

Zhi-gang Zheng

List of Publications by Year in descending order

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82
papers

2,840
citations

201674

27
h-index

182427

51
g-index

84
all docs

84
docs citations

84
times ranked

2009
citing authors

#	ARTICLE	IF	CITATIONS
1	Three-dimensional control of the helical axis of a chiral nematic liquid crystal by light. <i>Nature</i> , 2016, 531, 352-356.	27.8	435
2	Stimuli-directed self-organized chiral superstructures for adaptive windows enabled by mesogen-functionalized graphene. <i>Materials Today</i> , 2017, 20, 230-237.	14.2	194
3	Broadband tunable liquid crystal terahertz waveplates driven with porous graphene electrodes. <i>Light: Science and Applications</i> , 2015, 4, e253-e253.	16.6	148
4	Light-Driven Patterned Crystallographic Direction of a Self-Organized 3D Soft Photonic Crystal. <i>Advanced Materials</i> , 2017, 29, 1703165.	21.0	120
5	Digital photoprogramming of liquid-crystal superstructures featuring intrinsic chiral photoswitches. <i>Nature Photonics</i> , 2022, 16, 226-234.	31.4	115
6	Large birefringence liquid crystal material in terahertz range. <i>Optical Materials Express</i> , 2012, 2, 1314.	3.0	104
7	Wide blue phase range of chiral nematic liquid crystal doped with bent-shaped molecules. <i>New Journal of Physics</i> , 2010, 12, 113018.	2.9	89
8	Frequency-Driven Self-Organized Helical Superstructures Loaded with Mesogen-Grafted Silica Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 13090-13094.	13.8	85
9	Photoprogrammable Mesogenic Soft Helical Architectures: A Promising Avenue toward Future Chiral Optics. <i>Advanced Materials</i> , 2020, 32, e1905318.	21.0	84
10	Self-polarizing terahertz liquid crystal phase shifter. <i>AIP Advances</i> , 2011, 1, .	1.3	81
11	Thermally reversible full color selective reflection in a self-organized helical superstructure enabled by a bent-core oligomesogen exhibiting a twist-bend nematic phase. <i>Materials Horizons</i> , 2016, 3, 442-446.	12.2	80
12	Circularly Polarized Fluorescence Resonance Energy Transfer (C _{PL} -FRET) for Efficient Chirality Transmission within an Intermolecular System. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 24549-24557.	13.8	72
13	Stimulated transformation of soft helix among helicoidal, heliconical, and their inverse helices. <i>Science Advances</i> , 2019, 5, eaax9501.	10.3	68
14	Controllable Dynamic Zigzag Pattern Formation in a Soft Helical Superstructure. <i>Advanced Materials</i> , 2017, 29, 1701903.	21.0	67
15	Rationally Designed Dynamic Superstructures Enabled by Photoaligning Cholesteric Liquid Crystals. <i>Advanced Optical Materials</i> , 2015, 3, 1691-1696.	7.3	58
16	Light-Driven Reversible Transformation between Self-Organized Simple Cubic Lattice and Helical Superstructure Enabled by a Molecular Switch Functionalized Nanocage. <i>Advanced Materials</i> , 2018, 30, e1800237.	21.0	57
17	Graphene-based chiral liquid crystal materials for optical applications. <i>Journal of Materials Chemistry C</i> , 2019, 7, 2146-2171.	5.5	54
18	Blue phase liquid crystals induced by bent-shaped molecules based on 1,3,4-oxadiazole derivatives. <i>Liquid Crystals</i> , 2012, 39, 99-103.	2.2	50

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19	Polarization-independent blue-phase liquid-crystal gratings driven by vertical electric field. <i>Journal of the Society for Information Display</i> , 2012, 20, 341-346.	2.1	45
20	Wide tunable lasing in photoresponsive chiral liquid crystal emulsion. <i>Journal of Materials Chemistry C</i> , 2015, 3, 2462-2470.	5.5	44
21	Circularly polarized perovskite luminescence with dissymmetry factor up to 1.9 by soft helix bilayer device. <i>Matter</i> , 2022, 5, 2319-2333.	10.0	40
22	Switchable Fresnel lens based on hybrid photo-aligned dual frequency nematic liquid crystal. <i>Optical Materials Express</i> , 2017, 7, 8.	3.0	35
23	Dynamically actuated soft heliconical architecture via frequency of electric fields. <i>Nature Communications</i> , 2022, 13, 2712.	12.8	35
24	Electrically Switchable, Hyper-Reflective Blue Phase Liquid Crystals Films. <i>Advanced Optical Materials</i> , 2018, 6, 1700891.	7.3	33
25	Light-reconfigured waveband-selective diffraction device enabled by micro-patterning of a photoresponsive self-organized helical superstructure. <i>Journal of Materials Chemistry C</i> , 2016, 4, 9325-9330.	5.5	31
26	Preparation and optical properties of Fe ₃ O ₄ nanoparticles-doped blue phase liquid crystal. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 29028-29032.	2.8	30
27	Optical array generator based on blue phase liquid crystal Dammann grating. <i>Optical Materials Express</i> , 2016, 6, 1087.	3.0	30
28	Light-Activated Liquid Crystalline Hierarchical Architecture Toward Photonics. <i>Advanced Optical Materials</i> , 2019, 7, 1900393.	7.3	29
29	A multi-domain vertical alignment liquid crystal display to improve the V _A T property. <i>Displays</i> , 2009, 30, 185-189.	3.7	27
30	Room temperature stable helical blue phase enabled by a photo-polymerizable bent-shaped material. <i>Journal of Materials Chemistry C</i> , 2017, 5, 690-696.	5.5	26
31	Photoinduced phase transition behaviours of the liquid crystal blue phase doped with azobenzene bent-shaped molecules. <i>Liquid Crystals</i> , 2012, 39, 509-514.	2.2	25
32	Frequency-Driven Self-Organized Helical Superstructures Loaded with Mesogen-Grafted Silica Nanoparticles. <i>Angewandte Chemie</i> , 2016, 128, 13284-13288.	2.0	24
33	Diffusionless transformation of soft cubic superstructure from amorphous to simple cubic and body-centered cubic phases. <i>Nature Communications</i> , 2021, 12, 3477.	12.8	24
34	Low-voltage-modulated laser based on dye-doped polymer stabilized cholesteric liquid crystal. <i>Optical Materials Express</i> , 2013, 3, 519.	3.0	22
35	Electrically/optically tunable photo-aligned hybrid nematic liquid crystal Dammann grating. <i>Optics Letters</i> , 2016, 41, 5668.	3.3	22
36	Liquid crystal blue phase induced by bent-shaped molecules with allylic end groups. <i>Optical Materials Express</i> , 2011, 1, 1478.	3.0	21

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37	Dynamically manipulated lasing enabled by a reconfigured fingerprint texture of a cholesteric self-organized superstructure. <i>Journal of Materials Chemistry C</i> , 2017, 5, 6923-6928.	5.5	20
38	A Quadri-dimensional Manipulable Laser with an Intrinsic Chiral Photoswitch. <i>Advanced Materials</i> , 2022, 34, e2110170.	21.0	20
39	The liquid crystal blue phase induced by bent-shaped molecules with different terminal chain lengths. <i>New Journal of Physics</i> , 2011, 13, 063037.	2.9	17
40	Dichroic-dye-doped polymer stabilized optically isotropic chiral liquid crystals. <i>Journal of Materials Chemistry C</i> , 2013, 1, 6471.	5.5	17
41	Reversible On-Off of Chirality and Anisotropy in Patterned Coexistence of Achiral-Anisotropic and Chiral-isotropic Soft Materials. <i>Advanced Optical Materials</i> , 2020, 8, 2000155.	7.3	16
42	Single-step exposure for two-dimensional electrically-tunable diffraction grating based on polymer dispersed liquid crystal. <i>Liquid Crystals</i> , 2008, 35, 489-499.	2.2	15
43	Improvements in morphological and electro-optical properties of polymer-dispersed liquid crystal grating using a highly fluorine-substituted acrylate monomer. <i>Liquid Crystals</i> , 2008, 35, 885-893.	2.2	14
44	Holographic polymer-dispersed liquid crystal grating with low scattering losses. <i>Liquid Crystals</i> , 2012, 39, 387-391.	2.2	13
45	Low-temperature-applicable polymer-stabilized blue-phase liquid crystal and its Kerr effect. <i>Journal of the Society for Information Display</i> , 2012, 20, 326-332.	2.1	13
46	Electro-optical properties of polymer stabilized cholesteric liquid crystal film. <i>Chinese Physics B</i> , 2011, 20, 024212.	1.4	12
47	Brief review of recent research on blue phase liquid crystal materials and devices. <i>Chinese Optics Letters</i> , 2013, 11, 011601-11605.	2.9	12
48	Lasing of self-organized helical cholesteric liquid crystal micro-droplets based on emulsification. <i>Optical Materials Express</i> , 2016, 6, 1256.	3.0	10
49	Light-Driven Liquid Crystal Circular Dammann Grating Fabricated by a Micro-Patterned Liquid Crystal Polymer Phase Mask. <i>Polymers</i> , 2017, 9, 380.	4.5	10
50	Synthesis of POSS-functionalized liquid crystalline block copolymers <i>via</i> RAFT polymerization for stabilizing blue phase helical soft superstructures. <i>Polymer Chemistry</i> , 2018, 9, 2101-2108.	3.9	10
51	Molecular dynamics of the interfacial properties of partially fluorinated polymer dispersed liquid crystal gratings. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 235302.	2.8	9
52	Wide blue phase range induced by bent-shaped molecules with acrylate end groups. <i>Optical Materials Express</i> , 2016, 6, 436.	3.0	9
53	Enhanced Low-temperature Electro-optical Kerr Effect of Stable Cubic Soft Superstructure Enabled by Fluorinated Polymer Stabilization. <i>Scientific Reports</i> , 2017, 7, 10383.	3.3	9
54	Low threshold and high contrast polymer dispersed liquid crystal grating based on twisted nematic polarization modulator. <i>Applied Physics B: Lasers and Optics</i> , 2008, 91, 17-20.	2.2	8

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55	Micro-patterned liquid crystal Pancharatnamâ€Berry axilens. Chinese Optics Letters, 2018, 16, 062301.	2.9	7
56	A long-term stable low-viscous self-organized blue phase liquid crystal superstructure with wide operation temperature range. Liquid Crystals, 2022, 49, 192-200.	2.2	7
57	Thermo-stability of acrylate based holographic polymer dispersed liquid crystal gratings. Journal Physics D: Applied Physics, 2009, 42, 115504.	2.8	6
58	Investigation of alignment direction in wide view film and rubbing angle of twisted nematic liquid crystal display mode. Liquid Crystals, 2009, 36, 487-492.	2.2	6
59	Structural investigations of multiple gratings recorded in polymer-dispersed liquid crystals film by holography. Liquid Crystals, 2011, 38, 17-23.	2.2	6
60	Light-rewritable geometric phase and reflectance modulations enabled by pattern-aligned photoresponsive liquid crystal superstructures. Liquid Crystals, 2020, 47, 255-262.	2.2	6
61	Low-threshold organic lasing from a square optical microcavity fabricated by imaging holography. Optics Express, 2019, 27, 10022.	3.4	6
62	Bistable state in polymer stabilized blue phase liquid crystal. Optical Materials Express, 2012, 2, 1353.	3.0	5
63	The effects of asymmetric bent-shaped compounds on the temperature range and electro-optical performances of liquid crystalline blue phases. RSC Advances, 2016, 6, 110750-110757.	3.6	5
64	Polarity-dependent bistable optical grating in chiral bent-core nematic liquid crystals. Optical Materials Express, 2016, 6, 2584.	3.0	5
65	Stable soft cubic superstructure enabled by hydrogen-bond complex functionalized polymer/liquid crystal system. Journal of Materials Chemistry C, 2019, 7, 3952-3957.	5.5	5
66	Large-area, low-cost near-infrared meta-surface reflector based on a pixelated two-dimensional silicon disk array. Optics Express, 2020, 28, 38355.	3.4	5
67	Rational Co-Doping of SrZrO ₃ and BaTiO ₃ in Bi _{0.5} Na _{0.5} TiO ₃ for Extraordinary Energy Storage and Electrocaloric Performances. ACS Applied Energy Materials, 2022, 5, 3477-3488.	5.1	5
68	Liquid crystal Fresnel lens display. Chinese Physics B, 2016, 25, 094215.	1.4	4
69	Tailoring ultra-broadband vector beams via programming the electric field vector of light. Optics Express, 2022, 30, 28506.	3.4	4
70	Self-organized Chiral Liquid Crystalline Nanostructures for Energy-Saving Devices. Nanoscience and Technology, 2016, , 513-558.	1.5	3
71	Effect of fluorine groups and different terminal chains on the electro-isomerization of azobenzene liquid crystals. Chinese Physics B, 2016, 25, 096401.	1.4	2
72	Low-threshold triple-wavelength lasing from a subwavelength triangle microcavity polymer laser fabricated by imaging holography. Organic Electronics, 2019, 75, 105319.	2.6	2

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73	Cholesteric Soft Matter Molded Helical Photonic Architecture toward Volatility Monitoring of Organic Solvent. <i>Advanced Photonics Research</i> , 2021, 2, 2100018.	3.6	2
74	Influence of molecular mass on the liquid crystal alignment of photosensitive fluorinated polyester films. <i>Liquid Crystals</i> , 2007, 34, 101-106.	2.2	1
75	Design and fabrication of 2 kHz nematic liquid crystal variable retarder with reflection mode. <i>Liquid Crystals</i> , 2020, 47, 870-881.	2.2	1
76	Photoresponsive Materials: Photoprogrammable Mesogenic Soft Helical Architectures: A Promising Avenue toward Future Chiro-optics (<i>Adv. Mater.</i> 41/2020). <i>Advanced Materials</i> , 2020, 32, 2070305.	21.0	1
77	Electrically tunable helicity of cholesteric heliconical superstructure [Invited]. <i>Chinese Optics Letters</i> , 2020, 18, 080005.	2.9	1
78	Perfluoroalkyl acrylate functionalized soft cubic optical microstructure with enhanced electric-field responsiveness. <i>Optical Materials Express</i> , 2022, 12, 2117.	3.0	1
79	Synthesis and characterisation of photochromic dithienylcyclopentene liquid crystal with thermal irreversibility. <i>Liquid Crystals</i> , 2016, 43, 803-810.	2.2	0
80	Adaptive Materials: Light-Driven Reversible Transformation between Self-Organized Simple Cubic Lattice and Helical Superstructure Enabled by a Molecular Switch Functionalized Nanocage (<i>Adv. Mater.</i> 32/2020). <i>Advanced Materials</i> , 2020, 32, 2007100.	11.0	10
81	INFLUENCE OF CHEMICAL STRUCTURE OF MONOMERS ON THERMO-STABILITY OF HOLOGRAPHIC POLYMER DISPERSED LIQUID CRYSTAL GRATINGS. <i>Acta Polymerica Sinica</i> , 2010, 010, 408-415.	0.0	0
82	Localization of blue phase liquid crystal with ordered crystallographic direction and well-defined micro-patterning. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2018, 67, 066101.	0.5	0