Shiuh Chao

List of Publications by Year
in descending order

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85 papers	3,407 citations	471509 17 h-index	138484 58 g-index
85 all docs	85 docs citations	85 times ranked	4544 citing authors

#	Article	IF	Citations
1	Cat-flap micro-pendulum for low noise optomechanics. Journal Physics D: Applied Physics, 2021, 54, 035104.	2.8	1
2	Annealing Effect on the Nano-meter Scale Tit.aniay Silica Multi-layers for Mirror Coatings of the Laser Interferometer Gravitational Waves Detector. , 2019, , .		0
3	Low cryogenic mechanical loss composite silica thin film for low thermal noise dielectric mirror coatings. Optics Letters, 2019, 44, 247.	3.3	11
4	Silicon nitride films fabricated by a plasma-enhanced chemical vapor deposition method for coatings of the laser interferometer gravitational wave detector. Physical Review D, 2018, 97, .	4.7	15
5	Ultra-low dissipation resonators for improving the sensitivity of gravitational wave detectors. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 2174-2180.	2.1	6
6	Optical properties of amorphous SiO2-TiO2 multi-nanolayered coatings for 1064-nm mirror technology. Optical Materials, 2018, 75, 94-101.	3.6	28
7	Silicon nitride and silica quarter-wave stacks for low-thermal-noise mirror coatings. Physical Review D, 2018, 98, .	4.7	16
8	Mechanical Loss Angle Measurement for Stressed thin Film Using Cantilever Ring-Down Method. Materials Research, 2018, 21, .	1.3	2
9	A Multi-Step Approach to Assessing LIGO Test Mass Coatings. Journal of Physics: Conference Series, 2018, 957, 012010.	0.4	2
10	Towards thermal noise free optomechanics. Journal Physics D: Applied Physics, 2016, 49, 455104.	2.8	9
11	ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914. Astrophysical Journal Letters, 2016, 818, L22.	8.3	633
12	Study on light extraction efficiency of light-emitting diodes having periodically corrugated enhancement structures with different duty cycles. Optical Engineering, 2016, 55, 027103.	1.0	1
13	nm-Layered Glassy Oxide Composites for 3rd Generation Interferometric Gravitational Wave Detectors. , 2016, , .		0
14	Technology for the next gravitational wave detectors. Science China: Physics, Mechanics and Astronomy, 2015, 58, 1.	5.1	17
15	Characterization of the LIGO detectors during their sixth science run. Classical and Quantum Gravity, 2015, 32, 115012.	4.0	1,029
16	SEARCHES FOR CONTINUOUS GRAVITATIONAL WAVES FROM NINE YOUNG SUPERNOVA REMNANTS. Astrophysical Journal, 2015, 813, 39.	4.5	66
17	FIRST SEARCHES FOR OPTICAL COUNTERPARTS TO GRAVITATIONAL-WAVE CANDIDATE EVENTS. Astrophysical Journal, Supplement Series, 2014, 211, 7.	7.7	57
18	Thickness-dependent crystallization on thermal anneal for titania/silica nm-layer composites deposited by ion beam sputter method. Optics Express, 2014, 22, 29847.	3.4	36

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19	Improved Upper Limits on the Stochastic Gravitational-Wave Background from 2009â€“2010 LIGO and Virgo Data. Physical Review Letters, 2014, 113, 231101.	7.8	86
20	A Compact and Low-Cost Optical Pickup Head-Based Optical Microscope. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	8
21	Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light. Nature Photonics, 2013, 7, 613-619.	31.4	825
22	A compact optical pickup head in blue wavelength with high horizontal stability for laser thermal lithography. Optics Express, 2013, 21, 23556.	3.4	12
23	A compact dual-wavelength optical head for photo-lithography. , 2013, , .		0
24	Fabrication of three-dimensional autocloned photonic crystal on sapphire substrate. Applied Optics, 2011, 50, C1.	2.1	10
25	Design of a Dual-Wavelength Optical Head for Submicron-Scale and Nano-Scale Lithography. IEEE Transactions on Magnetics, 2011, 47, 696-700.	2.1	3
26	Epitaxial Lateral Overgrowth of Gallium Nitride for Embedding the Micro-Mirror Array. Japanese Journal of Applied Physics, 2011, 50, 04DG07.	1.5	1
27	Fabrication of a dual-wavelength optical pickup head for laser direct writing. , 2011, , .		0
28	Epitaxial Lateral Overgrowth of Gallium Nitride for Embedding the Micro-Mirror Array. Japanese Journal of Applied Physics, 2011, 50, 04DG07.	1.5	0
29	MQWs InGaN/GaN LED with embedded micro-mirror array in the epitaxial-lateral-overgrowth gallium nitride for light extraction enhancement. Optics Express, 2010, 18, 10674.	3.4	16
30	Fabrication of three dimensional auto-cloned photonics crystal on sapphire substrate. , 2010, , .		0
31	LED-fabrication independent light extraction enhancement structure on back-side of sapphire substrate with large area auto-cloned photonics crystals. , 2010, , .		0
32	Refractive index variation of amorphous Ta2O5 film fabricated by ion beam sputtering with RF bias power. Optical Review, 2009, 16, 274-275.	2.0	7
33	Optical design of bent rib waveguide with MOS cross-section. Optical Review, 2009, 16, 413-415.	2.0	3
34	Design and Analysis of Metal-Oxide-Semiconductorâ€“Capacitor Microring Optical Modulator With Solid-Phase-Crystallization Poly-Silicon Gate. Journal of Lightwave Technology, 2009, 27, 3861-3873.	4.6	9
35	Heat resistive dielectric multi-layer micro-mirror array in epitaxial lateral overgrowth gallium nitride. Optics Express, 2009, 17, 5624.	3.4	4
36	Spectral shift by half free-spectral-range for microring resonator employing the phase jump phenomenon in coupled-waveguide and application on all-microring wavelength interleaver. Optics Express, 2009, 17, 7756.	3.4	2

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37	Light extraction enhancement for InGaN/GaN LED by three dimensional auto-cloned photonics crystal. Optics Express, 2009, 17, 23702.	3.4	28
38	Surface profile control of the autocloned photonic crystal by ion-beam-sputter deposition with radio-frequency-bias etching. Applied Optics, 2009, 48, 69.	2.1	10
39	Extinction ratio compensation by free carrier injection for a MOS-capacitor microring optical modulator subjected to temperature drifting. , 2009, , .		2
40	Temperature Stability of a CMOS-compatible Single-arm Microring Optical Filter with MOS Cross-section. , 2009, , .		0
41	Simplified numerical method for analyzing TE-like modes in a three-dimensional circularly bent dielectric rib waveguide by solving two one-dimensional eigenvalue equations. Journal of the Optical Society of America B: Optical Physics, 2008, 25, 1031.	2.1	9
42	Simulation of the Re-shaping Process for Auto-cloned Photonic Crystal. , 2007, , .		0
43	Wide operation margin of toggle mode switching for magnetic random access memory with preceding negative pulse writing scheme. Applied Physics Letters, 2006, 88, 112501.	3.3	15
44	Humidity effect on the decay of second-order nonlinearity in thermally poled fused silica. Optics Express, 2006, 14, 12334.	3.4	4
45	A 6-F/sup 2/ bit cell design based on one transistor and two uneven magnetic tunnel junctions structure and low power design for MRAM. IEEE Transactions on Electron Devices, 2006, 53, 1530-1538.	3.0	3
46	Creation of second-order nonlinearity and quasi-phase-matched second-harmonic generation in Ge-implanted fused silica planar waveguide. Applied Physics Letters, 2005, 86, 081107.	3.3	12
47	Graphic method for numerical analysis of a periodically stratified thin-film omnidirectional reflector. Applied Optics, 2005, 44, 3448.	2.1	2
48	Quasi-phase-matched second-harmonic generation in Ge-ion implanted fused silica channel waveguide. Optics Express, 2005, 13, 7091.	3.4	13
49	Optimization of second harmonic generation in non-linear film structure. Optics Communications, 2004, 236, 203-208.	2.1	0
50	Simple design method for third-order dispersion compensation with a thin-film dispersion compensator. Applied Optics, 2004, 43, 3442.	2.1	0
51	Quasi-phase-matched second-harmonic generation in ultraviolet-assisted periodically poled planar fused silica. Optics Letters, 2003, 28, 917.	3.3	13
52	Thermal poling and ultraviolet erasure characteristics of type-III ultraviolet-grade fused silica and application to periodic poling on planar substrates. Journal of Applied Physics, 2003, 94, 1531-1538.	2.5	8
53	Low-loss dielectric mirror with ion-beam-sputtered TiO_2â€“SiO_2 mixed films. Applied Optics, 2001, 40, 2177.	2.1	65
54	Characteristics of ion-beam-sputtered high-refractive-index TiO_2-SiO_2 mixed films. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1999, 16, 1477.	1.5	49

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55	Magneto-optical Kerr rotation of GdTbFeCo films at short wavelength. IEEE Transactions on Magnetics, 1998, 34, 420-422.	2.1	1
56	Annealing effect on ion-beam-sputtered titanium dioxide film. Optics Letters, 1998, 23, 1417.	3.3	45
57	Determination of ordinary refractive index profile for a planar waveguide by transmission spectrum analysis. Journal of Applied Physics, 1998, 83, 5650-5657.	2.5	7
58	Substrate-dependent optical absorption characteristics of titanium dioxide thin films. Applied Optics, 1997, 36, 4403.	2.1	31
59	Mixed films of TiO_2â€“SiO_2 deposited by double electron-beam coevaporation. Applied Optics, 1996, 35, 90.	2.1	79
60	Magnetic domain formation in Tb/sub 23/Fe/sub 77/ thin film on a moving magneto-optical disk with magnetic field modulation recording. IEEE Transactions on Magnetics, 1996, 32, 3305-3312.	2.1	0
61	Large photoinduced ferroelectric coercive field increase and photodefined domain pattern in lithiumâ€tantalate crystal. Applied Physics Letters, 1996, 69, 3803-3805.	3.3	13
62	Quantitative determination of the oxygen partial pressure effect on the perpendicular magnetization of TbFeCo thin films. Thin Solid Films, 1995, 266, 282-284.	1.8	0
63	Time dependence of ferroelectric coercive field after domain inversion for lithiumâ€tantalate crystal. Applied Physics Letters, 1995, 67, 1066-1068.	3.3	19
64	Method of magnetic domain modeling on a moving magnetoâ€optical disk. Journal of Applied Physics, 1994, 76, 5839-5844.	2.5	2
65	Effect of an electric field on the growth of aluminum film. Applied Optics, 1993, 32, 5575.	2.1	0
66	Angular distribution of the sputtered atoms from TbFeCo targets. Journal of Applied Physics, 1993, 74, 5354-5359.	2.5	6
67	<title>Compositional uniformity control on deposition of magneto-optical disk</title>. , 1993, , .		0
68	Tilt-Target Magnetron Sputter for Deposition of Magnetooptical Disk. Japanese Journal of Applied Physics, 1992, 31, 426-430.	1.5	4
69	TiO_2â€“SiO_2 mixed films prepared by the fast alternating sputter method. Applied Optics, 1991, 30, 3233.	2.1	21
70	<title>Read-write simulation and numerical noise for WORM optical disk and drive</title>. Proceedings of SPIE, 1991, , .	0.8	0
71	The Anomalous High-reflection Band for the Herpin-equivalent Gradient Index Film. Journal of Modern Optics, 1991, 38, 1487-1497.	1.3	1
72	Artificial noise in read-write simulation of optical disk and drive. Simulation, 1991, 56, 403-412.	1.8	0

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73	Polarized light scattering by silicon oxide thin film edge on silicon: an experimental approach for thin film thickness determination. Measurement Science and Technology, 1990, 1, 1237-1243.	2.6	0
74	Multiple phase change of lead oxide film for optical storage. Journal Physics D: Applied Physics, 1990, 23, 955-958.	2.8	14
75	Ellipsometric measurement of magnetoâ€optical Kerr rotation at normal incidence. Journal of Applied Physics, 1990, 67, 4241-4243.	2.5	2
76	Experimental Determination Of Thin Film Thickness By Polarized Light Scattering. Proceedings of SPIE, 1990, 1125, 128.	0.8	0
77	Scattering loss of an optimum pair high reflectance dielectric mirror. Applied Optics, 1990, 29, 1960.	2.1	4
78	Materials For Multiple Stages Of Archival Optical Recording. , 1988, 0899, 240.		0
79	Lock-In Growth In A Ring Laser Gyro. Proceedings of SPIE, 1984, 0487, 50.	0.8	7
80	<title>Low Cost Media Having a Reverse Trilayer Structure</title>. , 1983, , .		1
81	<title>New Media Development At Burroughs: Material And Coating</title>. Proceedings of SPIE, 1983, 0382, 149.	0.8	1
82	<title>Performance Of Optical Media From Burroughs</title>. Proceedings of SPIE, 1982, , .	0.8	0
83	Coating technology. , 0, , 6-19.		0
84	Ion-beam sputtered TiO/sub 2/-SiO/sub 2/ mixed films for thin film filter in DWDM application. , 0, , .		0
85	Amorphous silicon nitride deposited by an NH3-free plasma enhanced chemical vapor deposition method for the coatings of the next generation laser interferometer gravitational waves detector. Classical and Quantum Gravity, 0, , .	4.0	1