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	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
2	Metal-Doped Lead Halide Perovskites: Synthesis, Properties, and Optoelectronic Applications. Chemistry of Materials, 2018, 30, 6589-6613.	6.7	451
3	Recent advances in bismuth activated photonic materials. Progress in Materials Science, 2014, 64, 1-72.	32.8	255
4	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
5	Reducing Defects in Halide Perovskite Nanocrystals for Light-Emitting Applications. Journal of Physical Chemistry Letters, 2019, 10, 2629-2640.	4.6	162
6	X-ray-activated long persistent phosphors featuring strong UVC afterglow emissions. Light: Science and Applications, 2018, 7, 88.	16.6	159
7	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
8	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
9	Strong Ultraâ€Broadband Nearâ€Infrared Photoluminescence from Bismuthâ€Embedded Zeolites and Their Derivatives. Advanced Materials, 2009, 21, 3694-3698.	21.0	100
10	Ultrabroad Photoluminescence and Electroluminescence at New Wavelengths from Doped Organometal Halide Perovskites. Journal of Physical Chemistry Letters, 2016, 7, 2735-2741.	4.6	97
11	High-Efficiency Violet-Emitting All-Inorganic Perovskite Nanocrystals Enabled by Alkaline-Earth Metal Passivation. Chemistry of Materials, 2019, 31, 3974-3983.	6.7	90
12	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
13	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
14	Mn2+-activated dual-wavelength emitting materials toward wearable optical fibre temperature sensor. Nature Communications, 2022, 13, 2166.	12.8	70
15	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
16	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
17	Ultrabroad near-infrared photoluminescence from Bi5(AlCl4)3 crystal. Journal of Materials Chemistry, 2011, 21, 4060.	6.7	63
18	Luminescent metal nanoclusters: controlled synthesis and functional applications. Science and Technology of Advanced Materials, 2014, 15, 014205.	6.1	63

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19	Highly Fluorescent Silicaâ€Coated Bismuthâ€Doped Aluminosilicate Nanoparticles for Nearâ€Infrared Bioimaging. Small, 2011, 7, 199-203.	10.0	61
20	Ultrabroad near-infrared photoluminescence from ionic liquids containing subvalent bismuth. Optics Letters, 2011, 36, 100.	3.3	51
21	Defect-Triggered Phase Transition in Cesium Lead Halide Perovskite Nanocrystals. , 2019, 1, 185-191.		51
22	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
23	Halogen Vacancies Enable Ligandâ€Assisted Selfâ€Assembly of Perovskite Quantum Dots into Nanowires. Angewandte Chemie - International Edition, 2019, 58, 16077-16081.	13.8	49
24	Antithermal Quenching of Luminescence in Zero-Dimensional Hybrid Metal Halide Solids. Journal of Physical Chemistry Letters, 2020, 11, 2902-2909.	4.6	49
25	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
26	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
27	Doping Induces Structural Phase Transitions in All-Inorganic Lead Halide Perovskite Nanocrystals. , 2020, 2, 367-375.		42
28	NMR, ESR, and Luminescence Characterization of Bismuth Embedded Zeolites Y. Journal of Physical Chemistry C, 2013, 117, 6399-6408.	3.1	35
29	Superbroadband near-IR nano-optical source based on bismuth-doped high-silica nanocrystalline zeolites. Optics Letters, 2009, 34, 1219.	3.3	34
30	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
31	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
32	Ultra-broad near-infrared photoluminescence from crystalline (K-crypt)2Bi2 containing [Bi2]2â^' dimers. Journal of Materials Chemistry, 2012, 22, 20175.	6.7	32
33	Superbroad near-infrared photoluminescence from bismuth-doped CsPbI_3 perovskite nanocrystals. Optics Express, 2017, 25, 33283.	3.4	31
34	Photoluminescence from Bi5(GaCl4)3 molecular crystal. Dalton Transactions, 2012, 41, 11055.	3.3	29
35	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
36	Unconventional Luminescent Centers in Metastable Phases Created by Topochemical Reduction Reactions. Angewandte Chemie - International Edition, 2016, 55, 4967-4971.	13.8	29

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37	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
38	Nonâ€Rareâ€Earth UVC Persistent Phosphors Enabled by Bismuth Doping. Advanced Optical Materials, 2021, 9, 2002065.	7.3	27
39	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
40	Spectroscopic characterization of bismuth embedded Y zeolites. Applied Physics Letters, 2010, 97, .	3.3	24
41	Controlling Crystallization of All-Inorganic Perovskite Films for Ultralow-Threshold Amplification Spontaneous Emission. ACS Applied Materials & Interfaces, 2017, 9, 32920-32929.	8.0	23
42	Shining Light on the Structure of Lead Halide Perovskite Nanocrystals. , 2021, 3, 845-861.		23
43	Efficient near-infrared luminescence and energy transfer in erbium/bismuth codoped zeolites. Optics Letters, 2010, 35, 1926.	3.3	21
44	Giant Enhancement of Luminescence from Phosphors through Oxygenâ€Vacancyâ€Mediated Chemical Pressure Relaxation. Advanced Optical Materials, 2017, 5, 1700448.	7.3	21
45	Metal Inorganicâ€“Organic Complex Glass and Fiber for Photonic Applications. Chemistry of Materials, 2022, 34, 2476-2483.	6.7	21
46	Theoryâ€Guided Defect Tuning through Topochemical Reactions for Accelerated Discovery of UVC Persistent Phosphors. Advanced Optical Materials, 2020, 8, 1901727.	7.3	20
47	Moltenâ€Salt Synthesis and Characterization of Nickelâ€Doped Forsterite Nanocrystals. Journal of the American Ceramic Society, 2009, 92, 962-966.	3.8	19
48	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
49	Sensitized superbroadband near-IR emission in bismuth glass/Si nanocrystal superlattices. Optics Letters, 2010, 35, 2215.	3.3	18
50	Near-infrared photoluminescence and Raman characterization of bismuth-embedded sodalite nanocrystals. Optics Letters, 2010, 35, 1743.	3.3	17
51	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
52	Sensitized broadband near-infrared luminescence from bismuth-doped silicon-rich silica films. Optics Letters, 2011, 36, 4221.	3.3	16
53	High quantum yield red-emission phosphor Li2Ge4O9:Mn4+ for WLEDs application. Optical Materials, 2019, 98, 109442.	3.6	16
54	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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55	X-ray-activated UVA long persistent luminescence from defective fluoride elpasolites. Journal of Rare Earths, 2020, 38, 124-129.	4.8	15
56	Highly efficient and air-stable near infrared emission in erbium/bismuth codoped zeolites. Applied Physics Letters, 2009, 94, 141106.	3.3	14
57	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
58	Significantly enhanced superbroadband near infrared emission in bismuth/aluminum doped high-silica zeolite derived nanoparticles. Optics Express, 2009, 17, 6239.	3.4	13
59	Largeâ€Scale Controllable Synthesis and Characterization of Ytterbium Silicate Nanostructures. Journal of the American Ceramic Society, 2008, 91, 4158-4161.	3.8	12
60	Advances and Challenges in Tin Halide Perovskite Nanocrystals. , 2021, 3, 1541-1557.		12
61	Water-Soluble Silicon Quantum Dots toward Fluorescence-Guided Photothermal Nanotherapy. Langmuir, 2022, 38, 5188-5196.	3.5	12
62	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
63	Metal-free scintillators excite X-ray community. Nature Photonics, 2021, 15, 171-172.	31.4	11
64	Near-infrared photoluminescence from molecular crystals containing tellurium. Journal of Materials Chemistry, 2012, 22, 24792.	6.7	10
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	Visible-light photovoltaic effect in high-temperature ferroelectric BaFe4O7. Journal of Materials Chemistry C, 2020, 8, 16234-16240.	5.5	10
67	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
68	Silicon Quantum Dots for Light-Emitting Diodes Extending to the NIR-II Window. ACS Applied Nano Materials, 2021, 4, 11651-11660.	5.0	10
69	Coherent InP/ZnS core@shell quantum dots with narrow-band green emissions. Nanoscale, 2022, 14, 9900-9909.	5.6	10
70	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
71	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
72	Broadband near-infrared emission from bismuth-doped multilayer films. Journal of Applied Physics, 2012, 112, 073511.	2.5	8

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73	Visible-light photoelectric response in semiconducting quaternary oxysulfide FeOCuS with anti-PbO-type structure. Chemical Communications, 2021, 57, 13393-13396.	4.1	8
74	Phosphatidylcholine-mediated regulation of growth kinetics for colloidal synthesis of cesium tin halide nanocrystals. Nanoscale, 2021, 13, 16726-16733.	5.6	7
75	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
76	Bismuth-sensitized efficient near-infrared luminescence from ytterbium in zeolites. Journal Physics D: Applied Physics, 2011, 44, 155101.	2.8	6
77	Unconventional Luminescent Centers in Metastable Phases Created by Topochemical Reduction Reactions. Angewandte Chemie, 2016, 128, 5051-5055.	2.0	6
78	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
79	Ultrafast nonlinear optical responses of bismuth doped silicon-rich silica films. Applied Physics Letters, 2012, 101, 191106.	3.3	5
80	Low-temperature growth of near-infrared luminescent Bi-doped SiOxNy thin films. Optics Letters, 2013, 38, 4224.	3.3	5
81	One-step synthesis and near-infrared luminescent properties of Er³⁺and Ni²⁺doped single-crystalline Al₁₈B₄O₃₃nanorods. Nanotechnology, 2009, 20, 035604.	2.6	4
82	Air-stable and highly luminescent bismuth complex nanoparticles. Journal of Materials Chemistry C, 2016, 4, 4899-4904.	5.5	4
83	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
84	Defective [Bi₂O₂]²⁺ Layers Exhibiting Ultrabroad Nearâ€Infrared Luminescence. Chemistry - A European Journal, 2019, 25, 12842-12848.	3.3	4
85	Visible-light photovoltaic effect in multiferroic Bi2Fe4O9 thin film. Materials Letters, 2022, 309, 131411.	2.6	4
86	Impact of bismuth-doping on enhanced radiative recombination in lead-free double-perovskite nanocrystals. Nanoscale Advances, 2022, 4, 3091-3100.	4.6	4
87	Efficient near-infrared emission from neodymium by broadband sensitization of bismuth in zeolites. Optics Letters, 2011, 36, 1017.	3.3	3
88	Ionâ€Exchangeable Microporous Polyoxometalate Compounds with Offâ€Center Dopants Exhibiting Unconventional Luminescence. Chemistry - A European Journal, 2018, 24, 9976-9982.	3.3	3
89	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
90	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.	3.3	3

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91	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
92	Nanolayer Growth on 3-Dimensional Micro-Objects by Pulsed Laser Deposition. Nanomaterials, 2021, 11, 35.	4.1	2
93	Controlled Synthesis and Luminescent Properties of Erbium Silicate Nanostructures. Journal of Nanoscience and Nanotechnology, 2009, 9, 6277-6282.	0.9	1
94	Efficient near-infrared luminescence and energy transfer in Nd-Bi codoped zeolites. Materials Research Society Symposia Proceedings, 2011, 1342, 41.	0.1	1
95	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
96	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
97	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
98	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
99	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