Balaji Devakumar

List of Publications by Year in descending order

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91 papers

3,890 citations

93792 39 h-index 58 g-index

92 all docs 92 docs citations 92 times ranked 1522 citing authors

#	Article	IF	CITATIONS
1	Blue-light-excitable broadband yellow-emitting CaGd2HfSc(AlO4)3:Ce3+ garnet phosphors for white light-emitting diode devices with improved color rendering index. Materials Today Chemistry, 2022, 23, 100638.	1.7	7
2	High-brightness cyan-emitting Eu2+-activated orthophosphate phosphors for near-UV-pumped white LEDs. Journal of Luminescence, 2022, 243, 118640.	1.5	27
3	One-step low-temperature solid-state synthesis of lead-free cesium copper halide Cs3Cu2Br5 phosphors with bright blue emissions. Materials Today Chemistry, 2022, 23, 100678.	1.7	5
4	Full-Spectrum White Light-Emitting Diodes Enabled by an Efficient Broadband Green-Emitting CaY ₂ ZrScAl ₃ O ₁₂ :Ce ³⁺ Garnet Phosphor. ACS Applied Materials & Diversity among the properties of the properties o	4.0	72
5	An energy transfer strategy for highly luminescent green-emitting Ce3+/Tb3+ codoped Ca2LaHf2Al3O12 garnet phosphors in white light-emitting diodes. Materials Today Chemistry, 2022, 24, 100773.	1.7	2
6	Full-spectrum solid-state white lighting with high color rendering index exceeding 96 based on a bright broadband green-emitting phosphor. Applied Materials Today, 2022, 27, 101439.	2.3	5
7	Dazzling Red-Emitting Europium(III) Ion-Doped Ca ₂ LaHf ₂ Al ₃ O ₁₂ Garnet-Type Phosphor Materials with Potential Application in Solid-State White Lighting. Inorganic Chemistry, 2022, 61, 6898-6909.	1.9	22
8	Ultra-high color rendering warm-white light-emitting diodes based on an efficient green-emitting garnet phosphor for solid-state lighting. Chemical Engineering Journal, 2021, 405, 126950.	6.6	146
9	Energy transfer induced color-tunable emissions from Ba2Gd5B5O17:Ce3+/Tb3+ borate phosphors for white LEDs. Journal of Luminescence, 2021, 229, 117685.	1.5	17
10	Synthesis, crystal structure and photoluminescence properties of novel far-red-emitting SrLaZnSbO6:Mn4+ double-perovskite phosphors for plant cultivation LEDs. Journal of Photochemistry and Photobiology A: Chemistry, 2021, 410, 113166.	2.0	16
11	Bright red luminescence from Mn4+ ions doped Sr2LuTaO6 double-perovskite phosphors. Journal of Luminescence, 2021, 233, 117901.	1.5	29
12	Using an excellent near-UV-excited cyan-emitting phosphor for enhancing the color rendering index of warm-white LEDs by filling the cyan gap. Materials Today Chemistry, 2021, 20, 100471.	1.7	23
13	A novel blue-emitting phosphors (CsBaYB6O12:Ce3+): Potential applications in w-LEDs and X-ray phosphors. Journal of Alloys and Compounds, 2021, 873, 159676.	2.8	15
14	Finding an efficient far-red-emitting CaMg2La2W2O12:Mn4+ phosphor toward indoor plant cultivation LED lighting. Materials Today Chemistry, 2021, 21, 100512.	1.7	23
15	Novel Ba3Lu4O9:Bi3+,Eu3+ phosphors for white LEDs: Efficient energy transfer, broad near-UV excitation band and green-yellow-orange-red color tunable emissions. Journal of Luminescence, 2021, 238, 118291.	1.5	4
16	Utilizing energy transfer strategy to produce efficient green luminescence in Ca2LuHf2Al3O12:Ce3+,Tb3+ garnet phosphors for high-quality near-UV-pumped warm-white LEDs. Journal of Colloid and Interface Science, 2021, 601, 365-377.	5.0	23
17	A broadband cyan-emitting Ca ₂ LuZr ₂ (AlO ₄) ₃ :Ce ³⁺ garnet phosphor for near-ultraviolet-pumped warm-white light-emitting diodes with an improved color rendering index. lournal of Materials Chemistry C. 2020, 8, 1095-1103.	2.7	176
18	Efficient green-emitting Ca2GdZr2Al3O12:Ce3+,Tb3+ phosphors for near-UV-pumped high-CRI warm-white LEDs. Journal of Luminescence, 2020, 220, 117012.	1.5	18

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19	A novel efficient Mn4+-activated Ba2YTaO6 far-red emitting phosphor for plant cultivation LEDs: Preparation and photoluminescence properties. Journal of Luminescence, 2020, 228, 117621.	1.5	20
20	KCa2Mg2V3O12: A novel efficient rare-earth-free self-activated yellow-emitting phosphor. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 401, 112765.	2.0	19
21	Bright cyan-to-green color-tunable emissions from Ce3+/Tb3+ co-activated garnet phosphors for high-color-quality solid-state lighting. Materials Today Energy, 2020, 17, 100487.	2.5	18
22	Synthesis and photoluminescence properties of near-UV-excitable cyan-emitting Ca2YHf2Ga3O12:Ce3+garnet phosphors. Journal of Luminescence, 2020, 227, 117544.	1.5	14
23	Preparation, crystal structure, and photoluminescence properties of high-brightness red-emitting Ca2LuNbO6:Eu3+ double-perovskite phosphors for high-CRI warm-white LEDs. Journal of Luminescence, 2020, 225, 117373.	1.5	33
24	Eu3+-activated Ca2YTaO6 double-perovskite compound: A novel highly efficient red-emitting phosphor for near-UV-excited warm w-LEDs. Journal of Luminescence, 2020, 226, 117408.	1.5	33
25	Optical properties of deep-red-emitting Ca2YTaO6:Mn4+ phosphors for LEDs applications. Optics and Laser Technology, 2020, 130, 106349.	2.2	29
26	Achieving full-visible-spectrum LED lighting via employing an efficient Ce3+-activated cyan phosphor. Materials Today Energy, 2020, 17, 100448.	2.5	46
27	Novel efficient deep-red-emitting Ca2LuTaO6:Mn4+ double-perovskite phosphors for plant growth LEDs. Journal of Luminescence, 2020, 222, 117177.	1.5	36
28	Preparation and photoluminescence properties of novel Mn4+ doped Li3Mg2TaO6 red-emitting phosphors. Inorganic Chemistry Communication, 2020, 116, 107903.	1.8	24
29	Synthesis and photoluminescence properties of a new blue-light-excitable red phosphor Ca2LaTaO6:Eu3+ for white LEDs. Journal of Luminescence, 2020, 222, 117173.	1.5	42
30	Full-visible-spectrum lighting enabled by an excellent cyan-emitting garnet phosphor. Journal of Materials Chemistry C, 2020, 8, 4934-4943.	2.7	195
31	Realizing bright blue-red color-tunable emissions from Gd2GeO5:Bi3+,Eu3+ phosphors through energy transfer toward light-emitting diodes. Journal of Luminescence, 2020, 222, 117127.	1.5	22
32	Highly efficient near-UV-excitable Ca ₂ YHf ₂ Al ₃ O ₁₂ :Ce ³⁺ ,Tb ³⁺ green-emitting garnet phosphors with potential application in high color rendering warm-white LEDs. Journal of Materials Chemistry C, 2020, 8, 4408-4420.	2.7	131
33	Novel highly luminescent double-perovskite Ca2GdSbO6:Eu3+ red phosphors with high color purity for white LEDs: Synthesis, crystal structure, and photoluminescence properties. Journal of Luminescence, 2020, 221, 117105.	1.5	75
34	Filling the cyan gap toward full-visible-spectrum LED lighting with Ca2LaHf2Al3O12:Ce3+ broadband green phosphor. Journal of Alloys and Compounds, 2020, 836, 155469.	2.8	50
35	Facile low-temperature solid-state synthesis of efficient blue-emitting Cs3Cu2I5 powder phosphors for solid-state lighting. Materials Today Chemistry, 2020, 17, 100288.	1.7	53
36	Highly efficient Ce ³⁺ ↠Tb ³⁺ energy transfer induced bright narrowband green emissions from garnet-type Ca ₂ YZr ₂ (AlO ₄) ₃ :Ce ³⁺ ,Tb ³⁺ phosphors for white LEDs with high color rendering index. Journal of Materials Chemistry C, 2019, 7, 10471-10480.	2.7	110

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37	Synthesis, Crystal Structure, and Photoluminescence Characteristics of High-Efficiency Deep-Red Emitting Ba ₂ GdTaO ₆ :Mn ⁴⁺ Phosphors. ACS Omega, 2019, 4, 13474-13480.	1.6	40
38	Crystal structure, photoluminescence properties and thermal stability of BaLu2Si3O10:Eu3+ red-emitting phosphors with high color purity for near-UV-excited white LEDs. Journal of Luminescence, 2019, 215, 116623.	1.5	38
39	Novel highly efficient and thermally stable Ca2GdTaO6:Eu3+ red-emitting phosphors with high color purity for UV/blue-excited WLEDs. Journal of Alloys and Compounds, 2019, 804, 93-99.	2.8	73
40	Synthesis and photoluminescence properties of a novel high-efficiency red-emitting Ca2LuSbO6:Eu3+phosphor for WLEDs. Journal of Luminescence, 2019, 214, 116605.	1.5	44
41	Deep-red-emitting Ca2LuSbO6:Mn4+ phosphors for plant growth LEDs: Synthesis, crystal structure, and photoluminescence properties. Journal of Alloys and Compounds, 2019, 804, 521-526.	2.8	46
42	Effect of Ca ²⁺ ion co-doping on radiative properties <i>via</i> tuning the local symmetry around the Eu ³⁺ ions in orange red light emitting GdPO ₄ :Eu ³⁺ phosphors. New Journal of Chemistry, 2019, 43, 63-71.	1.4	20
43	CaYAlO4:Mn4+,Mg2+: An efficient far-red-emitting phosphor for indoor plant growth LEDs. Journal of Alloys and Compounds, 2019, 785, 1198-1205.	2.8	49
44	Novel high color-purity Eu3+-activated Ba3Lu4O9 red-emitting phosphors with high quantum efficiency and good thermal stability for warm white LEDs. Journal of Luminescence, 2019, 209, 156-162.	1.5	49
45	Mn ⁴⁺ -activated BaLaMgSbO ₆ double-perovskite phosphor: a novel high-efficiency far-red-emitting luminescent material for indoor plant growth lighting. RSC Advances, 2019, 9, 3303-3310.	1.7	34
46	Mn ⁴⁺ -activated Li ₃ Mg ₂ SbO ₆ as an ultrabright fluoride-free red-emitting phosphor for warm white light-emitting diodes. RSC Advances, 2019, 9, 3429-3435.	1.7	65
47	Novel Mn ⁴⁺ doped Ca ₂ GdSbO ₆ red–emitting phosphor: A potential color converter for lightâ€emitting diodes. Journal of the American Ceramic Society, 2019, 102, 4730-4736.	1.9	41
48	Double perovskite Ca2LuTaO6:Eu3+ red-emitting phosphors: Synthesis, structure and photoluminescence characteristics. Journal of Alloys and Compounds, 2019, 804, 230-236.	2.8	65
49	Novel high-efficiency violet-red dual-emitting Lu2GeO5: Bi3+, Eu3+ phosphors for indoor plant growth lighting. Journal of Luminescence, 2019, 214, 116544.	1.5	24
50	Novel Ca2GdTaO6:Mn4+,M (M = Li+, Na+, K+, and Mg2+) red phosphors for plant cultivation light-emitting diodes: Synthesis and luminescence properties. Journal of Luminescence, 2019, 214, 116525.	1.5	38
51	Cyan-emitting Ba3Y2B6O15:Ce3+,Tb3+ phosphor: A potential color converter for near-UV-excited white LEDs. Journal of Luminescence, 2019, 211, 388-393.	1.5	43
52	Synthesis, structural and photoluminescence properties of novel orange-red emitting Ba3Y2B6O15:Eu3+ phosphors. Journal of Luminescence, 2019, 208, 75-81.	1.5	48
53	Mn4+-activated KLaMgWO6: A new high-efficiency far-red phosphor for indoor plant growth LEDs. Ceramics International, 2019, 45, 4564-4569.	2.3	85
54	Simultaneously enhanced far-red luminescence and thermal stability in Ca3Al4ZnO10:Mn4+ phosphor via Mg2+ doping for plant growth lighting. Journal of Alloys and Compounds, 2019, 785, 312-319.	2.8	47

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55	Ce3+-activated CaSr2Al2O6 green-emitting phosphors: Potential application as color converter for warm WLEDs. Journal of Luminescence, 2019, 206, 571-577.	1.5	33
56	Novel Na 3 Sc 2 (PO 4) 3 :Ce 3+ ,Tb 3+ phosphors for white LEDs: Tunable blue-green color emission, high quantum efficiency and excellent thermal stability. Dyes and Pigments, 2018, 151, 81-88.	2.0	142
57	A single-phased warm-white-emitting K3Y(PO4)2:Dy3+,Sm3+ phosphor with tuneable photoluminescence for near-UV-excited white LEDs. Dyes and Pigments, 2018, 157, 72-79.	2.0	49
58	Preparation, characterization, and luminescence properties of double perovskite SrLaMgSbO ₆ :Mn ⁴⁺ far-red emitting phosphors for indoor plant growth lighting. RSC Advances, 2018, 8, 35187-35194.	1.7	21
59	Novel far-red-emitting SrGdAlO ₄ :Mn ⁴⁺ phosphors with excellent responsiveness to phytochrome P _{FR} for plant growth lighting. RSC Advances, 2018, 8, 39307-39313.	1.7	33
60	A novel Sm ³⁺ singly doped LiCa ₃ ZnV ₃ O ₁₂ phosphor: a potential luminescent material for multifunctional applications. RSC Advances, 2018, 8, 33403-33413.	1.7	59
61	Synthesis, structure, and luminescence characteristics of far-red emitting Mn ⁴⁺ -activated LaScO ₃ perovskite phosphors for plant growth. RSC Advances, 2018, 8, 33035-33041.	1.7	8
62	Novel high-efficiency Eu ³⁺ -activated Na ₂ Gd ₂ B ₂ O ₇ red-emitting phosphors with high color purity. RSC Advances, 2018, 8, 32948-32955.	1.7	20
63	Synthesis and photoluminescence characteristics of high color purity Ba ₃ Y ₄ O ₉ :Eu ³⁺ red-emitting phosphors with excellent thermal stability for warm W-LED application. RSC Advances, 2018, 8, 32111-32118.	1.7	41
64	Thermally stable La ₂ LiSbO ₆ :Mn ⁴⁺ ,Mg ²⁺ far-red emitting phosphors with over 90% internal quantum efficiency for plant growth LEDs. RSC Advances, 2018, 8, 31835-31842.	1.7	40
65	Far-red-emitting double-perovskite CaLaMgSbO ₆ :Mn ⁴⁺ phosphors with high photoluminescence efficiency and thermal stability for indoor plant cultivation LEDs. RSC Advances, 2018, 8, 31666-31672.	1.7	63
66	Novel SrMg ₂ La ₂ W ₂ O ₁₂ :Mn ⁴⁺ far-red phosphors with high quantum efficiency and thermal stability towards applications in indoor plant cultivation LEDs. RSC Advances, 2018, 8, 30191-30200.	1.7	73
67	Photoluminescence properties of novel Ba ₂ Lu ₅ B ₅ O ₁₇ :Eu ³⁺ red emitting phosphors with high color purity for near-UV excited white light emitting diodes. RSC Advances, 2018, 8, 30396-30403.	1.7	11
68	Novel Eu ³⁺ -activated Ba ₂ Y ₅ B ₅ O ₁₇ red-emitting phosphors for white LEDs: high color purity, high quantum efficiency and excellent thermal stability. RSC Advances, 2018, 8, 23323-23331.	1.7	25
69	Synthesis, crystal growth and characterization of Zn0.5Mn0.5Te single crystal grown via the Bridgman technique. CrystEngComm, 2018, 20, 4989-4996.	1.3	1
70	Novel Mn ⁴⁺ -activated LiLaMgWO ₆ far-red emitting phosphors: high photoluminescence efficiency, good thermal stability, and potential applications in plant cultivation LEDs. RSC Advances, 2018, 8, 27144-27151.	1.7	103
71	Synthesis and characterization of Ca ₃ (BO ₃) ₄ :Ce ³⁺ ,Tb ³⁺ phosphors: tunable-color emissions, energy transfer, and thermal stability. RSC Advances, 2018, 8, 23284-23293.	1.7	14
72	Novel high color purity and thermally stable Eu3+ ions activated Ba2Gd5B5O17 red emitting phosphor for near-UV based WLEDs. Optical Materials, 2018, 84, 312-317.	1.7	18

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73	Synthesis, energy transfer and photoluminescence properties of thermal-stable multicolour-emitting Ca3Gd(AlO)3(BO3)4:Tb3+,Eu3+ phosphors. Journal of Luminescence, 2018, 204, 386-393.	1.5	25
74	Synthesis and photoluminescence properties of novel far-red-emitting BaLaMgNbO ₆ :Mn ⁴⁺ phosphors for plant growth LEDs. RSC Advances, 2018, 8, 28538-28545.	1.7	93
75	Novel SrLaAlO ₄ :Mn ⁴⁺ deep-red emitting phosphors with excellent responsiveness to phytochrome P _{FR} for plant cultivation LEDs: synthesis, photoluminescence properties, and thermal stability. RSC Advances, 2018, 8, 30223-30229.	1.7	60
76	Enhanced efficiency of luminescence with stoichiometry control in LiGd(W $(1\hat{a}^2x)$ Mo x O 4) 2 :Eu 3+ red phosphors. Journal of Crystal Growth, 2017, 468, 766-769.	0.7	10
77	Dy3+/Eu3+ co-doped CsGd(MoO4)2 phosphor with tunable photoluminescence properties for near-UV WLEDs applications. Dyes and Pigments, 2017, 137, 244-255.	2.0	105
78	Comparative analysis of LiGd(WO4)2:Eu3+ phosphors derived by sol gel and hydrothermal methods. Journal of Crystal Growth, 2017, 468, 159-161.	0.7	4
79	Eu ³⁺ ion concentration induced 3D luminescence properties of novel red-emitting Ba ₄ La ₆ (SiO ₄)O:Eu ³⁺ oxyapatite phosphors for versatile applications. Journal of Materials Chemistry C, 2016, 4, 1039-1050.	2.7	63
80	Spectroscopic properties of Eu 3+: KLa(WO 4) 2 novel red phosphors. Journal of Luminescence, 2016, 170, 547-555.	1.5	51
81	Photoluminescence properties of Eu3+:RbGd(WO4)2 red phosphors prepared by sol–gel method. Journal of Luminescence, 2016, 170, 825-834.	1.5	40
82	Sol–gel synthesis and photoluminescence analysis of Sm 3+ :NaGd(WO 4) 2 phosphors. Journal of Luminescence, 2016, 170, 743-748.	1.5	48
83	Photoluminescence properties of novel Sm3+ and Dy3+ co-activated CsGd(WO4)2 phosphors. Journal of Alloys and Compounds, 2015, 637, 350-360.	2.8	32
84	Sol–gel synthesis and photoluminescence studies on colour tuneable Dy3+/Tm3+ co-doped NaGd(WO4)2 phosphor for white light emission. Journal of Luminescence, 2015, 157, 357-364.	1.5	32
85	Sol–gel synthesis and luminescent properties of Eu3+:CsGd(WO4)2 red emitting phosphors. Journal of Luminescence, 2014, 146, 458-463.	1.5	21
86	Sol–gel synthesis and characterizations of crystalline NaGd(WO4)2 powder for anisotropic transparent ceramic laser application. Optical Materials, 2013, 35, 740-743.	1.7	37
87	Novel KGd1â^'(x+y)EuxBiy (W1â^'zMozO4)2 nanocrystalline red phosphors for tricolor white LEDs. Journal of Luminescence, 2013, 134, 244-250.	1.5	25
88	Synthesis and characterization of monoclinic KGd(WO4)2 particles for non-cubic transparent ceramics. Optical Materials, 2013, 35, 753-756.	1.7	17
89	Investigation of structural and luminescent properties of Pr3+ activated CsGd(WO4)2 by sol–gel synthesis. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 762-767.	1.7	15
90	Growth, vibrational and luminescence analysis of monoclinic KGd(1â^x)Prx(WO4)2 (x=0.005, 0.02, 0.05) single crystals. Journal of Crystal Growth, 2013, 362, 319-323.	0.7	9

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9	1	SiO2/KGd(WO4)2:Eu3+ composite luminescent nanoparticles: Synthesis and characterization. Materials Chemistry and Physics, 2012, 135, 1115-1121.	2.0	19