Tae-Hoon Yoon

List of Publications by Year
in descending order

114 papers	1,989 citations	236925 25 h-index	302126 39 g-index
114 all docs	114 docs citations	114 times ranked	836 citing authors

#	Article	IF	Citations
1	Dye-doped cholesteric liquid crystal light shutter with a polymer-dispersed liquid crystal film. Dyes and Pigments, 2016, 134, 36-40.	3.7	92
2	Nontwist quarter-wave liquid-crystal cell for a high-contrast reflective display. Optics Letters, 2000, 25, 1547.	3.3	88
3	Light shutter using dichroic-dye-doped long-pitch cholesteric liquid crystals. Optics Express, 2013, 21, 29332.	3.4	83
4	Fast-switching initially-transparent liquid crystal light shutter with crossed patterned electrodes. AIP Advances, 2015, 5, .	1.3	68
5	Long-pitch cholesteric liquid crystal cell for switchable achromatic reflection. Optics Express, 2010, 18, 16745.	3.4	65
6	Optical and electrical switching of cholesteric liquid crystals containing azo dye. RSC Advances, 2017, 7, 19497-19501.	3.6	58
7	Bistable chiral-splay nematic liquid crystal device using horizontal switching. Applied Physics Letters, 2003, 82, 4215-4217.	3.3	57
8	A Low Voltage Liquid Crystal Phase Grating with Switchable Diffraction Angles. Scientific Reports, 2017, 7, 39923.	3.3	51
9	Fast In-Plane Switching of a Liquid Crystal Cell Triggered by a Vertical Electric Field. Japanese Journal of Applied Physics, 2009, 48, 104505.	1.5	48
10	Simultaneous control of haze and transmittance using a dye-doped cholesteric liquid crystal cell. Liquid Crystals, 2015, 42, 1460-1464.	2.2	48
11	Fast switching of long-pitch cholesteric liquid crystal device. Optics Express, 2011, 19, 10174.	3.4	45
12	Optical compensation methods for the elimination of off-axis light leakage in an in-plane-switching liquid crystal display. Journal of Information Display, 2015, 16, 1-10.	4.0	39
13	Fast fringe-field switching of a liquid crystal cell by two-dimensional confinement with virtual walls. Scientific Reports, 2016, 6, 27936.	3.3	39
14	Double-layered light shutter using long-pitch cholesteric liquid crystal cells. Applied Optics, 2015, 54, 3792.	2.1	36
15	Self-Regulation of Infrared Using a Liquid Crystal Mixture Doped with Pushâ€“Pull Azobenzene for Energy-Saving Smart Windows. ACS Applied Materials & Interfaces, 2021, 13, 5028-5033.	8.0	36
16	Optical and Thermal Switching of Liquid Crystals for Selfâ€Shading Windows. Advanced Sustainable Systems, 2018, 2, 1700164.	5.3	35
17	Ion-doped liquid-crystal cell with low opaque-state specular transmittance based on electro-hydrodynamic effect. Dyes and Pigments, 2018, 150, 16-20.	3.7	34
18	Switching between transparent and translucent states of a two-dimensional liquid crystal phase grating device with crossed interdigitated electrodes. Optics Express, 2017, 25, 11275.	3.4	32

#	Article	IF	Citations
19	Fast Switching of Vertical Alignment Liquid Crystal Cells with Liquid Crystalline Polymer Networks. Japanese Journal of Applied Physics, 2009, 48, 056507.	1.5	31
20	Thermal control of transmission property by phase transition in cholesteric liquid crystals. Journal of Materials Chemistry C, 2018, 6, 6520-6525.	5.5	31
21	A cholesteric liquid crystal smart window with a low operating voltage. Dyes and Pigments, 2022, 197, 109843.	3.7	31
22	Polymer grating imbedded organic light emitting diodes with improved out-coupling efficiency. Applied Physics Letters, 2010, 97, 123302.	3.3	29
23	Bistable Light Shutter Using Dye-doped Cholesteric Liquid Crystals Driven with Crossed Patterned Electrodes. Journal of Display Technology, 2016, 12, 779-783.	1.2	28
24	Interdigitated pixel electrodes with alternating tilts for fast fringe-field switching of liquid crystals. Optics Express, 2016, 24, 27569.	3.4	26
25	Technologies for display application of liquid crystal light shutters. Molecular Crystals and Liquid Crystals, 2017, 644, 120-129.	0.9	26
26	Bistable switching between homeotropic and focal-conic states in an ion-doped chiral nematic liquid crystal cell. Optics Express, 2017, 25, 29180.	3.4	26
27	Thermal and electrical wavelength tuning of Bragg reflection with ultraviolet light absorbers in polymer-stabilized cholesteric liquid crystals. Journal of Materials Chemistry C, 2018, 6, 12377-12385.	5.5	26
28	Self-shading by optical or thermal control of transmittance with liquid crystals doped with push-pull azobenzene. Solar Energy Materials and Solar Cells, 2018, 183, 146-150.	6.2	26
29	Fabrication of a Single-Substrate Flexible Thermoresponsive Cholesteric Liquid-Crystal Film with Wavelength Tunability. ACS Applied Materials & Interfaces, 2019, 11, 26314-26322.	8.0	26
30	Tristate switching of a liquid-crystal cell among initial transparent, haze-free dark, and high-haze dark states. Journal of Molecular Liquids, 2019, 281, 81-85.	4.9	26
31	A Viewing Angle Switching Panel Using Guestâ€“Host Liquid Crystal. Japanese Journal of Applied Physics, 2009, 48, 062401.	1.5	24
32	Direct confirmation of biaxiality in a bent-core mesogen through the measurement of electro-optic characteristics. Journal of Applied Physics, 2009, 105, .	2.5	24
33	Fast grey-to-grey switching of a homogeneously aligned liquid crystal device. Liquid Crystals, 2015, 42, 492-496.	2.2	24
34	Switching of liquid-crystal devices between reflective and transmissive modes using long-pitch cholesteric liquid crystals. Optics Letters, 2010, 35, 3504.	3.3	23
35	Flexoelectric effect of a rod-like nematic liquid crystal doped with highly-kinked bent-core molecules for energy converting components. Soft Matter, 2012, 8, 2370.	2.7	23
36	Pixel-isolation walls of liquid crystal display formed by fluorinated UV-curable polymers. Applied Physics Letters, 2006, 88, 161104.	3.3	22

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37	Electro-optical characteristics of an in-plane-switching liquid crystal cell with zero rubbing angle: dependence on the electrode structure. Optics Express, 2016, 24, 15987.	3.4	22
38	Effect of two-dimensional confinement on switching of vertically aligned liquid crystals by an in-plane electric field. Optics Express, 2016, 24, 20993.	3.4	21
39	Fast Control of Haze Value Using Electrically Switchable Diffraction in a Fringe-Field Switching Liquid Crystal Device. IEEE Transactions on Electron Devices, 2017, 64, 3213-3218.	3.0	21
40	Ohmic contact probed by dark injection space-charge-limited current measurements. Journal of Applied Physics, 2008, 104, .	2.5	20
41	Formation of liquid crystal multi-domains with different threshold voltages by varying the surface anchoring energy. Journal of Applied Physics, 2012, 112, 054107.	2.5	20
42	Light shutter using dye-doped cholesteric liquid crystals with polymer network structure. Journal of Information Display, 2017, 18, 13-17.	4.0	20
43	Dye-doped liquid crystal device switchable between reflective and transmissive modes. Journal of Information Display, 2011, 12, 17-21.	4.0	19
44	Fabrication of an initially-focal-conic cholesteric liquid crystal cell without polymer stabilization. Displays, 2018, 52, 55-58.	3.7	19
45	Control of Transmittance by Thermally Induced Phase Transition in Guestâ€“Host Liquid Crystals. Advanced Sustainable Systems, 2018, 2, 1800066.	5.3	19
46	Initially Ï€-twisted nematic liquid crystal cell stabilized by a fluorinated polymer wall. Applied Physics Letters, 2007, 90, 163513.	3.3	18
47	Fast switching of nematic liquid crystals over a wide temperature range using a vertical bias electric field. Applied Optics, 2014, 53, 5856.	1.8	17
48	Fast fringe-field switching of vertically aligned liquid crystals between high-haze translucent and haze-free transparent states. Liquid Crystals, 2018, 45, 1419-1427.	2.2	16
49	Superfast Low-Temperature Switching of Nematic Liquid Crystals Using Quasi-Impulsive Driving and Overdrive. Journal of Display Technology, 2016, 12, 17-21.	1.2	15
50	Bistable switching of twist direction in a twisted-nematic liquid crystal cell. Applied Physics Letters, 2010, 97, 063501.	3.3	14
51	Enhancement of absorption and haze with hybrid anchoring of dye-doped cholesteric liquid crystals. Optics Express, 2018, 26, 14259.	3.4	14
52	Pretilt angle control and multidomain alignment of liquid crystals by using polyimide mixed with liquid crystalline prepolymer. Applied Physics Letters, 2010, 96, 213507.	3.3	13
53	Sunlight-switchable light shutter fabricated using liquid crystals doped with push-pull azobenzene. Optics Express, 2016, 24, 26575.	3.4	13
54	Bistable Switching of Diffractive Smectic-A Liquid Crystal Device between Haze-Free Transparent and High-Haze Translucent States. ACS Photonics, 2018, 5, 3152-3158.	6.6	13

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55	Effects of Curing Temperature on Switching Between Transparent and Translucent States in a Polymer-Stabilized Liquid-Crystal Cell. IEEE Transactions on Electron Devices, 2018, 65, 4387-4393.	3.0	12
56	Analysis of Optical Performance Degradation in an Ion-Doped Liquid-Crystal Cell with Electrical Circuit Modeling. Crystals, 2020, 10, 55.	2.2	12
57	Flexible, broadband, super-reflective infrared reflector based on cholesteric liquid crystal polymer. Solar Energy Materials and Solar Cells, 2021, 230, 111137.	6.2	12
58	Cell Gap Effects on Electro-Optic Performance of a Polymer-Stabilized Liquid Crystal Cell. IEEE Photonics Technology Letters, 2016, 28, 1138-1141.	2.5	11
59	Formation of polymer structure by thermally-induced phase separation for a dye-doped liquid crystal light shutter. Dyes and Pigments, 2019, 163, 749-753.	3.7	11
60	Fast switching of vertically aligned negative liquid crystals by optically hidden relaxation. Liquid Crystals, 2014, 41, 1212-1217.	2.2	10
61	Fast Turn-Off Switching of Vertically-Aligned Negative Liquid Crystals by Fine Patterning of Pixel Electrodes. Crystals, 2017, 7, 201.	2.2	10
62	Smart Window Based on Angular-Selective Absorption of Solar Radiation with Guestâ€“Host Liquid Crystals. Crystals, 2021, 11, 131.	2.2	10
63	Parameter Space Design of a Guest-Host Liquid Crystal Device for Transmittance Control. Crystals, 2019, 9, 63.	2.2	9
64	Design of an achromatic wide-view circular polarizer using normal dispersion films. Journal of Information Display, 2019, 20, 25-30.	4.0	9
65	Ion Beam Alignment of Liquid Crystal on Amorphous SiO_x Film. Molecular Crystals and Liquid Crystals, 2007, 475, 65-72.	0.9	8
66	Vertical alignment nematic liquid crystal cell controlled by double-side in-plane switching with positive dielectric anisotropy liquid crystal. Journal of Applied Physics, 2008, 104, 084515.	2.5	8
67	Pâ€173: Fast Turnâ€Off Switching of a Liquid Crystal Cell by Optically Hidden Relaxation. Digest of Technical Papers SID International Symposium, 2008, 39, 1846-1849.	0.3	8
68	Dual mode operation of bistable chiral splay nematic liquid crystal cell using horizontal switching for dynamic operation. Journal of Applied Physics, 2009, 105, 074508.	2.5	8
69	Independent control of haze and total transmittance with a dye-doped liquid crystal phase-grating device. Applied Optics, 2019, 58, 4315.	1.8	8
70	Viewing Angle Control of a Hybrid-Aligned Liquid Crystal Display. Molecular Crystals and Liquid Crystals, 2009, 498, 103-109.	0.9	7
71	Effects of Curing Temperature on Electro-Optical Characteristics of a Polymer-Stabilized In-Plane-Switching Liquid Crystal Cell. Crystals, 2017, 7, 260.	2.2	7
72	Ultrathin, transparent, thermally-insulated, and energy-efficient flexible window using coatable chiral-nematic liquid crystal polymer. Journal of Molecular Liquids, 2021, 339, 116804.	4.9	7

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73	Liquid crystal cell asymmetrically anchored for high transmittance and triggered with a vertical field for fast switching. Optics Express, 2020, 28, 20553.	3.4	7
74	Dual-mode operation of dual-frequency liquid crystal cell by horizontal switching. Applied Physics Letters, 2008, 92, 123505.	3.3	6
75	Electro-optical properties of the nematic phase in V-shaped molecules with a 2,3-naphthalene central unit. Journal of Materials Chemistry C, 2013, 1, 451-455.	5.5	6
76	New linear solvation energy relationships for empirical solvent scales using the Kamletâ€“Abboudâ€“Taft parameter sets in nematic liquid crystals. RSC Advances, 2018, 8, 22835-22845.	3.6	6
77	Chiral domain formation from the mixture of achiral rod-like liquid crystal and tri boomerang-shaped molecule. Journal of Applied Physics, 2013, 114, .	2.5	5
78	Optical Compensation for Elimination of Off-Axis Light Leakage in a Homogeneously-Aligned Liquid Crystal Cell. Molecular Crystals and Liquid Crystals, 2015, 613, 181-189.	0.9	5
79	Control of haze value by dynamic scattering in a liquid crystal mixture without ion dopants. AIP Advances, 2018, 8, 085004.	1.3	5
80	Formation of Polymer Walls through the Phase Separation of a Liquid Crystal Mixture Induced by a Spatial Elastic Energy Difference. Scientific Reports, 2019, 9, 10288.	3.3	5
81	Low-power control of haze using a liquid-crystal phase-grating device with two-dimensional polymer walls. Optics Express, 2019, 27, 3014.	3.4	5
82	Reflective dual-mode liquid crystal display switchable between dynamic and memory modes. Applied Physics Letters, 2010, 97, 133510.	3.3	4
83	Optimization of dye mixing for achromatic transmittance control with a dye-doped cholesteric liquid crystal cell. Dyes and Pigments, 2019, 160, 172-176.	3.7	4
84	Bistability of left- and right-handed Ï€-twist states in a pixel-isolated dual-frequency nematic liquid crystal cell. Applied Physics Letters, 2008, 92, 173503.	3.3	3
85	Characterization of short-range molecular interaction by empirical solvent polarity scale to analyze the Kerr effect of nematic liquid crystals in the isotropic phase. Journal of Molecular Liquids, 2019, 295, 111653.	4.9	3
86	A Switchable Cholesteric Phase Grating with a Low Operating Voltage. Crystals, 2021, 11, 100.	2.2	3
87	Broadband tunable polarization rotator based on the waveguiding effect of liquid crystals. Journal Physics D: Applied Physics, 2021, 54, 355108.	2.8	3
88	45.3: Quasiâ€Impulsive Driving for Highâ€Speed Operation of a Homogeneous Aligned LC Cell with 3â€Electrode Structure. Digest of Technical Papers SID International Symposium, 2009, 40, 673-676.	0.3	2
89	43â€4: Selfâ€Shading with Opticallyâ€and Thermallyâ€Switchable Liquid Crystals. Digest of Technical Papers SID International Symposium, 2018, 49, 554-556.	0.3	2
90	28.1: Wide Pretilt Angle Control of Liquid Crystal Display Device by Ion Beam Exposure. Digest of Technical Papers SID International Symposium, 2008, 39, 389-392.	0.3	1

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91	Transflective Configuration of Dual Mode Liquid Crystal Display for High Contrast Ratio. Molecular Crystals and Liquid Crystals, 2009, 507, 264-272.	0.9	1
92	P-77: Image Sticking in a Flexible Liquid Crystal Display Stabilized with Polymers: Surface Gliding Effect. Digest of Technical Papers SID International Symposium, 2012, 43, 1343-1345.	0.3	1
93	Alignment and Deformation Properties of the Third Type of Hockey Stickâ€Shaped Molecules in Vertical Alignment and Fringeâ€Field Switching Modes. Bulletin of the Korean Chemical Society, 2018, 39, 401-404.	1.9	1
94	Formation of a fine polymer structure on a plastic substrate through phase separation of a liquid crystal mixture. Journal of Information Display, 2021, 22, 31-38.	4.0	1
95	16.1: Invited Paper: Selfâ€Regulating Liquid Crystal Windows for Energy Saving. Digest of Technical Papers SID International Symposium, 2021, 52, 211-214.	0.3	1
96	Control of haze value using electrically-switchable liquid crystal phase grating devices. , 2018, , .		1
97	Control of the haze value by the electro-hydrodynamic effect in a liquid crystal cell. , 2018, , .		1
98	Optical Configuration of a HAN Cell for Reflective Displays. Journal of Information Display, 2003, 4, 25-28.	4.0	0
99	Patterned Vertical Alignment Liquid Crystal Cell with Crossed Stripe-Electrode Patterns. Molecular Crystals and Liquid Crystals, 2007, 476, 181/[427]-186/[432].	0.9	0
100	Pretilt angle controllability on the ion beam treated surface by using vertical aligning functional layer and its application. , 2007, , .		0
101	Ion Beam Alignment of Liquid Crystal on SiOC Films. , 2007, , .		0
102	Analysis of light propagation in biaxial medium on the Poincare sphere. , 2007, , .		0
103	Vertically-Aligned Transflective Liquid Crystal Cell Driven by a Lateral Electric Field. Molecular Crystals and Liquid Crystals, 2008, 480, 72-80.	0.9	0
104	P-196: Vertically Aligned Nematic Liquid-Crystal Display with Double-Sided In-Plane Switching Using Positive Liquid-Crystal Materials. Digest of Technical Papers SID International Symposium, 2008, 39, 1944.	0.3	0
105	P-161: Multi-domain Vertical Alignment of Liquid Crystal by the Ion Beam Exposure on Inorganic Film Surfaces. Digest of Technical Papers SID International Symposium, 2008, 39, 1804.	0.3	0
106	Vertical Alignment of Liquid Crystal on a-SiON Thin Film Exposed by Ion Beam. Molecular Crystals and Liquid Crystals, 2009, 507, 307-315.	0.9	0
107	Optical Design of a Normally-Black Twisted-Nematic Liquid Crystal Mode with Achromatic Dark State. Molecular Crystals and Liquid Crystals, 2009, 508, 24/[386]-34/[396].	0.9	0
108	Pâ€122: Enhanced Dynamic Response Time of Alq₃â€Doped Vertical Alignment Liquid Crystal Cell. Digest of Technical Papers SID International Symposium, 2009, 40, 1581-1583.	0.3	0

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109	P-157: Twisted-nematic LCD Switchable between Dynamic and Memory Modes. Digest of Technical Papers SID International Symposium, 2011, 42, 1694-1696.	0.3	0
110	Pâ€163: Threeâ€terminal Dyeâ€doped LC Device Switchable between Reflective and Transmissive Modes. Digest of Technical Papers SID International Symposium, 2011, 42, 1714-1716.	0.3	0
111	Spontaneous chiral transition of a polymer-stabilised achiral nematic liquid crystal with cylindrical geometry. Liquid Crystals, 2011, 38, 1111-1116.	2.2	0
112	Pâ€166: Bistable Operation of a Smecticâ€A Liquid Crystal Grating for Lowâ€power Window Display Application. Digest of Technical Papers SID International Symposium, 2019, 50, 1858-1861.	0.3	0
113	Smart window using a thermally and optically switchable liquid crystal cell. , 2018, , .		0
114	Transmittance control of a liquid crystal device using a dye mixture. , 2018, , .		0