

# Saurabh Dalela

## List of Publications by Year in descending order

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90  
papers

1,703  
citations

279798

23  
h-index

330143

37  
g-index

90  
all docs

90  
docs citations

90  
times ranked

1033  
citing authors

#	ARTICLE	IF	CITATIONS
1	Defects and oxygen vacancies tailored structural and optical properties in CeO <sub>2</sub> nanoparticles doped with Sm <sup>3+</sup> cation. <i>Journal of Alloys and Compounds</i> , 2018, 752, 520-531.	5.5	104
2	Structural, optical, and surface morphological studies of ethyl cellulose/graphene oxide nanocomposites. <i>Polymer Composites</i> , 2020, 41, 2792-2802.	4.6	85
3	Spectroscopic studies, molecular structure optimization and investigation of structural and electrical properties of novel and biodegradable Chitosan-GO polymer nanocomposites. <i>Journal of Materials Science</i> , 2020, 55, 14829-14847.	3.7	67
4	Influence of Co doping on the structural, optical and magnetic properties of ZnO nanocrystals. <i>Journal of Alloys and Compounds</i> , 2013, 578, 328-335.	5.5	65
5	Role of Co doping on structural, optical and magnetic properties of TiO <sub>2</sub> . <i>Journal of Alloys and Compounds</i> , 2013, 552, 274-278.	5.5	64
6	Electronic Structure and Room Temperature Ferromagnetism in Gd-doped Cerium Oxide Nanoparticles for Hydrogen Generation via Photocatalytic Water Splitting. <i>Global Challenges</i> , 2019, 3, 1800090.	3.6	62
7	Rietveld refinement, Raman, optical, dielectric, Mössbauer and magnetic characterization of superparamagnetic fcc-CaFe <sub>2</sub> O <sub>4</sub> nanoparticles. <i>Ceramics International</i> , 2019, 45, 5837-5847.	4.8	58
8	A comprehensive study on the impact of Gd substitution on structural, optical and magnetic properties of ZnO nanocrystals. <i>Journal of Alloys and Compounds</i> , 2021, 868, 159142.	5.5	56
9	Structural, optical and magnetic properties of Fe-doped CeO <sub>2</sub> samples probed using X-ray photoelectron spectroscopy. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 10141-10153.	2.2	55
10	Oxygen vacancies and F+ centre tailored room temperature ferromagnetic properties of CeO <sub>2</sub> nanoparticles with Pr doping concentrations and annealing in hydrogen environment. <i>Journal of Alloys and Compounds</i> , 2020, 844, 156079.	5.5	48
11	Influence of Sm doping on structural, ferroelectric, electrical, optical and magnetic properties of BaTiO <sub>3</sub> . <i>Vacuum</i> , 2021, 184, 109872.	3.5	47
12	A comparative study on the influence of monovalent, divalent and trivalent doping on the structural, optical and photoluminescence properties of Zn <sub>0.96</sub> Ti <sub>0.04</sub> O (T: Li <sup>+</sup> , Ca <sup>2+</sup> & Gd <sup>3+</sup> ) nanoparticles. <i>Ceramics International</i> , 2019, 45, 13472-13483.	4.8	46
13	Oxygen vacancies mediated cooperative magnetism in ZnO nanocrystals: A d <sup>0</sup> ferromagnetic case study. <i>Vacuum</i> , 2021, 184, 109921.	3.5	44
14	Study the contribution of surface defects on the structural, electronic structural, magnetic, and photocatalyst properties of Fe: CeO <sub>2</sub> nanoparticles. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2019, 235, 29-39.	1.7	39
15	Optical and electrical properties of biocompatible and novel (CS-GO) polymer nanocomposites. <i>Optical and Quantum Electronics</i> , 2021, 53, 1.	3.3	39
16	Lattice defects and oxygen vacancies formulated ferromagnetic, luminescence, structural properties and band-gap tuning in Nd <sup>3+</sup> substituted ZnO nanoparticles. <i>Journal of Luminescence</i> , 2022, 243, 118673.	3.1	39
17	Irreversible magnetic behavior with temperature variation of Ni <sub>0.5</sub> Co <sub>0.5</sub> Fe <sub>2</sub> O <sub>4</sub> nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 507, 166861.	2.3	38
18	Tailoring the structural, electronic structure and optical properties of Fe: SnO <sub>2</sub> nanoparticles. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2020, 240, 146934.	1.7	32

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19	An extensive study on simple and GRIN SCH-based In <sub>0.71</sub> Ga <sub>0.21</sub> Al <sub>0.08</sub> As/InP lasing heterostructures. Physica Scripta, 2012, 85, 035402.	2.5	31
20	Tunability of optical gain (SWIR region) in type-II In <sub>0.70</sub> Ga <sub>0.30</sub> As/GaAs <sub>0.40</sub> Sb <sub>0.60</sub> nano-heterostructure under high pressure. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 80, 36-42.	2.7	29
21	Core level photoemission study of polycrystalline MgB <sub>2</sub> . Solid State Communications, 2004, 131, 343-347.	1.9	28
22	Defects and oxygen vacancies tailored structural, optical and electronic structure properties of Co-doped ZnO nanoparticle samples probed using soft X-ray absorption spectroscopy. Vacuum, 2020, 179, 109538.	3.5	28
23	Field effective band alignment and optical gain in type-I Al <sub>0.45</sub> Ga <sub>0.55</sub> As/GaAs <sub>0.84</sub> P <sub>0.16</sub> nano-heterostructures. Optik, 2016, 127, 7274-7282.	2.9	27
24	Modeling and simulation of GaN/Al <sub>0.3</sub> Ga <sub>0.7</sub> N new multilayer nano-heterostructure. Physica B: Condensed Matter, 2010, 405, 2431-2435.	2.7	25
25	Modeling and simulation of GaN based QW LED for UV emission. Optik, 2018, 158, 1334-1341.	2.9	25
26	Performance enhancement of UV quantum well light emitting diode through structure optimization. Optical and Quantum Electronics, 2019, 51, 1.	3.3	25
27	Exploration of spectroscopic, surface morphological, structural, electrical, optical and mechanical properties of biocompatible PVA-GO PNCs. Diamond and Related Materials, 2022, 127, 109158.	3.9	24
28	Investigation of local geometrical structure, electronic state and magnetic properties of PLD grown Ni doped SnO <sub>2</sub> thin films. Journal of Electron Spectroscopy and Related Phenomena, 2019, 232, 21-28.	1.7	22
29	Effect of defects and oxygen vacancies on the RTFM properties of pure and Gd-doped CeO <sub>2</sub> nanomaterials through soft XAS. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	2.3	22
30	Optical and electronic characteristics of ITO/NPB/Alq <sub>3</sub> :DCJTb/Alq <sub>3</sub> /Ag heterostructure based organic light emitting diode. Optik, 2020, 223, 165572.	2.9	20
31	High pressure affects on optical characteristics of AlGaAs/GaAsP/AlGaAs nano-heterostructure. Optik, 2019, 181, 389-397.	2.9	19
32	Investigations of TM (Ni, Co) doping on structural, optical and magnetic properties of CeO <sub>2</sub> nanoparticles. Vacuum, 2020, 181, 109717.	3.5	19
33	Exploring the structural, elastic, optical, dielectric and magnetic characteristics of Ca <sup>2+</sup> incorporated superparamagnetic Zn <sub>0.5</sub> xCa <sub>0.1</sub> Co <sub>0.4</sub> +xFe <sub>2</sub> O <sub>4</sub> (x=0.0, 0.05 & 0.1) nanoferrites. Journal of Alloys and Compounds, 2021, 886, 161190.	5.5	19
34	Modal gain characteristics of GRIN-InGaAlAs/InP lasing nano-heterostructures. Superlattices and Microstructures, 2013, 61, 1-12.	3.1	18
35	Investigation of high optical gain in complex type-II InGaAs/InAs/GaAsSb nano-scale heterostructure for MIR applications. Applied Optics, 2017, 56, 4243.	2.1	18
36	Effects of rapid thermal annealing on the local environment, electronic structure and magnetic properties of Mn doped TiO <sub>2</sub> thin films. Applied Surface Science, 2018, 445, 287-297.	6.1	17

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37	Role of Fe-Doping on Structural, Optical and Magnetic Properties of SnO <sub>2</sub> Nanoparticles. Journal of Electronic Materials, 2019, 48, 8181-8192.	2.2	17
38	Interplay of structural, optical, and magnetic properties of Ce <sub>1-x</sub> Nd <sub>x</sub> O <sub>2-δ</sub> nanoparticles with electronic structure probed using X-ray absorption spectroscopy. Vacuum, 2020, 180, 109537.	3.5	17
39	Oxygen vacancies and defects induced room temperature ferromagnetic properties of pure and Fe-doped CeO <sub>2</sub> nanomaterials investigated using X-ray photoelectron spectroscopy. Journal of Electron Spectroscopy and Related Phenomena, 2022, 254, 147140.	1.7	17
40	Gain simulation of lasing nano-heterostructure Al <sub>0.10</sub> Ga <sub>0.90</sub> As/GaAs. Physica E: Low-Dimensional Systems and Nanostructures, 2012, 46, 224-231.	2.7	15
41	Low temperature field dependent magnetic study of the Zn <sub>0.5</sub> Co <sub>0.5</sub> Fe <sub>2</sub> O <sub>4</sub> nanoparticles. Journal of Magnetism and Magnetic Materials, 2021, 536, 168102.	2.3	15
42	Electronic structure and electrochemical properties of La-doped BiFeO <sub>3</sub> nanoparticles. Journal of Electron Spectroscopy and Related Phenomena, 2021, 253, 147138.	1.7	14
43	Improvement in efficiency and luminous power of AlGaIn-based D-UV LEDs by using partially graded quantum barriers. Superlattices and Microstructures, 2020, 142, 106543.	3.1	13
44	Interplay of structural, optical and magnetic properties in Gd doped CeO <sub>2</sub> . AIP Conference Proceedings, 2015, , .	0.4	12
45	Investigation of local atomic structure of Ni doped SnO <sub>2</sub> thin films via X-ray absorption spectroscopy and their magnetic properties. Journal of Materials Science: Materials in Electronics, 2019, 30, 760-770.	2.2	11
46	Electronic structure of FeSe <sub>1-x</sub> Te <sub>x</sub> studied by Fe L <sub>2,3</sub> -edge x-ray absorption spectroscopy. Physical Review B, 2011, 83, .	3.2	10
47	A COMPARATIVE STUDY OF OXYGEN LOSS ON IN SITU HEATING IN PrMnO <sub>3</sub> AND BaMnO <sub>3</sub> . International Journal of Modern Physics B, 2011, 25, 1235-1250.	2.0	10
48	Qualitative analysis of gain spectra of InGaAlAs/InP lasing nano-heterostructure. International Journal of Modern Physics B, 2014, 28, 1450206.	2.0	10
49	Study of electronic structure and magnetic properties of epitaxial Co <sub>2</sub> FeAl Heusler Alloy Thin Films. Journal of Alloys and Compounds, 2016, 674, 295-299.	5.5	10
50	Polarised XAS study of anomalous temperature dependence of aggregation of itinerant holes and pair formation in a YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-δ</sub> single crystal. Physica C: Superconductivity and Its Applications, 2003, 399, 98-106.	1.2	9
51	INVESTIGATION OF MATERIAL GAIN OF In <sub>0.90</sub> Ga <sub>0.10</sub> As <sub>0.59</sub> P <sub>0.41</sub> LASING NANO-HETEROSTRUCTURE. International Journal of Modern Physics B, 2014, 28, 1450068.		
52	Study of the electronic structure of Ce <sub>0.95</sub> Fe <sub>0.05</sub> O <sub>2-δ</sub> thin film using X-ray photoelectron spectroscopy. Journal of Electron Spectroscopy and Related Phenomena, 2021, 250, 147073.	1.7	8
53	Role of Cr Doping on the Structure, Electronic Structure, and Electrochemical Properties of BiFeO <sub>3</sub> Nanoparticles. Materials, 2022, 15, 4118.	2.9	7
54	Polarized XANES study of the importance of inter-block vis-à-vis intra-block coupling in evolution of T <sub>c</sub> in halide-molecule-intercalated Bi <sub>2</sub> Sr <sub>2</sub> CaCu <sub>2</sub> O <sub>8-δ</sub> single crystals. Journal of Physics Condensed Matter, 2002, 14, 6675-6688.	1.8	6

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55	Study of anomalous temperature dependence of itinerant holes in under- and overdoped $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ single crystals using polarised soft X-ray absorption spectroscopy. Nuclear Instruments & Methods in Physics Research B, 2003, 199, 280-285.	1.4	6
56	Study of the effect of swift heavy $\text{Ni}^{6+}$ ion irradiation on ruby single crystal by using the XANES and EXAFS techniques. Physica B: Condensed Matter, 2004, 350, 366-374.	2.7	6
57	Nanoporous carbon doped ceria bismuth oxide solid solution for photocatalytic water splitting. Sustainable Energy and Fuels, 2021, 5, 2545-2562.	4.9	6
58	Uniaxial ultra-high pressure dependent tuning of optical gain of W-shaped Type-II GaAsSb/InGaAs/InAlAs nano-heterostructure. Optik, 2020, 204, 164121.	2.9	5
59	Role of La substitution on structural, optical, and multiferroic properties of $\text{BiFeO}_3$ nanoparticles. Applied Nanoscience (Switzerland), 0, , 1.	3.1	5
60	Fine tunability of optical gain characteristics of InGaAs/GaAsSb/InAlAs nano-heterostructure under combined effect of field and temperature. Superlattices and Microstructures, 2021, 156, 106982.	3.1	5
61	Annealing Temperature Dependence of Various Properties of ZnO Nanoparticles Investigated with Soft XAS. Nano, 2021, 16, .	1.0	5
62	Influence of Fe and Cu Co-Doping on Structural, Magnetic and Electrochemical Properties of $\text{CeO}_2$ Nanoparticles. Materials, 2022, 15, 4119.	2.9	5
63	An electronic structure study of c-axis oriented NdBCO (123) thin films using polarized soft x-ray absorption spectroscopy on Cu L3 and O K edges. Journal of Physics Condensed Matter, 2001, 13, 6865-6874.	1.8	4
64	Synthesis of Nanoparticles for Plasmonics Applications: A Microfluidic Approach. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2015, 45, 1211-1223.	0.6	4
65	Red Shift in Optical Properties of Type-I $\text{Al}_{0.45}\text{Ga}_{0.55}\text{As}/\text{GaAs}_{0.84}\text{P}_{0.16}/\text{Al}_{0.45}\text{Ga}_{0.55}\text{As}$ Nano-heterostructure under External Strain. IOP Conference Series: Materials Science and Engineering, 2019, 576, 012036.	0.6	4
66	Study of structural, optical and electronic structure properties of $\text{Sm}_2\text{O}_3\text{-ZnO}$ nanomaterials. AIP Conference Proceedings, 2020, , .	0.4	4
67	Oxygen vacancy induced structural and domain size-controlled magnetic behavior of $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$ perovskite. Journal of Materials Science: Materials in Electronics, 2022, 33, 6829-6841.	2.2	4
68	Automatic colored traffic sign detection using optoelectronic correlation architectures. , 2008, , .		3
69	Optimization of optical characteristics of $\text{In}_{0.29}\text{Ga}_{0.71}\text{As}_{0.99}\text{N}_{0.01}/\text{GaAs}$ straddled nano-heterostructure. Opto-electronics Review, 2018, 26, 210-216.	2.4	3
70	OK and Cu LIII edge study of itinerant holes in I2-, HgI2- and HgBr2-intercalated BSCCO(2212) single crystals. Journal of Synchrotron Radiation, 2001, 8, 818-820.	2.4	2
71	PHOTOLUMINESCENCE STUDIES ON RUBY AT 4.2 K. Modern Physics Letters B, 2003, 17, 317-320.	1.9	2
72	STUDY OF ITINERANT HOLES IN PLANAR AND APICAL OXYGEN IN TWO DIFFERENT BSCCO (2212) SINGLE CRYSTALS USING POLARISED X-RAY ABSORPTION. International Journal of Modern Physics B, 2004, 18, 2841-2848.	2.0	2

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73	An EXAFS study on $\text{Bi}_2\text{Sr}_2\text{Ca}_{1-x}\text{Pr}_x\text{Cu}_2\text{O}_8$ single crystal using polarized synchrotron radiation. <i>Physica C: Superconductivity and Its Applications</i> , 2011, 471, 137-142.	1.2	2
74	Study of the Electronic Structure of Various RE-Doped Oxypnictide Superconductors Using X-Ray Absorption Spectroscopy. <i>Journal of Superconductivity and Novel Magnetism</i> , 2014, 27, 1431-1434.	1.8	2
75	Defect induced structural and Raman study of Nd-doped $\text{CeO}_2$ nanomaterials. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	2
76	Effect of Mn Concentration on the Structural, Ferroelectric, Optical, and Magnetic Properties of $\text{BiFeO}_3$ Nanoparticles. <i>Crystals</i> , 2022, 12, 704.	2.2	2
77	Simultaneous measurement of XANES in halide-intercalated $\text{BSCCO}(2212)$ using electron and fluorescence yield to compare their performance. <i>Journal of Synchrotron Radiation</i> , 2001, 8, 821-823.	2.4	1
78	Polarization-dependent XANES study of $\text{Bi}_2\text{Sr}_2\text{Ca}_{1-x}\text{Pr}_x\text{Cu}_2\text{O}_8$ insulating single crystal. <i>Journal of Synchrotron Radiation</i> , 2001, 8, 842-844.	2.4	1
79	STUDY OF LOCAL STRUCTURE IN UNDER-DOPED $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ BY POLARIZED EXAFS. <i>International Journal of Modern Physics B</i> , 2002, 16, 1641-1648.	2.0	1
80	Using XAFS, EDAX and AFM in comparative study of various natural and synthetic emeralds. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2003, 199, 489-493.	1.4	1
81	Study of Band Structure Properties of Pnictide $\text{LaO}_{1-x}\text{F}_x\text{FeAs}$ ( $x = 0, 0.2$ ) Superconducting Compound. <i>Journal of Superconductivity and Novel Magnetism</i> , 2014, 27, 1967-1972.	1.8	1
82	Study of defects and vacancies in structural properties of Mn, co-doped oxides: $\text{ZnO}$ . <i>AIP Conference Proceedings</i> , 2018, , .	0.4	1
83	Polarised EXAFS Study Of In-Plane Distortion In A Pr-Doped $\text{BSCCO}(2212)$ Single Crystal. <i>International Journal of Modern Physics B</i> , 2000, 14, 3432-3437.	2.0	0
84	Temperature dependent study of itinerant holes in $\text{Bi}_2\text{Sr}_2\text{Ca}_1\text{Cu}_2\text{O}_8$ . <i>Solid State Communications</i> , 2004, 130, 143-148.	1.9	0
85	An electronic structure study of $\text{La}_{8-x}\text{Sr}_x\text{Cu}_8\text{O}_{20}$ (8820) single crystal using polarized X-ray absorption spectroscopy. <i>Solid State Communications</i> , 2004, 132, 279-283.	1.9	0
86	3D Isostructurality of Inorganic-Organic Hybrid Materials. , 2011, , .		0
87	Mercuriphilic interactions in $[\text{Hg}]^{\text{II}}$ hybrid materials. , 2013, , .		0
88	Structure-property-relationship of p-toluidinium tetrachloromercurate(II). , 2014, , .		0
89	Changes in optical behaviour of iron pyritohedron upon microwave treatment. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	0
90	Lasing Characteristics of $\text{InGaP}/\text{GaAs}$ Nanoscale Heterostructures. <i>Advanced Science, Engineering and Medicine</i> , 2014, 6, 508-514.	0.3	0