Chih-Hao Chang

List of Publications by Year
in descending order

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72 papers	1,816 citations	279701 23 h-index	276775 41 g-index
72 all docs	72 docs citations	72 times ranked	2366 citing authors

#	Article	IF	Citations
1	Nanotextured Silica Surfaces with Robust Superhydrophobicity and Omnidirectional Broadband Supertransmissivity. ACS Nano, 2012, 6, 3789-3799.	7.3	378
2	Efficient Energy Funneling in Quasiâ€2D Perovskites: From Light Emission to Lasing. Advanced Materials, 2020, 32, e1906571.	11.1	134
3	From Two-Dimensional Colloidal Self-Assembly to Three-Dimensional Nanolithography. Nano Letters, 2011, 11, 2533-2537.	4.5	98
4	Nanostructured gradient-index antireflection diffractive optics. Optics Letters, 2011, 36, 2354.	1.7	66
5	Antireflection effects at nanostructured material interfaces and the suppression of thin-film interference. Nanotechnology, 2013, 24, 235202.	1.3	60
6	Recent progress in near-field nanolithography using light interactions with colloidal particles: from nanospheres to three-dimensional nanostructures. Nanotechnology, 2019, 30, 352002.	1.3	50
7	Nanometer-level repeatable metrology using the Nanoruler. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 3097.	1.6	48
8	Wicking Enhancement in Three-Dimensional Hierarchical Nanostructures. Langmuir, 2016, 32, 8029-8033.	1.6	47
9	Patterned nano-domains in PMN-PT single crystals. Acta Materialia, 2018, 143, 166-173.	3.8	47
10	Three-Dimensional Nanolithography Using Light Scattering from Colloidal Particles. ACS Nano, 2013, 7, 6212-6218.	7.3	46
11	High-efficiency 5000 lines/mm multilayer-coated blazed grating for extreme ultraviolet wavelengths. Optics Letters, 2010, 35, 2615.	1.7	42
12	Magnetically Actuated Dynamic Iridescence Inspired by the Neon Tetra. ACS Nano, 2019, 13, 4657-4666.	7.3	41
13	Efficiency of a grazing-incidence off-plane grating in the soft-x-ray region. Applied Optics, 2006, 45, 1680.	2.1	40
14	Ordered 3D Thinâ€Shell Nanolattice Materials with Nearâ€Unity Refractive Indices. Advanced Functional Materials, 2015, 25, 6644-6649.	7.8	40
15	Fabrication of sawtooth diffraction gratings using nanoimprint lithography. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 2755.	1.6	38
16	Evaluation of Photoacoustic Transduction Efficiency of Candle Soot Nanocomposite Transmitters. IEEE Nanotechnology Magazine, 2018, 17, 985-993.	1.1	37
17	Fabrication of subwavelength periodic nanostructures using liquid immersion Lloydâ€™s mirror interference lithography. Optics Letters, 2013, 38, 2531.	1.7	36
18	Directional Polarized Light Emission from Thinâ€Film Lightâ€Emitting Diodes. Advanced Materials, 2021, 33, e2006801.	11.1	35

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19	Diffraction efficiency of 200-nm-period critical-angle transmission gratings in the soft x-ray and extreme ultraviolet wavelength bands. Applied Optics, 2011, 50, 1364.	2.1	33
20	High fidelity blazed grating replication using nanoimprint lithography. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 3260.	1.6	32
21	Fabrication and structural properties of AlN submicron periodic lateral polar structures and waveguides for UV-C applications. Applied Physics Letters, 2016, 108, .	1.5	32
22	Multifunctional nano-accordion structures for stretchable transparent conductors. Materials Horizons, 2015, 2, 486-494.	6.4	29
23	Fabrication of 50 nm period gratings with multilevel interference lithography. Optics Letters, 2008, 33, 1572.	1.7	28
24	Self-assembled ferrofluid lithography: patterning micro and nanostructures by controlling magnetic nanoparticles. Nanotechnology, 2009, 20, 495301.	1.3	24
25	Twin photonic nanojets generated from coherent illumination of microscale sphere and cylinder. Nanotechnology, 2018, 29, 075204.	1.3	23
26	Sculpting Asymmetric, Hollowâ€Core, Threeâ€Dimensional Nanostructures Using Colloidal Particles. Small, 2015, 11, 1285-1292.	5.2	21
27	Continuous roll-to-roll patterning of three-dimensional periodic nanostructures. Microsystems and Nanoengineering, 2020, 6, 22.	3.4	21
28	Designing unit cell in three-dimensional periodic nanostructures using colloidal lithography. Optics Express, 2016, 24, A276.	1.7	19
29	Grating arrays for high-throughput soft x-ray spectrometers. , 2004, , .		18
30	Multi-layered domain morphology in relaxor single crystals with nano-patterned composite electrode. Acta Materialia, 2020, 182, 10-17.	3.8	18
31	Study on dielectric and piezoelectric properties of 0.7 Pb(Mg1/3Nb2/3)O3-0.3 PbTiO3 single crystal with nano-patterned composite electrode. Journal of Applied Physics, 2013, 114, 114103.	1.1	17
32	Active Periodic Magnetic Nanostructures with High Aspect Ratio and Ultrahigh Pillar Density. ACS Applied Materials & Interfaces, 2020, 12, 11135-11143.	4.0	17
33	High-efficiency multilayer blazed gratings for EUV and soft x-rays: recent developments. Proceedings of SPIE, 2010, , .	0.8	15
34	Large-Area Nanolattice Film with Enhanced Modulus, Hardness, and Energy Dissipation. Scientific Reports, 2017, 7, 9145.	1.6	14
35	Mode Dispersion in Photonic Crystal Organic Light-Emitting Diodes. ACS Applied Electronic Materials, 2020, 2, 1759-1767.	2.0	14
36	Doppler writing and linewidth control for scanning beam interference lithography. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 2640.	1.6	13

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37	Advances in reflection grating technology for Constellation-X. , 2004, , .		12
38	Design and optimization of broadband wide-angle antireflection structures for binary diffractive optics. Optics Letters, 2010, 35, 907.	1.7	10
39	Fabrication of three-dimensional hierarchical nanostructures using template-directed colloidal assembly. Nanoscale, 2015, 7, 4406-4410.	2.8	10
40	Near-normal-incidence extreme-ultraviolet efficiency of a flat crystalline anisotropically etched blazed grating. Applied Optics, 2006, 45, 1676.	2.1	8
41	Design of a double-pass shear mode acousto-optic modulator. Review of Scientific Instruments, 2008, 79, 033104.	0.6	8
42	Enhancing optical transmission of multilayer composites using interfacial nanostructures. Journal of Applied Physics, 2019, 126, 063101.	1.1	7
43	Fabrication of Nonâ€Uniform Nanolattices with Spatially Varying Geometry and Material Composition. Advanced Materials Interfaces, 2021, 8, 2100690.	1.9	7
44	Virtual metrology modeling of reactive ion etching based on statistics-based and dynamics-inspired spectral features. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2021, 39, .	0.6	7
45	5000 groove/mm multilayer-coated blazed grating with 33% efficiency in the 3rd order in the EUV wavelength range. Proceedings of SPIE, 2009, , .	0.8	6
46	Nanostructured antireflective in-plane solar harvester. Optics Express, 2017, 25, A840.	1.7	6
47	Light extraction in tandem organic light emitting diodes. Applied Physics Letters, 2021, 119, .	1.5	6
48	Phase control in multiexposure spatial frequency multiplication. Journal of Vacuum Science & Technology B, 2007, 25, 2439.	1.3	5
49	Increasing etching depth of sapphire nanostructures using multilayer etching mask. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, .	0.6	5
50	Design and fabrication of dielectric nanostructured Luneburg lens in optical frequencies. , 2010, , .		4
51	3D Nanostructures: Sculpting Asymmetric, Hollow-Core, Three-Dimensional Nanostructures Using Colloidal Particles (Small 11/2015). Small, 2015, 11, 1226-1226.	5.2	4
52	Fabrication and design of metal nano-accordion structures using atomic layer deposition and interference lithography. Nanoscale, 2016, 8, 4984-4990.	2.8	4
53	Enhanced total internal reflection using low-index nanolattice materials. Optics Letters, 2017, 42, 4123.	1.7	4
54	Conformal Physical Vapor Deposition Assisted by Atomic Layer Deposition and Its Application for Stretchable Conductors. Advanced Materials Interfaces, 2018, 5, 1801379.	1.9	4

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55	Sapphire nanophotonics: Fabrication challenges and optical properties. Micro and Nano Engineering, 2022, 14, 100115.	1.4	4
56	Describing isotropic and anisotropic out-of-plane deformations in thin cubic materials by use of Zernike polynomials. Applied Optics, 2006, 45, 432.	2.1	3
57	Assembling nanoparticle catalysts with nanospheres for periodic carbon nanotube structure growth. Nanotechnology, 2011, 22, 035301.	1.3	3
58	Three-dimensional colloidal interference lithography. Nanotechnology, 2017, 28, 125302.	1.3	3
59	Magnetically responsive polymer nanopillars with nickel cap. Nanotechnology, 2021, 32, 205301.	1.3	3
60	Templated Assembly of Nanoparticles into Continuous Arrays. Langmuir, 2021, 37, 9098-9110.	1.6	3
61	Thin-foil reflection gratings for Constellation-X. , 2004, 5488, 283.		2
62	Spatial-frequency multiplication with multilevel interference lithography. Journal of Vacuum Science & Technology B, 2008, 26, 2135-2138.	1.3	2
63	Photoacoustic transduction efficiency evaluation of candle soot nanoparticles/PDMS composites. , 2017, , .		2
64	Mass replication of multifunctional surface by nanoimprint of high aspect ratio tapered nanostructures. , 2012, , .		1
65	Atomic Layer Deposition: Conformal Physical Vapor Deposition Assisted by Atomic Layer Deposition and Its Application for Stretchable Conductors (Adv. Mater. Interfaces 22/2018). Advanced Materials Interfaces, 2018, 5, 1870109.	1.9	1
66	12â€1: Invited Paper: Directional SPP Emission in OLEDs Using Diffractive Optical Elements. Digest of Technical Papers SID International Symposium, 2020, 51, 146-148.	0.1	1
67	Talbot lithography using aperiodic structures. , 2011, , .		0
68	27â€4: Organic Lightâ€Emitting Diodes with Directional Polarized Light Emission. Digest of Technical Papers SID International Symposium, 2021, 52, 345-348.	0.1	0
69	Fabrication of Nonâ€Uniform Nanolattices with Spatially Varying Geometry and Material Composition (Adv. Mater. Interfaces 17/2021). Advanced Materials Interfaces, 2021, 8, 2170092.	1.9	0
70	Gradient-Index Adiabatic Impedance Matching (GRIN-AIM) Antireflective Diffractive Optics. , 2011, , .		0
71	Bio-Improved Antireflection Nanostructures: Going Beyond the Moth Eye. , 2013, , .		0
72	Nanostructured In-Plane Solar Concentrator. , 2013, , .		0