

# Rajesh Punia

## List of Publications by Year in descending order

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104  
papers

2,458  
citations

172457

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h-index

233421

45  
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104  
all docs

104  
docs citations

104  
times ranked

1535  
citing authors

#	ARTICLE	IF	CITATIONS
1	Design of Bright-Green Radiating Er <sup>3+</sup> -Singly Activated Zincate-Based Nanomaterials for High-Performance Optoelectronic Devices. <i>Journal of Electronic Materials</i> , 2022, 51, 391-402.	2.2	8
2	Spectral characteristics of Tb <sup>3+</sup> doped ZnF <sub>2</sub> –K <sub>2</sub> O–Al <sub>2</sub> O <sub>3</sub> –B <sub>2</sub> O <sub>3</sub> glasses for epoxy free tricolor w-LEDs and visible green laser applications. <i>Journal of Luminescence</i> , 2022, 244, 118676.	3.1	9
3	Ecofriendly synthesis and white light-emitting properties of BaLa <sub>2</sub> ZnO <sub>5</sub> :Dy <sup>3+</sup> nanomaterials for lighting application in NUV-WLEDs and solar cells. <i>Chemical Physics Letters</i> , 2022, 792, 139399.	2.6	10
4	Structural, thermal, optical and luminescence properties of Dy <sup>3+</sup> ions doped Zinc Potassium Alumino Borate glasses for optoelectronics applications. <i>Journal of Non-Crystalline Solids</i> , 2022, 588, 121613.	3.1	13
5	Fabrication of n-TiO <sub>2</sub> /p-Si Photo-Diodes for Self-Powered Fast Ultraviolet Photodetectors. <i>Silicon</i> , 2022, 14, 11891-11901.	3.3	8
6	Enhanced visible green and 1.5 μm radiative emission of Er <sup>3+</sup> ions in Li <sub>2</sub> O-PbO-Al <sub>2</sub> O <sub>3</sub> -B <sub>2</sub> O <sub>3</sub> glasses for photonic applications. <i>Journal of Rare Earths</i> , 2021, 39, 520-525.	4.8	10
7	Judd-Ofelt itemization and influence of energy transfer on Sm <sup>3+</sup> ions activated B <sub>2</sub> O <sub>3</sub> –ZnF <sub>2</sub> –SrO–SiO <sub>2</sub> glasses for orange-red emitting devices. <i>Journal of Luminescence</i> , 2021, 229, 117651.	3.1	47
8	Synthesis of graphene from activated carbon at liquid nitrogen temperature and its detailed structural analysis. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	2.3	2
9	Role of charge compensation mechanism and defect dipoles on properties of Mn doped BCT ceramics. <i>Ceramics International</i> , 2021, 47, 11491-11505.	4.8	16
10	Physical, structural and optical characterization of Dy <sup>3+</sup> doped ZnF <sub>2</sub> -WO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> -TeO <sub>2</sub> glasses for opto-communication applications. <i>Optical Materials</i> , 2021, 114, 110937.	3.6	16
11	Investigation on Multiferroic Properties and Conduction Mechanism in Cobalt Doped Bi <sub>0.9</sub> Nd <sub>0.1</sub> FeO <sub>3</sub> Solid Solutions. <i>Transactions of the Indian Ceramic Society</i> , 2021, 80, 142-149.	1.0	1
12	Luminescence tuning and structural analysis of new BaYAlZn <sub>3</sub> O <sub>7</sub> :Sm <sup>3+</sup> nanomaterials with excellent performance for advanced optoelectronic appliances. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 15930-15943.	2.2	21
13	Structural, optical, thermal and other physical properties of Bi <sub>2</sub> O <sub>3</sub> modified Lithium Zinc Silicate glasses. <i>Journal of Molecular Structure</i> , 2021, 1234, 130160.	3.6	30
14	Generation of cost-effective conventional-combustion derived novel green-luminous BaLa <sub>2</sub> ZnO <sub>5</sub> :Er <sup>3+</sup> nanomaterials for high quality illumination in WLEDs and solar-cells. <i>Chemical Physics Letters</i> , 2021, 777, 138752.	2.6	30
15	Probing into multifunctional deep orange-red emitting Sm <sup>3+</sup> -activated zincate based nanomaterials for wLED applications. <i>Chemical Physics Letters</i> , 2021, 777, 138743.	2.6	33
16	Optimizing the highly efficient cool-white luminescence via modulating Dy <sup>3+</sup> ion into novel Sr <sub>6</sub> Al <sub>4</sub> Y <sub>2</sub> O <sub>15</sub> nanocrystals for white LEDs. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 23486-23499.	2.2	10
17	Crystal configuration, luminescence dynamics and facile combustion-fabrication of high-brightness YAG:Sm <sup>3+</sup> nanomaterials towards competent illuminating appliances, especially WLEDs and solar-cells. <i>Chemical Physics Letters</i> , 2021, 779, 138831.	2.6	25
18	Near unity green emission with radiative and non-radiative itemization into novel energy-efficient Sr <sub>6</sub> Al <sub>4</sub> Y <sub>2</sub> O <sub>15</sub> :Er <sup>3+</sup> nanomaterials for WLEDs. <i>Chemical Physics Letters</i> , 2021, 781, 139013.	2.6	11

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19	New Ba <sub>2</sub> YAlO <sub>5</sub> :Dy <sup>3+</sup> nanomaterials for WLEDs: Propellant combustion synthesis and photometric features for enhanced emission of cool-white light under NUV excitation. <i>Chemical Physics Letters</i> , 2021, 781, 138985.	2.6	13
20	Augmenting the photoluminescence efficiency via enhanced energy-relocation of new white-emanating BaYAlZn <sub>3</sub> O <sub>7</sub> :Dy <sup>3+</sup> nano-crystalline phosphors for WLEDs. <i>Journal of Alloys and Compounds</i> , 2021, 879, 160371.	5.5	47
21	One pot synthesis and electromagnetic interference shielding behavior of reduced graphene oxide nanocomposites decorated with Ni <sub>0.5</sub> Co <sub>0.5</sub> Fe <sub>2</sub> O <sub>4</sub> nanoparticles. <i>Journal of Alloys and Compounds</i> , 2021, 887, 161472.	5.5	32
22	Understanding the electrode polarization in bismuth zinc vanadate semiconducting glasses from dielectric spectroscopy: A new insight on electrode polarization effect. <i>Journal of Non-Crystalline Solids</i> , 2021, 574, 121174.	3.1	7
23	Opto-Electronic and Crystallographic Analysis of Orangish-Red Radiating Ba <sub>2</sub> YAlO <sub>5</sub> :Sm <sup>3+</sup> Nanomaterials for Potential wLED Applications. <i>Journal of Electronic Materials</i> , 2021, 50, 6964-6973.	2.2	3
24	Low-Cost Combustion Synthesis, Spectroscopic and Optoelectronic Analysis of Novel Ba <sub>2</sub> YAlO <sub>5</sub> :Er <sup>3+</sup> Nanomaterials for Competent Illumination Applications. <i>Transactions of the Indian Ceramic Society</i> , 2021, 80, 234-241.	1.0	2
25	Electrical and optical properties of InGaN/GaN MQWs light-emitting diodes with Ni/Au/ITO transparent p-contacts. <i>Indian Journal of Physics</i> , 2020, 94, 183-187.	1.8	0
26	Study of vibrational spectroscopy, linear and nonlinear optical properties of borate-modified tellurium-silica-bismuthate glasses. <i>Indian Journal of Physics</i> , 2020, 94, 1643-1652.	1.8	7
27	Impact of Triple Roll Milling Processing Parameters on Fluidic/Rheological and Electrical Properties of Aqueous Graphene Ink. <i>Advanced Engineering Materials</i> , 2020, 22, 1901187.	3.5	8
28	Resonant and Non-resonant Nonlinear Optical Properties of Er <sup>3+</sup> modified BaO-ZnO-B <sub>2</sub> O <sub>3</sub> Glasses at 532 and 1550 nm. <i>Journal of Non-Crystalline Solids</i> , 2020, 541, 120155.	3.1	27
29	Judd-Ofelt Parameterization and Luminescence Characterization of Dy <sup>3+</sup> Doped Oxyfluoride Lithium Zinc Borosilicate Glasses for Lasers and w-LEDs. <i>Journal of Non-Crystalline Solids</i> , 2020, 544, 120187.	3.1	28
30	Nanostructured Polyaniline/Graphene/Fe <sub>2</sub> O <sub>3</sub> Composites Hydrogel as a High-Performance Flexible Supercapacitor Electrode Material. <i>ACS Applied Energy Materials</i> , 2020, 3, 6434-6446.	5.1	113
31	Effect of replacement of Bi <sub>2</sub> O <sub>3</sub> by Li <sub>2</sub> O on structural, thermal, optical and other physical properties of zinc borate glasses. <i>Journal of Molecular Structure</i> , 2020, 1219, 128589.	3.6	41
32	Advancement in valorization technologies to improve utilization of bio-based waste in bioeconomy context. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 131, 109965.	16.4	63
33	Realization of warm white light and energy transfer studies of Dy <sup>3+</sup> /Eu <sup>3+</sup> co-doped Li <sub>2</sub> O-PbO-Al <sub>2</sub> O <sub>3</sub> -B <sub>2</sub> O <sub>3</sub> glasses for lighting applications. <i>Journal of Luminescence</i> , 2020, 222, 117166.	3.1	52
34	Correlation between multifunctional properties of lead free Iron doped BCT perovskite ceramics. <i>Ceramics International</i> , 2020, 46, 17495-17507.	4.8	26
35	Study of energy storage and electrocaloric behavior of lead-free Fe-doped BCT ceramics. <i>Ferroelectrics</i> , 2020, 569, 136-147.	0.6	9
36	Linear and nonlinear optical characterization of neodymium doped barium-zinc-borate glasses. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	0

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37	Study of structural, dielectric, ferroelectric and magnetic properties of vanadium doped BCT ceramics. <i>Ceramics International</i> , 2019, 45, 20368-20378.	4.8	25
38	Synthesis and structural characterization of light-weight ferrite-reduced graphene oxide composite. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	4
39	Coating of multi-walled carbon nanotubes on cotton fabric via conventional dyeing for enhanced electrical and mechanical properties. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	2
40	Judd-Ofelt intensity parameters of Nd <sup>3+</sup> ions doped in BaO-ZnO-B <sub>2</sub> O <sub>3</sub> glasses. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	0
41	Non-linear optical properties of SiO <sub>2</sub> modified Bi <sub>2</sub> O <sub>3</sub> -TeO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> glass system. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	2
42	Excellent photoelectrical properties of ZnO thin film based on ZnO/epoxy-resin ink for UV-light detectors. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	2
43	Effects on electrical and optical properties of InGaN/GaN MQWs light-emitting diodes using Ni/ITO transparent p-contacts on p-GaN. <i>Journal of Optics (India)</i> , 2019, 48, 240-245.	1.7	0
44	InGaN/GaN Multiple Quantum Well Blue Light Emitting Diodes with Transparent Ni/ITO and Pt/ITO p-Type Contacts. <i>Springer Proceedings in Physics</i> , 2019, , 1005-1012.	0.2	0
45	Highly Reflective Low Resistance Pt/Ag/Ni/Au Based Ohmic Contacts on p-GaN. <i>Springer Proceedings in Physics</i> , 2019, , 1095-1101.	0.2	0
46	Effect of Diamagnetic Ion Substitution on Structural and Magnetic Properties of Nd <sup>3+</sup> Modified Solid Solutions. <i>Integrated Ferroelectrics</i> , 2019, 203, 176-182.	0.7	1
47	Formation of non-alloyed Ti/Al/Ni/Au low-resistance ohmic contacts on reactively ion-etched n-type GaN by surface treatment for GaN light-emitting diodes applications. <i>Applied Physics A: Materials Science and Processing</i> , 2019, 125, 1.	2.3	6
48	Influence of hydrostatic pressure and spin orbit interaction on optical properties in quantum wire. <i>Physica B: Condensed Matter</i> , 2019, 552, 202-208.	2.7	13
49	In situ decoration of silver nanoparticles on single-walled carbon nanotubes by microwave irradiation for enhanced and durable anti-bacterial finishing on cotton fabric. <i>Ceramics International</i> , 2019, 45, 1011-1019.	4.8	33
50	Effect of scattering and differential attenuation on beam profile in the presence of high-density intensity modifying compensator. <i>Journal of Cancer Research and Therapeutics</i> , 2019, 15, 110.	0.9	2
51	Study of Dosimetric Properties of Flattening Filter Free Photon Beam Passing through Cadmium Free Compensator Alloy. <i>Journal of Biomedical Physics and Engineering</i> , 2019, 9, 647-652.	0.9	0
52	Dielectric relaxation and conduction mechanism of complex perovskite Ca <sub>0.90</sub> Sr <sub>0.10</sub> Cu <sub>3</sub> Ti <sub>3.95</sub> Zn <sub>0.05</sub> O <sub>12</sub> ceramic. <i>Ceramics International</i> , 2018, 44, 5996-6001.	4.8	42
53	Structural investigation and giant dielectric response of CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> ceramic by Nd/Zr co-doping for energy storage applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 10825-10833.	2.2	12
54	Dielectric and impedance studies of La and Zn co-doped complex perovskite CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> ceramic. <i>Ceramics International</i> , 2018, 44, 23125-23136.	4.8	55

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55	Determination of valence and conduction band offsets in Zn <sub>0.98</sub> Fe <sub>0.02</sub> O/ZnO hetero-junction thin films grown in oxygen environment by pulsed laser deposition technique: A study of efficient UV photodetectors. Journal of Alloys and Compounds, 2018, 768, 978-990.	5.5	29
56	An approach for correlating electrically heterogeneous structure to enhanced dielectric properties of Sr and Zn co-substituted CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> ceramics. Journal of Alloys and Compounds, 2018, 769, 1102-1112.	5.5	15
57	Study of all-optical switching properties of zinc phthalocyanine thin film by pump-probe technique. Optics and Laser Technology, 2017, 95, 100-104.	4.6	13
58	Dosimetric studies of cadmium free alloy used in compensator based intensity modulated radiotherapy. Radiation Physics and Chemistry, 2017, 139, 184-189.	2.8	2
59	Structural and dielectric properties of Ca <sub>0.95</sub> Nd <sub>0.05</sub> Cu <sub>3</sub> Ti <sub>3.95</sub> Zr <sub>0.05</sub> O <sub>12</sub> ceramic. Ferroelectrics, 2017, 516, 156-166.	2.5	16
60	X-ray photoelectron spectroscopy investigations of band offsets in Ga <sub>0.02</sub> Zn <sub>0.98</sub> O/ZnO heterojunction for UV photodetectors. Journal of Applied Physics, 2017, 122, .	2.5	16
61	Physical, structural and optical characterization of silicate modified bismuth-borate-tellurite glasses. Journal of Molecular Structure, 2017, 1127, 636-644.	3.6	101
62	Structural properties and electrical transport characteristics of modified lithium borate glass ceramics. Journal of Alloys and Compounds, 2017, 696, 529-537.	5.5	43
63	Zinc chloride modified electronic transport and relaxation studies in barium-tellurite glasses. Electronic Materials Letters, 2017, 13, 412-419.	2.2	8
64	Characterization and optical properties of Fe <sub>2</sub> O <sub>3</sub> -PbO-B <sub>2</sub> O <sub>3</sub> glasses. AIP Conference Proceedings, 2016, , .	0.4	0
65	Thermal and structural properties of zinc modified tellurite based glasses. AIP Conference Proceedings, 2016, , .	0.4	4
66	Enhancement in magnetic, piezoelectric and ferroelectric properties on substitution of titanium by iron in barium calcium titanate ceramics. Ceramics International, 2016, 42, 12167-12171.	4.8	22
67	Effect of microwave-assisted sintering on dielectric properties of CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> ceramic. AIP Conference Proceedings, 2016, , .	0.4	2
68	Structural characterization of ZnCl <sub>2</sub> modified tellurite based glasses. AIP Conference Proceedings, 2016, , .	0.4	2
69	Concentration dependence of intensity parameters and radiative properties of Sm <sup>3+</sup> ions doped in BaO-ZnO-B <sub>2</sub> O <sub>3</sub> glasses. Journal of Alloys and Compounds, 2016, 676, 521-526.	5.5	35
70	Electrical conductivity and modulus formulation in zinc modified bismuth boro-tellurite glasses. Indian Journal of Physics, 2016, 90, 1033-1040.	1.8	19
71	Conductivity and modulus formulation in lithium modified bismuth zinc borate glasses. Solid State Sciences, 2016, 55, 98-105.	3.2	14
72	Validation of intensity-modulated radiotherapy commissioning as per recommendations in test plans of the American Association of Physicists in Medicine task group 119 report. Radiation Protection and Environment, 2016, 39, 138.	0.2	0

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73	Conduction and Electric Modulus Formulation of Lithium Doped Bismuth Zinc Vanadate Semiconducting Glassy System. Journal of the American Ceramic Society, 2015, 98, 2776-2783.	3.8	14
74	Optical Characterization of Zinc Modified Bismuth Silicate Glasses. International Journal of Optics, 2015, 2015, 1-9.	1.4	5
75	Optical second order nonlinearity in ultraviolet poled chalcogenide thin films. Journal of Optics (India), 2015, 44, 417-422.	1.7	1
76	Temperature and frequency dependent conductivity and electric modulus formulation of manganese modified bismuth silicate glasses. Journal of Non-Crystalline Solids, 2015, 423-424, 1-8.	3.1	46
77	Manganese modified structural and optical properties of bismuth silicate glasses. Journal of Molecular Structure, 2015, 1089, 32-37.	3.6	23
78	Effect of BaTiO <sub>3</sub> on the structural and optical properties of lithium borate glasses. Ceramics International, 2015, 41, 10957-10965.	4.8	49
79	Effect of doping of Nd <sup>3+</sup> ions in BaO–TeO <sub>2</sub> –B <sub>2</sub> O <sub>3</sub> glasses: A vibrational and optical study. Journal of Molecular Structure, 2015, 1088, 147-154.	3.6	55
80	Structural, optical, electrical, and magnetic properties of Zn <sub>0.7</sub> Mn <sub>x</sub> Ni <sub>0.3</sub> O nanoparticles synthesized by sol-gel technique. Cogent Physics, 2015, 2, 1055623.	0.7	16
81	Structural and dielectric properties of substituted barium titanate ceramics for capacitor applications. Ceramics International, 2015, 41, 13425-13432.	4.8	77
82	Study of vibrational spectroscopy, linear and non-linear optical properties of Sm <sup>3+</sup> ions doped BaO–ZnO–B <sub>2</sub> O <sub>3</sub> glasses. Solid State Sciences, 2015, 45, 15-22.	3.2	58
83	Physical, structural and optical characterizations of borate modified bismuth silicate tellurite glasses. Journal of Molecular Structure, 2015, 1097, 37-44.	3.6	46
84	A study on the structural and photocatalytic degradation of ciprofloxacin using (70B 2 O 3 –29Bi 2 O) Tj ETQq0,0,0 rgBT /Overlock 1	3.1	44
85	Electronic transport and relaxation studies in bismuth modified zinc boro-tellurite glasses. Solid State Sciences, 2015, 48, 230-236.	3.2	23
86	Structural and other physical properties of lithium doped bismuth zinc vanadate semiconducting glassy system. Journal of Molecular Structure, 2015, 1079, 189-193.	3.6	28
87	Temperature and frequency dependent conductivity of lithium doped bismuth zinc vanadate semiconducting glassy system. Indian Journal of Physics, 2014, 88, 1169-1173.	1.8	17
88	Bismuth modified physical, structural and optical properties of mid-IR transparent zinc boro-tellurite glasses. Journal of Alloys and Compounds, 2014, 587, 66-73.	5.5	145
89	Titanium induced structural modifications in bismuth silicate glasses. Journal of Molecular Structure, 2014, 1063, 77-82.	3.6	48
90	Conduction mechanism in bismuth silicate glasses containing titanium. Physica B: Condensed Matter, 2014, 452, 102-107.	2.7	45

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91	Structural and optical properties of barium titanate modified bismuth borate glasses. Solid State Sciences, 2014, 37, 64-71.	3.2	110
92	Iron modified structural and optical spectral properties of bismuth silicate glasses. Physica B: Condensed Matter, 2014, 450, 39-44.	2.7	40
93	Effect of ZnO on the physical and optical properties of tellurite base glasses. , 2013, , .		5
94	ZnCl <sub>2</sub> Modified Physical and Optical Properties of Barium Tellurite Glasses. Transactions of the Indian Ceramic Society, 2013, 72, 206-210.	1.0	9
95	Effect of Fe <sub>2</sub> O <sub>3</sub> on the physical and structural properties of bismuth silicate glasses. , 2013, , .		3
96	Physical and structural properties of Nd <sup>3+</sup> doped BaO-ZnO-B <sub>2</sub> O <sub>3</sub> glasses. , 2013, , .		0
97	Optical properties of Bi <sub>0.1</sub> Zn <sub>0.45</sub> VO <sub>3.1</sub> thin films using UV-VIS-NIR spectroscopy. , 2013, , .		0
98	Physical, optical and structural properties of xNa <sub>2</sub> O <sup>~</sup> (50 <sup>~</sup> x)Bi <sub>2</sub> O <sub>3</sub> <sup>~</sup> 10ZnO <sup>~</sup> 40B <sub>2</sub> O <sub>3</sub> glasses. AIP Conference Proceedings, 2013, , .	0.4	5
99	Fe <sub>2</sub> O <sub>3</sub> Modified Physical, Structural and Optical Properties of Bismuth Silicate Glasses. Journal of Materials, 2013, 2013, 1-5.	0.1	7
100	Temperature and frequency dependent conductivity of bismuth zinc vanadate semiconducting glassy system. Journal of Applied Physics, 2012, 112, .	2.5	88
101	Physical, Optical and Structural Properties of xLi <sub>2</sub> O-(50 <sup>~</sup> x)Bi <sub>2</sub> O <sub>3</sub> -10ZnO-40B <sub>2</sub> O <sub>3</sub> Glasses. Transactions of the Indian Ceramic Society, 2012, 71, 225-228.	1.0	5
102	Hopping conduction in bismuth modified zinc vanadate glasses: An applicability of Mott's model. Journal of Applied Physics, 2012, 112, .	2.5	40
103	Structural and Physical Properties of ZnO Modified Bismuth Silicate Glasses. ISRN Spectroscopy, 2012, 2012, 1-5.	0.9	12
104	Effect of Bi <sub>2</sub> O <sub>3</sub> on structural, optical, and other physical properties of semiconducting zinc vanadate glasses. Journal of Applied Physics, 2011, 110, .	2.5	77