

Tsung-Hsien Lin

List of Publications by Year in descending order

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135
papers

2,731
citations

172457

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docs citations

135
times ranked

1643
citing authors

#	ARTICLE	IF	CITATIONS
1	Multifunctional Liquid Crystal Smart Glass with Light Field Shaping, Dimming, and Scattering Control. <i>Advanced Photonics Research</i> , 2022, 3, .	3.6	4
2	Improving hysteresis of room-temperature air-quenching MAPbI ₃ -xCl _x solar cells by using mixed-lead halide precursor. <i>Materials Chemistry and Physics</i> , 2021, 259, 124032.	4.0	7
3	Electrotunable achromatic polarization rotator. <i>Optica</i> , 2021, 8, 364.	9.3	9
4	Mechanism of scattering bistable light valves based on salt-doped cholesteric liquid crystals. <i>Optics Express</i> , 2021, 29, 41213.	3.4	10
5	Polarization-controlled chirped guided-mode resonance filter incorporating a hybrid splay-twist liquid crystal. <i>Applied Optics</i> , 2021, 60, 10873.	1.8	0
6	Reconfiguration of three-dimensional liquid-crystalline photonic crystals by electrostriction. <i>Nature Materials</i> , 2020, 19, 94-101.	27.5	80
7	Smart Window with Active-Passive Hybrid Control. <i>Materials</i> , 2020, 13, 4137.	2.9	26
8	A Planar Fresnel Lens in Reflection Type Based on Azo-Dye-Doped Cholesteric Liquid Crystals Fabricated by Photo-Alignment. <i>Polymers</i> , 2020, 12, 2972.	4.5	3
9	Functional Superhydrophobic Surfaces with Spatially Programmable Adhesion. <i>Polymers</i> , 2020, 12, 2968.	4.5	2
10	Versatile Energy-Saving Smart Glass Based on Tristable Cholesteric Liquid Crystals. <i>ACS Applied Energy Materials</i> , 2020, 3, 7601-7609.	5.1	59
11	26.3: <i>Invited Paper:</i> Multifunctional liquid crystal smart window. <i>Digest of Technical Papers SID International Symposium</i> , 2019, 50, 266-266.	0.3	0
12	Electrically Tunable Fresnel Lens in Twisted-Nematic Liquid Crystals Fabricated by a Sagnac Interferometer. <i>Polymers</i> , 2019, 11, 1448.	4.5	9
13	Liquid-crystal random fiber laser for speckle-free imaging. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	20
14	Optically rewritable dynamic phase grating based on blue-phase-templated azobenzene liquid crystal. <i>Optics Express</i> , 2019, 27, 10580.	3.4	14
15	Optical control of the rotation of cholesteric liquid crystal gratings. <i>Optics Express</i> , 2019, 27, 10806.	3.4	6
16	Liquid crystal beyond displays: feature introduction. <i>Optics Express</i> , 2019, 27, 20785.	3.4	5
17	Bistable switching of polarization-grating diffractions enabled by a front bistable twisted nematic film. <i>Optics Letters</i> , 2019, 44, 187.	3.3	11
18	Dynamic control of 3D blue-phase photonic crystal lattices. , 2019, , .		0

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19	Electrically assisted bandedge mode selection of photonic crystal lasing in chiral nematic liquid crystals. Applied Physics Letters, 2018, 112, .	3.3	14
20	43â€¹: Triâ€¹stable Cholesteric Liquid Crystal Smart Window. Digest of Technical Papers SID International Symposium, 2018, 49, 543-545.	0.3	4
21	74â€¹4: Highâ€¹imageâ€¹quality Transparent Display based on AMOLED with Cholesteric Liquid Crystal Backâ€¹panel. Digest of Technical Papers SID International Symposium, 2018, 49, 993-995.	0.3	1
22	Reversible light-directed self-organized 3D liquid crystalline photonic nanostructures doped with azobenzene-functionalized bent-shaped molecules. Journal of Materials Chemistry C, 2018, 6, 7740-7744.	5.5	19
23	Selective variable optical attenuator for visible and mid-Infrared wavelengths. Optics Express, 2018, 26, 17009.	3.4	6
24	Multi-electrode tunable liquid crystal lenses with one lithography step. Optics Letters, 2018, 43, 271.	3.3	44
25	All-optical control of polarization splitting with a dielectric-clad azobenzene liquid crystal. Optics Express, 2018, 26, 781.	3.4	6
26	Ultrafast switching of optical singularity eigenstates with compact integrable liquid crystal structures. Optics Express, 2018, 26, 28818.	3.4	17
27	Arbitrary Beam Steering Enabled by Photomechanically Bendable Cholesteric Liquid Crystal Polymers. Advanced Optical Materials, 2017, 5, 1600824.	7.3	22
28	Polarization-asymmetric bidirectional random laser emission from a twisted nematic liquid crystal. Journal of Applied Physics, 2017, 121, 033102.	2.5	12
29	Femtoseconds-picoseconds nonlinear optics with nearly-mm thick cholesteric liquid crystals. , 2017, , .		1
30	Large three-dimensional photonic crystals based on monocrystalline liquid crystal blue phases. Nature Communications, 2017, 8, 727.	12.8	69
31	Tailoring the photon spin via lightâ€¹matter interaction in liquid-crystal-based twisting structures. Npj Quantum Materials, 2017, 2, .	5.2	7
32	Sub-Second Switching Speed Polarization-Independent 2 pi Terahertz Phase Shifter. IEEE Photonics Journal, 2017, 9, 1-7.	2.0	3
33	Broadband mid-infrared polarization rotator based on optically addressable LCs. Optics Express, 2017, 25, 16123.	3.4	5
34	Enhanced image quality of OLED transparent display by cholesteric liquid crystal back-panel. Optics Express, 2017, 25, 29199.	3.4	30
35	Slowing sub-picosecond laser pulses with 055 mm-thick cholesteric liquid crystal. Optical Materials Express, 2017, 7, 2005.	3.0	15
36	Full-color reflector using vertically stacked liquid crystal guided-mode resonators. Applied Optics, 2017, 56, 4219.	2.1	5

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37	Widely tunable guided-mode resonance filter using 90° twisted liquid crystal cladding. , 2017, , .		0
38	Full-color reflectance-tunable filter based on liquid crystal cladded guided-mode resonant grating. Optics Express, 2016, 24, 22892.	3.4	34
39	Polarization-independent 2 pi phase modulation for Terahertz using chiral nematic liquid crystals. Optical Materials Express, 2016, 6, 2283.	3.0	13
40	A 2D/3D Switchable Directional-Backlight Autostereoscopic Display Using Polymer Dispersed Liquid Crystal Films. Journal of Display Technology, 2016, 12, 1738-1744.	1.2	11
41	Ultrafast pulse compression, stretching-and-recompression using cholesteric liquid crystals. Optics Express, 2016, 24, 10458.	3.4	26
42	Meta-q-plate for complex beam shaping. Scientific Reports, 2016, 6, 25528.	3.3	86
43	All-optical transistor- and diode-action and logic gates based on anisotropic nonlinear responsive liquid crystal. Scientific Reports, 2016, 6, 30873.	3.3	18
44	Millimeter-Scaled Thick Cell Gap Measurement by Terahertz Spectroscopy Technology. IEEE Photonics Journal, 2016, 8, 1-8.	2.0	0
45	Highly sensitive optical temperature sensor based on a SiN micro-ring resonator with liquid crystal cladding. Optics Express, 2016, 24, 1002.	3.4	23
46	Optimization of Dynamic Drive Scheme for Cholesteric LCDs. Journal of Display Technology, 2016, 12, 35-39.	1.2	2
47	Comprehensive three-dimensional analysis of surface plasmon polariton modes at uniaxial liquid crystal-metal interface. Optics Express, 2015, 23, 32377.	3.4	5
48	Gratings: Light-Driven Wide-Range Nonmechanical Beam Steering and Spectrum Scanning Based on a Self-Organized Liquid Crystal Grating Enabled by a Chiral Molecular Switch (Advanced Optical) Tj ETQq0 0 0 rgBT / Overlock 10 Tf 50 297		
49	Light-Driven Wide-Range Nonmechanical Beam Steering and Spectrum Scanning Based on a Self-Organized Liquid Crystal Grating Enabled by a Chiral Molecular Switch. Advanced Optical Materials, 2015, 3, 166-170.	7.3	61
50	Self-Organized 3D Photonic Superstructure: Blue Phase Liquid Crystal. Nanoscience and Technology, 2015, , 337-378.	1.5	11
51	Analysis of surface anchored lattice plane orientation in blue phase liquid crystal and its in-plane electric field-dependent capacitance response. Liquid Crystals, 2015, 42, 1111-1119.	2.2	5
52	Electric Field-Driven Shifting and Expansion of Photonic Band Gaps in 3D Liquid Photonic Crystals. ACS Photonics, 2015, 2, 1524-1531.	6.6	60
53	Dynamical studies of the mechanisms for optical nonlinearities of methyl-red dye doped blue phase liquid crystals. Optics Express, 2015, 23, 21650.	3.4	10
54	Photo-Alignment Technology. Topics in Applied Physics, 2015, , 273-287.	0.8	0

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55	Bistable cholesteric liquid crystal light shutter with multielectrode driving. Applied Optics, 2014, 53, E33.	1.8	28
56	Optics and Photonics of Taiwan International Conference: Introduction by the feature editors. Applied Optics, 2014, 53, DT1.	1.8	0
57	Automatic elastic net clustering algorithm. , 2014, , .		1
58	Bistable light-driven π phase switching using a twisted nematic liquid crystal film. Optics Express, 2014, 22, 12133.	3.4	11
59	Electrically tunable high Q-factor micro-ring resonator based on blue phase liquid crystal cladding. Optics Express, 2014, 22, 17776.	3.4	15
60	Photo-controllable Multi-stable Liquid Crystal Optical Switch. Digest of Technical Papers SID International Symposium, 2014, 45, 1457-1459.	0.3	1
61	Nonlinear Optics of Nematic and Blue Phase Liquid Crystals. Molecular Crystals and Liquid Crystals, 2014, 594, 31-41.	0.9	18
62	Multi-stable variable optical attenuator based on a liquid crystal gel-filled photonic crystal fiber. Applied Optics, 2014, 53, E51.	1.8	3
63	Photo-controllable tristable optical switch based on dye-doped liquid crystal. Dyes and Pigments, 2014, 103, 21-24.	3.7	17
64	Photo-addressable multi-stable optical switch. , 2014, , .		0
65	Red, Green and Blue Reflections Enabled in an Optically Tunable Self-Organized 3D Cubic Nanostructured Thin Film. Advanced Materials, 2013, 25, 5050-5054.	21.0	158
66	Lasing effect in blue phase liquid crystal. Proceedings of SPIE, 2013, , .	0.8	2
67	Polarization-independent rapidly responding phase grating based on hybrid blue phase liquid crystal. Journal of Applied Physics, 2013, 113, .	2.5	26
68	Polarization-independent bistable light valve in blue phase liquid crystal filled photonic crystal fiber. Applied Optics, 2013, 52, 4849.	1.8	18
69	Optical bistability in a silicon nitride microring resonator with azo dye-doped liquid crystal as cladding material. Optics Express, 2013, 21, 10989.	3.4	7
70	Photo-switchable bistable twisted nematic liquid crystal optical switch. Optics Express, 2013, 21, 4361.	3.4	12
71	Temperature dependence of refractive index in blue phase liquid crystals. Optical Materials Express, 2013, 3, 527.	3.0	35
72	Study of electro-optical properties of templated blue phase liquid crystals. Optical Materials Express, 2013, 3, 1516.	3.0	14

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73	Blue-phase liquid crystal cored optical fiber array with photonic bandgaps and nonlinear transmission properties. Optics Express, 2013, 21, 4319.	3.4	42
74	Optically controllable bistable reflective liquid crystal display. Optics Letters, 2012, 37, 2370.	3.3	8
75	Wavelength tunable infrared light source based on semiconductor-integrated liquid crystal filter. Optics Express, 2012, 20, 22872.	3.4	5
76	Random lasing in blue phase liquid crystals. Optics Express, 2012, 20, 23978.	3.4	75
77	Electrical control of shape of laser beam using axially symmetric liquid crystal cells. Applied Optics, 2012, 51, 1540.	1.8	9
78	Improvement of electro-optical properties of PSBP LCD using a double-sided IPS electrode. Journal of the Society for Information Display, 2012, 20, 351-353.	2.1	8
79	Simulation of laser phenomenon of cholesteric liquid crystal using auxiliary differential equation finite-difference time-domain method. , 2012, , .		0
80	Electrical and optical switchings of the directions of cholesteric liquid crystals gratings. , 2012, , .		0
81	Vertically Integrated Transflective Liquid Crystal Display Using Multi-Stable Cholesteric Liquid Crystal Film. Journal of Display Technology, 2012, 8, 613-616.	1.2	11
82	Nonlinear optical grating diffraction in dye-doped blue-phase liquid crystals. Optics Letters, 2012, 37, 3225.	3.3	36
83	Direction switching and beam steering of cholesteric liquid crystal gratings. Applied Physics Letters, 2012, 100, .	3.3	37
84	P-84: Thermal Switchable Bistable Cholesteric-Blue Phase Liquid Crystal Display. Digest of Technical Papers SID International Symposium, 2012, 43, 1379-1381.	0.3	1
85	Photonic bandgaps controllable blue phase liquid crystal. Proceedings of SPIE, 2011, , .	0.8	0
86	Photo-rewritable flexible LCD using indium zinc oxide/polycarbonate substrates. Applied Optics, 2011, 50, 213.	2.1	9
87	Pinning effect on the photonic bandgaps of blue-phase liquid crystal. Applied Optics, 2011, 50, 1606.	2.1	27
88	Cholesteric Liquid Crystal Display With Wide Viewing Angle Based on Multi-Domain Phase-Separated Composite Films. Journal of Display Technology, 2011, 7, 373-376.	1.2	6
89	Influence of Polymerization Temperature on Hysteresis and Residual Birefringence of Polymer Stabilized Blue Phase LCs. Journal of Display Technology, 2011, 7, 615-618.	1.2	31
90	Polarization-independent liquid crystal lens based on axially symmetric photoalignment. Optics Express, 2011, 19, 2294.	3.4	25

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91	Polarization independent Fabry-Pérot filter based on polymer-stabilized blue phase liquid crystals with fast response time. Optics Express, 2011, 19, 25441.	3.4	32
92	Bistable reflective polarizer-free optical switch based on dye-doped cholesteric liquid crystal [Invited]. Optical Materials Express, 2011, 1, 1457.	3.0	55
93	17.3: Hysteresis and Residual Birefringence Free Polymer-stabilized Blue Phase Liquid Crystal. Digest of Technical Papers SID International Symposium, 2011, 42, 213-215.	0.3	9
94	P-132: Influence of Polymerization Conditions on Response Time of Encapsulated Cholesteric LCs. Digest of Technical Papers SID International Symposium, 2011, 42, 1606-1608.	0.3	0
95	Bistable cholesteric-blue phase liquid crystal using thermal hysteresis. Optical Materials, 2011, 34, 248-250.	3.6	16
96	A stable and switchable uniform lying helix structure in cholesteric liquid crystals. Applied Physics Letters, 2011, 99, .	3.3	64
97	Optically tuneable blue phase photonic band gaps. Applied Physics Letters, 2010, 96, .	3.3	66
98	Polarization-tunable chiral nematic liquid crystal lasing. Journal of Applied Physics, 2010, 107, .	2.5	9
99	Bistable effect in the liquid crystal blue phase. Applied Physics Letters, 2010, 96, .	3.3	24
100	Loss-reduced photonic liquid-crystal fiber by using photoalignment method. Applied Optics, 2010, 49, 4846.	2.1	14
101	Photo and electrical tunable effects in photonic liquid crystal fiber. Optics Express, 2010, 18, 2814.	3.4	29
102	Polarization converters based on axially symmetric twisted nematic liquid crystal. Optics Express, 2010, 18, 3601.	3.4	31
103	Optically-tunable beam steering grating based on azobenzene doped cholesteric liquid crystal. Optics Express, 2010, 18, 17498.	3.4	41
104	Photoalignment effect in a liquid-crystal film doped with nanoparticles and azo-dye. Applied Physics Letters, 2009, 94, .	3.3	25
105	Multi-wavelength cholesteric liquid crystal laser. Proceedings of SPIE, 2009, , .	0.8	0
106	Single-cell-gap transfective liquid-crystal display based on photo- and nanoparticle-induced alignment effects. Optics Letters, 2009, 34, 2545.	3.3	20
107	Measurement of helical twisting power based on axially symmetrical photo-aligned dye-doped liquid crystal film. Optics Express, 2009, 17, 15926.	3.4	25
108	Fabrications of liquid-crystal polarization converters and their applications. Proceedings of SPIE, 2009, , .	0.8	1

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109	P181: Axially Symmetric Liquid-Crystal Polarization Converter. Digest of Technical Papers SID International Symposium, 2008, 39, 1888-1890.	0.3	0
110	Tunable grating based on stressed liquid crystal. Optics Express, 2008, 16, 2062.	3.4	12
111	Axially symmetric polarization converters based on photo-aligned liquid crystal films. Optics Express, 2008, 16, 3768.	3.4	40
112	Multi-wavelength laser emission in dye-doped photonic liquid crystals. Optics Express, 2008, 16, 18334.	3.4	23
113	Axially symmetric liquid crystal devices based on double-side photo-alignment. Optics Express, 2008, 16, 19643.	3.4	21
114	Fresnel lenses based on dye-doped liquid crystals. , 2008, , .		11
115	A novel structure of directly patterned isolating layer for organic thin-film transistor-driven organic light emitting diodes. , 2007, , .		0
116	Spatial filter based on azo-dye-doped liquid crystal films. , 2007, , .		2
117	Spatial filters based on azo-dye-doped liquid crystal films. , 2007, , .		0
118	Highly efficient and polarization-independent Fresnel lens based on dye-doped liquid crystal. Optics Express, 2007, 15, 2900.	3.4	79
119	Electrically controllable laser based on cholesteric liquid crystal with negative dielectric anisotropy. Applied Physics Letters, 2006, 88, 061122.	3.3	80
120	Polarization controllable Fresnel lens using dye-doped liquid crystals. Optics Express, 2006, 14, 2359.	3.4	35
121	Photo-patterning micro-mirror devices using azo dye-doped cholesteric liquid crystals. Optics Express, 2006, 14, 4479.	3.4	30
122	Direction controllable linearly polarized laser from a dye-doped cholesteric liquid crystal. Optics Express, 2006, 14, 5571.	3.4	5
123	Optical simulation of cholesteric liquid crystal displays using the finite-difference time-domain method. Optics Express, 2006, 14, 5594.	3.4	13
124	Enhancing the laser power by stacking multiple dye-doped chiral polymer films. Optics Express, 2006, 14, 11299.	3.4	7
125	27.2: Optically Rewritable Reflective Liquid Crystal Display. Digest of Technical Papers SID International Symposium, 2006, 37, 1257.	0.3	5
126	P-128: Multi-dimensional Cholesteric Liquid Crystal Displays for Broadband Reflection and Wide Viewing Angle. Digest of Technical Papers SID International Symposium, 2006, 37, 681.	0.3	0

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127	Rollable multicolor display using electrically induced blueshift of a cholesteric reactive mesogen mixture. Applied Physics Letters, 2006, 89, 091124.	3.3	56
128	Photoaddressable bistable reflective liquid crystal display. Applied Physics Letters, 2006, 89, 021116.	3.3	21
129	Electrically switchable spatial filter based on polymer-dispersed liquid crystal film. , 2005, 5936, 12.		0
130	Lasing in photonic crystals based on dye-doped liquid crystal films (Invited Paper). , 2005, 5741, 128.		0
131	Transflective spatial filter based on azo-dye-doped cholesteric liquid crystal films. Applied Physics Letters, 2005, 87, 011106.	3.3	9
132	Cholesteric liquid crystal laser with wide tuning capability. Applied Physics Letters, 2005, 86, 161120.	3.3	119
133	Polarization controllable spatial filter based on azo-dye-doped liquid-crystal film. Optics Letters, 2005, 30, 1390.	3.3	8
134	Electrically switchable spatial filter based on polymer-dispersed liquid crystal film. Journal of Applied Physics, 2004, 96, 5402-5404.	2.5	26
135	Lasing in chiral photonic liquid crystals and associated frequency tuning. Optics Express, 2004, 12, 1857.	3.4	62