgap and optical properties in comparison with Mg-doped BaZrO ₃ perovskite: insights from DFT calculations. <i>Optical and Quantum Electronics</i> , 2020, 52, 1.	3.3	15
65	A review of the interfacial properties of 2-D materials for energy storage and sensor applications. <i>Chinese Journal of Physics</i> , 2020, 66, 246-257.	3.9	28
66	Role of cerium-doping in CoFe ₂ O ₄ electrodes for high performance supercapacitors. <i>Journal of Energy Storage</i> , 2020, 29, 101452.	8.1	58
67	An Optimal Au Grating Structure for Light Absorption in Amorphous Silicon Thin Film Solar Cell. <i>Plasmonics</i> , 2019, 14, 147-154.	3.4	44
68	Enhanced photocatalytic activity of Al and Fe co-doped ZnO nanorods for methylene blue degradation. <i>Ceramics International</i> , 2019, 45, 21430-21435.	4.8	122
69	Spectroscopic and Structural Dynamics of MoS ₂ Thin Films. <i>Journal of Nano Research</i> , 2019, 58, 74-79.	0.8	2
70	Structural stability of SrZrO ₃ perovskite and improvement in electronic and optical properties by Ca and Ba doping for optoelectronic applications: a DFT approach. <i>Philosophical Magazine</i> , 2019, 99, 3133-3145.	1.6	14
71	Theoretical investigation of structural, magnetic and elastic properties of half Heusler LiCrZ (Z = P, Tj ETQq1 1 0.784314 rgBT /Overlo	2.7	41
72	Removal of Organic Colorants Using Nano Copper Antimony Oxychloride Synthesized by Non-solvated System. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2019, 29, 893-900.	3.7	4

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73	Nanomaterials for Photocatalytic Applications. , 2019, , .		3
74	Laser ablation synthesis of silver nanoparticles in water and dependence on laser nature. Optical and Quantum Electronics, 2019, 51, 1.	3.3	44
75	Effect of magnesium doping on band gap and optical properties of SrZrO ₃ perovskite: A first-principles study. Optik, 2019, 191, 132-138.	2.9	31
76	Investigation of Photocatalytic and Seed Germination Effects of TiO ₂ Nanoparticles Synthesized by Melia azedarach L. Leaf Extract. Journal of Inorganic and Organometallic Polymers and Materials, 2019, 29, 2133-2144.	3.7	28
77	Fabrication of novel hybrid composite La _{2-x} CoxCuO ₄ electrode for high performance supercapacitors. International Journal of Energy Research, 2019, 43, 2361-2368.	4.5	10
78	Laser nature dependence on enhancement of optical and thermal properties of copper oxide nanofluids. Applied Surface Science, 2019, 483, 187-193.	6.1	16
79	Nanotechnology: An Innovative Way for Wastewater Treatment and Purification. Nanotechnology in the Life Sciences, 2019, , 95-131.	0.6	9
80	Novel and facile synthesis of silver nanoparticles using Albizia procera leaf extract for dye degradation and antibacterial applications. Materials Science and Engineering C, 2019, 99, 1313-1324.	7.3	88
81	Commissioning and evaluation of a radiochromic EBT3 film dosimetry system. Journal of Radiotherapy in Practice, 2019, 18, 55-62.	0.5	2
82	Fabrication of heterogeneous photocatalysts for insight role of carbon nanofibre in hierarchical WO ₃ / MoSe ₂ composite for enhanced photocatalytic hydrogen generation. Ceramics International, 2019, 45, 5547-5552.	4.8	75
83	Selection of gamma analysis acceptance criteria in IMRT QA using Gafchromic EBT3 film dosimetry. Journal of Radiotherapy in Practice, 2019, 18, 127-131.	0.5	1
84	Material and method selection for efficient solid oxide fuel cell anode: Recent advancements and reviews. International Journal of Energy Research, 2019, 43, 2423-2446.	4.5	62
85	A Review on Novel Eco-Friendly Green Approach to Synthesis TiO ₂ Nanoparticles Using Different Extracts. Journal of Inorganic and Organometallic Polymers and Materials, 2018, 28, 1552-1564.	3.7	85
86	WO ₃ Nanostructures-Based Photocatalyst Approach Towards Degradation of RhB Dye. Journal of Inorganic and Organometallic Polymers and Materials, 2018, 28, 1107-1113.	3.7	79
87	Role of europium on WO ₃ performance under visible-light for photocatalytic activity. Ceramics International, 2018, 44, 5705-5709.	4.8	101
88	Role of MoSe ₂ on nanostructures WO ₃ -CNT performance for photocatalytic hydrogen evolution. Ceramics International, 2018, 44, 6686-6690.	4.8	111
89	Novel graphene-based transparent electrodes for perovskite solar cells. International Journal of Energy Research, 2018, 42, 4866-4874.	4.5	18
90	Role of fullerene to improve the WO ₃ performance for photocatalytic applications and hydrogen evolution. International Journal of Energy Research, 2018, 42, 4783-4789.	4.5	62

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91	Enhanced photocatalytic hydrogen energy production of g-C ₃ N ₄ -WO ₃ composites under visible light irradiation. International Journal of Energy Research, 2018, 42, 4667-4673.	4.5	34
92	Aquatic Biodegradation of Methylene Blue by Copper Oxide Nanoparticles Synthesized from Azadirachta indica Leaves Extract. Journal of Inorganic and Organometallic Polymers and Materials, 2018, 28, 2455-2462.	3.7	39
93	Dependence of the structural optical and thermo-physical properties of gold nano-particles synthesized by laser ablation method on the nature of laser. Optik, 2017, 134, 140-148.	2.9	17
94	Highly visible light responsive metal loaded N/TiO ₂ nanoparticles for photocatalytic conversion of CO ₂ into methane. Ceramics International, 2017, 43, 6771-6777.	4.8	51
95	Influence of Er doping on the structural, optical and luminescence properties of pulsed laser deposited Er: BaZrO ₃ thin films. Ceramics International, 2017, 43, 12162-12166.	4.8	11
96	A Review on Synthesis, Characterization and Applications of Copper Nanoparticles Using Green Method. Nano, 2017, 12, 1750043.	1.0	83
97	Nanostructured-based WO ₃ photocatalysts: recent development, activity enhancement, perspectives and applications for wastewater treatment. International Journal of Environmental Science and Technology, 2017, 14, 2519-2542.	3.5	138
98	Energetic metallic ion implantation in polymers via cost-effective laser-driven ion source. Applied Physics B: Lasers and Optics, 2017, 123, 1.	2.2	1
99	A review on green synthesis of silver nanoparticles and their applications. Artificial Cells, Nanomedicine and Biotechnology, 2017, 45, 1272-1291.	2.8	542
100	Synergistic Effect of Functionalized Nanokaolin Decorated MWCNTs on the Performance of Cellulose Acetate (CA) Membranes Spectacular. Nanomaterials, 2016, 6, 79.	4.1	12
101	Antibacterial Behavior of Laser-Ablated Copper Nanoparticles. Acta Metallurgica Sinica (English) Tj ETQq1 1 0.784314 rgBT /Qverlock 10	2.9	17
102	Photocatalytic performance of hybrid WO ₃ /TiO ₂ nanomaterials for the degradation of methylene blue under visible light irradiation. International Journal of Environmental Analytical Chemistry, 0, , 1-13.	3.3	21