

# Karuna K Nanda

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2153251/publications.pdf>

Version: 2024-02-01

203  
papers

6,952  
citations

66343

42  
h-index

74163

75  
g-index

206  
all docs

206  
docs citations

206  
times ranked

9189  
citing authors

#	ARTICLE	IF	CITATIONS
1	Liquid-drop model for the size-dependent melting of low-dimensional systems. Physical Review A, 2002, 66, .	2.5	540
2	Higher Surface Energy of Free Nanoparticles. Physical Review Letters, 2003, 91, 106102.	7.8	361
3	Green synthesis of biopolymer- <sup>66</sup> silver nanoparticle nanocomposite: An optical sensor for ammonia detection. International Journal of Biological Macromolecules, 2012, 51, 583-589.	7.5	295
4	One-step, integrated fabrication of Co <sub>2</sub> P nanoparticles encapsulated N, P dual-doped CNTs for highly advanced total water splitting. Nano Energy, 2016, 30, 303-311.	16.0	195
5	Expanding Interlayer Spacing in MoS <sub>2</sub> for Realizing an Advanced Supercapacitor. ACS Energy Letters, 2019, 4, 1602-1609.	17.4	195
6	In Situ Fabrication of a Nickel/Molybdenum Carbide-Anchored N-Doped Graphene/CNT Hybrid: An Efficient (Pre)catalyst for OER and HER. ACS Applied Materials & Interfaces, 2018, 10, 35025-35038.	8.0	185
7	Surface excitonic emission and quenching effects in ZnO nanowire/nanowall systems: Limiting effects on device potential. Physical Review B, 2005, 71, .	3.2	183
8	Prussian blue as a single precursor for synthesis of Fe/Fe <sub>3</sub> C encapsulated N-doped graphitic nanostructures as bi-functional catalysts. Green Chemistry, 2016, 18, 427-432.	9.0	152
9	Au Nanocomposite Based Chemiresistive Ammonia Sensor for Health Monitoring. ACS Sensors, 2016, 1, 55-62.	7.8	148
10	Phosphine-free avenue to Co <sub>2</sub> P nanoparticle encapsulated N,P co-doped CNTs: a novel non-enzymatic glucose sensor and an efficient electrocatalyst for oxygen evolution reaction. Green Chemistry, 2017, 19, 1327-1335.	9.0	141
11	Temperature-Dependent Photoluminescence of g-C <sub>3</sub> N <sub>4</sub> : Implication for Temperature Sensing. ACS Applied Materials & Interfaces, 2016, 8, 2181-2186.	8.0	140
12	A One-Step Method for the Growth of Ga <sub>2</sub> O <sub>3</sub> -Nanorod-Based White-Light-Emitting Phosphors. Advanced Materials, 2009, 21, 3581-3584.	21.0	120
13	Nanocomposite based flexible ultrasensitive resistive gas sensor for chemical reactions studies. Scientific Reports, 2013, 3, 2082.	3.3	114
14	Evaporation of Free PbS Nanoparticles: Evidence of the Kelvin Effect. Physical Review Letters, 2002, 89, 256103.	7.8	105
15	Band Gap Engineering of Hexagonal SnSe <sub>2</sub> Nanostructured Thin Films for Infra-Red Photodetection. Scientific Reports, 2017, 7, 15215.	3.3	102
16	Boron and Nitrogen Co-doped Carbon Nanoparticles as Photoluminescent Probes for Selective and Sensitive Detection of Picric Acid. Journal of Physical Chemistry C, 2015, 119, 13138-13143.	3.1	100
17	Energy Levels in Embedded Semiconductor Nanoparticles and Nanowires. Nano Letters, 2001, 1, 605-611.	9.1	84
18	Designing N-doped carbon nanotubes and Fe <sup>66</sup> Fe <sub>3</sub> C nanostructures co-embedded in B-doped mesoporous carbon as an enduring cathode electrocatalyst for metal-air batteries. Journal of Materials Chemistry A, 2017, 5, 16843-16853.	10.3	83

#	ARTICLE	IF	CITATIONS
19	One-Dimensional Quantum Confinement in Electrodeposited PbS Nanocrystalline Semiconductors. <i>Advanced Materials</i> , 2001, 13, 280-283.	21.0	79
20	Effective mass approximation for two extreme semiconductors: Band gap of PbS and CuBr nanoparticles. <i>Journal of Applied Physics</i> , 2004, 95, 5035-5041.	2.5	76
21	Red emitting Eu:ZnO nanorods for highly sensitive fluorescence intensity ratio based optical thermometry. <i>Journal of Materials Chemistry C</i> , 2017, 5, 1074-1082.	5.5	76
22	Bulk cohesive energy and surface tension from the size-dependent evaporation study of nanoparticles. <i>Applied Physics Letters</i> , 2005, 87, 021909.	3.3	74
23	<i>Anthocephalus cadamba</i> shaped FeNi encapsulated carbon nanostructures for metal-air batteries as a resilient bifunctional oxygen electrocatalyst. <i>Journal of Materials Chemistry A</i> , 2018, 6, 20411-20420.	10.3	67
24	Green synthesis of MoS <sub>2</sub> nanoflowers for efficient degradation of methylene blue and crystal violet dyes under natural sun light conditions. <i>New Journal of Chemistry</i> , 2018, 42, 14318-14324.	2.8	65
25	Enhanced Solar Light Absorption and Photoelectrochemical Conversion Using TiN Nanoparticle-Incorporated C <sub>3</sub> N <sub>4</sub> Dot Sheets. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 2460-2468.	8.0	64
26	Unusual photoresponse of indium doped ZnO/organic thin film heterojunction. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	62
27	Self-Powered, Broad Band, and Ultrafast InGaN-Based Photodetector. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 10418-10425.	8.0	61
28	Boron-doped carbon nanoparticles: Size-independent color tunability from red to blue and bioimaging applications. <i>Carbon</i> , 2016, 96, 166-173.	10.3	59
29	Construction of noble-metal alloys of cobalt confined N-doped carbon polyhedra toward efficient water splitting. <i>Green Chemistry</i> , 2020, 22, 7884-7895.	9.0	56
30	Review on recent progress in metal-organic framework-based materials for fabricating electrochemical glucose sensors. <i>Journal of Materials Chemistry B</i> , 2021, 9, 7927-7954.	5.8	55
31	“Rinse, Repeat” An Efficient and Reusable SERS and Catalytic Platform Fabricated by Controlled Deposition of Silver Nanoparticles on Cellulose Paper. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 14089-14101.	6.7	54
32	Surface Tension and Sintering of Free Gold Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2008, 112, 13488-13491.	3.1	52
33	Pd-coated Ru nanocrystals supported on N-doped graphene as HER and ORR electrocatalysts. <i>Chemical Communications</i> , 2019, 55, 13928-13931.	4.1	51
34	CoFe Nanoalloys Encapsulated in N-Doped Graphene Layers as a Pt-Free Multifunctional Robust Catalyst: Elucidating the Role of Co-Alloying and N-Doping. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 12736-12745.	6.7	50
35	A one-step technique to prepare aligned arrays of carbon nanotubes. <i>Nanotechnology</i> , 2008, 19, 155602.	2.6	46
36	Facile synthesis of ultrafine Ru nanocrystal supported N-doped graphene as an exceptional hydrogen evolution electrocatalyst in both alkaline and acidic media. <i>Sustainable Energy and Fuels</i> , 2017, 1, 1028-1033.	4.9	46

#	ARTICLE	IF	CITATIONS
37	Designing Dual Emissions via Co-doping or Physical Mixing of Individually Doped ZnO and Their Implications in Optical Thermometry. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 16305-16312.	8.0	46
38	Maximizing the utilization of Fe-N/C/CN centres for an air-cathode material and practical demonstration of metal-air batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20252-20262.	10.3	46
39	Defect and strain modulated highly efficient ZnO UV detector: Temperature and low-pressure dependent studies. <i>Applied Surface Science</i> , 2020, 505, 144365.	6.1	46
40	The dual role of Zn-acid medium for one-step rapid synthesis of M@rGO (M = Au, Pt, Pd and Ag) hybrid nanostructures at room temperature. <i>Chemical Communications</i> , 2013, 49, 8949.	4.1	45
41	Wide-Range Temperature Sensing using Highly Sensitive Green-Luminescent ZnO and PMMA-ZnO Film as a Non-Contact Optical Probe. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 11325-11328.	13.8	44
42	Facile synthesis of large area porous Cu <sub>2</sub> O as super hydrophobic yellow-red phosphors. <i>RSC Advances</i> , 2012, 2, 3647.	3.6	42
43	Non-Precious Bimetallic CoCr Nanostructures Entrapped in Bamboo-Like Nitrogen-Doped Graphene Tube As a Robust Bifunctional Electrocatalyst for Total Water Splitting. <i>ACS Applied Energy Materials</i> , 2018, 1, 1116-1126.	5.1	41
44	Defect-Mediated Transport in Self-Powered, Broadband, and Ultrafast Photoresponse of a MoS <sub>2</sub> /AlN/Si-Based Photodetector. <i>ACS Applied Electronic Materials</i> , 2020, 2, 944-953.	4.3	40
45	pH-dependent hydrogen evolution using spatially confined ruthenium on hollow N-doped carbon nanocages as a Mott-Schottky catalyst. <i>Journal of Materials Chemistry A</i> , 2021, 9, 13958-13966.	10.3	40
46	Phenomenological Predictions of Cohesive Energy and Structural Transition of Nanoparticles. <i>Journal of Physical Chemistry B</i> , 2006, 110, 1033-1037.	2.6	39
47	Facile and one-step synthesis of a free-standing 3D MoS <sub>2</sub> @rGO/Mo binder-free electrode for efficient hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 18081-18087.	10.3	39
48	A comprehensive analysis and rational designing of efficient Fe-based oxygen electrocatalysts for metal-air batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8537-8548.	10.3	39
49	Toward a Fast and Highly Responsive SnSe <sub>2</sub> -Based Photodiode by Exploiting the Mobility of the Counter Semiconductor. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 6184-6194.	8.0	39
50	Inner Sphere Electron Transfer Promotion on Homogeneously Dispersed Fe-N Centers for Energy-Efficient Oxygen Reduction Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 36026-36039.	8.0	39
51	Liquid-drop model for the surface energy of nanoparticles. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2012, 376, 1647-1649.	2.1	37
52	An electrochemical method for the synthesis of few layer graphene sheets for high temperature applications. <i>Chemical Communications</i> , 2014, 50, 4613.	4.1	36
53	An efficient on-board metal-free nanocatalyst for controlled room temperature hydrogen production. <i>Chemical Science</i> , 2017, 8, 2994-3001.	7.4	36
54	Dual roles of a transparent polymer film containing dispersed N-doped carbon dots: A high-efficiency blue light converter and UV screen. <i>Applied Surface Science</i> , 2020, 510, 145405.	6.1	36

#	ARTICLE	IF	CITATIONS
55	Excellent performance of Pt-free cathode in alkaline direct methanol fuel cell at room temperature. <i>Journal of Materials Chemistry A</i> , 2013, 1, 3133.	10.3	35
56	Instantaneous reduction of graphene oxide at room temperature. <i>RSC Advances</i> , 2013, 3, 12621.	3.6	34
57	Facile hydrothermal synthesis of carbon nanoparticles and possible application as white light phosphors and catalysts for the reduction of nitrophenol. <i>RSC Advances</i> , 2014, 4, 11481.	3.6	34
58	A noble and single source precursor for the synthesis of metal-rich sulphides embedded in an N-doped carbon framework for highly active OER electrocatalysts. <i>Dalton Transactions</i> , 2016, 45, 6352-6356.	3.3	33
59	A unique approach to designing resilient bi-functional nano-electrocatalysts based on ultrafine bimetallic nanoparticles dispersed in carbon nanospheres. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10544-10553.	10.3	33
60	In-Plane Anisotropic Photoconduction in Nonpolar Epitaxial <i>c</i> -Plane GaN. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 16918-16923.	8.0	33
61	High-entropy alloys for water oxidation: a new class of electrocatalysts to look out for. <i>Chemical Communications</i> , 2021, 57, 611-614.	4.1	33
62	Synthesis of zinc oxide porous structures by anodization with water as an electrolyte. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 109, 151-157.	2.3	32
63	In Situ Decoration of Ultrafine Ru Nanocrystals on N-Doped Graphene Tube and Their Applications as Oxygen Reduction and Hydrogen Evolution Catalyst. <i>ACS Applied Energy Materials</i> , 2019, 2, 7330-7339.	5.1	32
64	Self-assembled heterojunction between electrodeposited PbS nanoparticles and indium tin oxide substrate. <i>Applied Physics Letters</i> , 2001, 79, 2743-2745.	3.3	31
65	Size-Dependent Melting of Finite-Length Nanowires. <i>Journal of Physical Chemistry C</i> , 2010, 114, 14327-14331.	3.1	31
66	Ultrahigh-sensitive optical temperature sensing based on quasi-thermalized green emissions from Er:ZnO. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 2346-2352.	2.8	31
67	Highly Responsive, Self-Powered <i>c</i> -GaN Based UV-A Photodetectors Driven by Unintentional Asymmetrical Electrodes. <i>ACS Applied Electronic Materials</i> , 2020, 2, 769-779.	4.3	31
68	Mechanistic Investigation into Efficient Water Oxidation by Co-Ni-Based Hybrid Oxide-Hydroxide Flowers. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 13888-13895.	8.0	31
69	Next-generation self-powered and ultrafast photodetectors based on III-nitride hybrid structures. <i>APL Materials</i> , 2020, 8, .	5.1	30
70	Self-Organized Single-Atom Tungsten Supported on the N-Doped Carbon Matrix for Durable Oxygen Reduction. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 43586-43595.	8.0	29
71	Interface characterization of nanocrystalline CdS/Au junction by current-voltage and capacitance-voltage studies. <i>Journal of Applied Physics</i> , 1999, 85, 3666-3670.	2.5	28
72	Nitrogen-assisted electroless assembling of 3D nanodendrites consisting of Pd and N-doped carbon nanoparticles as bifunctional catalysts. <i>Green Chemistry</i> , 2016, 18, 2115-2121.	9.0	28

#	ARTICLE	IF	CITATIONS
73	Atomic Arrangement Modulation in CoFe Nanoparticles Encapsulated in N-Doped Carbon Nanostructures for Efficient Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2021, 13, 3771-3781.	8.0	28
74	Thermal oxidation strategy for the synthesis of phase-controlled GeO <sub>2</sub> and photoluminescence characterization. CrystEngComm, 2013, 15, 1043-1046.	2.6	27
75	Wide-Range Thermometry at Micro/Nano Length Scales with In <sub>2</sub> O <sub>3</sub> Octahedrons as Optical Probes. ACS Applied Materials & Interfaces, 2015, 7, 23481-23488.	8.0	27
76	Sequential Elemental Dealloying Approach for the Fabrication of Porous Metal Oxides and Chemiresistive Sensors Thereof for Electronic Listening. ACS Applied Materials & Interfaces, 2017, 9, 41428-41434.	8.0	27
77	Temperature sensing using sulfur-doped carbon nanoparticles. Carbon, 2018, 133, 200-208.	10.3	27
78	Visible light emission from CdS nanocrystals. Journal Physics D: Applied Physics, 1999, 32, 2306-2310.	2.8	25
79	Uninterrupted galvanic reaction for scalable and rapid synthesis of metallic and bimetallic sponges/dendrites as efficient catalysts for 4-nitrophenol reduction. Dalton Transactions, 2015, 44, 4215-4222.	3.3	25
80	Enhanced UV Photodetector Response of ZnO/Si With AlN Buffer Layer. IEEE Transactions on Electron Devices, 2017, 64, 4161-4166.	3.0	25
81	<i>In situ</i> self-organization of uniformly dispersed Co <sup>II</sup> centers at moderate temperature without a sacrificial subsidiary metal. Green Chemistry, 2021, 23, 3115-3126.	9.0	24
82	Temperature-Dependent Electrical Transport and Optoelectronic Properties of SnS <sub>2</sub> /p-Si Heterojunction. ACS Applied Electronic Materials, 2020, 2, 2155-2163.	4.3	23
83	FeCoNiMnCr High-Entropy Alloy Nanoparticle-Grafted NCNTs with Promising Performance in the Ohmic Polarization Region of Fuel Cells. ACS Applied Materials & Interfaces, 2022, 14, 16108-16116.	8.0	23
84	Size-dependent density of nanoparticles and nanostructured materials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3301-3302.	2.1	20
85	Detailed understanding of the excitation-intensity dependent photoluminescence of ZnO materials: Role of defects. Journal of Applied Physics, 2014, 115, .	2.5	20
86	Direct synthesis of Pt-free catalyst on gas diffusion layer of fuel cell and usage of high boiling point fuels for efficient utilization of waste heat. Applied Energy, 2017, 205, 1050-1058.	10.1	20
87	An Extrinsic Approach Toward Achieving Fast Response and Self-Powered Photodetector. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800470.	1.8	20
88	Self-powered, ultrasensitive, room temperature humidity sensors using SnS <sub>2</sub> nanofilms. Scientific Reports, 2020, 10, 14611.	3.3	20
89	Understanding the ammonia sensing behavior of filter coffee powder derived N-doped carbon nanoparticles using the Freundlich-like isotherm. Journal of Materials Chemistry A, 2016, 4, 8860-8865.	10.3	19
90	Double Gaussian distribution of barrier heights and self-powered infrared photoresponse of InN/AlN/Si (111) heterostructure. Journal of Applied Physics, 2019, 126, .	2.5	19

#	ARTICLE	IF	CITATIONS
91	Device Architecture for Visible and Near-Infrared Photodetectors Based on Two-Dimensional SnSe <sub>2</sub> and MoS <sub>2</sub> : A Review. <i>Micromachines</i> , 2020, 11, 750.	2.9	19
92	Differentiation of ultraviolet/visible photons from near infrared photons by MoS <sub>2</sub> /GaN/Si-based photodetector. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	19
93	Current Insight into 3D Printing in Solid-State Lithium-Ion Batteries: A Perspective. <i>Batteries and Supercaps</i> , 2022, 5, .	4.7	19
94	Size-dependent melting of small particles: a classical approach. <i>European Journal of Physics</i> , 1998, 19, 471-472.	0.6	18
95	Effective Surface Area Tuning of Noble Metal-Free CuBO <sub>2</sub> /rGO Nanohybrid for Efficient Hydrogen Production with "On-Off" Switching. <i>ACS Applied Energy Materials</i> , 2019, 2, 260-268.	5.1	18
96	Hexamethylenetetramine mediated simultaneous nitrogen doping and reduction of graphene oxide for a metal-free SERS substrate. <i>RSC Advances</i> , 2014, 4, 44146-44150.	3.6	17
97	MgO Nanocubes as Self-Calibrating Optical Probes for Efficient Ratiometric Detection of Picric Acid in the Solid State. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 13719-13729.	6.7	17
98	Highly Responsive ZnO/AlN/Si Heterostructure-Based Infrared- and Visible-Blind Ultraviolet Photodetectors With High Rejection Ratio. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 1345-1352.	3.0	17
99	Photodetection Properties of Nonpolar a-Plane GaN Grown by Three Approaches Using Plasma-Assisted Molecular Beam Epitaxy. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1900171.	1.8	17
100	Rational geometrical engineering of palladium sulfide multi-arm nanostructures as a superior bi-functional electrocatalyst. <i>Nanoscale</i> , 2017, 9, 12628-12636.	5.6	16
101	Alkaline earth metal based single atom catalyst for the highly durable oxygen reduction reaction. <i>Applied Materials Today</i> , 2020, 21, 100846.	4.3	16
102	Unique One-Step Strategy for Nonmetallic and Metallic Heteroatom Doped Carbonaceous Materials. <i>ACS Omega</i> , 2020, 5, 32852-32860.	3.5	16
103	Different types of band alignment at MoS <sub>2</sub> /(Al, Ga, In)N heterointerfaces. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	16
104	Studies towards synthesis, evolution and alignment characteristics of dense, millimeter long multiwalled carbon nanotube arrays. <i>Beilstein Journal of Nanotechnology</i> , 2011, 2, 293-301.	2.8	15
105	Experimental evidence on RH-dependent crossover from an electronic to protonic conduction with an oscillatory behaviour. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	15
106	The Untold Tale of the ORR Polarization Curve. <i>Journal of Physical Chemistry C</i> , 2021, 125, 10378-10385.	3.1	15
107	Comment on "Size-dependent melting behavior of Zn nanowire arrays" [Appl. Phys. Lett. 88, 173114 (2006)]. <i>Applied Physics Letters</i> , 2007, 91, 196101.	3.3	14
108	Controllable resistance and temperature dependency of carbon nanotube bundles. <i>Applied Physics Letters</i> , 2008, 93, 063105.	3.3	14



#	ARTICLE	IF	CITATIONS
109	Tunable device properties of free-standing inorganic/organic flexible hybrid structures obtained by exfoliation. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	14
110	Carbon nanotube-ZnO nanowire hybrid architectures as multifunctional devices. <i>AIP Advances</i> , 2013, 3, 082106.	1.3	14
111	Reduced graphene oxide-based broad band photodetector and temperature sensor: effect of gas adsorption on optoelectrical properties. <i>Journal of Nanoparticle Research</i> , 2018, 20, 1.	1.9	14
112	Investigation of electrical, mechanical, and thermal properties of functionalized multiwalled carbon nanotubesâ€reduced graphene Oxide/PMMA hybrid nanocomposites. <i>Polymer Engineering and Science</i> , 2019, 59, 1075-1083.	3.1	14
113	Photon-Free Degradation of Dyes by Ge/GeO <sub>2</sub> Porous Microstructures. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 6611-6618.	6.7	14
114	Mechanistic study on nitrogen-doped graphitic carbon-reinforced chromium nitride as a durable electrocatalyst for oxygen reduction. <i>Journal of Materials Chemistry A</i> , 2021, 9, 16575-16584.	10.3	14
115	Electronic structure modulation of molybdenum-iron double-atom catalyst for bifunctional oxygen electrochemistry. <i>Chemical Engineering Journal</i> , 2022, 449, 137705.	12.7	14
116	Ruthenium nanodendrites on reduced graphene oxide: an efficient water and 4-nitrophenol reduction catalyst. <i>New Journal of Chemistry</i> , 2021, 45, 1556-1564.	2.8	13
117	Trimetallic oxide-hydroxide porous nanosheets for efficient water oxidation. <i>Chemical Engineering Journal</i> , 2022, 435, 135019.	12.7	13
118	Preparation temperature effect on the synthesis of various carbon nanostructures. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2009, 164, 140-150.	3.5	12
119	Towards the understanding of formation of micro/nano holes of Ge/GeO <sub>2</sub> through phase mapping. <i>CrystEngComm</i> , 2013, 15, 4049.	2.6	12
120	Solution-Processed SnSe <sub>2</sub> â€“RGO-Based Bulk Heterojunction for Self-Powered and Broadband Photodetection. <i>ACS Applied Electronic Materials</i> , 2021, 3, 3131-3138.	4.3	12
121	Self-Assembled TMD Nanoparticles on N-Doped Carbon Nanostructures for Oxygen Reduction Reaction and Electrochemical Oxygen Sensing Thereof. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 5134-5148.	8.0	12
122	The temperature dependence of the forward characteristics of 1N4007 silicon diode. <i>Review of Scientific Instruments</i> , 1994, 65, 3289-3290.	1.3	11
123	Uninterrupted and reusable source for the controlled growth of nanowires. <i>Scientific Reports</i> , 2013, 3, 1172.	3.3	11
124	White Light Emission from Black Germanium. <i>ACS Photonics</i> , 2017, 4, 1722-1729.	6.6	11
125	Ultrafast-Versatile-Domestic-Microwave-Oven Based Graphene Oxide Reactor for the Synthesis of Highly Efficient Graphene Based Hybrid Electrocatalysts. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 4037-4045.	6.7	11
126	Harvesting energy via stimuliâ€free water/moisture dissociation by mesoporous SnO <sub>2</sub> â€“based hydroelectric cell and CuO as a pump for atmospheric moisture. <i>International Journal of Energy Research</i> , 2020, 44, 1276-1283.	4.5	11



#	ARTICLE	IF	CITATIONS
127	Electrically Modulated Wavelength-Selective Photodetection Enabled by $\text{MoS}_2/\text{ZnO}$ Heterostructure. <i>Physical Review Applied</i> , 2022, 17, .	3.8	11
128	Synthesis of one-dimensional N-doped Ga <sub>2</sub> O <sub>3</sub> nanostructures: different morphologies and different mechanisms. <i>Bulletin of Materials Science</i> , 2011, 34, 1331-1338.	1.7	10
129	Thermodynamic Models for the Size-dependent Melting of Nanoparticles: Different Hypotheses. <i>Current Nanoscience</i> , 2012, 8, 305-311.	1.2	10
130	Carbon nanotube mat as substrate for ZnO nanotip field emitters. <i>RSC Advances</i> , 2012, 2, 2713.	3.6	10
131	Luminescence from wide band gap materials and their applications. <i>Advances in Natural Sciences: Nanoscience and Nanotechnology</i> , 2015, 6, 015002.	1.5	10
132	Large scale synthesis of reduced graphene oxide using ferrocene and HNO <sub>3</sub> . <i>Materials Letters</i> , 2018, 211, 335-338.	2.6	10
133	Insights into Improving Photoelectrochemical Water-Splitting Performance Using Hematite Anode. <i>Energy Technology</i> , 2022, 10, 2100457.	3.8	10
134	Spatially dispersed one-dimensional carbon architecture on oxide framework for oxygen electrochemistry. <i>Chemical Engineering Journal</i> , 2022, 433, 133649.	12.7	10
135	Universal avenue to metal-transition metal carbide grafted N-doped carbon framework as efficient dual Mott-Schottky electrocatalysts for water splitting. <i>Sustainable Materials and Technologies</i> , 2022, 33, e00451.	3.3	10
136	Multistage effect in enhancing the field emission behaviour of ZnO branched nanostructures. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	9
137	Effects of nanoscale morphology and defects in oxide: optoelectronic functions of zinc oxide nanowires. <i>Radiation Effects and Defects in Solids</i> , 2016, 171, 22-33.	1.2	9
138	Mechanistic view on efficient photodetection by solvothermally reduced graphene oxide. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 14818-14826.	2.2	9
139	Effect of inhomogeneous mesoporosity and defects on the luminescent properties of slanted silicon nanowires prepared by facile metal-assisted chemical etching. <i>Journal of Applied Physics</i> , 2018, 124, 104303.	2.5	9
140	Temperature Dependent S-Shaped Photoluminescence Behavior of InGaN Nanolayers: Optoelectronic Implications in Harsh Environment. <i>ACS Applied Nano Materials</i> , 2020, 3, 8453-8460.	5.0	9
141	Interfacial Electron Transfer Strategy to Improve the Hydrogen Evolution Catalysis of CrP Heterostructure. <i>Small</i> , 2022, 18, e2106139.	10.0	9
142	MoS <sub>2</sub> /SnO <sub>2</sub> heterojunction-based self-powered photodetector. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	9
143	Electrical properties of 1N4007 silicon diode. <i>Review of Scientific Instruments</i> , 1997, 68, 2904-2908.	1.3	8
144	Melting and superheating of nanowires—a nanotube approach. <i>Nanotechnology</i> , 2010, 21, 205701.	2.6	8

#	ARTICLE	IF	CITATIONS
145	Evolution of crystallinity of free gold agglomerates and shape transformation. RSC Advances, 2011, 1, 568.	3.6	8
146	Thioacetamide-derived nitrogen and sulfur co-doped carbon nanoparticles used for label-free detection of copper( $\text{Cu}^{2+}$ ) ions and bioimaging applications. New Journal of Chemistry, 2017, 41, 13742-13746.	2.8	8
147	Reduced graphene oxide film based highly responsive infrared detector. Materials Research Express, 2017, 4, 085603.	1.6	8
148	On the origin of metallicity and stability of the metastable phase in chemically exfoliated MoS <sub>2</sub> . Applied Materials Today, 2020, 19, 100544.	4.3	8
149	Energy-Efficient Rational Designing of Multifunctional Nanocomposites by Preferential Anchoring of Metal Ions via Fermi Level Positioning of Carbon Nanostructures. ACS Applied Materials & Interfaces, 2020, 12, 53749-53759.	8.0	8
150	Asymmetric Supercapacitors with Nanostructured RuS <sub>2</sub> . Energy & Fuels, 2021, 35, 12671-12679.	5.1	8
151	Design of Hierarchical Oxide@Carbon Nanostructures for Trifunctional Electrocatalytic Applications. Advanced Materials Interfaces, 2022, 9, .	3.7	8
152	Mechanism for the Compressive Strain Induced Oscillations in the Conductance of Carbon Nanotubes. Physical Review Letters, 2013, 110, 095504.	7.8	7
153	Electrical transport modulation of VO <sub>2</sub> /Si(111) heterojunction by engineering interfacial barrier height. Journal of Applied Physics, 2021, 129, .	2.5	7
154	Designed synthesis of a hierarchical MoSe <sub>2</sub> @WSe <sub>2</sub> hybrid nanostructure as a bifunctional electrocatalyst for total water-splitting. Sustainable Energy and Fuels, 2022, 6, 1708-1718.	4.9	7
155	Excellent field emission from semialigned carbon nanofibers grown on cylindrical copper surface. Applied Physics Letters, 2009, 95, 083108.	3.3	6
156	On the paradoxical relation between the melting temperature and forbidden energy gap of nanoparticles. Journal of Chemical Physics, 2010, 133, 054502.	3.0	6
157	ZnO/Poly(3,4-ethylenedioxythiophene) Poly(styrenesulfonate) Based Ultraviolet and Visible Photodetectors: Role of Defects. Materials Express, 2012, 2, 251-256.	0.5	6
158	Giant enhancement in photoresponse via engineering of photo-induced charge (electron and hole) transfer in linear and non-linear devices. Sensors and Actuators A: Physical, 2020, 304, 111842.	4.1	6
159	Gas-phase synthesis of size-classified polyhedral In <sub>2</sub> O <sub>3</sub> nanoparticles. Journal of Materials Chemistry, 2012, 22, 3133.	6.7	5
160	Note: Simultaneous water quality monitoring and degradation of hazardous organic pollutants. Review of Scientific Instruments, 2018, 89, 096102.	1.3	5
161	Uniform Distribution of Ruthenium Nanoparticles on Nitrogen-Doped Carbon Nanostructure for Oxygen Reduction Reaction. ACS Applied Energy Materials, 2021, 4, 12191-12200.	5.1	5
162	Electrical breakdown of carbon nanotube devices and the predictability of breakdown position. AIP Advances, 2012, 2, .	1.3	4

#	ARTICLE	IF	CITATIONS
163	Electrical characteristics of multiwalled carbon nanotube arrays and influence of pressure. AIP Advances, 2012, 2, 022103.	1.3	4
164	Anisotropic electrical transport properties of poly(methyl methacrylate) infiltrated aligned carbon nanotube mats. Applied Physics Letters, 2012, 100, .	3.3	4
165	Doping by diffusion of dopants from the substrate: synthesis of doped ZnO nanowires. Journal of Materials Chemistry C, 2013, 1, 1066-1069.	5.5	4
166	Si-mediated fabrication of reduced graphene oxide and its hybrids for electrode materials. Green Chemistry, 2015, 17, 776-780.	9.0	4
167	Overcoming the Challenges Associated with the InN/InGaN Heterostructure via a Nanostructuring Approach for Broad Band Photodetection. ACS Applied Electronic Materials, 2021, 3, 4243-4253.	4.3	4
168	Nicotiana genus: a green and sustainable source for designing of nitrogen-rich efficient carbon nanocomposites for the hydrogenation of nitrophenol and non-enzymatic glucose sensing. Materials Today Sustainability, 2022, 17, 100085.	4.1	4
169	Size-Dependent Cohesive Energy and Melting Of Non-Spherical Nanoparticles. , 2008, , .		3
170	Core-Shell Nanostructures: Modeling, Fabrication, Properties, and Applications. Journal of Nanomaterials, 2012, 2012, 1-2.	2.7	3
171	Fabrication of Highly Dense Nanoholes by Self-Assembled Gallium Droplet on Silicon Surface. Materials Express, 2012, 2, 245-250.	0.5	3
172	A comparison of ZnO films deposited on indium tin oxide and soda lime glass under identical conditions. AIP Advances, 2013, 3, .	1.3	3
173	Understanding of nitrogen-doped carbon nanoparticles based solid phosphors for white light emitting diodes. RSC Advances, 2016, 6, 67751-67755.	3.6	3
174	Identifying the Accuracy of Various Approaches for Determining the Fraction of Surface Atoms in a Nanoparticle to Deepen Studentsâ€™ Understanding of Size-Dependent Properties. Journal of Chemical Education, 2021, 98, 1982-1987.	2.3	3
175	Inhomogeneity-mediated systematic reduction of the Schottky barrier in a Au/GaN nanorod film interface. Semiconductor Science and Technology, 2021, 36, 015017.	2.0	3
176	Direct White Light Nanophosphors. Key Engineering Materials, 2010, 444, 219-228.	0.4	2
177	Near white light emission from ZnO nanostructures. Materials Research Society Symposia Proceedings, 2011, 1303, 63.	0.1	2
178	Shape Transformation of ZnO Nanorods /Nanotubes at Low Temperature. Current Nanoscience, 2012, 8, 156-160.	1.2	2
179	Ultralong ZnO nanowires: Problems and prospects. Materials Express, 2013, 3, 185-200.	0.5	2
180	Strong Red Luminescent Twin ZnO Nanorods for Nano-thermometry Application. MRS Advances, 2016, 1, 869-874.	0.9	2

#	ARTICLE	IF	CITATIONS
181	Group III-Nitrides and Their Hybrid Structures for Next-Generation Photodetectors. , 0, , .		2
182	Pulsed Laser Deposition of Transition Metal Dichalcogenides-Based Heterostructures for Efficient Photodetection. , 0, , .		2
183	Modulating the Midgap States of 3D-2D Hybrid ZnO by Codoping and Its Effect on Visible Photocatalysis. Industrial & Engineering Chemistry Research, 2022, 61, 4244-4254.	3.7	2
184	Enhancement of Photoresponsivity of $\text{In}_2\text{S}_3/\text{Si}$ Broadband Photodetector by Decorating With Reduced-Graphene Oxide. IEEE Transactions on Electron Devices, 2022, 69, 4355-4361.	3.0	2
185	Synthesis Conditions and Superconductivity in 123-Type Superconductors. Journal of Superconductivity and Novel Magnetism, 1998, 11, 649-652.	0.5	1
186	Synthesis of Porous Cuprous Oxide ( $\text{Cu}_2\text{O}$ ) on Cu Foil. , 2011, , .		1
187	Large scale synthesis of ultralong aligned buckled multiwalled carbon nanotubes by one-step pyrolysis. CrystEngComm, 2012, 14, 7161.	2.6	1
188	Recycle and reuse of substrates and the deposit materials. RSC Advances, 2012, 2, 12136.	3.6	1
189	Enhanced photocatalytic activity of ultra-high aspect ratio ZnO nanowires due to Cu induced defects. Radiation Effects and Defects in Solids, 2015, 170, 939-944.	1.2	1
190	Negative-charge-functionalized carbon nanodot: a low-cost smart cold emitter. Nanotechnology, 2017, 28, 395705.	2.6	1
191	ZnO hybrid microstructures as dark catalyst. AIP Conference Proceedings, 2019, , .	0.4	1
192	Unconventional energy transfer from narrow to broad luminescent wide band gap materials. Europhysics Letters, 2019, 127, 17003.	2.0	1
193	Preparation and Optical Properties ZnO Dumb-Bell Like Microcrystals. , 2011, , .		0
194	Electrical properties of buckled multiwalled carbon nanotube arrays in the diffusive regime. Europhysics Letters, 2012, 99, 56006.	2.0	0
195	An Efficient and Environment Friendly Universal-White-Light-Emitting ZnO Nanophosphors. Current Nanoscience, 2012, 8, 914-918.	1.2	0
196	Excitation- and power-dependent photoluminescence from oxidized Ge. Materials Letters, 2013, 101, 5-8.	2.6	0
197	Various quantum mechanical concepts for confinements in semiconductor nanocrystals. Resonance, 2013, 18, 771-776.	0.3	0
198	Hetero-atom doped carbon nanotubes for dye degradation and oxygen reduction reaction. AIP Conference Proceedings, 2015, , .	0.4	0

#	ARTICLE	IF	CITATIONS
199	Air stable iron/iron carbide magnetic nanoparticles embedded in amorphous carbon globules. AIP Conference Proceedings, 2015, , .	0.4	0
200	Evaporation-condensation synthesis and optical property of In <sub>2</sub> O <sub>3</sub> octahedrons. AIP Conference Proceedings, 2015, , .	0.4	0
201	Nickel in nitrogen-doped graphene nanotube as efficient electrocatalyst for water splitting. AIP Conference Proceedings, 2020, , .	0.4	0
202	Robust Visible-Blind Wearable Infrared Sensor Based on IrP <sub>2</sub> Nanoparticle-Embedded Few-Layer Graphene and the Effect of Photogating. ACS Applied Materials & Interfaces, 2021, 13, 54258-54265.	8.0	0
203	Dependence of defect structure on In concentration in InGaN epilayers grown on AlN/Si (111) substrate. Materials Advances, 0, , .	5.4	0