

# Santosh K Gupta

## List of Publications by Citations

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199  
papers

4,173  
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37  
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52  
g-index

211  
ext. papers

4,970  
ext. citations

4.3  
avg, IF

6.3  
L-index

#	Paper	IF	Citations
199	Development of gas sensors using ZnO nanostructures. <i>Journal of Chemical Sciences</i> , <b>2010</b> , 122, 57-62	1.8	158
198	Energy transfer dynamics and luminescence properties of Eu(3+) in CaMoO <sub>4</sub> and SrMoO <sub>4</sub> . <i>Dalton Transactions</i> , <b>2015</b> , 44, 18957-69	4.3	107
197	Self-assembly of the 3-aminopropyltrimethoxysilane multilayers on Si and hysteretic current-voltage characteristics. <i>Applied Physics A: Materials Science and Processing</i> , <b>2008</b> , 90, 581-589	2.6	105
196	Photoluminescence and EPR studies on Fe <sup>2+</sup> doped ZnAl <sub>2</sub> O <sub>4</sub> : an evidence for local site swapping of Fe <sup>2+</sup> and formation of inverse and normal phase. <i>Dalton Transactions</i> , <b>2014</b> , 43, 9313-23	4.3	76
195	Understanding the local environment of Sm <sup>3+</sup> in doped SrZrO <sub>3</sub> and energy transfer mechanism using time-resolved luminescence: a combined theoretical and experimental approach. <i>RSC Advances</i> , <b>2014</b> , 4, 29202-29215	3.7	75
194	An Insight into the Various Defects-Induced Emission in MgAl <sub>2</sub> O <sub>4</sub> and Their Tunability with Phase Behavior: Combined Experimental and Theoretical Approach. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 4016-4031	3.8	74
193	Role of various defects in the photoluminescence characteristics of nanocrystalline Nd <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> : an investigation through spectroscopic and DFT calculations. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 4988-5000	7.1	74
192	Luminescence Properties of SrZrO <sub>3</sub> /Tb(3+) Perovskite: Host-Dopant Energy-Transfer Dynamics and Local Structure of Tb(3+). <i>Inorganic Chemistry</i> , <b>2016</b> , 55, 1728-40	5.1	71
191	Structure and site selective luminescence of sol-gel derived Eu:Sr <sub>2</sub> SiO <sub>4</sub> . <i>Journal of Luminescence</i> , <b>2012</b> , 132, 1329-1338	3.8	71
190	Nanospheres, Nanocubes, and Nanorods of Nickel Oxalate: Control of Shape and Size by Surfactant and Solvent. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 12610-12615	3.8	71
189	Intense red emitting monoclinic LaPO <sub>4</sub> :Eu <sup>3+</sup> nanoparticles: host-dopant energy transfer dynamics and photoluminescence properties. <i>RSC Advances</i> , <b>2015</b> , 5, 58832-58842	3.7	65
188	Bluish white emitting Sr <sub>2</sub> CeO <sub>4</sub> and red emitting Sr <sub>2</sub> CeO <sub>4</sub> :Eu <sup>3+</sup> nanoparticles: optimization of synthesis parameters, characterization, energy transfer and photoluminescence. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 7054	7.1	63
187	On the unusual photoluminescence of Eu <sup>3+</sup> in Zn <sub>2</sub> P <sub>2</sub> O <sub>7</sub> : a time resolved emission spectrometric and Judd-Ofelt study. <i>RSC Advances</i> , <b>2013</b> , 3, 20046	3.7	60
186	An efficient gel-combustion synthesis of visible light emitting barium zirconate perovskite nanoceramics: Probing the photoluminescence of Sm <sup>3+</sup> and Eu <sup>3+</sup> doped BaZrO <sub>3</sub> . <i>Journal of Luminescence</i> , <b>2016</b> , 169, 106-114	3.8	59
185	Multifunctional pure and Eu(3+) doped BaAg <sub>2</sub> MoO <sub>4</sub> : photoluminescence, energy transfer dynamics and defect induced properties. <i>Dalton Transactions</i> , <b>2015</b> , 44, 19097-110	4.3	57
184	Deciphering the Role of Charge Compensator in Optical Properties of SrWO <sub>4</sub> :Eu:A (A = Li, Na, K): Spectroscopic Insight Using Photoluminescence, Positron Annihilation, and X-ray Absorption. <i>Inorganic Chemistry</i> , <b>2018</b> , 57, 821-832	5.1	56
183	Lanthanide-doped lanthanum hafnate nanoparticles as multicolor phosphors for warm white lighting and scintillators. <i>Chemical Engineering Journal</i> , <b>2020</b> , 379, 122314	14.7	56

182	Site-specific luminescence of Eu <sup>3+</sup> in gel-combustion-derived strontium zirconate perovskite nanophosphors. <i>Journal of Materials Science</i> , <b>2012</b> , 47, 3504-3515	4.3	55
181	Lithium doped zinc oxide based flexible piezoelectric-triboelectric hybrid nanogenerator. <i>Nano Energy</i> , <b>2019</b> , 61, 327-336	17.1	51
180	Eu <sup>3+</sup> local site analysis and emission characteristics of novel Nd <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> :Eu phosphor: insight into the effect of europium concentration on its photoluminescence properties. <i>RSC Advances</i> , <b>2016</b> , 6, 53614-53624	3.7	51
179	Defects induced changes in the electronic structures of MgO and their correlation with the optical properties: a special case of electron-hole recombination from the conduction band. <i>RSC Advances</i> , <b>2016</b> , 6, 96398-96415	3.7	51
178	Experimental and theoretical approach to account for green luminescence from Gd <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> pyrochlore: exploring the site occupancy and origin of host-dopant energy transfer in Gd <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> :Eu <sup>3+</sup> . <i>RSC Advances</i> , <b>2016</b> , 6, 44908-44920	3.7	50
177	Luminescence of undoped and Eu <sup>3+</sup> doped nanocrystalline SrWO <sub>4</sub> scheelite: time resolved fluorescence complimented by DFT and positron annihilation spectroscopic studies. <i>RSC Advances</i> , <b>2016</b> , 6, 3792-3805	3.7	49
176	Optical properties of sol-gel derived Sr <sub>2</sub> SiO <sub>4</sub> :Dy <sup>3+</sup> [Photo and thermally stimulated luminescence. <i>Optical Materials</i> , <b>2013</b> , 35, 2320-2328	3.3	49
175	ZnO-nanowires modified polypyrrole films as highly selective and sensitive chlorine sensors. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 103115	3.4	47
174	Thermally Induced Disorder-Order Phase Transition of GdHfO:Eu Nanoparticles and Its Implication on Photo- and Radioluminescence. <i>ACS Omega</i> , <b>2019</b> , 4, 2779-2791	3.9	46
173	Probing local site environments and distribution of manganese in SrZrO <sub>3</sub> :Mn; PL and EPR spectroscopy complimented by DFT calculations. <i>RSC Advances</i> , <b>2015</b> , 5, 17501-17513	3.7	46
172	Nature of defects in blue light emitting CaZrO <sub>3</sub> : spectroscopic and theoretical study. <i>RSC Advances</i> , <b>2015</b> , 5, 56526-56533	3.7	45
171	ForceSpun polydiacetylene nanofibers as colorimetric sensor for food spoilage detection. <i>Sensors and Actuators B: Chemical</i> , <b>2019</b> , 297, 126734	8.5	45
170	Exploring the optical properties of La <sub>2</sub> Hf <sub>2</sub> O <sub>7</sub> :Pr <sup>3+</sup> nanoparticles under UV and X-ray excitation for potential lighting and scintillating applications. <i>New Journal of Chemistry</i> , <b>2018</b> , 42, 9381-9392	3.6	42
169	Correlating Structure and Luminescence Properties of Undoped and Eu-Doped LaHfO Nanoparticles Prepared with Different Coprecipitating pH Values through Experimental and Theoretical Studies. <i>Inorganic Chemistry</i> , <b>2018</b> , 57, 11815-11830	5.1	42
168	Defect induced ferromagnetism in MgO and its exceptional enhancement upon thermal annealing: a case of transformation of various defect states. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 11975-11989	3.6	41
167	Doping-Induced Room Temperature Stabilization of Metastable $\beta$ -Ag <sub>2</sub> WO <sub>4</sub> and Origin of Visible Emission in $\beta$ -Ag <sub>2</sub> WO <sub>4</sub> : Low Temperature Photoluminescence Studies. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 7265-7276	3.8	41
166	The role of reaction conditions in the polymorphic control of Eu <sup>3+</sup> doped YInO <sub>3</sub> : structure and size sensitive luminescence. <i>Dalton Transactions</i> , <b>2015</b> , 44, 10628-35	4.3	40
165	Interfacial synthesis of long polyindole fibers. <i>Journal of Applied Polymer Science</i> , <b>2007</b> , 103, 595-599	2.9	40

- 164 Thermal annealing effects on La<sub>2</sub>Hf<sub>2</sub>O<sub>7</sub>:Eu<sup>3+</sup> nanoparticles: a curious case study of structural evolution and site-specific photo- and radio-luminescence. *Inorganic Chemistry Frontiers*, **2018**, 5, 2508-2521 6.8 39
- 163 A review on molten salt synthesis of metal oxide nanomaterials: Status, opportunity, and challenge. *Progress in Materials Science*, **2021**, 117, 100734 42.2 39
- 162 Origin of Blue-Green Emission in ZnPO and Local Structure of Ln Ion in ZnPO:Ln (Ln = Sm, Eu): Time-Resolved Photoluminescence, EXAFS, and DFT Measurements. *Inorganic Chemistry*, **2017**, 56, 167-178 5.1 37
- 161 Effect of Molten Salt Synthesis Processing Duration on the Photo- and Radioluminescence of UV-, Visible-, and X-ray-Excitable LaHfO:Eu Nanoparticles. *ACS Omega*, **2018**, 3, 7757-7770 3.9 37
- 160 On structure and phase transformation of uranium doped La<sub>2</sub>Hf<sub>2</sub>O<sub>7</sub> nanoparticles as an efficient nuclear waste host. *Materials Chemistry Frontiers*, **2018**, 2, 2201-2211 7.8 37
- 159 Enhanced Photoelectrochemical Water Splitting with Er- and W-Codoped Bismuth Vanadate with WO Heterojunction-Based Two-Dimensional Photoelectrode. *ACS Applied Materials & Interfaces*, **2019**, 11, 19029-19039 9.5 36
- 158 Origin of blue emission in ThO<sub>2</sub> nanorods: exploring it as a host for photoluminescence of Eu<sup>3+</sup>, Tb<sup>3+</sup> and Dy<sup>3+</sup>. *RSC Advances*, **2014**, 4, 51244-51255 3.7 36
- 157 Probing Site Symmetry Around Eu<sup>3+</sup> in Nanocrystalline ThO<sub>2</sub> Using Time Resolved Emission Spectroscopy. *Journal of the American Ceramic Society*, **2014**, 97, 3694-3701 3.8 36
- 156 Exploring pure and RE co-doped (Eu<sup>3+</sup>, Tb<sup>3+</sup> and Dy<sup>3+</sup>) gadolinium scandate: Luminescence behaviour and dynamics of energy transfer. *Chemical Engineering Journal*, **2016**, 283, 114-126 14.7 35
- 155 Crystallographic site swapping of La<sup>3+</sup> ion in BaA<sub>2</sub>TeO<sub>6</sub> (A = Na, K, Rb) double perovskite type compounds: diffraction and photoluminescence evidence for the site swapping. *Dalton Transactions*, **2014**, 43, 3306-12 4.3 35
- 154 Photoluminescence Investigations of the Near White Light Emitting Perovskite Ceramic SrZrO<sub>3</sub>:Dy<sup>3+</sup> Prepared Via Gel-Combustion Route. *International Journal of Applied Ceramic Technology*, **2013**, 10, 593-602 2 34
- 153 Structural characterization and photoluminescence properties of sol-gel derived nanocrystalline BaMoO<sub>4</sub>:Dy<sup>3+</sup>. *Journal of Luminescence*, **2015**, 158, 203-210 3.8 33
- 152 Optical properties of Eu<sup>3+</sup> activated thorium molybdate and thorium tungstate: Structure, local symmetry and photophysical properties. *Journal of Photochemistry and Photobiology A: Chemistry*, **2015**, 311, 59-67 4.7 32
- 151 On the photo-luminescence properties of sol-gel derived undoped and Dy<sup>3+</sup> ion doped nanocrystalline Scheelite type AMoO<sub>4</sub> (A = Ca, Sr and Ba). *Materials Research Bulletin*, **2015**, 64, 223-232 5.1 32
- 150 Lanthanide spectroscopy in probing structure-property correlation in multi-site photoluminescent phosphors. *Coordination Chemistry Reviews*, **2020**, 420, 213405 23.2 32
- 149 Why host to dopant energy transfer is absent in the MgAl<sub>2</sub>O<sub>4</sub>:Eu<sup>3+</sup> spinel? And exploring Eu<sup>3+</sup> site distribution and local symmetry through its photoluminescence: interplay of experiment and theory. *RSC Advances*, **2016**, 6, 42923-42932 3.7 32
- 148 Role of Synthesis Method on Luminescence Properties of Europium(II, III) Ions in CaSiO: Probing Local Site and Structure. *Inorganic Chemistry*, **2018**, 57, 935-950 5.1 31
- 147 Samarium-Activated LaHfO Nanoparticles as Multifunctional Phosphors. *ACS Omega*, **2019**, 4, 17956-17966 6.6 31

146	Tunable white light emitting Sr <sub>2</sub> V <sub>2</sub> O <sub>7</sub> :Bi <sup>3+</sup> phosphors: Role of bismuth ion. <i>Materials and Design</i> , <b>2017</b> , 130, 208-214	8.1	30
145	Bias and temperature dependent charge transport in high mobility cobalt-phthalocyanine thin films. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 013305	3.4	29
144	An insight into local environment of lanthanide ions in Sr <sub>2</sub> SiO <sub>4</sub> :Ln (Ln = Sm, Eu and Dy). <i>New Journal of Chemistry</i> , <b>2015</b> , 39, 6531-6539	3.6	28
143	Nanoparticles of Sr <sub>0.995</sub> Gd <sub>0.005</sub> ZrO <sub>3</sub> -gel-combustion synthesis, characterization, fluorescence and EPR spectroscopy. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2014</b> , 183, 6-11	3.1	28
142	Radiation effects on SBR/EPDM blends: A correlation with blend morphology. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2006</b> , 44, 1676-1689	2.6	28
141	Visible light emitting Ln <sup>3+</sup> ion (Ln=Sm, Eu and Dy) as a structural probe: A case study with SrZrO <sub>3</sub> . <i>Journal of Luminescence</i> , <b>2015</b> , 164, 1-22	3.8	27
140	On comparison of luminescence properties of La <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> and La <sub>2</sub> Hf <sub>2</sub> O <sub>7</sub> nanoparticles. <i>Journal of the American Ceramic Society</i> , <b>2020</b> , 103, 235-248	3.8	27
139	Roles of oxygen vacancies and pH induced size changes on photo- and radioluminescence of undoped and Eu <sup>3+</sup> -doped La <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> nanoparticles. <i>Journal of Luminescence</i> , <b>2019</b> , 209, 302-315	3.8	26
138	MgAl <sub>2</sub> O <sub>4</sub> spinel: Synthesis, carbon incorporation and defect-induced luminescence. <i>Journal of Molecular Structure</i> , <b>2015</b> , 1089, 81-85	3.4	26
137	Optical properties of undoped, Eu <sup>3+</sup> doped and Li <sup>+</sup> co-doped Y <sub>2</sub> Hf <sub>2</sub> O <sub>7</sub> nanoparticles and polymer nanocomposite films. <i>Inorganic Chemistry Frontiers</i> , <b>2020</b> , 7, 505-518	6.8	26
136	Orange-red emitting Gd <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> :Sm <sup>3+</sup> : Structure-property correlation, optical properties and defect spectroscopy. <i>Journal of Physics and Chemistry of Solids</i> , <b>2018</b> , 116, 360-366	3.9	25
135	Probing the oxidation state and coordination geometry of uranium ion in SrZrO <sub>3</sub> perovskite. <i>Journal of Molecular Structure</i> , <b>2014</b> , 1068, 204-209	3.4	25
134	Europium Luminescence as a Structural Probe: Structure-Dependent Changes in Eu <sup>3+</sup> -Substituted Th(C <sub>2</sub> O <sub>4</sub> ) <sub>2</sub> ·xH <sub>2</sub> O (x = 6, 2, and 0). <i>European Journal of Inorganic Chemistry</i> , <b>2015</b> , 2015, 4429-4436	2.3	25
133	Performance evaluation of Ce <sup>3+</sup> doped flexible PVDF fibers for efficient optical pressure sensors. <i>Sensors and Actuators A: Physical</i> , <b>2019</b> , 298, 111595	3.9	24
132	Warm white light emitting ThO <sub>2</sub> :Sm <sup>3+</sup> nanorods: Cationic surfactant assisted reverse micellar synthesis and Photoluminescence properties. <i>Materials Research Bulletin</i> , <b>2014</b> , 49, 297-301	5.1	24
131	Single red emission from upconverting ZnGa <sub>2</sub> O <sub>4</sub> :Yb,Er nanoparticles co-doped by Cr <sup>3+</sup> . <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 6370-6379	7.1	23
130	Revealing the oxidation number and local coordination of uranium in Nd <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> pyrochlore: A photoluminescence study. <i>Journal of Luminescence</i> , <b>2016</b> , 177, 166-171	3.8	23
129	Speciation of uranium and doping induced defects in Gd <sub>1.98</sub> U <sub>0.02</sub> Zr <sub>2</sub> O <sub>7</sub> : Photoluminescence, X-ray photoelectron and positron annihilation lifetime spectroscopy. <i>Chemical Physics Letters</i> , <b>2017</b> , 669, 245-250	2.5	22

128	A Novel near white light emitting nanocrystalline Zn <sub>2</sub> P <sub>2</sub> O <sub>7</sub> :Sm <sup>3+</sup> derived using citrate precursor route: Photoluminescence spectroscopy. <i>Advanced Powder Technology</i> , <b>2014</b> , 25, 1388-1393	4.6	22
127	Bright persistent green emitting water-dispersible ZnGeO:Mn nanorods. <i>Dalton Transactions</i> , <b>2020</b> , 49, 7328-7340	4.3	21
126	Local site symmetry of Sm <sup>3+</sup> in sol-gel derived Zn <sub>2</sub> Sr <sub>2</sub> SiO <sub>4</sub> : Probed by emission and fluorescence lifetime spectroscopy. <i>Journal of Luminescence</i> , <b>2016</b> , 169, 669-673	3.8	20
125	The effect of vanadium substitution on photoluminescent properties of K <sub>2</sub> SrLa(PO <sub>4</sub> ) <sub>x</sub> (VO <sub>4</sub> ) <sub>2-x</sub> :Eu <sup>3+</sup> phosphors, a new variant of phosphovanadates. <i>New Journal of Chemistry</i> , <b>2016</b> , 40, 1799-1806	3.6	20
124	Energy transfer dynamics and time resolved photoluminescence in BaWO <sub>4</sub> :Eu <sup>3+</sup> nanophosphors synthesized by mechanical activation. <i>New Journal of Chemistry</i> , <b>2017</b> , 41, 8947-8958	3.6	20
123	Pyrochlore Rare-Earth Hafnate REHfO (RE = La and Pr) Nanoparticles Stabilized by Molten-Salt Synthesis at Low Temperature. <i>Inorganic Chemistry</i> , <b>2019</b> , 58, 1241-1251	5.1	20
122	Recent Developments on Molten Salt Synthesis of Inorganic Nanomaterials: A Review. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 6508-6533	3.8	20
121	Structural evolution and giant magnetoresistance in electrodeposited Co-Cu/Cu multilayers. <i>Physical Review B</i> , <b>2008</b> , 77,	3.3	19
120	Visible and ultraviolet upconversion and near infrared downconversion luminescence from lanthanide doped La <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> nanoparticles. <i>Journal of Luminescence</i> , <b>2019</b> , 214, 116591	3.8	18
119	An insight into optical spectroscopy of intense green emitting ZnAl <sub>2</sub> O <sub>4</sub> :Tb <sup>3+</sup> nanoparticles: photo, thermally stimulated luminescence and EPR study. <i>Journal of Luminescence</i> , <b>2015</b> , 168, 151-157	3.8	17
118	Understanding the Dynamics of Eu <sup>3+</sup> Ions in Room-Temperature Ionic Liquids [Electrochemical and Time-Resolved Fluorescence Spectroscopy Studies. <i>European Journal of Inorganic Chemistry</i> , <b>2015</b> , 2015, 104-111	2.3	17
117	Remarkable enhancement of photoluminescence and persistent luminescence of NIR emitting ZnGa <sub>2</sub> O <sub>4</sub> :Cr <sup>3+</sup> nanoparticles. <i>CrystEngComm</i> , <b>2020</b> , 22, 2491-2501	3.3	17
116	Evidence for the stabilization of manganese ion as Mn (II) and Mn (IV) in Zn <sub>2</sub> P <sub>2</sub> O <sub>7</sub> : Probed by EPR, luminescence and electrochemical studies. <i>Materials Chemistry and Physics</i> , <b>2014</b> , 145, 162-167	4.4	17
115	Oxygen induced hysteretic current-voltage characteristics of iron-phthalocyanine thin films. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 073717	2.5	17
114	Recent advances, challenges, and opportunities of inorganic nanoscintillators. <i>Frontiers of Optoelectronics</i> , <b>2020</b> , 13, 156-187	2.8	16
113	Yellow Emission from Low Coordination Site of Sr <sub>2</sub> SiO <sub>4</sub> :Eu <sup>3+</sup> , Ce <sup>3+</sup> : Influence of Lanthanide Dopants on the Electron Density and Crystallinity in Crystal Site Engineering Approach. <i>Chemistry - A European Journal</i> , <b>2018</b> , 24, 16149-16159	4.8	16
112	Defect evolution in Eu <sup>3+</sup> , Nb <sup>5+</sup> doped and co-doped CeO <sub>2</sub> : X-ray diffraction, positron annihilation lifetime and photoluminescence studies. <i>Inorganic Chemistry Frontiers</i> , <b>2019</b> , 6, 2167-2177	6.8	16
111	Visible light emission from bulk and nano SrWO <sub>4</sub> : Possible role of defects in photoluminescence. <i>Journal of Luminescence</i> , <b>2017</b> , 192, 1220-1226	3.8	16

110	Charge transport in polypyrrole:ZnO-nanowires composite films. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 2021064	16
109	Optical nanomaterials with focus on rare earth doped oxide: A Review. <i>Materials Today Communications</i> , <b>2021</b> , 27, 102277	2.5 16
108	Insight into the effect of A-site cations on structural and optical properties of RE <sub>2</sub> Hf <sub>2</sub> O <sub>7</sub> :U nanoparticles. <i>Journal of Luminescence</i> , <b>2019</b> , 210, 425-434	3.8 15
107	Nanorods of white light emitting Sr <sub>2</sub> SiO <sub>4</sub> :Eu <sup>2+</sup> : microemulsion-based synthesis, EPR, photoluminescence, and thermoluminescence studies. <i>Journal of Experimental Nanoscience</i> , <b>2015</b> , 10, 610-621	1.9 15
106	Role of alkali charge compensation in the luminescence of CaWO <sub>4</sub> :Nd <sup>3+</sup> and SrWO <sub>4</sub> :Nd <sup>3+</sup> Scheelites. <i>New Journal of Chemistry</i> , <b>2020</b> , 44, 7300-7309	3.6 15
105	Near white light emitting ZnAl <sub>2</sub> O <sub>4</sub> :Dy <sup>3+</sup> nanocrystals: Sol-gel synthesis and luminescence studies. <i>Materials Research Bulletin</i> , <b>2016</b> , 74, 182-187	5.1 15
104	Role of surface defects in catalytic properties of CeO <sub>2</sub> nanoparticles towards oxygen reduction reaction. <i>Materials Chemistry and Physics</i> , <b>2017</b> , 200, 99-106	4.4 14
103	On the photophysics and speciation of actinide ion in MgAl <sub>2</sub> O <sub>4</sub> spinel using photoluminescence spectroscopy and first principle calculation: A case study with uranium. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 695, 337-343	5.7 14
102	Size, structure, and luminescence of Nd <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> nanoparticles by molten salt synthesis. <i>Journal of Materials Science</i> , <b>2019</b> , 54, 12411-12423	4.3 13
101	Temperature dependent electron paramagnetic resonance (EPR) of SrZrO <sub>3</sub> . <i>Journal of Magnetism and Magnetic Materials</i> , <b>2015</b> , 391, 101-107	2.8 13
100	Direct dissolution of uranium oxides in deep eutectic solvent: An insight using electrochemical and luminescence study. <i>Journal of Molecular Structure</i> , <b>2020</b> , 1215, 128266	3.4 13
99	□Fe <sub>2</sub> O <sub>3</sub> nanoflowers as efficient magnetic hyperthermia and photothermal agent. <i>Applied Surface Science</i> , <b>2021</b> , 560, 150025	6.7 13
98	Speciation and site occupancy of uranium in strontium orthosilicate by photoluminescence and X-ray absorption spectroscopy: A combined experimental and theoretical approach. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , <b>2015</b> , 151, 453-8	4.4 12
97	Unraveling doping induced anatase-rutile phase transition in TiO using electron, X-ray and gamma-ray as spectroscopic probes. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 28699-28711	3.6 12
96	Electrochemical, Thermodynamic and Spectroscopic Investigations of Ce(III) in a 1-Ethyl-3-methylimidazolium Ethyl Sulfate (EMIES) Ionic Liquid. <i>European Journal of Inorganic Chemistry</i> , <b>2015</b> , 2015, 4396-4401	2.3 11
95	Influence of sulphur atom on the qualitative behavior of electron impact total cross sections of some sulphur containing molecules. <i>Indian Journal of Physics</i> , <b>2011</b> , 85, 1717-1720	1.4 11
94	A carnegieite type red emitting NaAlSiO <sub>4</sub> :Eu <sup>3+</sup> phosphor: Concentration dependent time resolved photoluminescence and Judd-Ofelt analysis. <i>Journal of Luminescence</i> , <b>2019</b> , 209, 283-290	3.8 11
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88	Achieving Bright Blue and Red Luminescence in Ca <sub>2</sub> SnO <sub>4</sub> through Defect and Doping Manipulation. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 16090-16101	3.8	10
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83	Redox and Photophysical Behaviour of Complexes of NpO <sub>2</sub> <sup>+</sup> Ions with Carbonyl methyl phosphine oxide in 1-Hexyl-3-methylimidazolium bis (trifluoromethylsulfonyl) imide Ionic Liquid. <i>Electrochimica Acta</i> , <b>2017</b> , 224, 269-277	6.7	9
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81	EPR investigation on synthesis of Lithium zinc vanadate using sol-gel-combustion route and its optical properties. <i>Journal of Molecular Structure</i> , <b>2014</b> , 1056-1057, 121-126	3.4	9
80	Optical properties of ammonium uranyl fluoride characterized by photoluminescence and photoacoustic spectroscopy. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , <b>2014</b> , 117, 204-9	4.4	9
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70	Bright and persistent green and red light-emitting fine fibers: A potential candidate for smart textiles. <i>Journal of Luminescence</i> , <b>2021</b> , 231, 117760	3.8	7
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63	A novel self activated K <sub>2</sub> XV <sub>2</sub> O <sub>7</sub> (X = Mg and Zn) pyrovanadate green phosphor: Systematic characterization and time resolved photoluminescence. <i>Solid State Sciences</i> , <b>2016</b> , 61, 207-214	3.4	6
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59	In-plane and out-of-plane anisotropic magnetoresistances in La <sub>1-x</sub> Pb <sub>x</sub> MnO <sub>3</sub> thin films. <i>Philosophical Magazine</i> , <b>2003</b> , 83, 3181-3191	1.6	5
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57	High pressure responsive luminescence of flexible Eu <sup>3+</sup> doped PVDF fibrous mats. <i>Journal of Materials Science and Technology</i> , <b>2021</b> , 66, 103-111	9.1	5

56	Rare earth free bright and persistent white light emitting zinc gallate-germanate nanosheets: technological advancement to fibers with enhanced quantum efficiency. <i>Materials Advances</i> , <b>2021</b> , 2, 4058-4067	3.3	5
55	Oxidation state determination of uranium in various uranium oxides: Photoacoustic spectroscopy complimented by photoluminescence studies. <i>Journal of Molecular Structure</i> , <b>2015</b> , 1084, 89-94	3.4	4
54	Achieving blue emission via f-d transition from pyrochlore Eu <sup>2+</sup> and Ce <sup>3+</sup> -doped La <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> nanoparticles. <i>Journal of Molecular Structure</i> , <b>2020</b> , 1220, 128688	3.4	4
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52	Unusual magnetic properties of Mn-doped ThO <sub>2</sub> nanoparticles. <i>Journal of Materials Research</i> , <b>2008</b> , 23, 463-472	2.5	4
51	Thickness dependent morphology and resistivity of ultra-thin Al films grown on Si(111) by molecular beam epitaxy. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2006</b> , 203, 1254-1258	1.6	4
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49	pH induced size tuning of Gd <sub>2</sub> Hf <sub>2</sub> O <sub>7</sub> :Eu <sup>3+</sup> nanoparticles and its effect on their UV and X-ray excited luminescence. <i>Journal of Luminescence</i> , <b>2020</b> , 228, 117605	3.8	4
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34	Harvesting Light from BaHfO/Eu through Ultraviolet, X-ray, and Heat Stimulation: An Optically Multifunctional Perovskite.. <i>ACS Omega</i> , <b>2022</b> , 7, 5311-5323	3.9	2
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32	Multifunctional delafossite CuFeO <sub>2</sub> as water splitting catalyst and rhodamine B sensor. <i>Materials Chemistry and Physics</i> , <b>2022</b> , 278, 125643	4.4	2
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28	Disorder driven asymmetry and singular red emission in doped Lu <sub>2</sub> Hf <sub>2</sub> O <sub>7</sub> nanocrystals with no charge compensating defects. <i>Journal of Luminescence</i> , <b>2021</b> , 235, 118057	3.8	2
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26	Probing structural evolution in thorium/berium mixed oxides thermally annealed in oxidizing and reducing conditions. <i>Journal of Nuclear Materials</i> , <b>2020</b> , 539, 152344	3.3	1
25	Ab-initio study of oxygen defects in pure ThO <sub>2</sub> <b>2016</b> ,		1
24	A MODULAR-TYPE ATOMIC ABSORPTION INSTRUMENT WITH THE GRAPHITE FURNACE IN A GLOVE BOX FOR NUCLEAR APPLICATIONS. <i>Instrumentation Science and Technology</i> , <b>2014</b> , 42, 161-172	1.4	1
23	Preparation and characterization of MgB <sub>2</sub> superconductor <b>2002</b> , 58, 867-870		1
22	Effect of substrate temperature on electrical and magnetic properties of epitaxial La <sub>1-x</sub> Pb <sub>x</sub> MnO <sub>3</sub> films <b>2002</b> , 58, 1065-1067		1
21	Colossal magnetoresistance in layered manganite Nd <sub>2-x</sub> Sr <sub>1+2x</sub> Mn <sub>2</sub> O <sub>7</sub> (0 ≤ x ≤ 0.5) <b>2002</b> , 58, 1085-1088		1

20	MnFe <sub>2</sub> O <sub>4</sub> nano-flower: A prospective material for bimodal hyperthermia. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 899, 163192	5.7	1
19	Defect engineering in trivalent ion doped ceria through vanadium assisted charge compensation: insight using photoluminescence, positron annihilation and electron spin resonance spectroscopy. <i>Dalton Transactions</i> , <b>2021</b> , 50, 17378-17389	4.3	1
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17	On high purity fullerenol obtained by combined dialysis and freeze-drying method with its morphostructural transition and photoluminescence. <i>Separation and Purification Technology</i> , <b>2019</b> , 210, 927-934	8.3	1
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15	Doped lanthanum cerate pyrochlore for multicolor luminescent phosphor: Decisive role of energy transfer and defects. <i>Journal of Luminescence</i> , <b>2021</b> , 236, 118072	3.8	1
14	Cr <sup>3+</sup> assisted energy transfer for Mn <sup>2+</sup> doped zinc gallogermanate with narrow and bright green emission. <i>Materials Letters</i> , <b>2021</b> , 297, 129964	3.3	1
13	Photon energy dependent appearance and disappearance of magnetic dipole transition in Gd <sub>2</sub> Hf <sub>2</sub> O <sub>7</sub> :Sm <sup>3+</sup> nanophosphors. <i>Journal of Luminescence</i> , <b>2022</b> , 245, 118789	3.8	0
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11	Stabilization of UO <sub>2</sub> <sup>2+</sup> in SrHfO <sub>3</sub> perovskite and probing defects, local structure and photo/thermoluminescence. <i>Journal of Luminescence</i> , <b>2022</b> , 243, 118663	3.8	0
10	Light emission of Lu <sub>2</sub> Sn <sub>2</sub> O <sub>7</sub> pyrochlore driven by oxygen vacancy and local site engineering. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 893, 162249	5.7	0
9	Ultraviolet emission and electron spin characteristics of Th(C <sub>2</sub> O <sub>4</sub> ) <sub>2</sub> ·xH <sub>2</sub> O:Gd <sup>3+</sup> . <i>New Journal of Chemistry</i> , <b>2020</b> , 44, 16036-16044	3.6	0
8	Bright aspects of defects and dark traits of dopants in the photoluminescence of Er <sub>2</sub> X <sub>2</sub> O <sub>7</sub> :Eu <sup>3+</sup> (X = Ti and Zr) pyrochlore: an insight using EXAFS, positron annihilation and DFT. <i>Materials Advances</i> , <b>2021</b> , 2, 3075-3087	3.3	0
7	High pressure induced disappearing 5D <sub>0</sub> → 7F <sub>2</sub> and broadening 5D <sub>0</sub> → 7F <sub>1</sub> transitions from Y <sub>2</sub> Hf <sub>2</sub> O <sub>7</sub> :Eu <sup>3+</sup> nanoparticles. <i>Materials Letters</i> , <b>2021</b> , 303, 130560	3.3	0
6	Microwave absorption studies of MgB <sub>2</sub> superconductor <b>2002</b> , 58, 799-802		
5	Anomalous temperature dependence of resistance observed for high TC Y-Ba-Cu-O thin films. <i>Phase Transitions</i> , <b>1989</b> , 18, 125-130	1.3	
4	Probing defect-originated properties, actinide-lanthanide doping, and gamma irradiation effect in Lu <sub>2</sub> Hf <sub>2</sub> O <sub>7</sub> pyrochlore nanocrystals for phosphor and nuclear applications. <i>Materials Today Chemistry</i> , <b>2022</b> , 23, 100761	6.2	
3	Ultraviolet, blue and singular green upconversion from Gd <sub>2</sub> Hf <sub>2</sub> O <sub>7</sub> nanocrystals through dopant manipulation. <i>Solid State Communications</i> , <b>2021</b> , 338, 114458	1.6	

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- 1 Synergistic effect of doping and defect in achieving white light emission and oxygen reduction catalysis in Ce<sub>1-x</sub>Sm<sub>x</sub>PO<sub>4</sub>. *Materials Today Chemistry*, **2022**, 25, 100947 6.2