

# Ratan Das

## List of Publications by Year in descending order

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Version: 2024-02-01

50  
papers

1,577  
citations

394286

19  
h-index

302012

39  
g-index

50  
all docs

50  
docs citations

50  
times ranked

1615  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tuning the optical constants and thermal properties of CdS nanocrystals by SHI irradiation: A blended analysis through DFT+U and TS model. <i>Materials Science in Semiconductor Processing</i> , 2022, 138, 106278.	1.9	2
2	Cobalt doping on nickel ferrite nanocrystals enhances the micro-structural and magnetic properties: Shows a correlation between them. <i>Journal of Alloys and Compounds</i> , 2021, 852, 156884.	2.8	42
3	Enhancement of antibacterial activity of synthesized ligand-free CdS nanocrystals due to silver doping. <i>Journal of Basic Microbiology</i> , 2021, 61, 27-36.	1.8	8
4	Presence of fluoride in water diminishes fast the SPR peak of silver nanocrystals showing large red shift with quick sedimentation – A fast sensing and fast removal case. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 249, 119306.	2.0	8
5	Effect of cobalt doping on structural parameters, cation distribution and magnetic properties of nickel ferrite nanocrystals. <i>Ceramics International</i> , 2021, 47, 16467-16482.	2.3	29
6	Surface and displacement damage engineering on CdSe nanocrystalline thin film by swift heavy Ag ions: A theoretical investigation by SRIM/TRIM package. <i>Vacuum</i> , 2021, 190, 110293.	1.6	10
7	Experimental (XRD) and theoretical (DFT) analysis for understanding the influence of SHI irradiation on the stacking fault energy in CdSe nanocrystals. <i>Journal of Alloys and Compounds</i> , 2021, 879, 160456.	2.8	5
8	Impact of Silver Doping on the Crystalline Size and Intrinsic Strain of MPA-Capped CdTe Nanocrystals: A Study by Williamson-Hall Method and Size-Strain Plot Method. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 652-660.	1.2	16
9	Study of the optical properties of Zn doped Mn spinel ferrite nanocrystals shows multiple emission peaks in the visible range – a promising soft ferrite nanomaterial for deep blue LED. <i>Journal of Molecular Structure</i> , 2020, 1199, 127044.	1.8	43
10	X-ray diffraction analysis by Williamson-Hall, Halder-Wagner and size-strain plot methods of CdSe nanoparticles- a comparative study. <i>Materials Chemistry and Physics</i> , 2020, 239, 122021.	2.0	597
11	Phase transformation of CdSe nanocrystals at high fluence irradiation of 120 MeV swift Ni <sup>10+</sup> and Ag <sup>7+</sup> ions – X-ray diffraction and Raman spectral analysis. <i>Applied Surface Science</i> , 2020, 509, 144708.	3.1	7
12	Enhanced photocatalytic degradation of methyl orange dye on interaction with synthesized ligand free CdS nanocrystals under visible light illumination. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 231, 118122.	2.0	57
13	Atomistic strain and structural analysis of 120 MeV Ni ions irradiated CdSe nanocrystals through molecular dynamics simulation method. <i>Vacuum</i> , 2020, 182, 109794.	1.6	4
14	Microstructural analysis of SHI irradiated CdS nanocrystals- utilizing first principles method. <i>Journal of Alloys and Compounds</i> , 2020, 824, 153968.	2.8	5
15	Antibacterial activity of MPA-capped CdTe and Ag-doped CdTe nanocrystals: Showing different activity against gram-positive and gram-negative bacteria. <i>Chemical Papers</i> , 2020, 74, 3409-3421.	1.0	2
16	120 MeV Ni <sup>10+</sup> swift heavy ions irradiation on CdSe nanocrystals induces cubic to hexagonal phase transformation - A study of microstructural modification. <i>Materials Science in Semiconductor Processing</i> , 2020, 114, 105079.	1.9	8
17	Effects of saponin capped triangular silver nanocrystals on the germination of <i>Pisum sativum</i> , <i>Cicer arietinum</i> , <i>Vigna radiata</i> seeds & their subsequent growth study. <i>IET Nanobiotechnology</i> , 2020, 14, 25-32.	1.9	7
18	X-ray diffraction study of the elastic properties of jagged spherical CdS nanocrystals. <i>Materials Science-Poland</i> , 2020, 38, 271-278.	0.4	22

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19	Different Anisotropic Silver Nanocrystals Show Different Antibacterial Activities – An Effect of Different Prominent Crystallographic Orientations in Different Shapes. <i>Current Science</i> , 2020, 118, 1903.	0.4	1
20	Band gap engineering of cadmium selenide nanocrystals using 120ÅMeV Ag <sup>7+</sup> swift heavy ions, alongside theoretical evidence through PBE+U analysis. <i>Journal of Alloys and Compounds</i> , 2020, 836, 155535.	2.8	2
21	X-ray diffraction analysis for the determination of elastic properties of zinc-doped manganese spinel ferrite nanocrystals (Mn <sub>0.75</sub> Zn <sub>0.25</sub> Fe <sub>2</sub> O <sub>4</sub> ), along with the determination of ionic radii, bond lengths, and hopping lengths. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 134, 105-114.	1.9	65
22	Controlled Synthesis of Saponin-Capped Silver Nanotriangles and Their Optical Properties. <i>Plasmonics</i> , 2019, 14, 1365-1375.	1.8	12
23	Ligand free surface of CdS nanoparticles enhances the energy transfer efficiency on interacting with Eosin Y dye – Helping in the sensing of very low level of chlorpyrifos in water. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 207, 156-163.	2.0	26
24	Synthesis of Silver Nano-cubes and Study of Their Elastic Properties Using X-Ray Diffraction Line Broadening. <i>Journal of Nondestructive Evaluation</i> , 2019, 38, 1.	1.1	4
25	Shape effect on the optical properties of anisotropic silver nanocrystals. <i>Journal of Luminescence</i> , 2018, 198, 464-470.	1.5	8
26	Presence of chlorpyrifos shows blue shift of the absorption peak of silver nanohexagons solution – An indication of etching of nanocrystals and sensing of chlorpyrifos. <i>Sensors and Actuators B: Chemical</i> , 2018, 266, 149-159.	4.0	12
27	Effect of silver doping on the elastic properties of CdS nanoparticles. <i>Indian Journal of Physics</i> , 2018, 92, 1099-1108.	0.9	36
28	Shape effect on the elastic properties of Ag nanocrystals. <i>Micro and Nano Letters</i> , 2018, 13, 312-315.	0.6	52
29	PVP capped silver nanocubes assisted removal of glyphosate from water – A photoluminescence study. <i>Journal of Hazardous Materials</i> , 2017, 339, 54-62.	6.5	35
30	Photoluminescence quenching in ligand free CdS nanocrystals due to silver doping along with two high energy surface states emission. <i>Journal of Luminescence</i> , 2017, 183, 368-376.	1.5	37
31	Effect of Zinc oxide nanoparticle on Fluorescence Resonance Energy transfer between Fluorescein and Rhodamine 6G. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2017, 175, 110-116.	2.0	19
32	New Way of Looking at Schrödinger Equation. <i>Journal of Advanced Physics</i> , 2017, 6, 426-429.	0.4	0
33	Photoluminescence Study of Silver Nano-hexagons. <i>Plasmonics</i> , 2016, 11, 551-556.	1.8	9
34	Williamson Hall Plot Analysis of the X-ray Diffraction Result of Synthesized Silver Nanocubes for the Determination of Their Elastic Properties. <i>Advanced Science Letters</i> , 2016, 22, 145-148.	0.2	8
35	Two peak luminescence from linoleic acid protected gold nanoparticles. <i>Journal of Luminescence</i> , 2015, 168, 325-329.	1.5	6
36	Optical properties of silver nano-cubes. <i>Optical Materials</i> , 2015, 48, 203-208.	1.7	32

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37	X-ray diffraction analysis of synthesized silver nanohexagon for the study of their mechanical properties. <i>Materials Chemistry and Physics</i> , 2015, 167, 97-102.	2.0	26
38	Lie Algebraic Study of Infra-Red Active Spectra of Single-Layer Graphene. <i>Polycyclic Aromatic Compounds</i> , 2014, 34, 214-224.	1.4	0
39	Silver Nanoparticles and Their Antimicrobial Activity on a Few Bacteria. <i>BioNanoScience</i> , 2013, 3, 67-72.	1.5	5
40	Synthesis and Characterization of Linoleic Acid Capped Palladium Nanoparticles. <i>Springer Proceedings in Physics</i> , 2013, , 139-142.	0.1	0
41	Preparation of linoleic acid-capped silver nanoparticles and their antimicrobial effect. <i>IET Nanobiotechnology</i> , 2012, 6, 81.	1.9	1
42	Luminescence of copper nanoparticles. <i>Journal of Luminescence</i> , 2011, 131, 2703-2706.	1.5	36
43	Synthesis of Linoleic Acid Capped Copper Nanoparticles and Their Fluorescence Study. <i>Journal of Fluorescence</i> , 2011, 21, 1165-1170.	1.3	17
44	Optical Properties of Linoleic Acid Protected Gold Nanoparticles. <i>Journal of Nanomaterials</i> , 2011, 2011, 1-4.	1.5	12
45	Preparation and Antibacterial Activity of Silver Nanoparticles. <i>Journal of Biomaterials and Nanobiotechnology</i> , 2011, 02, 472-475.	1.0	63
46	Synthesis of silver nanoparticles and their optical properties. <i>Journal of Experimental Nanoscience</i> , 2010, 5, 357-362.	1.3	97
47	Preparation of linoleic acid capped gold nanoparticles and their spectra. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010, 43, 224-227.	1.3	33
48	Linoleic Acid Capped Copper Nanoparticles for Antibacterial Activity. <i>Journal of Bionanoscience</i> , 2010, 4, 82-86.	0.4	29
49	FLUORESCENCE STUDY OF CdSe QUANTUM DOTS SUSPENDED IN LIQUID PARAFFIN. <i>Nano</i> , 2010, 05, 357-359.	0.5	7
50	Resonance Raman study on distorted symmetry of porphyrin in nickel octaethyl porphyrin. <i>Pramana - Journal of Physics</i> , 2004, 63, 1073-1082.	0.9	15