Ratan Das

List of Publications by Year in descending order

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	X-ray diffraction analysis by Williamson-Hall, Halder-Wagner and size-strain plot methods of CdSe nanoparticles- a comparative study. Materials Chemistry and Physics, 2020, 239, 122021.	2.0	597
2	Synthesis of silver nanoparticles and their optical properties. Journal of Experimental Nanoscience, 2010, 5, 357-362.	1.3	97
3	X-ray diffraction analysis for the determination of elastic properties of zinc-doped manganese spinel ferrite nanocrystals (Mn0.75Zn0.25Fe2O4), along with the determination of ionic radii, bond lengths, and hopping lengths. Journal of Physics and Chemistry of Solids, 2019, 134, 105-114.	1.9	65
4	Preparation and Antibacterial Activity of Silver Nanoparticles. Journal of Biomaterials and Nanobiotechnology, 2011, 02, 472-475.	1.0	63
5	Enhanced photocatalytic degradation of methyl orange dye on interaction with synthesized ligand free CdS nanocrystals under visible light illumination. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 231, 118122.	2.0	57
6	Shape effect on the elastic properties of Ag nanocrystals. Micro and Nano Letters, 2018, 13, 312-315.	0.6	52
7	Study of the optical properties of Zn doped Mn spinel ferrite nanocrystals shows multiple emission peaks in the visible range â€“a promising soft ferrite nanomaterial for deep blue LED. Journal of Molecular Structure, 2020, 1199, 127044.	1.8	43
8	Cobalt doping on nickel ferrite nanocrystals enhances the micro-structural and magnetic properties: Shows a correlation between them. Journal of Alloys and Compounds, 2021, 852, 156884.	2.8	42
9	Photoluminescence quenching in ligand free CdS nanocrystals due to silver doping along with two high energy surface states emission. Journal of Luminescence, 2017, 183, 368-376.	1.5	37
10	Luminescence of copper nanoparticles. Journal of Luminescence, 2011, 131, 2703-2706.	1.5	36
11	Effect of silver doping on the elastic properties of CdS nanoparticles. Indian Journal of Physics, 2018, 92, 1099-1108.	0.9	36
12	PVP capped silver nanocubes assisted removal of glyphosate from waterâ€”A photoluminescence study. Journal of Hazardous Materials, 2017, 339, 54-62.	6.5	35
13	Preparation of linoleic acid capped gold nanoparticles and their spectra. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 43, 224-227.	1.3	33
14	Optical properties of silver nano-cubes. Optical Materials, 2015, 48, 203-208.	1.7	32
15	Linoleic Acid Capped Copper Nanoparticles for Antibacterial Activity. Journal of Bionanoscience, 2010, 4, 82-86.	0.4	29
16	Effect of cobalt doping on structural parameters, cation distribution and magnetic properties of nickel ferrite nanocrystals. Ceramics International, 2021, 47, 16467-16482.	2.3	29
17	X-ray diffraction analysis of synthesized silver nanohexagon for the study of their mechanical properties. Materials Chemistry and Physics, 2015, 167, 97-102.	2.0	26
18	Ligand free surface of CdS nanoparticles enhances the energy transfer efficiency on interacting with Eosin Y dye â€“ Helping in the sensing of very low level of chlorpyrifos in water. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 207, 156-163.	2.0	26

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19	X-ray diffraction study of the elastic properties of jagged spherical CdS nanocrystals. Materials Science-Poland, 2020, 38, 271-278.	0.4	22
20	Effect of Zinc oxide nanoparticle on Fluorescence Resonance Energy transfer between Fluorescein and Rhodamine 6G. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 175, 110-116.	2.0	19
21	Synthesis of Linoleic Acid Capped Copper Nanoparticles and Their Fluorescence Study. Journal of Fluorescence, 2011, 21, 1165-1170.	1.3	17
22	Impact of Silver Doping on the Crystalline Size and Intrinsic Strain of MPA-Capped CdTe Nanocrystals: A Study by Williamsonâ€“Hall Method and Sizeâ€“Strain Plot Method. Journal of Materials Engineering and Performance, 2021, 30, 652-660.	1.2	16
23	Resonance Raman study on distorted symmetry of porphyrin in nickel octaethyl porphyrin. Pramana - Journal of Physics, 2004, 63, 1073-1082.	0.9	15
24	Optical Properties of Linoleic Acid Protected Gold Nanoparticles. Journal of Nanomaterials, 2011, 2011, 1-4.	1.5	12
25	Presence of chlorpyrifos shows blue shift of the absorption peak of silver nanohexagons solution â€“ An indication of etching of nanocrystals and sensing of chlorpyrifos. Sensors and Actuators B: Chemical, 2018, 266, 149-159.	4.0	12
26	Controlled Synthesis of Saponin-Capped Silver Nanotriangles and Their Optical Properties. Plasmonics, 2019, 14, 1365-1375.	1.8	12
27	Surface and displacement damage engineering on CdSe nanocrystalline thin film by swift heavy Ag ions: A theoretical investigation by SRIM/TRIM package. Vacuum, 2021, 190, 110293.	1.6	10
28	Photoluminescence Study of Silver Nano-hexagons. Plasmonics, 2016, 11, 551-556.	1.8	9
29	Shape effect on the optical properties of anisotropic silver nanocrystals. Journal of Luminescence, 2018, 198, 464-470.	1.5	8
30	120 MeV Ni10+ swift heavy ions irradiation on CdSe nanocrystals induces cubic to hexagonal phase transformation - A study of microstructural modification. Materials Science in Semiconductor Processing, 2020, 114, 105079.	1.9	8
31	Enhancement of antibacterial activity of synthesized ligandâ€free CdS nanocrystals due to silver doping. Journal of Basic Microbiology, 2021, 61, 27-36.	1.8	8
32	Presence of fluoride in water diminishes fast the SPR peak of silver nanocrystals showing large red shift with quick sedimentation â€“ A fast sensing and fast removal case. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 249, 119306.	2.0	8
33	Williamson Hall Plot Analysis of the X-ray Diffraction Result of Synthesized Silver Nanocubes for the Determination of Their Elastic Properties. Advanced Science Letters, 2016, 22, 145-148.	0.2	8
34	FLUORESCENCE STUDY OF CdSe QUANTUM DOTS SUSPENDED IN LIQUID PARAFFIN. Nano, 2010, 05, 357-359.	0.5	7
35	Phase transformation of CdSe nanocrystals at high fluence irradiation of 120ÂMeV swift Ni10+ and Ag7+ ions â€“ X-ray diffraction and Raman spectral analysis. Applied Surface Science, 2020, 509, 144708.	3.1	7
36	Effects of saponin capped triangular silver nanocrystals on the germination of Pisum sativum , Cicer arietinum , Vigna radiata seeds & their subsequent growth study. IET Nanobiotechnology, 2020, 14, 25-32.	1.9	7

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37	Two peak luminescence from linoleic acid protected gold nanoparticles. Journal of Luminescence, 2015, 168, 325-329.	1.5	6
38	Silver Nanoparticles and Their Antimicrobial Activity on a Few Bacteria. BioNanoScience, 2013, 3, 67-72.	1.5	5
39	Microstructural analysis of SHI irradiated CdS nanocrystals- utilizing first principles method. Journal of Alloys and Compounds, 2020, 824, 153968.	2.8	5
40	Experimental (XRD) and theoretical (DFT) analysis for understanding the influence of SHI irradiation on the stacking fault energy in CdSe nanocrystals. Journal of Alloys and Compounds, 2021, 879, 160456.	2.8	5
41	Synthesis of Silver Nano-cubes and Study of Their Elastic Properties Using X-Ray Diffraction Line Broadening. Journal of Nondestructive Evaluation, 2019, 38, 1.	1.1	4
42	Atomistic strain and structural analysis of 120ÂMeV Ni ions irradiated CdSe nanocrystals through molecular dynamics simulation method. Vacuum, 2020, 182, 109794.	1.6	4
43	Antibacterial activity of MPA-capped CdTe and Ag-doped CdTe nanocrystals: Showing different activity against gram-positive and gram-negative bacteria. Chemical Papers, 2020, 74, 3409-3421.	1.0	2
44	Tuning the optical constants and thermal properties of CdS nanocrystals by SHI irradiation: A blended analysis through DFT+U and TS model. Materials Science in Semiconductor Processing, 2022, 138, 106278.	1.9	2
45	Band gap engineering of cadmium selenide nanocrystals using 120ÂMeV Ag7+ swift heavy ions, alongside theoretical evidence through PBE+U analysis. Journal of Alloys and Compounds, 2020, 836, 155535.	2.8	2
46	Preparation of linoleic acid-capped silver nanoparticles and their antimicrobial effect. IET Nanobiotechnology, 2012, 6, 81.	1.9	1
47	Different Anisotropic Silver Nanocrystals Show Different Antibacterial Activities â€“ An Effect of Different Prominent Crystallographic Orientations in Different Shapes. Current Science, 2020, 118, 1903.	0.4	1
48	Synthesis and Characterization of Linoleic Acid Capped Palladium Nanoparticles. Springer Proceedings in Physics, 2013, , 139-142.	0.1	0
49	Lie Algebraic Study of Infra-Red Active Spectra of Single-Layer Graphene. Polycyclic Aromatic Compounds, 2014, 34, 214-224.	1.4	0
50	New Way of Looking at SchrÃ¶dinger Equation. Journal of Advanced Physics, 2017, 6, 426-429.	0.4	0