Daping Chu

List of Publications by Year
in descending order

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125 papers	3,114 citations	172457 29 h-index	189892 50 g-index
127 all docs	127 docs citations	127 times ranked	3500 citing authors

#	Article	IF	Citations
1	Kinetic Study and Thermal Decomposition Mechanisms of Superthermiteâ€“Based Nitrocellulose Nanocomposite. Combustion Science and Technology, 2024, 196, 391-405.	2.3	0
2	Effects of phase flicker in digitally driven phase-only LCOS devices on holographic reconstructed images. Applied Optics, 2022, 61, B25.	1.8	4
3	Efficient dynamic control method of light polarization using single phase-only liquid crystal on silicon spatial light modulators for optical data storage. Applied Optics, 2022, 61, B34.	1.8	4
4	Holobricks: modular coarse integral holographic displays. Light: Science and Applications, 2022, 11, 57.	16.6	21
5	24 [1Ã—12] Wavelength Selective Switches Integrated on a Single 4k LCoS Device. Journal of Lightwave Technology, 2021, 39, 1033-1039.	4.6	14
6	Colloid Thermite Nanostructure: A Novel High Energy Density Material for Enhanced Explosive Performance. Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 559-565.	3.7	5
7	Prospective Immersive Human-Machine Interface for Future Vehicles: Multiple Zones Turn the Full Windscreen Into a Head-Up Display. IEEE Vehicular Technology Magazine, 2021, 16, 83-92.	3.4	15
8	Ferric oxide colloid: novel nanocatalyst for heterocyclic nitramines. Journal of Materials Science: Materials in Electronics, 2021, 32, 4185-4195.	2.2	9
9	Band-limited double-phase method for enhancing image sharpness in complex modulated computer-generated holograms. Optics Express, 2021, 29, 2597.	3.4	45
10	LCOS SLM based compact system of polarization modulation for data storage in glass. , 2021, , .		2
11	Variety of Ordered Patterns in Donorâ€“Acceptor Polymer Semiconductor Films Crystallized from Solution. ACS Applied Materials & Interfaces, 2021, 13, 19055-19063.	8.0	3
12	Sub-millisecond switching of multi-level liquid crystal on silicon spatial light modulators for increased information bandwidth. Optics Express, 2021, 29, 24614.	3.4	8
13	Deep learning for hologram generation. Optics Express, 2021, 29, 27373.	3.4	20
14	33.1: Invited Paper: Fast switching liquid crystal on silicon spatial light modulator for increased bandwidth. Digest of Technical Papers SID International Symposium, 2021, 52, 439-439.	0.3	0
15	Perception of perspective in augmented reality head-up displays. International Journal of Human Computer Studies, 2021, 155, 102693.	5.6	12
16	Optimal quantization for amplitude and phase in computer-generated holography. Optics Express, 2021, 29, 119.	3.4	34
17	Flexible memory device based on polymer ferroelectric with zinc oxide single-nanowire transistors for robust multilevel operation. Applied Physics Letters, 2021, 119, 203102.	3.3	2
18	Impact of Phase Flicker on the Performance of Multilevel Phase Holograms with Phase-Only LCOS Devices. , 2021, , .		0

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19	Green Synthesis of Hydroxyapatite Nanoparticles with Controlled Morphologies and Surface Properties Toward Biomedical Applications. Journal of Inorganic and Organometallic Polymers and Materials, 2020, 30, 899-906.	3.7	23
20	Ferric Oxide Colloid: A Novel Nano-catalyst for Solid Propellants. Journal of Inorganic and Organometallic Polymers and Materials, 2020, 30, 706-713.	3.7	22
21	Surface modified colloidal silica nanoparticles: Novel aspect for complete identification of explosive materials. Talanta, 2020, 211, 120695.	5.5	10
22	Head-up display with dynamic depth-variable viewing effect. Optik, 2020, 221, 165319.	2.9	8
23	High-Resolution Electrochemical Transistors Defined by Mold-Guided Drying of PEDOT:PSS Liquid Suspension. ACS Applied Electronic Materials, 2020, 2, 2611-2618.	4.3	4
24	The potentials of TiO2 nanocatalyst on HMX thermolysis. Journal of Materials Science: Materials in Electronics, 2020, 31, 14930-14940.	2.2	11
25	Bend- and Twist-Insensitive Flexible Multimode Polymer Optical Interconnects. Journal of Lightwave Technology, 2020, 38, 6561-6568.	4.6	3
26	38â€2: Magnifying Viewer using Polyâ€Si Thinâ€Film Phototransistor and Liquidâ€Crystal Microâ€Lens Array. Digest of Technical Papers SID International Symposium, 2020, 51, 540-543.	0.3	0
27	Novel High Energy Density Material Based on Metastable Intermolecular Nanocomposite. Journal of Inorganic and Organometallic Polymers and Materials, 2020, 30, 3980-3988.	3.7	19
28	Effect of Uniaxial Tensile Strains at Different Orientations on the Characteristics of AlGaN/GaN High-Electron-Mobility Transistors. IEEE Transactions on Electron Devices, 2020, 67, 449-454.	3.0	12
29	Transient Crosstalk in Holographic Optical Switching Based on Wavefront Encoding. Journal of Lightwave Technology, 2020, 38, 1618-1624.	4.6	7
30	Sensing of Oxygen Partial Pressure in Air with ZnO Nanoparticles. Sensors, 2020, 20, 562.	3.8	3
31	Scalable coarse integral holographic video display with integrated spatial image tiling. Optics Express, 2020, 28, 9899.	3.4	14
32	Large-size updatable optically addressed spatial light modulator (OASLM) based on ZnO nanoparticles for large-area holographic 3D displays. OSA Continuum, 2020, 3, 1703.	1.8	2
33	Implementation of 10-Bit Phase Modulation for Phase-Only LCOS Devices Using Deep Learning. Advanced Devices & Instrumentation, 2020, 2020, .	6.5	7
34	Spatiotemporal double-phase hologram for complex-amplitude holographic displays. Chinese Optics Letters, 2020, 18, 100901.	2.9	15
35	24 1Ã—12 Wavelength-Selective Switches Using a 312-port 3D Waveguide and a Single 4k LCoS. , 2020, , .		3
36	Full bandwidth coarse integral holographic video displays with spatial tiling for scalability. , 2020, , .		1

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37	Reduction of switching time in ZnO nanoparticle-based reflective OASLM for holographic displays. , 2020, , .		1
38	Reduction of response time in transmissive optically addressed spatial light modulator using solution-based ZnO NP/PEDOT:PSS heterojunction. Journal of Optics (United Kingdom), 2020, 22, 115604.	2.2	1
39	The significant role of stabilized colloidal ZrO2 nanoparticles for corrosion protection of AA2024. Environmental Nanotechnology, Monitoring and Management, 2019, 12, 100242.	2.9	13
40	Density Modulation of Embedded Nanoparticles via Spatial, Temporal, and Chemical Control Elements. Advanced Materials, 2019, 31, e1901802.	21.0	18
41	Highly anisotropic LC material with low dielectric loss for the application of tunable notch filters. Journal of Electromagnetic Waves and Applications, 2019, 33, 1070-1081.	1.6	4
42	Computational load reduction by avoiding the recalculation of angular redundancy in computerâ€generated holograms. ETRI Journal, 2019, 41, 52-60.	2.0	1
43	Thermal decomposition of ammonium perchlorate catalyzed with CuO nanoparticles. Defence Technology, 2019, 15, 868-874.	4.2	44
44	Ammonium Perchlorate Encapsulated with TiO2 Nanocomposite for Catalyzed Combustion Reactions. Journal of Inorganic and Organometallic Polymers and Materials, 2019, 29, 1349-1357.	3.7	27
45	Two-dimensional arrays self-assembled via interference of concentration modulation waves in drying solutions. Materials Horizons, 2019, 6, 507-514.	12.2	2
46	Liquid Crystal-Based Enclosed Coplanar Waveguide Phase Shifter for 54â€“66 GHz Applications. Crystals, 2019, 9, 650.	2.2	52
47	Ferrite Nanoparticles: Synthesis, Characterization, and Catalytic Activity Evaluation for Solid Rocket Propulsion Systems. Journal of Inorganic and Organometallic Polymers and Materials, 2019, 29, 721-729.	3.7	17
48	Improvements of phase linearity and phase flicker of phase-only LCoS devices for holographic applications. Applied Optics, 2019, 58, G248.	1.8	16
49	Reciprocal 360-deg 3D light-field image acquisition and display system [Invited]. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, A77.	1.5	9
50	Phase flicker optimisation in digital liquid crystal on silicon devices. Optics Express, 2019, 27, 24556.	3.4	18
51	Digital phase-only liquid crystal on silicon device with enhanced optical efficiency. OSA Continuum, 2019, 2, 2445.	1.8	11
52	Iterative Phase-Only Hologram Generation Based on the Perceived Image Quality. Applied Sciences (Switzerland), 2019, 9, 4457.	2.5	4
53	Mode-mixing in multimode polymer waveguides for on-board optical interconnects. , 2019, , .		0
54	Video-rate holograms power up. Nature Electronics, 2018, 1, 214-215.	26.0	2

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55	High-resolution patterning of solution-processable materials via externally engineered pinning of capillary bridges. Nature Communications, 2018, 9, 393.	12.8	19
56	Broadband MoS₂ Fieldâ€Effect Phototransistors: Ultrasensitive Visibleâ€Light Photoresponse and Negative Infrared Photoresponse. Advanced Materials, 2018, 30, 1705880.	21.0	186
57	Flexible Multimode Polymer Waveguide Arrays for Versatile High-Speed Short-Reach Communication Links. Journal of Lightwave Technology, 2018, 36, 2685-2693.	4.6	25
58	Novel colloidal molybdenum hydrogen bronze (MHB) for instant detection and neutralization of hazardous peroxides. TrAC - Trends in Analytical Chemistry, 2018, 102, 272-279.	11.4	16
59	Flexible Polymer Waveguide Technology for Low-Cost In-Car and In-Plane Optical Interconnects. , 2018, , .		0
60	Triple-Indicator-Based Multidimensional Colorimetric Sensing Platform for Heavy Metal Ion Detections. ACS Sensors, 2018, 3, 1756-1764.	7.8	65
61	Transparent conductors for Mid-infrared liquid crystal spatial light modulators. Thin Solid Films, 2018, 660, 411-420.	1.8	13
62	High-Speed Data Transmission Over Flexible Multimode Polymer Waveguides Under Flexure. IEEE Photonics Technology Letters, 2018, 30, 1329-1332.	2.5	16
63	Fast two-step layer-based method for computer generated hologram using sub-sparse 2D fast Fourier transform. Optics Express, 2018, 26, 17487.	3.4	24
64	Full bandwidth dynamic coarse integral holographic displays with large field of view using a large resonant scanner and a galvanometer scanner. Optics Express, 2018, 26, 17459.	3.4	27
65	Digital Holographic Display. , 2018, , 113-129.		1
66	Electrical Rectifying and Photosensing Property of Schottky Diode Based on MoS₂. ACS Applied Materials & Interfaces, 2018, 10, 24613-24619.	8.0	40
67	Compact liquid crystal based phase shifter with integrated bias tees. , 2018, , .		1
68	Crosstalk Spectrum Optimisation for Stacked Wavelength Selective Switches Based on 2D Beam Steering. , 2018, , .		5
69	Design for 360-degree 3D Light-field Camera and Display. , 2018, , .		1
70	Using Transmissive Photonic Band Edge Shift to Detect Explosives: A Study with 2,4,6-Trinitrotoluene (TNT). ACS Photonics, 2017, 4, 384-395.	6.6	8
71	High figure-of-merit compact phase shifters based on liquid crystal material for 1â€“10 GHz applications. Japanese Journal of Applied Physics, 2017, 56, 011701.	1.5	36
72	Stabilized super-thermite colloids: A new generation of advanced highly energetic materials. Applied Surface Science, 2017, 419, 328-336.	6.1	45

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73	Instant synthesis of bespoke nanoscopic photocatalysts with enhanced surface area and photocatalytic activity for wastewater treatment. Journal of Photochemistry and Photobiology A: Chemistry, 2017, 344, 121-133.	3.9	27
74	Low-Cost CDC ROADM Architecture Based on Stacked Wavelength Selective Switches. Journal of Optical Communications and Networking, 2017, 9, 375.	4.8	26
75	Sustainable steric stabilization of colloidal titania nanoparticles. Applied Surface Science, 2017, 409, 438-447.	6.1	67
76	A scalable diffraction-based scanning 3D colour video display as demonstrated by using tiled gratings and a vertical diffuser. Scientific Reports, 2017, 7, 44656.	3.3	21
77	Instant detection and identification of concealed explosive-related compounds: Induced Stokes Raman versus infrared. Forensic Science International, 2017, 270, 83-90.	2.2	25
78	Coherence properties of different light sources and their effect on the image sharpness and speckle of holographic displays. Scientific Reports, 2017, 7, 5893.	3.3	122
79	Novel laser induced photoacoustic spectroscopy for instantaneous trace detection of explosive materials. Forensic Science International, 2017, 277, 215-222.	2.2	20
80	Novel multi-component flame retardant system based on nanoscopic aluminium-trihydroxide (ATH). Powder Technology, 2017, 305, 538-545.	4.2	80
81	Full resolution auto-stereoscopic mobile display based on large scale uniform switchable liquid crystal micro-lens array. Optics Express, 2017, 25, 9654.	3.4	15
82	Tuneable Liquid Crystal Micro-Lens Array for Image Contrast Enhancement in a Pixelated Thin Film Photo-Transistor Flat Panel Imager. Micromachines, 2017, 8, 205.	2.9	4
83	Compact Liquid Crystal Based Tunable Band-Stop Filter with an Ultra-Wide Stopband by Using Wave Interference Technique. International Journal of Antennas and Propagation, 2017, 2017, 1-11.	1.2	11
84	Impact of WSS Passband Narrowing Effect on the Capacity of the Flexible-spectrum Networks. , 2017, , .		5
85	High-Accuracy Self-Calibration for Smart, Optical Orbiting Payloads Integrated with Attitude and Position Determination. Sensors, 2016, 16, 1176.	3.8	20
86	Effect of masking phase-only holograms on the quality of reconstructed images. Applied Optics, 2016, 55, 3158.	1.8	6
87	Small phase pattern 2D beam steering and a single LCOS design of 40 1 Ã— 12 stacked wavelength selective switches. Optics Express, 2016, 24, 12240.	3.4	26
88	Uniform and fast switching of window-size smectic A liquid crystal panels utilising the field gradient generated at the fringes of patterned electrodes. Liquid Crystals, 2016, 43, 735-749.	2.2	16
89	Fano resonance engineering in mirror-symmetry-broken THz metamaterials. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	6
90	An accuracy measurement method for star trackers based on direct astronomic observation. Scientific Reports, 2016, 6, 22593.	3.3	36

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91	Complete spectroscopic picture of concealed explosives: Laser induced Raman versus infrared. TrAC - Trends in Analytical Chemistry, 2016, 85, 34-41.	11.4	30
92	Advanced die-level assembly techniques and quality analysis for phase-only liquid crystal on silicon devices. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2016, 230, 1659-1664.	2.4	3
93	Realization of real-time interactive 3D image holographic display [Invited]. Applied Optics, 2016, 55, A127.	2.1	18
94	High-birefringence nematic liquid crystal for broadband THz applications. Liquid Crystals, 2016, 43, 955-962.	2.2	58
95	Filling factor characteristics of masking phase-only hologram on the quality of reconstructed images. , 2016, , .		2
96	Design of a low-cost and compact 1â€‰Ã—â€‰5 wavelength-selective switch for access networks. Applied Optics, 2015, 54, 8844.	2.1	6
97	Synthesis and surface modification of nanophosphorous-based flame retardant agent by continuous flow hydrothermal synthesis. Particuology, 2015, 22, 82-88.	3.6	41
98	Surface engineering of layered double hydroxide (LDH) nanoparticles for polymer flame retardancy. Powder Technology, 2015, 277, 63-73.	4.2	95
99	Colorimetric-Based Detection of TNT Explosives Using Functionalized Silica Nanoparticles. Sensors, 2015, 15, 12891-12905.	3.8	26
100	Continuous flow formulation and functionalization of magnesium di-hydroxide nanorods as a clean nano-fire extinguisher. Powder Technology, 2015, 278, 72-83.	4.2	39
101	A high-resolution optically addressed spatial light modulator based on ZnO nanoparticles. Light: Science and Applications, 2015, 4, e259-e259.	16.6	85
102	Continuous hydrothermal synthesis of AlO(OH) nanorods as a clean flame retardant agent. Particuology, 2015, 22, 66-71.	3.6	43
103	Pixel-level fringing-effect model to describe the phase profile and diffraction efficiency of a liquid crystal on silicon device. Applied Optics, 2015, 54, 5903.	2.1	31
104	Fundamentals of phase-only liquid crystal on silicon (LCOS) devices. Light: Science and Applications, 2014, 3, e213-e213.	16.6	352
105	High quality micro liquid crystal phase lenses for full resolution image steering in auto-stereoscopic displays. Optics Express, 2014, 22, 21679.	3.4	11
106	A compensation method for the full phase retardance nonuniformity in phase-only liquid crystal on silicon spatial light modulators. Optics Express, 2014, 22, 26392.	3.4	13
107	Dispersion characteristics of dry and colloidal nano-titania into epoxy resin. Powder Technology, 2014, 268, 158-164.	4.2	59
108	Rapid hologram generation utilizing layer-based approach and graphic rendering for realistic three-dimensional image reconstruction by angular tiling. Journal of Electronic Imaging, 2014, 23, 023016.	0.9	38

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109	High performance non-volatile ferroelectric copolymer memory based on a ZnO nanowire transistor fabricated on a transparent substrate. Applied Physics Letters, 2014, 104, 033101.	3.3	14
110	Nanoâ€Domain Pinning in Ferroelasticâ€Ferroelectrics by Extended Structural Defects. Advanced Functional Materials, 2014, 24, 5567-5574.	14.9	15
111	Compact phase shifter based on highly anisotropic liquid crystals for microwave frequency. Electronics Letters, 2014, 50, 525-526.	1.0	21
112	A tunable wideband microstrip bandstop filter based on liquid crystal materials. , 2014, , .		3
113	26.1: A Coarse Integral Holographic Display. Digest of Technical Papers SID International Symposium, 2013, 44, 310-313.	0.3	4
114	Tantalum-oxide catalysed chemical vapour deposition of single- and multi-walled carbon nanotubes. RSC Advances, 2013, 3, 4086.	3.6	15
115	Implementation of shading effect for reconstruction of smooth layer-based 3D holographic images. Proceedings of SPIE, 2013, , .	0.8	14
116	Molar Extinction Coefficient of Single-Wall Carbon Nanotubes. Journal of Physical Chemistry C, 2011, 115, 14682-14686.	3.1	132
117	The Applications and Technology of Phase-Only Liquid Crystal on Silicon Devices. Journal of Display Technology, 2011, 7, 112-119.	1.2	76
118	Domains Beyond the Grain Boundary. Advanced Functional Materials, 2011, 21, 1827-1832.	14.9	32
119	Domains Beyond Grain Boundaries: Domains Beyond the Grain Boundary (Adv. Funct. Mater. 10/2011). Advanced Functional Materials, 2011, 21, 1746-1746.	14.9	1
120	Optimisation of CNTs and ZnO nanostructures for electron sources. , 2010, , .		2
121	High emission current density, vertically aligned carbon nanotube mesh, field emitter array. Applied Physics Letters, 2010, 97, .	3.3	62
122	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>90</mml:mn><mml:mo>Â°</mml:mo></mml:mrow></mml:math>domain dynamics and relaxation in thin ferroelectric/ferroelastic films. Physical Review B, 2010, 81, .	3.2	23
123	Zinc oxide nanowire networks for macroelectronic devices. Applied Physics Letters, 2009, 94, .	3.3	49
124	Nanometer resolution piezoresponse force microscopy to study deep submicron ferroelectric and ferroelastic domains. Applied Physics Letters, 2009, 94, 162903.	3.3	33
125	Nitrocellulose catalyzed with nanothermite particles: advanced energetic nanocomposite with superior decomposition kinetics. Journal of Energetic Materials, 0, , 1-16.	2.0	3