

# Guotao Xiang

## List of Publications by Year in descending order

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55  
papers

1,881  
citations

236925

25  
h-index

265206

42  
g-index

55  
all docs

55  
docs citations

55  
times ranked

1149  
citing authors

#	ARTICLE	IF	CITATIONS
1	Near-Infrared-to-Near-Infrared Optical Thermometer BaY <sub>2</sub> O <sub>4</sub> : Yb <sup>3+</sup> /Nd <sup>3+</sup> Assembled with Photothermal Conversion Performance. <i>Inorganic Chemistry</i> , 2022, 61, 5425-5432.	4.0	45
2	Investigation on the optical sensing behaviors in single Eu <sup>3+</sup> -activated Sr <sub>2</sub> InSbO <sub>6</sub> phosphors under green light excitation. <i>Journal of Alloys and Compounds</i> , 2022, 906, 164322.	5.5	15
3	Luminescent properties of Eu <sup>3+</sup> -doped NaLaCaWO <sub>6</sub> red phosphors and temperature sensing derived from the excited state of charge transfer band. <i>Journal of Luminescence</i> , 2022, 248, 118964.	3.1	15
4	Thermally enhanced near-infrared luminescence in CaSc <sub>2</sub> O <sub>4</sub> : Yb <sup>3+</sup> /Nd <sup>3+</sup> nanorods for temperature sensing and photothermal conversion. <i>Ceramics International</i> , 2022, 48, 23436-23443.	4.8	6
5	Realizing dual-mode luminescent thermometry with excellent sensing sensitivity in single-phase samarium (III)-doped antimonite phosphors. <i>Journal of Alloys and Compounds</i> , 2022, 917, 165435.	5.5	8
6	High-sensitivity luminescent thermometer based on Mn <sup>4+</sup> /Sm <sup>3+</sup> dual-emission centers in double-perovskite tellurate. <i>Ceramics International</i> , 2022, 48, 27664-27671.	4.8	24
7	Design of a bi-functional NaScF <sub>4</sub> : Yb <sup>3+</sup> /Er <sup>3+</sup> nanoparticles for deep-tissue bioimaging and optical thermometry through Mn <sup>2+</sup> doping. <i>Talanta</i> , 2021, 224, 121832.	5.5	28
8	Synthesis and characterization of Tb <sup>3+</sup> /Eu <sup>3+</sup> complexes based on 2,4,6-tris-(4-carboxyphenyl)-1,3,5-triazine ligand for ratiometric luminescence temperature sensing. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 244, 118781.	3.9	10
9	Luminescence and optical thermometry strategy based on emission and excitation spectra of Pr <sup>3+</sup> doped SrMoO <sub>4</sub> phosphors. <i>Ceramics International</i> , 2021, 47, 769-775.	4.8	45
10	Upconversion nanoparticles modified by Cu <sub>2</sub> S for photothermal therapy along with real-time optical thermometry. <i>Nanoscale</i> , 2021, 13, 7161-7168.	5.6	66
11	Multipath optical thermometry realized in CaSc <sub>2</sub> O <sub>4</sub> : Yb <sup>3+</sup> /Er <sup>3+</sup> with high sensitivity and superior resolution. <i>Journal of the American Ceramic Society</i> , 2021, 104, 2711-2720.	3.8	10
12	Sr <sub>3</sub> Lu(VO <sub>4</sub> ) <sub>3</sub> : Eu <sup>3+</sup> red-emitting phosphors for warm white LEDs. <i>Journal of the American Ceramic Society</i> , 2021, 104, 2721-2729.	3.8	23
13	Ultrasensitive optical thermometer based on abnormal thermal quenching Stark transitions operating beyond 1500Ånm. <i>Journal of the American Ceramic Society</i> , 2021, 104, 5784-5793.	3.8	10
14	Novel double-perovskite SrLaLiTeO <sub>6</sub> :Mn <sup>4+</sup> far-red phosphor with superior thermal stability for indoor plant growth LED. <i>Journal of Luminescence</i> , 2021, 238, 118286.	3.1	38
15	Synthesis of color-tunable Sr <sub>8</sub> MgLa(PO <sub>4</sub> ) <sub>7</sub> :Eu <sup>3+</sup> /Tb <sup>3+</sup> phosphors for designing dual-model thermometers. <i>Journal of Luminescence</i> , 2021, 239, 118383.	3.1	19
16	High-sensitivity and wide-temperature-range dual-mode optical thermometry under dual-wavelength excitation in a novel double perovskite tellurate oxide. <i>Dalton Transactions</i> , 2021, 50, 11412-11421.	3.3	40
17	Luminescent properties and ratiometric optical thermometry of Ln-BDC-F4 compounds. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 224, 117418.	3.9	10
18	Multifunctional optical thermometry based on the stark sublevels of Er <sup>3+</sup> in CaO <sub>2</sub> :Y <sub>2</sub> O <sub>3</sub> : Yb <sup>3+</sup> /Er <sup>3+</sup> . <i>Journal of the American Ceramic Society</i> , 2020, 103, 2540-2547.	3.8	62

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19	Deep-Tissue Temperature Sensing Realized in BaY <sub>2</sub> O <sub>4</sub> :Yb <sup>3+</sup> /Er <sup>3+</sup> with Ultrahigh Sensitivity and Extremely Intense Red Upconversion Luminescence. <i>Inorganic Chemistry</i> , 2020, 59, 11054-11060.	4.0	85
20	Optical thermometry based on the thermally coupled energy levels of Er <sup>3+</sup> in upconversion materials. <i>Dalton Transactions</i> , 2020, 49, 17115-17120.	3.3	57
21	A novel double-perovskite LiLaMgTeO <sub>6</sub> : Mn <sup>4+</sup> far-red phosphor for indoor plant cultivation white LEDs: Crystal and electronic structure, and photoluminescence properties. <i>Journal of Alloys and Compounds</i> , 2020, 832, 154905.	5.5	42
22	Nd <sup>3+</sup> and Nd <sup>3+</sup> /Yb <sup>3+</sup> -incorporated complexes as optical thermometer working in the second biological window. <i>Sensing and Bio-Sensing Research</i> , 2020, 29, 100345.	4.2	12
23	Insight into energy transfer, color tuning, and white emission in Tm <sup>3+</sup> and Dy <sup>3+</sup> codoped Ca <sub>8</sub> ZnLa(PO <sub>4</sub> ) <sub>7</sub> phosphors. <i>Optical Materials</i> , 2020, 102, 109808.	3.6	22
24	Constructing ultra-sensitive dual-mode optical thermometers: Utilizing FIR of Mn <sup>4+</sup> /Eu <sup>3+</sup> and lifetime of Mn <sup>4+</sup> based on double perovskite tellurite phosphor. <i>Optics Express</i> , 2020, 28, 33747.	3.4	57
25	Strategy for optical thermometry based on temperature-dependent charge transfer to the Eu <sup>3+</sup> 4f-4f excitation intensity ratio in Sr <sub>3</sub> Lu(VO <sub>4</sub> ) <sub>3</sub> :Eu <sup>3+</sup> and CaWO <sub>4</sub> :Nd <sup>3+</sup> . <i>Optics Letters</i> , 2020, 45, 3637.	3.3	20
26	An optical thermometry based on abnormal negative thermal quenching of the charge transfer band edge. <i>Journal of Luminescence</i> , 2019, 215, 116636.	3.1	22
27	Dual-Mode Optical Thermometry Based on the Fluorescence Intensity Ratio Excited by a 915 nm Wavelength in LuVO <sub>4</sub> :Yb <sup>3+</sup> /Er <sup>3+</sup> @SiO <sub>2</sub> Nanoparticles. <i>Inorganic Chemistry</i> , 2019, 58, 8245-8252.	4.0	65
28	Realizing emission color tuning, ratiometric optical thermometry and temperature-induced redshift investigation in novel Eu <sup>3+</sup> -doped Ba <sub>3</sub> La(VO <sub>4</sub> ) <sub>3</sub> phosphors. <i>Dalton Transactions</i> , 2019, 48, 10824-10833.	3.3	58
29	Multifunctional Luminescent Material Eu(III) and Tb(III) Complexes with Pyridine-3,5-Dicarboxylic Acid Linker: Crystal Structures, Tunable Emission, Energy Transfer, and Temperature Sensing. <i>Inorganic Chemistry</i> , 2019, 58, 3780-3788.	4.0	67
30	Investigation of energy transfer in Pr <sup>3+</sup> , Yb <sup>3+</sup> co-doped phosphate phosphor: The role of 3P0 and 1D2. <i>Journal of Luminescence</i> , 2019, 209, 45-51.	3.1	13
31	Simultaneously tuning emission color and realizing optical thermometry via efficient Tb <sup>3+</sup> →Eu <sup>3+</sup> energy transfer in whitlockite-type phosphate multifunctional phosphors. <i>Journal of Alloys and Compounds</i> , 2019, 780, 266-275.	5.5	210
32	Photoluminescence properties and efficient energy transfer of Ce <sup>3+</sup> /Eu <sup>2+</sup> activated K <sub>2</sub> Ba <sub>7</sub> Si <sub>16</sub> O <sub>40</sub> phosphors. <i>Materials Research Bulletin</i> , 2018, 101, 232-239.	5.2	13
33	Enhanced upconverted luminescence and the optical thermometry behavior of Er <sup>3+</sup> -doped BaYbF <sub>5</sub> transparent glass ceramics. <i>Ceramics International</i> , 2018, 44, 10106-10110.	4.8	6
34	A novel dazzling Eu <sup>3+</sup> -doped whitlockite-type phosphate red-emitting phosphor for white light-emitting diodes. <i>Journal of the American Ceramic Society</i> , 2018, 101, 4095-4107.	3.8	47
35	Tunable emission color of Li <sub>2</sub> SrSiO <sub>4</sub> :Tb <sup>3+</sup> due to cross-relaxation process and optical thermometry investigation. <i>Journal of the American Ceramic Society</i> , 2018, 101, 3076-3085.	3.8	29
36	Near-ultraviolet and blue light excited Sm <sup>3+</sup> doped Lu <sub>2</sub> MoO <sub>6</sub> phosphor for potential solid state lighting and temperature sensing. <i>Journal of Alloys and Compounds</i> , 2018, 738, 473-483.	5.5	94

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37	Eu <sup>3+</sup> activated LiSrVO <sub>4</sub> phosphors: Emission color tuning and potential application in temperature sensing. <i>Dyes and Pigments</i> , 2018, 151, 219-226.	3.7	35
38	Color tunable emission and low-temperature luminescent sensing of europium and terbium carboxylic acid complexes. <i>Inorganica Chimica Acta</i> , 2018, 469, 576-582.	2.4	41
39	Molybdenum substitution simultaneously induced band structure modulation and luminescence enhancement in LiLaMg(W, Mo)O <sub>6</sub> : Eu <sup>3+</sup> red-emitting phosphor for near ultraviolet excited white light diodes. <i>Journal of Alloys and Compounds</i> , 2018, 763, 278-288.	5.5	25
40	Warm white light emission of apatite-type compound Ca <sub>4</sub> Y <sub>6</sub> O(SiO <sub>4</sub> ) <sub>6</sub> doped with Dy <sup>3+</sup> . <i>Materials Research Bulletin</i> , 2018, 106, 428-432.	5.2	7
41	Sr <sub>4</sub> Y <sub>6</sub> (AlO <sub>4</sub> ) <sub>x</sub> (SiO <sub>4</sub> ) <sub>6-x</sub> O <sup>2+</sup> :Eu <sup>2+</sup> : A novel apatite structure blue-green emitting phosphor. <i>Ceramics International</i> , 2018, 44, 19900-19906.	4.8	13
42	Upconversion properties and temperature sensing behaviors in visible and near-infrared region based on fluorescence intensity ratio in LuVO <sub>4</sub> : Yb <sup>3+</sup> /Er <sup>3+</sup> . <i>Journal of Alloys and Compounds</i> , 2018, 769, 325-331.	5.5	40
43	Preparation, structure and down-shifting luminescence of Yb <sup>3+</sup> doped KLa <sub>5</sub> O <sub>5</sub> (VO <sub>4</sub> ) <sub>2</sub> . <i>Materials Research Bulletin</i> , 2018, 108, 5-9.	5.2	4
44	Investigation of the Energy-Transfer Mechanism in Ho <sup>3+</sup> - and Yb <sup>3+</sup> -Codoped Lu <sub>2</sub> O <sub>3</sub> :Yb <sup>3+</sup> Phosphor with Efficient Near-Infrared Downconversion. <i>Inorganic Chemistry</i> , 2017, 56, 1498-1503.	4.0	22
45	NaBaLa <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> : A novel host lattice for Sm <sup>3+</sup> -doped phosphor materials emitting reddish-orange light. <i>Journal of Alloys and Compounds</i> , 2017, 701, 515-523.	5.5	87
46	Multi-parametric thermal sensing based on NIR emission of Ho(III) doped CaWO <sub>4</sub> phosphors. <i>Optical Materials</i> , 2017, 66, 12-16.	3.6	24
47	Near-infrared quantum cutting and energy transfer mechanism in Lu <sub>2</sub> O <sub>3</sub> : Tm <sup>3+</sup> /Yb <sup>3+</sup> phosphor for high-efficiency photovoltaics. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 8017-8022.	2.2	6
48	Tunable luminescence and energy transfer properties of MgY <sub>4</sub> Si <sub>3</sub> O <sub>13</sub> : Ce <sup>3+</sup> , Tb <sup>3+</sup> , Eu <sup>3+</sup> phosphors. <i>Ceramics International</i> , 2017, 43, 16323-16330.	4.8	24
49	Enhancement of Eu <sup>3+</sup> Red Upconversion in Lu <sub>2</sub> O <sub>3</sub> : Yb <sup>3+</sup> /Eu <sup>3+</sup> Powders under the Assistance of Bridging Function Originated from Ho <sup>3+</sup> Tridoping. <i>Inorganic Chemistry</i> , 2017, 56, 13955-13961.	4.0	9
50	Improvement of Green Upconversion Monochromaticity by Doping Eu <sup>3+</sup> in Lu <sub>2</sub> O <sub>3</sub> :Yb <sup>3+</sup> /Ho <sup>3+</sup> Powders with Detailed Investigation of the Energy Transfer Mechanism. <i>Inorganic Chemistry</i> , 2017, 56, 9194-9199.	4.0	15
51	Importance of Suppression of Yb <sup>3+</sup> De-Excitation to Upconversion Enhancement in <sup>2</sup> -NaYF <sub>4</sub> : Yb <sup>3+</sup> /Er <sup>3+</sup> @ <sup>2</sup> -NaYF <sub>4</sub> Sandwiched Structure Nanocrystals. <i>Inorganic Chemistry</i> , 2015, 54, 3921-3928.	4.0	29
52	Decrease in particle size and enhancement of upconversion emission through Y <sup>3+</sup> ions doping in hexagonal NaLuF <sub>4</sub> :Yb <sup>3+</sup> /Er <sup>3+</sup> nanocrystals. <i>CrystEngComm</i> , 2015, 17, 3103-3109.	2.6	40
53	Solvothermal synthesis and upconversion properties of about 10 nm orthorhombic LuF <sub>3</sub> : Yb <sup>3+</sup> , Er <sup>3+</sup> rectangular nanocrystals. <i>Journal of Colloid and Interface Science</i> , 2015, 459, 224-229.	9.4	21
54	Transition to cubic phase and enhancement of green upconversion emission by adding La <sup>3+</sup> ions in hexagonal NaLuF <sub>4</sub> :Yb <sup>3+</sup> /Er <sup>3+</sup> nanocrystals. <i>CrystEngComm</i> , 2014, 16, 2499.	2.6	26

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55	The energy transfer mechanism in Pr <sup>3+</sup> and Yb <sup>3+</sup> codoped $\beta$ -NaLuF <sub>4</sub> nanocrystals. Physical Chemistry Chemical Physics, 2014, 16, 9289-9293.	2.8	20