

# Raunak Kumar Tamrakar

## List of Publications by Year in descending order

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105  
papers

1,918  
citations

270111

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g-index

111  
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111  
docs citations

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times ranked

1635  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparative study of structural and optical behavior of Er <sup>3+</sup> doped Y <sub>2</sub> SiO <sub>5</sub> phosphor prepared by different methods. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 275, 115511.	1.7	5
2	Upconversion luminescence and optical behavior of Er <sup>3+</sup> -doped Gd <sub>2</sub> O <sub>3</sub> phosphors. , 2022, , 169-180.		1
3	Efficient energy transfer between Nd <sup>3+</sup> + Yb <sup>3+</sup> codoped Gd <sub>2</sub> O <sub>2</sub> S host for NIR emission. Materials Today: Proceedings, 2021, 34, 493-495.	0.9	0
4	Tuning of photoluminescence emission of Y <sub>2</sub> SiO <sub>5</sub> :Tb <sup>3+</sup> , Eu <sup>3+</sup> phosphors by altering the Tb <sup>3+</sup> , Eu <sup>3+</sup> ratio. Materials Today: Proceedings, 2021, 34, 484-487.	0.9	7
5	Gd <sub>2</sub> O <sub>3</sub> :Er <sup>3+</sup> embedded PMMA/PC nanocomposites: A luminescent nanocomposite. Polymer Testing, 2021, 93, 106911.	2.3	5
6	Investigation of photoluminescence behavior of Gd <sup>3+</sup> doped Y <sub>2</sub> SiO <sub>5</sub> phosphor prepared by combustion synthesis method. Chemical Papers, 2021, 75, 3073-3079.	1.0	1
7	Particle Size and Band Gap Calculation of Pure Y <sub>2</sub> SiO <sub>5</sub> Crystal Synthesized by Solid-State Reaction Method. Brazilian Journal of Physics, 2021, 51, 599-604.	0.7	1
8	Influence of Dy <sup>3+</sup> concentration on spectroscopic behaviour of Sr <sub>3</sub> MgSi <sub>2</sub> O <sub>8</sub> :Dy <sup>3+</sup> phosphors. Journal of Alloys and Compounds, 2020, 816, 152590.	2.8	23
9	Gd <sub>2</sub> O <sub>3</sub> : A Luminescent Material. , 2020, , .		1
10	Investigation of structural and thermal response of Sm <sup>3+</sup> doped Sr <sub>3</sub> MgSi <sub>2</sub> O <sub>8</sub> phosphors. Optical and Quantum Electronics, 2020, 52, 1.	1.5	2
11	Fluence map optimisation for prostate cancer intensity modulated radiotherapy planning using iterative solution method. Polish Journal of Medical Physics and Engineering, 2020, 26, 201-209.	0.2	1
12	Enhancement in photoluminescence behaviour of GdAlO <sub>3</sub> phosphors by a solid state reaction method under a N <sub>2</sub> atmosphere. Bulletin of Materials Science, 2019, 42, 1.	1.9	1
13	Investigation of a thermoluminescence response and trapping parameters and theoretical model to explain concentration quenching for Yb <sup>3+</sup> -doped ZrO <sub>2</sub> phosphors under UV exposure. Bulletin of Materials Science, 2019, 42, 1.	0.8	1
14	Photoluminescence behaviour of Tb <sup>3+</sup> doped Y <sub>2</sub> O <sub>3</sub> phosphor prepared by combustion synthesis method. AIP Conference Proceedings, 2019, , .	0.3	0
15	Synthesis, structural and luminescence properties of Dy <sup>3+</sup> activated GdAlO <sub>3</sub> phosphors by a solid state reaction method under a N <sub>2</sub> atmosphere. Bulletin of Materials Science, 2019, 42, 1.	0.8	10
16	Effect of synthesis process on particle size and band gap of Er <sup>3+</sup> doped Y <sub>2</sub> SiO <sub>5</sub> . AIP Conference Proceedings, 2019, , .	0.3	1
17	Spectral behaviour of dysprosium doped zinc oxide nano particles. Nano Structures Nano Objects, 2019, 18, 100302.	1.9	3
18	Variation in structural and photoluminescence behavior of the Er <sup>3+</sup> and Yb <sup>3+</sup> rare earth doped Gd <sub>2</sub> O <sub>3</sub> phosphor: a comparative approach. Materials Technology, 2019, 34, 313-323.	1.5	4

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19	Seasonal assessment of surface water for selected traces in the vicinity of a thermal power plant. Environmental Nanotechnology, Monitoring and Management, 2019, 11, 100200.	1.7	0
20	Thermoluminescence glow curve for UV induced Sr <sub>3</sub> MgSi <sub>2</sub> O <sub>8</sub> phosphor with its structural characterization. Journal of Materials Science: Materials in Electronics, 2019, 30, 771-777.	1.1	7
21	Synthesis, structural and luminescent properties of Eu <sup>2+</sup> /Dy <sup>3+</sup> activated GdAlO <sub>3</sub> phosphors by solid state reaction method under nitrogen atmosphere. Optik, 2019, 181, 1158-1162.	1.4	4
22	Combustion Synthesis and Luminescence Behaviour of the Tb <sup>3+</sup> Doped SrY <sub>2</sub> O <sub>4</sub> Phosphor. Journal of Electronic Materials, 2018, 47, 651-654.	1.0	10
23	Studies on thermoluminescence properties of alkaline earth silicate phosphors. Journal of Alloys and Compounds, 2018, 735, 1383-1388.	2.8	29
24	Growth and synthesis of Sr <sub>3</sub> MgSi <sub>2</sub> O <sub>8</sub> :Dy <sup>3+</sup> nanorod arrays by a solid state reaction method. Optical and Quantum Electronics, 2018, 50, 1.	1.5	11
25	Thermoluminescence behaviour of GdAlO <sub>3</sub> :Yb <sup>3+</sup> under gamma exposure. Optical and Quantum Electronics, 2018, 50, 1.	1.5	5
26	Spectral behavior of Eu <sup>3+</sup> ; Dy <sup>3+</sup> co-doped Gd <sub>2</sub> O <sub>3</sub> phosphor and color tunability by variation in excitation wavelength. AIP Conference Proceedings, 2018, , .	0.3	1
27	Studies on the luminescence properties of CaZrO <sub>3</sub> :Eu <sup>3+</sup> phosphors prepared by the solid state reaction method. Journal of Science: Advanced Materials and Devices, 2017, 2, 69-78.	1.5	12
28	Luminescence studies on the europium doped strontium metasilicate phosphor prepared by solid state reaction method. Journal of Science: Advanced Materials and Devices, 2017, 2, 59-68.	1.5	16
29	Tuning of photoluminescence emission properties of Eu <sup>3+</sup> doped Gd <sub>2</sub> O <sub>3</sub> by different excitations. Optik, 2017, 135, 281-289.	1.4	12
30	3T1R model and tuning of thermoluminescence intensity by optimization of dopant concentration in monoclinic Gd <sub>2</sub> O <sub>3</sub> :Er <sup>3+</sup> ;Yb <sup>3+</sup> co-doped phosphor. Physical Chemistry Chemical Physics, 2017, 19, 14680-14694.	1.3	14
31	Watermarking based image authentication and tamper detection algorithm using vector quantization approach. AEU - International Journal of Electronics and Communications, 2017, 78, 114-123.	1.7	42
32	Combustion synthesized tetragonal Y <sub>2</sub> O <sub>3</sub> :Gd <sup>3+</sup> nanophosphors: Structural and photoluminescence studies. Optik, 2017, 143, 125-130.	1.4	9
33	Model to explain the concentration quenching on thermoluminescence behaviour of Eu <sup>3+</sup> doped Gd <sub>2</sub> O <sub>3</sub> phosphor under UV irradiation. Journal of Alloys and Compounds, 2017, 699, 898-906.	2.8	21
34	Combustion synthesized ZrO <sub>2</sub> Gd <sup>3+</sup> nanophosphors: structural and photoluminescence studies. Journal of Materials Science: Materials in Electronics, 2017, 28, 12545-12550.	1.1	8
35	Optical properties of Gd <sub>2</sub> O <sub>3</sub> :Pr <sup>3+</sup> phosphor synthesized by combustion method using glycerine as a fuel. Journal of Materials Science: Materials in Electronics, 2017, 28, 6112-6118.	1.1	2
36	Thermoluminescence behaviour of Gd <sub>2</sub> O <sub>3</sub> :Er <sup>3+</sup> phosphor prepared by combustion synthesis method. Journal of Materials Science: Materials in Electronics, 2017, 28, 4267-4278.	1.1	5

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37	Change in thermoluminescence behaviour of cubic Gd <sub>2</sub> O <sub>3</sub> :Yb <sup>3+</sup> phosphors with successive increase in Yb <sup>3+</sup> ion concentrations. Radiation Physics and Chemistry, 2017, 130, 321-334.	1.4	21
38	Effect of dysprosium concentration on thermoluminescence behavior of ZrO <sub>2</sub> :Eu <sup>3+</sup> phosphor. Optik, 2016, 127, 3602-3604.	1.4	5
39	Synthesis and characterization of pure and Zn doped lead hydroxide nano structure through chemical root method. Optik, 2016, 127, 4854-4858.	1.4	3
40	Enhancement of photoluminescence behavior of Gd <sub>2</sub> O <sub>3</sub> :Er <sup>3+</sup> phosphor by alkali metal. Optik, 2016, 127, 3693-3697.	1.4	11
41	Luminescent properties of R <sup>+</sup> doped Sr <sub>2</sub> MgSi <sub>2</sub> O <sub>7</sub> :Eu <sup>3+</sup> (R <sup>+</sup> =Li <sup>+</sup> , Na <sup>+</sup> and K <sup>+</sup> ) orange-red emitting phosphors. Journal of Materials Science: Materials in Electronics, 2016, 27, 6721-6734.	1.1	12
42	Optical and Structural characterization of pure and zinc-doped lead oxide nanostructures synthesized by chemical root method. Optik, 2016, 127, 6028-6035.	1.4	5
43	Photoluminescence behaviour of Gd <sub>2</sub> SiO <sub>5</sub> phosphor. Optik, 2016, 127, 5204-5206.	1.4	4
44	The down conversion properties of a Gd <sub>2</sub> O <sub>3</sub> :Er <sup>3+</sup> phosphor prepared via a combustion synthesis method. RSC Advances, 2016, 6, 92360-92370.	1.7	26
45	Dysprosium-Doped Strontium Magnesium Silicate White Light Emitting Phosphor Prepared by Solid State Reaction Method. Journal of Display Technology, 2016, 12, 1478-1487.	1.3	3
46	Spectral characterization of Er <sup>3+</sup> , Yb <sup>3+</sup> co doped GdAlO <sub>3</sub> phosphor prepared by solid state reaction method. Journal of Alloys and Compounds, 2016, 689, 702-712.	2.8	18
47	Structural characterization of Er <sup>3+</sup> , Yb <sup>3+</sup> doped Gd <sub>2</sub> O <sub>3</sub> phosphor, synthesized using the solid state reaction method, and its luminescence behavior. Luminescence, 2016, 31, 8-15.	1.5	12
48	Estimation of spectroscopic parameters and colour purity of the red-light-emitting YBa <sub>3</sub> B <sub>9</sub> O <sub>18</sub> phosphor: Judd-Ofelt approach. Journal of Luminescence, 2016, 180, 169-176.	1.5	21
49	The effect of annealing and irradiation dose on the thermoluminescence glow peak of a monoclinic Gd <sub>2</sub> O <sub>3</sub> :Yb <sup>3+</sup> phosphor. RSC Advances, 2016, 6, 80797-80807.	1.7	21
50	Structural Characterization of Gd <sub>2</sub> O <sub>3</sub> Phosphor Synthesized by Solid-State Reaction and Combustion Method Using X-Ray Diffraction and Transmission Electron Microscopic Techniques. Journal of Display Technology, 2016, 12, 921-927.	1.3	9
51	Photoluminescence Behavior of ZrO <sub>2</sub> : Eu <sup>3+</sup> With Fixed Concentration of Eu <sup>3+</sup> as a Function of Annealing Temperature. Journal of Display Technology, 2016, 12, 917-920.	1.3	1
52	Leuco crystal violet method for the determination of nicorandil in bulk dosage. Karbala International Journal of Modern Science, 2016, 2, 1-9.	0.5	4
53	Variation in luminescence behavior of Yb <sup>3+</sup> doped GdAlO <sub>3</sub> phosphor with gradual increase in Yb <sup>3+</sup> concentration. Infrared Physics and Technology, 2016, 75, 160-167.	1.3	12
54	Luminescence behavior of europium activated strontium aluminate phosphors by solid state reaction method. Journal of Materials Science: Materials in Electronics, 2016, 27, 3443-3455.	1.1	13

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55	Comparative study of thermoluminescence behaviour of Gd <sub>2</sub> O <sub>3</sub> phosphor synthesized by solid state reaction and combustion method with different exposure. Radiation Measurements, 2016, 84, 41-54.	0.7	17
56	Studies of Thermoluminescence Glow Curve of $\text{GdAlO}_3$ Phosphors Synthesized by Solid-State Reaction Methods. Journal of Display Technology, 2016, 12, 599-604.	1.3	11
57	Generation of White Light from Dysprosium-Doped Strontium Aluminate Phosphor by a Solid-State Reaction Method. Journal of Electronic Materials, 2016, 45, 2222-2232.	1.0	26
58	Studies on the luminescence behavior of SrCaMgSi <sub>2</sub> O <sub>7</sub> :Eu <sup>3+</sup> phosphor by solid state reaction method. Journal of Materials Science: Materials in Electronics, 2016, 27, 1828-1839.	1.1	10
59	Enhancement of the photoluminescence and long afterglow properties of Ca <sub>2</sub> MgSi <sub>2</sub> O <sub>7</sub> :Eu <sup>2+</sup> phosphor by Dy <sup>3+</sup> co-doping. Research on Chemical Intermediates, 2016, 42, 1823-1843.	1.3	18
60	Upconversion and colour tunability of Gd <sub>2</sub> O <sub>3</sub> :Er <sup>3+</sup> phosphor prepared by combustion synthesis method. Journal of Alloys and Compounds, 2016, 655, 423-432.	2.8	32
61	Structural characterization and photoluminescence properties of pure and Ag(1â€“5%)-doped (Cd <sub>0.95</sub> Zn <sub>0.5</sub> )S phosphors synthesized by solid-state reaction methods. Journal of Taibah University for Science, 2016, 10, 115-121.	1.1	4
62	Enhanced luminescence performance of Sr <sub>2</sub> MgSi <sub>2</sub> O <sub>7</sub> :Eu <sup>2+</sup> blue long persistence phosphor by co-doping with Ce <sup>3+</sup> ions. Journal of Materials Science: Materials in Electronics, 2016, 27, 554-569.	1.1	17
63	Synthesis, structural characterization and thermoluminescence glow curve study of gadolinium-doped Y <sub>2</sub> O <sub>3</sub> nanophosphor. Journal of Taibah University for Science, 2016, 10, 317-323.	1.1	3
64	Effect of synthesis annealing temperature & Yb <sup>3+</sup> concentration on photoluminescence properties of monoclinic Gd <sub>2</sub> O <sub>3</sub> phosphor. Journal of Optics (India), 2015, 44, 337-345.	0.8	5
65	Sensitive spectrophotometric method for determination of some phenothiazine drugs. Research on Chemical Intermediates, 2015, 41, 7481-7495.	1.3	6
66	Effect of annealing on downâ€“conversion properties of monoclinic Gd <sub>2</sub> O <sub>3</sub> :Er <sup>3+</sup> nanophosphors. Luminescence, 2015, 30, 812-817.	1.5	20
67	TL glow curve analysis of UV, beta and gamma induced limestone collected from Amarnath holy cave. Journal of Radiation Research and Applied Sciences, 2015, 8, 126-135.	0.7	8
68	Photoluminescence properties of europium doped di-strontium magnesium di-silicate phosphor by solid state reaction method. Journal of Radiation Research and Applied Sciences, 2015, 8, 104-109.	0.7	47
69	Photoluminescence behavior of ZrO <sub>2</sub> : Eu <sup>3+</sup> with variable concentration of Eu <sup>3+</sup> doped phosphor. Journal of Radiation Research and Applied Sciences, 2015, 8, 11-16.	0.7	39
70	Mechanoluminescence, photoluminescence and thermoluminescence studies of SrZrO <sub>3</sub> :Ce phosphor. Journal of Radiation Research and Applied Sciences, 2015, 8, 68-76.	0.7	8
71	Down-conversion luminescence property of Er <sup>3+</sup> and Yb <sup>3+</sup> co-doped Gd <sub>2</sub> O <sub>3</sub> crystals prepared by combustion synthesis and solid state reaction method. Superlattices and Microstructures, 2015, 81, 34-48.	1.4	37
72	Effect of annealing temperature on thermoluminescence glow curve for UV and gamma ray induced ZrO <sub>2</sub> :Ti phosphor. Journal of Radiation Research and Applied Sciences, 2015, 8, 1-10.	0.7	23

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73	Structural characterization and luminescence properties of bluish-green-emitting SrCaMgSi <sub>2</sub> O <sub>7</sub> :Eu <sup>2+</sup> , Dy <sup>3+</sup> phosphor by solid-state reaction method. <i>Research on Chemical Intermediates</i> , 2015, 41, 8797-8814.	1.3	30
74	Suitability of leaching test methods for fly ash and slag: A review. <i>Journal of Radiation Research and Applied Sciences</i> , 2015, 8, 523-537.	0.7	131
75	Luminescence properties of dysprosium doped calcium magnesium silicate phosphor by solid state reaction method. <i>Journal of Alloys and Compounds</i> , 2015, 649, 1329-1338.	2.8	37
76	Structural and luminescence behavior of Gd <sub>2</sub> O <sub>3</sub> :Er <sup>3+</sup> phosphor synthesized by solid state reaction method. <i>Optik</i> , 2015, 126, 2654-2658.	1.4	18
77	Calculation of kinetic data and thermoluminescence studies of (Zn, Cd)S mixed phosphor. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , 2015, 118, 739-741.	0.2	0
78	Structural characterization and photoluminescence properties of zinc oxide nano particles synthesized by chemical route method. <i>Journal of Radiation Research and Applied Sciences</i> , 2015, 8, 433-438.	0.7	66
79	Thermoluminescence studies of ultraviolet and gamma irradiated erbium(III)- and ytterbium(III)-doped gadolinium oxide phosphors. <i>Materials Science in Semiconductor Processing</i> , 2015, 33, 169-188.	1.9	32
80	Assessment of heavy metal concentrations in surface water sources in an industrial region of central India. <i>Karbala International Journal of Modern Science</i> , 2015, 1, 9-14.	0.5	50
81	Synthesis, structural characterization and study of blue shift in optical properties of zinc oxide nano particles prepared by chemical route method. <i>Superlattices and Microstructures</i> , 2015, 88, 417-425.	1.4	8
82	Comparison of emitted color by pure Gd <sub>2</sub> O <sub>3</sub> prepared by two different methods by CIE coordinates. <i>Superlattices and Microstructures</i> , 2015, 88, 382-388.	1.4	20
83	Comparative Study and Role of Er <sup>3+</sup> and Yb <sup>3+</sup> Concentrations on Upconversion Process of Gd <sub>2</sub> O <sub>3</sub> :Er <sup>3+</sup> Yb <sup>3+</sup> Phosphors Prepared By Solid-State Reaction and Combustion Method. <i>Journal of Physical Chemistry C</i> , 2015, 119, 21072-21086.	1.5	32
84	Luminescence studies of dysprosium doped strontium aluminate white light emitting phosphor by combustion route. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 8824-8839.	1.1	39
85	Studies on the luminescence properties of europium doped strontium alumino-silicate phosphors by solid state reaction method. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 10075-10086.	1.1	15
86	Dysprosium doped di-calcium magnesium di-silicate white light emitting phosphor by solid state reaction method. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 9907-9920.	1.1	11
87	Infrared spectroscopy and luminescence spectra of Yb <sup>3+</sup> doped ZrO <sub>2</sub> nanophosphor. <i>Journal of Radiation Research and Applied Sciences</i> , 2015, 8, 399-403.	0.7	17
88	High temperature solid state synthesis and photoluminescence behavior of Eu <sup>3+</sup> doped GdAlO <sub>3</sub> nanophosphor. <i>Superlattices and Microstructures</i> , 2015, 78, 116-124.	1.4	31
89	Effect of Yb <sup>3+</sup> concentration on photoluminescence properties of cubic Gd <sub>2</sub> O <sub>3</sub> phosphor. <i>Infrared Physics and Technology</i> , 2015, 68, 92-97.	1.3	31
90	UV-irradiated thermoluminescence studies of bulk CdS with trap parameter. <i>Research on Chemical Intermediates</i> , 2015, 41, 43-48.	1.3	17

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91	Influence of Er <sup>3+</sup> concentration on the photoluminescence characteristics and excitation mechanism of Gd <sub>2</sub> O <sub>3</sub> :Er <sup>3+</sup> phosphor synthesized via a solid state reaction method. Luminescence, 2015, 30, 668-676.	1.5	28
92	Extractive spectrophotometric determination of $\pm$ -methyldopa in bulk dosage and in its formulations. Research on Chemical Intermediates, 2015, 41, 5521-5528.	1.3	4
93	Ytterbium Doped Gadolinium Oxide (Gd <sub>2</sub> O <sub>3</sub> :Yb <sup>3+</sup> ) Phosphor: Topology, Morphology, and Luminescence Behaviour. Indian Journal of Materials Science, 2014, 2014, 1-7.	0.6	24
94	Comparison of photoluminescence properties of Gd <sub>2</sub> O <sub>3</sub> phosphor synthesized by combustion and solid state reaction method. Journal of Radiation Research and Applied Sciences, 2014, 7, 550-559.	0.7	97
95	Synthesis and thermoluminescence behavior of ZrO <sub>2</sub> :Eu <sup>3+</sup> with variable concentration of Eu <sup>3+</sup> doped phosphor. Journal of Radiation Research and Applied Sciences, 2014, 7, 486-490.	0.7	21
96	Thermoluminescence glow curve for UV induced ZrO <sub>2</sub> :Ti phosphor with variable concentration of dopant and various heating rate. Journal of Radiation Research and Applied Sciences, 2014, 7, 542-549.	0.7	30
97	Gamma ray induced thermoluminescence studies of yttrium (III) oxide nanopowders doped with gadolinium. Journal of Radiation Research and Applied Sciences, 2014, 7, 526-531.	0.7	26
98	UV and gamma ray induced thermoluminescence properties of cubic Gd <sub>2</sub> O <sub>3</sub> :Er <sup>3+</sup> phosphor. Journal of Radiation Research and Applied Sciences, 2014, 7, 417-429.	0.7	68
99	Infrared spectroscopy and upconversion luminescence behaviour of erbium doped yttrium (III) oxide phosphor. Infrared Physics and Technology, 2014, 67, 537-541.	1.3	23
100	Optical behaviour of cadmium and mercury free eco-friendly lamp nanophosphor for display devices. Results in Physics, 2014, 4, 63-68.	2.0	13
101	Characterization and luminescence properties of Gd <sub>2</sub> O <sub>3</sub> phosphor. Research on Chemical Intermediates, 2014, 40, 1771-1779.	1.3	69
102	Thermoluminescence studies of copper-doped cadmium sulphide nanoparticles with trap depth parameters. Research on Chemical Intermediates, 2013, 39, 4239-4245.	1.3	17
103	Optical and kinetic studies of CdS:Cu nanoparticles. Research on Chemical Intermediates, 2013, 39, 3043-3048.	1.3	36
104	Thermoluminescence studies of UV-irradiated Y <sub>2</sub> O <sub>3</sub> :Eu <sup>3+</sup> doped phosphor. Research on Chemical Intermediates, 2013, 39, 3919-3923.	1.3	25
105	Combustion synthesis and optical properties of ceria doped gadolinium-oxide nanopowder. , 2013, , .		9