Enhai Song

List of Publications by Year
in descending order

74 papers	3,788 citations	117625 34 h-index	128289 60 g-index
74 all docs	74 docs citations	74 times ranked	1986 citing authors

#	Article	IF	Citations
1	Highly Efficient and Thermally Stable K₃AlF₆:Mn⁴⁺ as a Red Phosphor for Ultra-High-Performance Warm White Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2017, 9, 8805-8812.	8.0	245
2	Sb³⁺â€Doping in Cesium Zinc Halides Single Crystals Enabling Highâ€Efficiency Nearâ€Infrared Emission. Advanced Functional Materials, 2021, 31, 2105316.	14.9	199
3	Highly Efficient and Stable Narrow-Band Red Phosphor Cs₂SiF₆:Mn⁴⁺ for High-Power Warm White LED Applications. ACS Photonics, 2017, 4, 2556-2565.	6.6	177
4	Heavy Mn²⁺ Doped MgAl₂O₄ Phosphor for Highâ€Efficient Nearâ€Infrared Lightâ€Emitting Diode and the Nightâ€Vision Application. Advanced Optical Materials, 2019, 7, 1901105.	7.3	167
5	Mn²⁺â€Doped Metal Halide Perovskites: Structure, Photoluminescence, and Application. Laser and Photonics Reviews, 2021, 15, .	8.7	167
6	Cr³⁺â€Doped Scâ€Based Fluoride Enabling Highly Efficient Near Infrared Luminescence: A Case Study of K₂NaScF₆:Cr³⁺. Laser and Photonics Reviews, 2021, 15, 2000410.	8.7	140
7	The design and preparation of the thermally stable, Mn⁴⁺ ion activated, narrow band, red emitting fluoride Na₃GaF₆:Mn⁴⁺ for warm WLED applications. Journal of Materials Chemistry C, 2017, 5, 2910-2918.	5.5	138
8	Room-temperature synthesis and warm-white LED applications of Mn⁴⁺ ion doped fluoroaluminate red phosphor Na₃AlF₆:Mn⁴⁺. Journal of Materials Chemistry C, 2016, 4, 2480-2487.	5.5	129
9	A thermally stable narrow-band green-emitting phosphor MgAl₂O₄:Mn²⁺for wide color gamut backlight display application. Journal of Materials Chemistry C, 2019, 7, 8192-8198.	5.5	110
10	A General Ammonium Salt Assisted Synthesis Strategy for Cr³⁺â€Doped Hexafluorides with Highly Efficient Near Infrared Emissions. Advanced Functional Materials, 2021, 31, 2103743.	14.9	107
11	Glass crystallization making red phosphor for high-power warm white lighting. Light: Science and Applications, 2021, 10, 56.	16.6	104
12	High Efficiency Mn⁴⁺Doped Sr₂MgAl₂₂O₃₆Red Emitting Phosphor for White LED. ECS Journal of Solid State Science and Technology, 2012, 1, R123-R126.	1.8	87
13	Tailored Nearâ€Infrared Photoemission in Fluoride Perovskites through Activator Aggregation and Superâ€Exchange between Divalent Manganese Ions. Advanced Science, 2015, 2, 1500089.	11.2	86
14	Anomalous NIR Luminescence in Mn²⁺â€Doped Fluoride Perovskite Nanocrystals. Advanced Optical Materials, 2014, 2, 670-678.	7.3	80
15	Ultra-Broad-Band-Excitable Cu(I)-Based Organometallic Halide with Near-Unity Emission for Light-Emitting Diode Applications. Chemistry of Materials, 2021, 33, 4382-4389.	6.7	79
16	Synthesis and warm-white LED applications of an efficient narrow-band red emitting phosphor, Rb₂ZrF₆:Mn⁴⁺. Journal of Materials Chemistry C, 2017, 5, 7253-7261.	5.5	77
17	Surface Passivation toward Highly Stable Mn⁴⁺â€Activated Redâ€Emitting Fluoride Phosphors and Enhanced Photostability for White LEDs. Advanced Materials Interfaces, 2019, 6, 1802006.	3.7	75
18	Tailoring photoluminescence stability in double perovskite red phosphors A₂BAlF₆:Mn⁴⁺(A = Rb, Cs; B = K, Rb)vianeighboring-cation modulation. Journal of Materials Chemistry C, 2017, 5, 12422-12429.	5.5	72

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19	Stable narrowband red phosphor K₃GaF₆:Mn⁴⁺derived from hydrous K₂GaF₅(H₂O) and K₂MnF₆. Journal of Materials Chemistry C, 2017, 5, 9588-9596.	5.5	70
20	Mn2+-activated dual-wavelength emitting materials toward wearable optical fibre temperature sensor. Nature Communications, 2022, 13, 2166.	12.8	70
21	Three Birds with One Stone: K₂SiF₆:Mn⁴⁺ Single Crystal Phosphors for Highâ€Power and Laserâ€Driven Lighting. Advanced Optical Materials, 2020, 8, 2000976.	7.3	59
22	Single-band red upconversion luminescence of Yb³⁺â€“Er³⁺via nonequivalent substitution in perovskite KMgF₃ nanocrystals. Journal of Materials Chemistry C, 2016, 4, 1675-1684.	5.5	58
23	Roomâ€Temperature Wavelengthâ€Tunable Singleâ€Band Upconversion Luminescence from Yb³⁺/Mn²⁺ Codoped Fluoride Perovskites ABF₃. Advanced Optical Materials, 2016, 4, 798-806.	7.3	55
24	Anomalous spontaneous-reduction of Mn⁷⁺/Mn⁴⁺to Mn²⁺and luminescence properties in Zn₂GeO₄:Mn. Journal of Materials Chemistry C, 2017, 5, 3343-3351.	5.5	55
25	Non-equivalent Mn⁴⁺ doping into A₂NaScF₆ (A = K, Rb, Cs) hosts toward short fluorescence lifetime for backlight display application. Journal of Materials Chemistry C, 2019, 7, 9203-9210.	5.5	51
26	Stable narrowband red emission in fluorotellurate KTeF₅:Mn⁴⁺viaMn⁴⁺noncentral-site occupation. Journal of Materials Chemistry C, 2018, 6, 4418-4426.	5.5	47
27	Luminescence properties of red phosphors Ca10Li(PO4)7:Eu3+. Journal of Rare Earths, 2011, 29, 440-443.	4.8	44
28	Color tunable upconversion luminescent perovskite fluoride with long-/short-lived emissions toward multiple anti-counterfeiting. Journal of Materials Chemistry C, 2019, 7, 8226-8235.	5.5	42
29	Broadband Cr^3+-sensitized upconversion luminescence in La_3Ga_5GeO_14: Cr^3+,Yb^3+,Er^3+. Optical Materials Express, 2014, 4, 638.	3.0	41
30	Wavelengthâ€Tunability and Multiband Emission from Singleâ€Site Mn²⁺ Doped CaO Through Antiferromagnetic Coupling and Tailored Superexchange Reactions. Advanced Optical Materials, 2017, 5, 1700070.	7.3	40
31	An efficient and stable narrow band Mn⁴⁺-activated fluorotitanate red phosphor Rb₂TiF₆:Mn⁴⁺ for warm white LED applications. Journal of Materials Chemistry C, 2018, 6, 8670-8678.	5.5	40
32	Anomalous tunable visible to near infrared emission in the Mn²⁺-doped spinel MgGa₂O₄ and room-temperature upconversion in the Mn²⁺ and Yb³⁺-codoped spinel. Journal of Materials Chemistry C, 2014, 2, 8811-8816.	5.5	39
33	Multifunctionalities of near-infrared upconversion luminescence, optical temperature sensing and long persistent luminescence in La₃Ga₅GeO₁₄:Cr³⁺,Yb³⁺,Er³⁺and their potential coupling. RSC Advances, 2015, 5, 49680-49687.	3.6	39
34	Distorted octahedral site occupation-induced high-efficiency broadband near-infrared emission in LiScGe₂O₆:Cr³⁺ phosphor. Journal of Materials Chemistry C, 2021, 9, 13640-13646.	5.5	38
35	Mesoporous nanoparticles Gd₂O₃@mSiO₂/ZnGa₂O₄:Cr³⁺,Bi³⁺ as multifunctional probes for bioimaging. Journal of Materials Chemistry B, 2016, 4, 1842-1852.	5.8	35
36	Tunable white upconversion luminescence from Yb^3+-Tm^3+-Mn^2+ tri-doped perovskite nanocrystals. Optical Materials Express, 2014, 4, 1186.	3.0	33

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37	Highly flexible dual-mode anti-counterfeiting designs based on tunable multi-band emissions and afterglow from chromium-doped aluminates. Journal of Materials Chemistry C, 2020, 8, 16533-16541.	5.5	33
38	Luminescence properties and dynamical processes of energy transfer in BiPO4: Tb3+,Eu3+ phosphor. Journal of Luminescence, 2014, 154, 204-210.	3.1	32
39	Interstitial Li⁺ Occupancy Enabling Radiative/Nonradiative Transition Control toward Highly Efficient Cr³⁺-Based Near-Infrared Luminescence. ACS Applied Materials & Interfaces, 2022, 14, 31035-31043.	8.0	32
40	Photoluminescence and phosphorescence of Mn2+ ion activated green phosphor Na2ZnSiO4:Mn2+ synthesized by self-reduction. Materials Research Bulletin, 2019, 113, 90-96.	5.2	31
41	Non-stoichiometric defect-controlled reduction toward mixed-valence Mn-doped hexaaluminates and their optical applications. Journal of Materials Chemistry C, 2019, 7, 5716-5723.	5.5	29
42	Implementation of high color quality, high luminous warm WLED using efficient and thermally stable Rb3AlF6:Mn4+ as red color converter. Journal of Alloys and Compounds, 2019, 795, 453-461.	5.5	28
43	Site-Selective Occupancy of Mn²⁺ Enabling Adjustable Red/Near-Infrared Multimode Luminescence in Olivine for Dynamic Anticounterfeiting and Encryption. ACS Applied Electronic Materials, 2022, 4, 831-841.	4.3	28
44	Fluorescence emission spectrum and energy transfer in Eu and Mn co-doped Ba2Ca(BO3)2 phosphors. Journal of Luminescence, 2010, 130, 2495-2499.	3.1	25
45	Nonradiative energy transfer from Mn2+ to Eu3+ in K2CaP2O7:Mn2+,Eu3+ phosphor. Journal of Luminescence, 2012, 132, 1462-1467.	3.1	25
46	A yellow-emitting phosphor of Mn2+-doped Na2CaP2O7. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 122, 343-347.	3.9	24
47	A Guanidinium-Based Mn⁴⁺-Doped Red-Emitting Hybrid Phosphor with High Stability. ACS Applied Electronic Materials, 2020, 2, 4134-4145.	4.3	24
48	Shining Mn⁴⁺ in 0D Organometallic Fluoride Hosts towards Highly Efficient Photoluminescence. Advanced Optical Materials, 2022, 10, .	7.3	24
49	Long-lived Photon Upconversion Phosphorescence in RbCaF3:Mn2+,Yb3+ and the Dynamic Color Separation Effect. IScience, 2019, 19, 597-606.	4.1	23
50	White light emitting from single phased K2Ca1â^'xâ^'yP2O7: xEu2+, yMn2+ phosphors under UV excitation. Current Applied Physics, 2011, 11, 1374-1378.	2.4	22
51	Regulation of red to near-infrared emission in Mn²⁺ single doped magnesium zinc phosphate solid-solution phosphors by modification of the crystal field. Journal of Materials Chemistry C, 2015, 3, 12443-12449.	5.5	22
52	Room-temperature green to orange color-tunable upconversion luminescence from Yb³⁺/Mn²⁺co-doped CaO. Journal of Materials Chemistry C, 2016, 4, 10154-10160.	5.5	22
53	Tailoring the upconversion of ABF₃:Yb³⁺/Er³⁺ through Mn²⁺ doping. Journal of Materials Chemistry C, 2016, 4, 9598-9607.	5.5	22
54	Introducing Uranium as the Activator toward Highly Stable Narrow-Band Green Emitters with Near-Unity Quantum Efficiency. Chemistry of Materials, 2019, 31, 9684-9690.	6.7	22

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55	Mn4+ doped narrowband red phosphors with short fluorescence lifetime and high color stability for fast-response backlight display application. Journal of Alloys and Compounds, 2021, 855, 157347.	5.5	21
56	Eu²⁺ doped halide perovskite KCaCl₃ with high-efficiency blue emission and scintillation application. Journal of Materials Chemistry C, 2022, 10, 9636-9643.	5.5	21
57	Luminescence Enhancement of Mn⁴⁺-Activated Fluorides via a Heterovalent Co-Doping Strategy for Monochromatic Multiplexing. ACS Applied Materials & Interfaces, 2021, 13, 51255-51265.	8.0	18
58	Exchange coupled Mn-Mn pair: An approach for super-broadband 1380â€‰nm emission in Î±-MnS. Applied Physics Letters, 2016, 109, .	3.3	15
59	Color-tunable upconversion luminescence and prolonged Eu3+ fluorescence lifetime in fluoride KCdF3:Yb3+,Mn2+,Eu3+via controllable and efficient energy transfer. Journal of Materials Chemistry C, 2020, 8, 9836-9844.	5.5	15
60	Efficient Visible Light Charging for Rare Earthâ€Free Persistent Phosphor. Advanced Optical Materials, 2022, 10, .	7.3	15
61	Photoluminescence characterization and energy transfer of NaBa1â^'PO4:xCe3+, yTb3+ phosphors. Journal of Rare Earths, 2012, 30, 739-743.	4.8	14
62	Heavy Mn²⁺-doped near-infrared photon upconversion luminescence in fluoride RbZnF₃:Yb³⁺,Mn²⁺ guided by dopant distribution simulation. Journal of Materials Chemistry C, 2020, 8, 12164-12172.	5.5	14
63	Photon upconversion afterglow materials toward visualized information coding/decoding. Journal of Materials Chemistry C, 2020, 8, 3678-3687.	5.5	14
64	Ammonium salt conversion towards Mn4+ doped (NH4)2NaScF6 narrow-band red-emitting phosphor. Journal of Alloys and Compounds, 2019, 811, 151945.	5.5	12
65	The use of a single ammonium acidic salt towards simple green co-precipitation synthesis for Mn4+-activated fluorides. Dalton Transactions, 2020, 49, 5823-5831.	3.3	11
66	Red phosphor Li2Mg2(WO4)3: Eu3+ with lyonsite structure for near ultraviolet light-emitting diodes. Displays, 2016, 43, 18-22.	3.7	10
67	Tunable multiple emissions in manganese-concentrated sulfide through simultaneous tailoring of Mn-site coordination and Mn-Mn pair geometry. Journal of Applied Physics, 2017, 122, .	2.5	9
68	Ultrafast green ion-exchange and short lifetime of efficient (NH4)3SiF7:Mn4+ millimeter-sized single crystal for backlight displays. Journal of Alloys and Compounds, 2020, 847, 156550.	5.5	9
69	Fabrication of a Wide Color Gamut pc-WLED Surpassing 107% NTSC Based on a Robust Luminescent Uranyl Phosphate. Chemistry of Materials, 2021, 33, 6329-6337.	6.7	9
70	An efficient synthetic strategy for uniform perovskite coreâ€“shell nanocubes NaMgF₃:Mn²⁺,Yb³⁺@NaMgF₃:Yb³⁺ with enhanced near infrared upconversion luminescence. Journal of Materials Chemistry C, 2018, 6, 2342-2350.	5.5	6
71	Adjustable valence states of europium in CaAlBO₄phosphor by means of enlarging the activator site and its luminescent properties. CrystEngComm, 2016, 18, 2679-2689.	2.6	5
72	Isolated-Mn²⁺-like Luminescent Behavior in CsMnF₃ Caused by Competing Magnetic Interactions at Cryogenic Temperature. Journal of Physical Chemistry C, 2021, 125, 27800-27809.	3.1	5

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73	K(Mn,Zn)F₃mesoporous microspheres: one-pot synthesis via the nanoscale Kirkendall effect. CrystEngComm, 2016, 18, 1384-1392.	2.6	2
74	Upconversion: Roomâ€Temperature Wavelengthâ€Tunable Singleâ€Band Upconversion Luminescence from Yb³⁺/Mn²⁺ Codoped Fluoride Perovskites ABF₃ (Advanced Optical) Tj ETQq0 0 0 rgBT /Overlock	10.3	