Hong-Tao Sun

List of Publications by Year
in descending order

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99 papers	4,219 citations	159585 30 h-index	118850 62 g-index
100 all docs	100 docs citations	100 times ranked	4210 citing authors

#	Article	IF	Citations
1	Visible-light photovoltaic effect in multiferroic Bi2Fe4O9 thin film. Materials Letters, 2022, 309, 131411.	2.6	4
2	Green route synthesis of K2SiF6:Mn4+ red phosphor through a brief one-step co-precipitation method for warm white light LEDs. Journal of Materials Science: Materials in Electronics, 2022, 33, 2204-2212.	2.2	3
3	Water-Soluble Silicon Quantum Dots toward Fluorescence-Guided Photothermal Nanotherapy. Langmuir, 2022, 38, 5188-5196.	3.5	12
4	Tendentious multiple sites occupation towards white light emission in single-phase Ba2(1-/3)Ca(1-/3)Sr B2Si4O14:Eu2+ phosphors. Journal of Solid State Chemistry, 2022, 309, 122963.	2.9	9
5	Metal Inorganicâ€“Organic Complex Glass and Fiber for Photonic Applications. Chemistry of Materials, 2022, 34, 2476-2483.	6.7	21
6	Mn2+-activated dual-wavelength emitting materials toward wearable optical fibre temperature sensor. Nature Communications, 2022, 13, 2166.	12.8	70
7	Impact of bismuth-doping on enhanced radiative recombination in lead-free double-perovskite nanocrystals. Nanoscale Advances, 2022, 4, 3091-3100.	4.6	4
8	Coherent InP/ZnS core@shell quantum dots with narrow-band green emissions. Nanoscale, 2022, 14, 9900-9909.	5.6	10
9	Phosphatidylcholine-mediated regulation of growth kinetics for colloidal synthesis of cesium tin halide nanocrystals. Nanoscale, 2021, 13, 16726-16733.	5.6	7
10	Nonâ€Rareâ€Earth UVC Persistent Phosphors Enabled by Bismuth Doping. Advanced Optical Materials, 2021, 9, 2002065.	7.3	27
11	Tuning Coordination Environments of Dopants through Topochemical Reaction Enables Substantial Enhancement of Luminescence in Mn⁴⁺-Doped Perovskite. Journal of Physical Chemistry C, 2021, 125, 4646-4654.	3.1	9
12	First-Principles Study of Bi³⁺-Related Luminescence and Electron and Hole Traps in (Y/Lu/La)PO₄. Inorganic Chemistry, 2021, 60, 4434-4446.	4.0	34
13	Theory-Guided Synthesis of Highly Luminescent Colloidal Cesium Tin Halide Perovskite Nanocrystals. Journal of the American Chemical Society, 2021, 143, 5470-5480.	13.7	49
14	Shining Light on the Structure of Lead Halide Perovskite Nanocrystals. , 2021, 3, 845-861.		23
15	A Novel Red-Emitting Na2NbOF5:Mn4+ Phosphor with Ultrahigh Color Purity for Warm White Lighting and Wide-Gamut Backlight Displays. Materials, 2021, 14, 5317.	2.9	14
16	Advances and Challenges in Tin Halide Perovskite Nanocrystals. , 2021, 3, 1541-1557.		12
17	Metal-free scintillators excite X-ray community. Nature Photonics, 2021, 15, 171-172.	31.4	11
18	Silicon Quantum Dots for Light-Emitting Diodes Extending to the NIR-II Window. ACS Applied Nano Materials, 2021, 4, 11651-11660.	5.0	10

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19	Nanolayer Growth on 3-Dimensional Micro-Objects by Pulsed Laser Deposition. Nanomaterials, 2021, 11, 35.	4.1	2
20	Visible-light photoelectric response in semiconducting quaternary oxysulfide FeOCuS with anti-PbO-type structure. Chemical Communications, 2021, 57, 13393-13396.	4.1	8
21	X-ray-activated UVA long persistent luminescence from defective fluoride elpasolites. Journal of Rare Earths, 2020, 38, 124-129.	4.8	15
22	Theoryâ€Guided Defect Tuning through Topochemical Reactions for Accelerated Discovery of UVC Persistent Phosphors. Advanced Optical Materials, 2020, 8, 1901727.	7.3	20
23	Visible-light photovoltaic effect in high-temperature ferroelectric BaFe4O7. Journal of Materials Chemistry C, 2020, 8, 16234-16240.	5.5	10
24	K2MnF6/KHF2 red phosphor synthesis by a low temperature way for high color rendering index white light emitting diodes. Ferroelectrics, 2020, 565, 66-76.	0.6	1
25	Nano Ballâ€Milling Using Titania Nanoparticles to Anchor Cesium Lead Bromine Nanocrystals and Energy Transfer Characteristics in TiO₂@CsPbBr₃ Architecture. Small, 2020, 16, e2004126.	10.0	28
26	Red emission from a novel rare earth free oxide-based CaOâ€“0.5Al2O3â€“0.5Nb2O5:Mn4+ phosphor with high water-resistance property. Journal of Materials Science: Materials in Electronics, 2020, 31, 3057-3062.	2.2	0
27	Doping Induces Structural Phase Transitions in All-Inorganic Lead Halide Perovskite Nanocrystals. , 2020, 2, 367-375.		42
28	Antithermal Quenching of Luminescence in Zero-Dimensional Hybrid Metal Halide Solids. Journal of Physical Chemistry Letters, 2020, 11, 2902-2909.	4.6	49
29	The photoluminescence adjustment of red phosphors ANaWO2F4:Mn4+ (AÂ=ÂLi, Na, K) by suitable tolerance factor designing. Journal of Materials Science: Materials in Electronics, 2020, 31, 4535-4541.	2.2	6
30	Chlorine Vacancy Passivation in Mixed Halide Perovskite Quantum Dots by Organic Pseudohalides Enables Efficient Rec. 2020 Blue Light-Emitting Diodes. ACS Energy Letters, 2020, 5, 793-798.	17.4	208
31	Magenta-Emitting Cesium Lead Halide Nanocrystals Encapsulated in Dimethicone for White Light-Emitting Diodes. ACS Applied Nano Materials, 2020, 3, 4886-4892.	5.0	10
32	Giant enhancement of white light emission from Ca₉Ln(PO₄)₇:Eu²⁺,Mn²⁺ (Lnâ€‰=â€‰La, Lu, Gd) phosphors achieved by remote aluminum reduction. Optical Materials Express, 2020, 10, 1306.	3.0	3
33	In situ growth of ultrasmall cesium lead bromine quantum dots in a mesoporous silica matrix and their application in flexible light-emitting diodes. Nanoscale, 2019, 11, 16499-16507.	5.6	47
34	Defective [Bi₂O₂]²⁺ Layers Exhibiting Ultrabroad Nearâ€Infrared Luminescence. Chemistry - A European Journal, 2019, 25, 12842-12848.	3.3	4
35	High quantum yield red-emission phosphor Li2Ge4O9:Mn4+ for WLEDs application. Optical Materials, 2019, 98, 109442.	3.6	16
36	Halogen Vacancies Enable Ligandâ€Assisted Selfâ€Assembly of Perovskite Quantum Dots into Nanowires. Angewandte Chemie, 2019, 131, 16223-16227.	2.0	16

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37	Halogen Vacancies Enable Ligandâ€Assisted Selfâ€Assembly of Perovskite Quantum Dots into Nanowires. Angewandte Chemie - International Edition, 2019, 58, 16077-16081.	13.8	49
38	General Mild Reaction Creates Highly Luminescent Organic-Ligand-Lacking Halide Perovskite Nanocrystals for Efficient Light-Emitting Diodes. Journal of the American Chemical Society, 2019, 141, 15423-15432.	13.7	121
39	Defect-Triggered Phase Transition in Cesium Lead Halide Perovskite Nanocrystals. , 2019, 1, 185-191.		51
40	High-Efficiency Violet-Emitting All-Inorganic Perovskite Nanocrystals Enabled by Alkaline-Earth Metal Passivation. Chemistry of Materials, 2019, 31, 3974-3983.	6.7	90
41	Reducing Defects in Halide Perovskite Nanocrystals for Light-Emitting Applications. Journal of Physical Chemistry Letters, 2019, 10, 2629-2640.	4.6	162
42	Fabrication of $$hbox {Cu}_{2}hbox {ZnSn(S,Se)}_{4}$$ Cu 2 ZnSn(S,Se) 4 thin film solar cell devices based on printable nan. Bulletin of Materials Science, 2019, 42, 1.	1.7	0
43	Insights into the local structure of dopants, doping efficiency, and luminescence properties of lanthanide-doped CsPbCl₃ perovskite nanocrystals. Journal of Materials Chemistry C, 2019, 7, 3037-3048.	5.5	79
44	White-light-emitting from single-phased (Ca,Eu,Mn)₉Al(PO₄)₇ phosphor with blue-white-yellow tunable luminescence properties for UV-based LEDs. Materials Technology, 2019, 34, 135-142.	3.0	11
45	Ionâ€Exchangeable Microporous Polyoxometalate Compounds with Offâ€Center Dopants Exhibiting Unconventional Luminescence. Chemistry - A European Journal, 2018, 24, 9976-9982.	3.3	3
46	Cs₄PbBr₆/CsPbBr₃ Perovskite Composites with Near-Unity Luminescence Quantum Yield: Large-Scale Synthesis, Luminescence and Formation Mechanism, and White Light-Emitting Diode Application. ACS Applied Materials & Interfaces, 2018, 10, 15905-15912.	8.0	135
47	Transformation of Perovskite BaBiO₃ into Layered BaBiO_{2.5} Crystals Featuring Unusual Chemical Bonding and Luminescence. Chemistry - A European Journal, 2018, 24, 8875-8882.	3.3	1
48	White light emission from Eu3+ singly activated Ca8(Al12O24)(MoO4)2 with host-sensitized properties for solid state light source application. Journal of Materials Science: Materials in Electronics, 2018, 29, 2351-2356.	2.2	1
49	Excitonic Luminescence Engineering in Tervalent-Europium-Doped Cesium Lead Halide Perovskite Nanocrystals and Their Temperature-Dependent Energy Transfer Emission Properties. Journal of Physical Chemistry C, 2018, 122, 29044-29050.	3.1	33
50	X-ray-activated long persistent phosphors featuring strong UVC afterglow emissions. Light: Science and Applications, 2018, 7, 88.	16.6	159
51	High color rendering white light emission from single-phased Ca11(SiO4)4(BO3)2:Ce3+, Tb3+, Mn2+ phosphor for UV-based light emitting diodes. Journal of Materials Science: Materials in Electronics, 2018, 29, 18807-18814.	2.2	3
52	Doping-Enhanced Short-Range Order of Perovskite Nanocrystals for Near-Unity Violet Luminescence Quantum Yield. Journal of the American Chemical Society, 2018, 140, 9942-9951.	13.7	548
53	Metal-Doped Lead Halide Perovskites: Synthesis, Properties, and Optoelectronic Applications. Chemistry of Materials, 2018, 30, 6589-6613.	6.7	451
54	Ultra-broadband optical amplification at telecommunication wavelengths achieved by bismuth-activated lead iodide perovskites. Journal of Materials Chemistry C, 2017, 5, 2591-2596.	5.5	19

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55	Controlling Crystallization of All-Inorganic Perovskite Films for Ultralow-Threshold Amplification Spontaneous Emission. ACS Applied Materials & Interfaces, 2017, 9, 32920-32929.	8.0	23
56	Giant Enhancement of Luminescence from Phosphors through Oxygenâ€Vacancyâ€Mediated Chemical Pressure Relaxation. Advanced Optical Materials, 2017, 5, 1700448.	7.3	21
57	A Soft Chemistryâ€Based Route to Nearâ€Infrared Luminescent Bismuthâ€Activated Glass Films. Journal of the American Ceramic Society, 2017, 100, 133-140.	3.8	4
58	Superbroad near-infrared photoluminescence from bismuth-doped CsPbI_3 perovskite nanocrystals. Optics Express, 2017, 25, 33283.	3.4	31
59	Unconventional Luminescent Centers in Metastable Phases Created by Topochemical Reduction Reactions. Angewandte Chemie, 2016, 128, 5051-5055.	2.0	6
60	Ultrabroad Photoluminescence and Electroluminescence at New Wavelengths from Doped Organometal Halide Perovskites. Journal of Physical Chemistry Letters, 2016, 7, 2735-2741.	4.6	97
61	Air-stable and highly luminescent bismuth complex nanoparticles. Journal of Materials Chemistry C, 2016, 4, 4899-4904.	5.5	4
62	Superbroad near-infrared photoluminescence covering the second biological window achieved by bismuth-doped oxygen-deficient gadolinium oxide. RSC Advances, 2016, 6, 78396-78402.	3.6	17
63	Creation of near-infrared luminescent phosphors enabled by topotactic reduction of bismuth-activated red-emitting crystals. Journal of Materials Chemistry C, 2016, 4, 9489-9498.	5.5	29
64	Unconventional Luminescent Centers in Metastable Phases Created by Topochemical Reduction Reactions. Angewandte Chemie - International Edition, 2016, 55, 4967-4971.	13.8	29
65	Red emission enhancement by strong electronegativity in Na5Y4(SiO4)4F:Eu3+ phosphor for white light-emitting diodes. Journal of Materials Science: Materials in Electronics, 2016, 27, 5357-5361.	2.2	10
66	Ultrabroad near-infrared photoluminescence from bismuth doped CsPbI₃: polaronic defects vs. bismuth active centers. Journal of Materials Chemistry C, 2016, 4, 2295-2301.	5.5	26
67	Recent advances in bismuth activated photonic materials. Progress in Materials Science, 2014, 64, 1-72.	32.8	255
68	Luminescent metal nanoclusters: controlled synthesis and functional applications. Science and Technology of Advanced Materials, 2014, 15, 014205.	6.1	63
69	Red, green and blue emissions coexistence in white-light-emitting Ca11(SiO4)4(BO3)2:Ce3+,Eu2+,Eu3+ phosphor. Journal of Materials Chemistry C, 2013, 1, 5892.	5.5	68
70	Efficient Dual-Modal NIR-to-NIR Emission of Rare Earth Ions Co-doped Nanocrystals for Biological Fluorescence Imaging. Journal of Physical Chemistry Letters, 2013, 4, 402-408.	4.6	85
71	NMR, ESR, and Luminescence Characterization of Bismuth Embedded Zeolites Y. Journal of Physical Chemistry C, 2013, 117, 6399-6408.	3.1	35
72	Low-temperature growth of near-infrared luminescent Bi-doped SiOxNy thin films. Optics Letters, 2013, 38, 4224.	3.3	5

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73	Ultra-broad near-infrared photoluminescence from crystalline (K-crypt)2Bi2 containing [Bi2]2â^' dimers. Journal of Materials Chemistry, 2012, 22, 20175.	6.7	32
74	Broadband near-infrared emission from bismuth-doped multilayer films. Journal of Applied Physics, 2012, 112, 073511.	2.5	8
75	Synchrotron X-ray, Photoluminescence, and Quantum Chemistry Studies of Bismuth-Embedded Dehydrated Zeolite Y. Journal of the American Chemical Society, 2012, 134, 2918-2921.	13.7	64
76	Near-infrared photoluminescence from molecular crystals containing tellurium. Journal of Materials Chemistry, 2012, 22, 24792.	6.7	10
77	Photoluminescence from Bi5(GaCl4)3 molecular crystal. Dalton Transactions, 2012, 41, 11055.	3.3	29
78	Ultrafast nonlinear optical responses of bismuth doped silicon-rich silica films. Applied Physics Letters, 2012, 101, 191106.	3.3	5
79	Experimental and theoretical studies of photoluminescence from Bi82+ and Bi53+ stabilized by [AlCl4]â^' in molecular crystals. Journal of Materials Chemistry, 2012, 22, 12837.	6.7	49
80	Ultrabroad near-infrared photoluminescence from Bi5(AlCl4)3 crystal. Journal of Materials Chemistry, 2011, 21, 4060.	6.7	63
81	Bismuth-sensitized efficient near-infrared luminescence from ytterbium in zeolites. Journal Physics D: Applied Physics, 2011, 44, 155101.	2.8	6
82	Ultrabroad near-infrared photoluminescence from ionic liquids containing subvalent bismuth. Optics Letters, 2011, 36, 100.	3.3	51
83	Efficient near-infrared emission from neodymium by broadband sensitization of bismuth in zeolites. Optics Letters, 2011, 36, 1017.	3.3	3
84	Sensitized broadband near-infrared luminescence from bismuth-doped silicon-rich silica films. Optics Letters, 2011, 36, 4221.	3.3	16
85	Highly Fluorescent Silicaâ€Coated Bismuthâ€Doped Aluminosilicate Nanoparticles for Nearâ€Infrared Bioimaging. Small, 2011, 7, 199-203.	10.0	61
86	Efficient near-infrared luminescence and energy transfer in Nd-Bi codoped zeolites. Materials Research Society Symposia Proceedings, 2011, 1342, 41.	0.1	1
87	Near-infrared photoluminescence and Raman characterization of bismuth-embedded sodalite nanocrystals. Optics Letters, 2010, 35, 1743.	3.3	17
88	Efficient near-infrared luminescence and energy transfer in erbium/bismuth codoped zeolites. Optics Letters, 2010, 35, 1926.	3.3	21
89	Sensitized superbroadband near-IR emission in bismuth glass/Si nanocrystal superlattices. Optics Letters, 2010, 35, 2215.	3.3	18
90	Spectroscopic characterization of bismuth embedded Y zeolites. Applied Physics Letters, 2010, 97, .	3.3	24

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91	Highly efficient and air-stable near infrared emission in erbium/bismuth codoped zeolites. Applied Physics Letters, 2009, 94, 141106.	3.3	14
92	One-step synthesis and near-infrared luminescent properties of Er³⁺and Ni²⁺doped single-crystalline Al₁₈B₄O₃₃nanorods. Nanotechnology, 2009, 20, 035604.	2.6	4
93	Strong Ultraâ€Broadband Nearâ€Infrared Photoluminescence from Bismuthâ€Embedded Zeolites and Their Derivatives. Advanced Materials, 2009, 21, 3694-3698.	21.0	100
94	Moltenâ€Salt Synthesis and Characterization of Nickelâ€Doped Forsterite Nanocrystals. Journal of the American Ceramic Society, 2009, 92, 962-966.	3.8	19
95	Highly efficient broadband near-infrared luminescence in Ni2+-doped glass ceramics films containing cordierite nanocrystals. Journal of Non-Crystalline Solids, 2009, 355, 2425-2428.	3.1	6
96	Superbroadband near-IR nano-optical source based on bismuth-doped high-silica nanocrystalline zeolites. Optics Letters, 2009, 34, 1219.	3.3	34
97	Significantly enhanced superbroadband near infrared emission in bismuth/aluminum doped high-silica zeolite derived nanoparticles. Optics Express, 2009, 17, 6239.	3.4	13
98	Controlled Synthesis and Luminescent Properties of Erbium Silicate Nanostructures. Journal of Nanoscience and Nanotechnology, 2009, 9, 6277-6282.	0.9	1
99	Largeâ€Scale Controllable Synthesis and Characterization of Ytterbium Silicate Nanostructures. Journal of the American Ceramic Society, 2008, 91, 4158-4161.	3.8	12