Bingtao Tang

List of Publications by Year in descending order

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107 papers	6,577 citations	61984 43 h-index	66911 78 g-index
111 all docs	111 docs citations	111 times ranked	4348 citing authors

#	Article	IF	Citations
1	Novel strategies and supporting materials applied to shape-stabilize organic phase change materials for thermal energy storageâ€“A review. Applied Energy, 2019, 235, 846-873.	10.1	575
2	Singleâ€Walled Carbon Nanotube/Phase Change Material Composites: Sunlightâ€Driven, Reversible, Formâ€Stable Phase Transitions for Solar Thermal Energy Storage. Advanced Functional Materials, 2013, 23, 4354-4360.	14.9	331
3	Ag-graphene/PEG composite phase change materials for enhancing solar-thermal energy conversion and storage capacity. Applied Energy, 2019, 237, 83-90.	10.1	283
4	Recent advances in shuttle effect inhibition for lithium sulfur batteries. Energy Storage Materials, 2019, 23, 707-732.	18.0	249
5	Fe₃O₄-functionalized graphene nanosheet embedded phase change material composites: efficient magnetic- and sunlight-driven energy conversion and storage. Journal of Materials Chemistry A, 2017, 5, 958-968.	10.3	245
6	MXene Ti₃C₂T_x for phase change composite with superior photothermal storage capability. Journal of Materials Chemistry A, 2019, 7, 14319-14327.	10.3	235
7	Thermal conductivity enhancement of PEG/SiO2 composite PCM by in situ Cu doping. Solar Energy Materials and Solar Cells, 2012, 105, 242-248.	6.2	175
8	Hexadecanol/phase change polyurethane composite as form-stable phase change material for thermal energy storage. Solar Energy Materials and Solar Cells, 2016, 144, 1-6.	6.2	153
9	A full-band sunlight-driven carbon nanotube/PEG/SiO2 composites for solar energy storage. Solar Energy Materials and Solar Cells, 2014, 123, 7-12.	6.2	148
10	Form-stable phase change materials with high phase change enthalpy from the composite of paraffin and cross-linking phase change structure. Applied Energy, 2016, 184, 241-246.	10.1	130
11	PEG/SiO2â€“Al2O3 hybrid form-stable phase change materials with enhanced thermal conductivity. Materials Chemistry and Physics, 2014, 144, 162-167.	4.0	129
12	Novel lightâ€“driven CF/PEG/SiO2 composite phase change materials with high thermal conductivity. Solar Energy Materials and Solar Cells, 2018, 174, 538-544.	6.2	122
13	Light-heat conversion and thermal conductivity enhancement of PEG/SiO2 composite PCM by in situ Ti4O7 doping. Solar Energy Materials and Solar Cells, 2017, 161, 183-189.	6.2	109
14	Ultrafast and efficient photothermal conversion for sunlight-driven thermal-electric system. Chemical Engineering Journal, 2018, 344, 402-409.	12.7	99
15	Encoding and Decoding of Invisible Complex Information in a Dualâ€Response Bilayer Photonic Crystal with Tunable Wettability. Advanced Functional Materials, 2019, 29, 1906799.	14.9	96
16	2D filler-reinforced polymer nanocomposite dielectrics for high-k dielectric and energy storage applications. Energy Storage Materials, 2021, 34, 260-281.	18.0	93
17	Biomimetic Structural Color Films with a Bilayer Inverse Heterostructure for Anticounterfeiting Applications. ACS Applied Materials & Interfaces, 2018, 10, 38459-38465.	8.0	92
18	Phase change materials for electron-triggered energy conversion and storage: a review. Journal of Materials Chemistry A, 2019, 7, 22218-22228.	10.3	92

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19	Magnetochromic Photonic Hydrogel for an Alternating Magnetic Fieldâ€Responsive Color Display. Advanced Optical Materials, 2018, 6, 1701093.	7.3	91
20	A novel flexible phase change composite with electro-driven shape memory, energy conversion/storage and motion sensing properties. Journal of Materials Chemistry A, 2019, 7, 26385-26392.	10.3	91
21	Novel organic solar thermal energy storage materials: efficient visible light-driven reversible solidâ€“liquid phase transition. Journal of Materials Chemistry, 2012, 22, 18145.	6.7	90
22	Electromagnetic and solar energy conversion and storage based on Fe3O4-functionalised graphene/phase change material nanocomposites. Energy Conversion and Management, 2019, 196, 1299-1305.	9.2	90
23	PEG/3D graphene oxide network form-stable phase change materials with ultrahigh filler content. Journal of Materials Chemistry A, 2019, 7, 21371-21377.	10.3	90
24	New Encryption Strategy of Photonic Crystals with Bilayer Inverse Heterostructure Guided from Transparency Response. Advanced Functional Materials, 2019, 29, 1903743.	14.9	85
25	Rapid Fabrication of Noniridescent Structural Color Coatings with High Color Visibility, Good Structural Stability, and Self-Healing Properties. ACS Applied Materials & Interfaces, 2019, 11, 13022-13028.	8.0	77
26	Facile synthesis and performances of PEG/SiO2 composite form-stable phase change materials. Solar Energy, 2013, 97, 484-492.	6.1	76
27	Multiple Colors Output on Voile through 3D Colloidal Crystals with Robust Mechanical Properties. ACS Applied Materials & Interfaces, 2017, 9, 3024-3029.	8.0	76
28	Patterned and Iridescent Plastics with 3D Inverse Opal Structure for Anticounterfeiting of the Banknotes. Advanced Optical Materials, 2018, 6, 1701351.	7.3	76
29	Structural Color Circulation in a Bilayer Photonic Crystal by Increasing the Incident Angle. ACS Applied Materials & Interfaces, 2019, 11, 10171-10177.	8.0	73
30	Induced dipole force driven PEG/PPEGMA form-stable phase change energy storage materials with high latent heat. Chemical Engineering Journal, 2020, 390, 124618.	12.7	72
31	Thermal-Responsive Photonic Crystal with Function of Color Switch Based on Thermochromic System. ACS Applied Materials & Interfaces, 2019, 11, 39125-39131.	8.0	70
32	Thermal Responsive Photonic Crystal Achieved through the Control of Light Path Guided by Phase Transition. Small, 2020, 16, e2002319.	10.0	69
33	High-Performance and Multifunctional Colorimetric Humidity Sensors Based on Mesoporous Photonic Crystals and Nanogels. ACS Applied Materials & Interfaces, 2018, 10, 41645-41654.	8.0	68
34	Structurally colored polymer films with narrow stop band, high angle-dependence and good mechanical robustness for trademark anti-counterfeiting. Nanoscale, 2018, 10, 14755-14762.	5.6	68
35	Form-Stable Phase-Change Composites Supported by a Biomass-Derived Carbon Scaffold with Multiple Energy Conversion Abilities. Industrial & Engineering Chemistry Research, 2020, 59, 1393-1401.	3.7	62
36	Nitrogen-doped carbon fiber foam enabled sulfur vapor deposited cathode for high performance lithium sulfur batteries. Chemical Engineering Journal, 2018, 341, 441-449.	12.7	59

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37	CoO/Coâ€Activated Porous Carbon Cloth Cathode for High Performance Liâ€“S Batteries. ChemSusChem, 2018, 11, 2695-2702.	6.8	57
38	Size-controlled synthesis of water-dispersible superparamagnetic Fe₃O₄ nanoclusters and their magnetic responsiveness. RSC Advances, 2015, 5, 75292-75299.	3.6	55
39	Vivid structural colors with low angle dependence from long-range ordered photonic crystal films. Nanoscale, 2017, 9, 3002-3009.	5.6	48
40	Porous organic/inorganic hybrid one-dimensional photonic crystals for rapid visual detection of organic solvents. Journal of Materials Chemistry C, 2018, 6, 2704-2711.	5.5	48
41	Novel bio-based phase change materials with high enthalpy for thermal energy storage. Applied Energy, 2020, 268, 114979.	10.1	47
42	Facile Synthesis of Monodispersed Polysulfide Spheres for Building Structural Colors with High Color Visibility and Broad Viewing Angle. Small, 2017, 13, 1602565.	10.0	45
43	Novel hybrid form-stable polyether phase change materials with good fire resistance. Energy Storage Materials, 2017, 6, 46-52.	18.0	44
44	Hollow silica opals/cellulose acetate nanocomposite films with structural colors for anti-counterfeiting of banknotes. Journal of Materials Chemistry C, 2019, 7, 7411-7417.	5.5	44
45	Rapid fabrication of vivid noniridescent structural colors on fabrics with robust structural stability by screen printing. Dyes and Pigments, 2020, 176, 108226.	3.7	44
46	Facile synthesis of novel disperse azo dyes with aromatic hydroxyl group. Dyes and Pigments, 2019, 160, 524-529.	3.7	43
47	Hydrophobic structural color films with bright color and tunable stop-bands. Dyes and Pigments, 2014, 104, 146-150.	3.7	41
48	Organic, cross-linking, and shape-stabilized solar thermal energy storage materials: A reversible phase transition driven by broadband visible light. Applied Energy, 2014, 113, 59-66.	10.1	40
49	Visible light-driven organic form-stable phase change materials for solar energy storage. RSC Advances, 2012, 2, 5964.	3.6	39
50	Rational design of nanomaterials for high energy density dielectric capacitors via electrospinning. Energy Storage Materials, 2021, 37, 530-555.	18.0	39
51	Extracorporeal magnetic thermotherapy materials for self-controlled temperature through phase transition. Chemical Engineering Journal, 2019, 358, 1279-1286.	12.7	38
52	Easy approach to assembling a biomimetic color film with tunable structural colors. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2015, 32, 1109.	1.5	36
53	Heat-resistant PMMA photonic crystal films with bright structural color. Dyes and Pigments, 2013, 99, 1022-1028.	3.7	35
54	Different Structural Colors or Patterns on the Front and Back Sides of a Multilayer Photonic Structure. ACS Applied Materials & Interfaces, 2019, 11, 27210-27215.	8.0	35

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55	Simple fabrication of colloidal crystal structural color films with good mechanical stability and high hydrophobicity. Dyes and Pigments, 2015, 123, 420-426.	3.7	34
56	Novel network structural PEG/PAA/SiO2 composite phase change materials with strong shape stability for storing thermal energy. Solar Energy Materials and Solar Cells, 2020, 216, 110678.	6.2	34
57	Synthesis of highly uniform Cu₂O spheres by a two-step approach and their assembly to form photonic crystals with a brilliant color. Nanoscale, 2016, 8, 6155-6161.	5.6	33
58	Bilayer Heterostructure Photonic Crystal Composed of Hollow Silica and Silica Sphere Arrays for Information Encryption. Langmuir, 2020, 36, 1379-1385.	3.5	33
59	Fast water-response double-inverse opal films with brilliant structural color. Chemical Engineering Journal, 2021, 426, 131213.	12.7	33
60	SnO₂ Inverse Opal Composite Film with Low-Angle-Dependent Structural Color and Enhanced Mechanical Strength. Langmuir, 2018, 34, 3918-3924.	3.5	32
61	Novel designed coreâ€“shell nanofibers constituted by single element-doped BaTiO3 for high-energyâ€“density polymer nanocomposites. Chemical Engineering Journal, 2022, 428, 131046.	12.7	32
62	Bioinspired Polypeptide Photonic Films with Tunable Structural Color. Journal of the American Chemical Society, 2022, 144, 7610-7615.	13.7	32
63	Shape-stabilization micromechanisms of form-stable phase change materials-A review. Composites Part A: Applied Science and Manufacturing, 2022, 160, 107047.	7.6	32
64	Biomimetic Construction of Nonâ€Iridescent Structural Color Films with High Hydrophobicity and Good Mechanical Stability Induced by Chaotic Convective Coassembly Method. Advanced Materials Interfaces, 2016, 3, 1600374.	3.7	31
65	Nano/microstructured materials for solar-driven interfacial evaporators towards water purification. Journal of Materials Chemistry A, 2021, 9, 13746-13769.	10.3	31
66	A new kind of H-acid monoazo-anthraquinone reactive dyes with surprising colour. Dyes and Pigments, 2015, 123, 44-54.	3.7	30
67	All nanoparticle-based P(MMAâ€“AA)/TiO₂ one-dimensional photonic crystal films with tunable structural colors. Journal of Materials Chemistry C, 2017, 5, 8266-8272.	5.5	30
68	Fabrication of tough photonic crystal patterns with vivid structural colors by direct handwriting. Nanoscale, 2017, 9, 17877-17883.	5.6	29
69	Copolymer-Based Photonic Crystal Sensor for Discriminative Detection of Liquid Benzene, Toluene, Ethylbenzene, and Xylene. ACS Applied Polymer Materials, 2020, 2, 2-11.	4.4	29
70	Stable diazonium salts of weakly basic aminesâ€”Convenient reagents for synthesis of disperse azo dyes. Dyes and Pigments, 2017, 136, 63-69.	3.7	27
71	Novel Magnetic-to-Thermal Conversion and Thermal Energy Management Composite Phase Change Material. Polymers, 2018, 10, 585.	4.5	26
72	Lotus Seedpod Inspiration: Particle-Nested Double-Inverse Opal Films with Fast and Reversible Structural Color Switching for Information Security. ACS Applied Materials & Interfaces, 2021, 13, 26384-26393.	8.0	26

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73	Efficient photothermal conversion of <scp>Fe₂O₃</scp>â€“<scp>RGO</scp> guided from ultrafast quenching effect of photoexcited state. AIChE Journal, 2020, 66, e16975.	3.6	25
74	Water rewriteable double-inverse opal photonic crystal films with ultrafast response time and robust writing capability. Chemical Engineering Journal, 2022, 439, 135761.	12.7	25
75	Lightâ€“thermal conversion organic shape-stabilized phase-change materials with broadband harvesting for visible light of solar radiation. RSC Advances, 2012, 2, 11372.	3.6	24
76	Controllable 5-sulfosalicylic acid assisted solvothermal synthesis of monodispersed superparamagnetic Fe3O4 nanoclusters with tunable size. Journal of Magnetism and Magnetic Materials, 2017, 423, 111-117.	2.3	23
77	Robust, Portable, and Specific Water-Response Silk Film with Noniridescent Pattern Encryption for Information Security. ACS Applied Materials & Interfaces, 2020, 12, 56413-56423.	8.0	23
78	Hydrophilic Modification of Multi-Walled Carbon Nanotube for Building Photonic Crystals with Enhanced Color Visibility and Mechanical Strength. Molecules, 2016, 21, 547.	3.8	22
79	Phase change materials with Fe3O4/GO three-dimensional network structure for acoustic-thermal energy conversion and management. Chemical Engineering Journal, 2021, 426, 130789.	12.7	21
80	Retroreflection and Wettability Controlled Smart Indicator Based on Responsive Bilayer Photonic Crystals for Traffic Warning. Advanced Optical Materials, 2020, 8, 2001367.	7.3	17
81	Transforming waste cigarette filters into 3D carbon scaffolds for form-stable and energy conversion phase change materials. Sustainable Energy and Fuels, 2020, 4, 4285-4292.	4.9	17
82	Thermal-guided interfacial confinement to fabricate flexible structural color composites for durable applications. Journal of Materials Chemistry C, 2019, 7, 11258-11264.	5.5	15
83	Excellent Temperature-Control Based on Reversible Thermochromic Materials for Light-Driven Phase Change Materials System. Molecules, 2019, 24, 1623.	3.8	15
84	An intelligent light-driven thermoelectric conversion system through the thermosensitive phase transition of vanadium dioxide. Journal of Materials Chemistry A, 2019, 7, 8521-8526.	10.3	15
85	Polysulfide nanoparticles-reduced graphene oxide composite aerogel for efficient solar-driven water purification. Green Energy and Environment, 2023, 8, 267-274.	8.7	15
86	Bar-coating programmable mechanochromic bilayer PDMS film with angle-dependent and angle-independent structural colors. Dyes and Pigments, 2021, 189, 109264.	3.7	15
87	Flexible, self-standing and patternable P(MMA-BA)/TiO2 photonic crystals with tunable and bright structural colors. Dyes and Pigments, 2019, 160, 740-746.	3.7	14
88	Clean synthesis of disperse azo dyes based on peculiar stable 2,6-dibromo-4-nitrophenyl diazonium sulfate. Dyes and Pigments, 2020, 173, 107920.	3.7	14
89	Intelligent light-driven flexible solar thermoelectric system. Chemical Engineering Journal, 2021, 423, 130260.	12.7	14
90	Dynamic monitoring of thermally assisted assembly of colloidal crystals. Journal of Materials Science, 2017, 52, 7883-7892.	3.7	12

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91	Bioinspired quasi-amorphous structural color materials toward architectural designs. Cell Reports Physical Science, 2021, 2, 100499.	5.6	12
92	Self-supporting structural color films with excellent stability and flexibility through hot-press assisted assembly. Dyes and Pigments, 2021, 195, 109742.	3.7	12
93	Iridescent structural colors from self-assembled polymer opal of polythiourethane microspheres. Dyes and Pigments, 2017, 142, 371-378.	3.7	11
94	Polysulfide Trapping in Carbon Nanofiber Cloth/S Cathode with a Bifunctional Separator for Highâ€Performance Liâ€“S Batteries. ChemSusChem, 2019, 12, 2447-2456.	6.8	11
95	Facile fabrication of encryption composite materials with trilayer quasi-amorphous heterostructure. Science China Materials, 2021, 64, 909-919.	6.3	10
96	Rational Design of Biomass-Derived Composite Aerogels for Solar-Driven Seawater Desalination and Sewage Treatment. Industrial & Engineering Chemistry Research, 2022, 61, 9763-9773.	3.7	10
97	Bright structural coloration from organic polymeric photonic crystals with robust heat-resistance. Journal of Materials Chemistry C, 2017, 5, 9806-9811.	5.5	9
98	Polyacrylic Acidâ€Based Coordination Supramolecular Elastomer with High Strength, Excellent Fatigueâ€Resistance, and Selfâ€Recovery Properties. Macromolecular Chemistry and Physics, 2019, 220, 1800571.	2.2	8
99	Fe3+-doped SnO2 inverse opal with high structural color saturation. Journal of Materials Science, 2019, 54, 10609-10619.	3.7	7
100	Flexible thermoelectric device with excellent durability towards self-powered light intensity detection. Composites Science and Technology, 2022, 227, 109616.	7.8	7
101	A flexible and robust dual-network supramolecular elastic film with solvent resistance and brilliant structural colors. New Journal of Chemistry, 2019, 43, 11517-11523.	2.8	6
102	Mechanical nondiscoloring and antistretching photonic crystal films based on Zn²⁺ coordination and hydroxypropyl methylcellulose. Journal of Applied Polymer Science, 2021, 138, 49916.	2.6	4
103	Properties of Stable Aqueous Nanofluids Composed of Copper Nanoaggregates for Enhancing Heat Transfer. Industrial & Engineering Chemistry Research, 2022, 61, 1596-1605.	3.7	4
104	Three-dimensionally ordered macroporous BaTiO3 framework-reinforced polymer composites with improved dielectric properties. SN Applied Sciences, 2021, 3, 1.	2.9	2
105	Multicolor Invisible Patterns Encrypted in Doubleâ€Inverseâ€Opal Films Based on Thermally Induced Structural Deformation. Physica Status Solidi - Rapid Research Letters, 2022, 16, .	2.4	2
106	Phase change composites with thermalâ€formability and photothermal storage property for high flux crude oil transmission. AICHE Journal, 2022, 68, .	3.6	2
107	A two-step approach for size controlled preparation of monodisperse polysaccharide-based nanospheres. Materials Research Express, 2019, 6, 055013.	1.6	1