Shu-Wei Chang

List of Publications by Year
in descending order

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113	2,332	236612	223531
papers	citations	25 h-index	46 g-index

115	115	115	2300
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Slow light in semiconductor quantum wells. Optics Letters, 2004, 29, 2291.	1.7	291
2	Whispering Gallery Mode Lasing from Zinc Oxide Hexagonal Nanodisks. ACS Nano, 2010, 4, 3270-3276.	7.3	228
3	Strain-Balanced ${m Ge}_{z}{m Sn}_{1-z}hbox{--}{m Si}_{x}{m Ge}_{y}{m Sn}_{1-x-y}$ Multiple-Quantum-Well Lasers. IEEE Journal of Quantum Electronics, 2010, 46, 1813-1820.	1.0	185
4	Metal-cavity surface-emitting microlaser at room temperature. Applied Physics Letters, 2010, 96, .	1.5	107
5	Fundamental Formulation for Plasmonic Nanolasers. IEEE Journal of Quantum Electronics, 2009, 45, 1014-1023.	1.0	94
6	Theory of Plasmonic Fabry-Perot Nanolasers. Optics Express, 2010, 18, 15039.	1.7	94
7	Theory of Optical Gain of ${hbox {Ge--}}{hbox {Si}}_{x}{hbox {Ge}}_{y}{hbox {Sn}}_{1-x-y}$ Quantum-Well Lasers. IEEE Journal of Quantum Electronics, 2007, 43, 249-256.	1.0	83
8	Theory for bowtie plasmonic nanolasers. Optics Express, 2008, 16, 10580.	1.7	74
9	Perovskite Quantum Dot Lasing in a Gap-Plasmon Nanocavity with Ultralow Threshold. ACS Nano, 2020, 14, 11670-11676.	7.3	71
10	Theory for n-type doped, tensile-strained Geâ€“Si_xGe_ySn_1â^'xâ^'y quantum-well lasers at telecom wavelength. Optics Express, 2009, 17, 11246.	1.7	64
11	Homogeneous circular polarizers using a bilayered chiral metamaterial. Applied Physics Letters, 2011, 99, 031111.	1.5	51
12	Lightsheet localization microscopy enables fast, large-scale, and three-dimensional super-resolution imaging. Communications Biology, 2019, 2, 177.	2.0	46
13	Visible Light Communication System Technology Review: Devices, Architectures, and Applications. Crystals, 2021, 11, 1098.	1.0	40
14	Slow light using excitonic population oscillation. Physical Review B, 2004, 70, .	1.1	39
15	Optical cavity modes of a single crystalline zinc oxide microsphere. Optics Express, 2013, 21, 3010.	1.7	38
16	Chiral Second-Harmonic Generation from Monolayer WS₂/Aluminum Plasmonic Vortex Metalens. Nano Letters, 2020, 20, 2857-2864.	4.5	36
17	Coating effect on optical resonance of plasmonic nanobowtie antenna. Applied Physics Letters, 2010, 97, 063106.	1.5	35
18	Plasmon-Enhanced Solar-Driven Hydrogen Evolution Using Titanium Nitride Metasurface Broadband Absorbers. ACS Photonics, 2021, 8, 3125-3132.	3.2	32

#	Article	IF	Citations
19	Phonon- and Auger-assisted tunneling from a quantum well to a quantum dot. Physical Review B, 2004, 70, .	1.1	31
20	Slow light based on population oscillation in quantum dots with inhomogeneous broadening. Physical Review B, 2005, 72, .	1.1	30
21	Ultrathin Planar Cavity Metasurfaces. Small, 2018, 14, e1703920.	5.2	30
22	Normal modes for plasmonic nanolasers with dispersive and inhomogeneous media. Optics Letters, 2009, 34, 91.	1.7	28
23	Microfluidic channel integrated with a lattice lightsheet microscopic system for continuous cell imaging. Lab on A Chip, 2021, 21, 344-354.	3.1	28
24	Slow Light Based on Coherent Population Oscillation in Quantum Dots at Room Temperature. IEEE Journal of Quantum Electronics, 2007, 43, 196-205.	1.0	27
25	Upconversion Plasmonic Lasing from an Organolead Trihalide Perovskite Nanocrystal with Low Threshold. ACS Photonics, 2021, 8, 335-342.	3.2	26
26	Circular Dichroism Control of Tungsten Diselenide (WSe₂) Atomic Layers with Plasmonic Metamolecules. ACS Applied Materials & Interfaces, 2018, 10, 15996-16004.	4.0	25
27	Rapid single-wavelength lightsheet localization microscopy for clarified tissue. Nature Communications, 2019, 10, 4762.	5.8	25
28	Confinement Factors and Modal Volumes of Micro- and Nanocavities Invariant to Integration Regions. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1771-1780.	1.9	23
29	Type-II GaSb/GaAs coupled quantum rings: Room-temperature luminescence enhancement and recombination lifetime elongation for device applications. Applied Physics Letters, 2012, 101, .	1.5	21
30	Optimized Spiral Metal-Gallium-Nitride Nanowire Cavity for Ultra-High Circular Dichroism Ultraviolet Lasing at Room Temperature. Scientific Reports, 2016, 6, 26578.	1.6	20
31	Model for band-edge electroluminescence from metalâ€“oxideâ€“semiconductor silicon tunneling diodes. Journal of Applied Physics, 2001, 90, 789-793.	1.1	18
32	Multilayer MoS2 prepared by one-time and repeated chemical vapor depositions: anomalous Raman shifts and transistors with high ON/OFF ratio. Journal Physics D: Applied Physics, 2015, 48, 435101.	1.3	17
33	Quantum-dot laser with a metal-coated waveguide under continuous-wave operation at room temperature. Applied Physics Letters, 2009, 95, .	1.5	16
34	Full frequency-domain approach to reciprocal microlasers and nanolasersâ€“perspective from Lorentz reciprocity. Optics Express, 2011, 19, 21116.	1.7	16
35	CW substrate-free metal-cavity surface microemitters at 300 K. Semiconductor Science and Technology, 2011, 26, 014012.	1.0	16
36	Metal-Coated Zinc Oxide Nanocavities. IEEE Journal of Quantum Electronics, 2011, 47, 245-251.	1.0	15

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37	Theory for voltage modulation of transistor lasers using Franz-Keldysh absorption in the presence of optoelectronic feedback. Optics Express, 2016, 24, 25515.	1.7	15
38	Strain Effects on Rashba Spinâ€Orbit Coupling of 2D Hole Gases in GeSn/Ge Heterostructures. Advanced Materials, 2021, 33, e2007862.	11.1	15
39	Room temperature lasing with high group index in metal-coated GaN nanoring. Applied Physics Letters, 2011, 99, 251111.	1.5	13
40	Low Thermal Impedance of Substrate-Free Metal Cavity Surface-Emitting Microlasers. IEEE Photonics Technology Letters, 2011, 23, 1031-1033.	1.3	13
41	Passivated graphene transistors fabricated on a millimeter-sized single-crystal graphene film prepared with chemical vapor deposition. Journal Physics D: Applied Physics, 2015, 48, 295106.	1.3	13
42	Slow light using spin coherence and V-type electromagnetically induced transparency in [110] strained quantum wells. Journal of the Optical Society of America B: Optical Physics, 2007, 24, 849.	0.9	12
43	Dressed Linewidth Enhancement Factors in Small Semiconductor Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 157-164.	1.9	12
44	Plasmonic gap-mode nanocavities with metallic mirrors in high-index cladding. Optics Express, 2013, 21, 13479.	1.7	11
45	Analysis of Tunable Internal Loss Caused by Franzâ€“Keldysh Absorption in Transistor Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 270-276.	1.9	11
46	Bound-to-continuum absorption with tunneling in type-II nanostructures: a multiband source-radiation approach. Optics Express, 2013, 21, 30778.	1.7	10
47	Memory device application of wide-channel in-plane gate transistors with type-II GaAsSb-capped InAs quantum dots. Applied Physics Letters, 2013, 103, 143502.	1.5	9
48	Lasing action and extraordinary reduction in long radiative lifetime of type-II GaSb/GaAs quantum dots using circular photonic crystal nanocavity. Applied Physics Letters, 2015, 107, .	1.5	9
49	Optical and electrical control of slow light in p-doped and intrinsic quantum-dot electroabsorbers. Applied Physics Letters, 2007, 90, 251108.	1.5	8
50	Theory of Metal-Cavity Surface-Emitting Microlasers and Comparison With Experiment. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 1681-1692.	1.9	8
51	In-Plane Gate Transistors With a 40-$muhbox{m}$-Wide Channel Width. IEEE Electron Device Letters, 2012, 33, 1129-1131.	2.2	8
52	High Circular Polarized Nanolaser with Chiral Gammadion Metal Cavity. Scientific Reports, 2020, 10, 7880.	1.6	8
53	Strain-induced enhancement of spin relaxation times in [110] and [111] grown quantum wells. Physical Review B, 2005, 72, .	1.1	7
54	Tunable Slow Light of 1.3 Âµm Region in Quantum Dots at Room Temperature. Japanese Journal of Applied Physics, 2007, 46, 2369-2372.	0.8	7

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55	Theoretical analysis on optical frequency response of tunnel-junction transistor lasers operated in different configurations. Journal of Applied Physics, 2019, 125, .	1.1	7
56	Quality Factor of a Nanobowtie Antenna. Journal of Lightwave Technology, 2011, 29, 3107-3114.	2.7	6
57	Intra-cavity stimulated emissions of photons in almost pure spin states without imposed nonreciprocity. Optics Express, 2012, 20, 2516.	1.7	6
58	Cladding Effect on Hybrid Plasmonic Nanowire Cavity at Telecommunication Wavelengths. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 4800306-4800306.	1.9	6
59	Frequency-domain formulation of photonic crystals using sources and gain. Optics Express, 2013, 21, 1972.	1.7	6
60	Enhancement of field-effect mobility in molybdenum-disulfide transistor through the treatment of low-power oxygen plasma. Japanese Journal of Applied Physics, 2016, 55, 090302.	0.8	6
61	Improving accuracy using subpixel smoothing for multiband effective-mass Hamiltonians of semiconductor nanostructures. Computer Physics Communications, 2016, 201, 63-76.	3.0	5
62	Thermally-enhanced current gain of quantum-well heterojunction bipolar transistor. Journal of Applied Physics, 2019, 126, .	1.1	5
63	Characteristics of Blue GaN/InGaN Quantum-Well Light-Emitting Transistor. IEEE Electron Device Letters, 2020, 41, 91-94.	2.2	5
64	Charge Storage of Isolated Monolayer Molybdenum Disulfide in Epitaxially Grown MoS₂/Graphene Heterostructures for Memory Device Applications. ACS Applied Materials & Interfaces, 2021, 13, 45864-45869.	4.0	5
65	Pulse compression irrespective of fiber dispersion using chirp of transistor lasers. Optics Letters, 2019, 44, 2109.	1.7	5
66	Self-induced spin-polarized carrier source in active photonic device with artificial optical chirality. Applied Physics Letters, 2012, 101, 181106.	1.5	4
67	Fermi-level shifts in graphene transistors with dual-cut channels scraped by atomic force microscope tips. Applied Physics Letters, 2014, 104, 023511.	1.5	4
68	Tungsten Diselenide Top-gate Transistors with Multilayer Antimonene Electrodes: Gate Stacks and Epitaxially Grown 2D Material Heterostructures. Scientific Reports, 2020, 10, 5967.	1.6	4
69	5D superresolution imaging for a live cell nucleus. Current Opinion in Genetics and Development, 2021, 67, 77-83.	1.5	4
70	Slow and fast light in quantum-well and quantum-dot semiconductor optical amplifiers. Chinese Optics Letters, 2008, 6, 736-742.	1.3	3
71	Strong tunable slow and fast lights using a gain-clamped semiconductor optical amplifier. Optics Express, 2009, 17, 21222.	1.7	3
72	Bidirectionality in Bianistropic but Reciprocal Photonic Crystals and Its Usage in Active Photonics. Journal of Lightwave Technology, 2014, 32, 10-19.	2.7	3

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73	High Q/V_mhybrid photonic-plasmonic crystal nanowire cavity at telecommunication wavelengths. Proceedings of SPIE, 2015, , .	0.8	3
74	Photonic Crystal Circular Nanobeam Cavity Laser with Type-II GaSb/GaAs Quantum Rings as Gain Material. Scientific Reports, 2020, 10, 4757.	1.6	3
75	In situ tunable circular dichroism of flexible chiral metasurfaces composed of plasmonic nanorod trimers. Nanoscale Advances, 2022, 4, 2428-2434.	2.2	3
76	Electroluminescence at silicon band gap energy from mechanically pressed indiumâ€“tinâ€“oxide/Si contact. Applied Physics Letters, 2001, 78, 1808-1810.	1.5	2
77	Characteristics of metal-cavity surface-emitting microlaser. , 2010, , .		2
78	Design of metal-dielectric grating lasers only supporting surface-wave-like modes. Optics Express, 2014, 22, 27845.	1.7	2
79	Incomplete immunity to backscattering in chiral one-way photonic crystals. Optics Express, 2015, 23, 10327.	1.7	2
80	Current Enhancement and Bipolar Current Modulation of Top-Gate Transistors Based on Monolayer MoS2 on Three-Layer WxMo1â€“xS2. ACS Applied Materials & Interfaces, 2018, 10, 24733-24738.	4.0	2
81	Increasing responsivity-bandwidth margin of germanium waveguide photodetector with simple corner reflector. Optics Express, 2021, 29, 10364.	1.7	2
82	Variable Slow Light Using Coherent Population Oscillation in Quantum Dot Electro-absorption Modulator. , 2006, , .		2
83	Chirp-free optical-signal generation using dual-and-direct current-voltage modulation of transistor lasers. Optics Letters, 2020, 45, 2474.	1.7	2
84	Substrate-free metal cavity surface-emitting laser with CW operation at room temperature. , 2010, , .		1
85	High Speed Data Transmission under Voltage Modulation of Transistor Lasers. , 2018, , .		1
86	Effect of Heavily P-Doped Base on Radiative Recombination of Transistor Laser. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-8.	1.9	1
87	Pulse Compression using Chirp of Transistor Lasers Regardless of Types of Fiber Dispersions. , 2019, , .		1
88	Studies of 2D Bulk and Nanoribbon Band Structures in Mo x W 1â€“ x S 2 Alloy System Using Full sp 3 d 5 Tightâ€Binding Model. Physica Status Solidi (B): Basic Research, 2021, 258, 2000375.	0.7	1
89	Analytical Modeling of Tunnel-Junction Transistor Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-8.	1.9	1
90	Fundamental formulation of nanoplasmonic lasers. , 2010, , .		0

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91	Metal-Cavity Surface-Emitting Microlaser. , 2011, , .		0
92	Metal-cavity surface-emitting micro/nanolasers. , 2011, , .		0
93	Toward bound-to-continuum photon absorption with quantum tunneling in type-II nanostructures: a source-radiation scheme using perfectly-matched layers. , 2014, , .		0
94	Field effect of in-plane gates with different gap sizes on the Fermi level tuning of graphene channels. Applied Physics Letters, 2014, 104, 183503.	1.5	0
95	Plasmonic gap mode nanocavities at telecommunication wavelengths. , 2014, , .		0
96	Efficient Photonic-Crystal Mode Solver: Eigenvalue Rather Than Generalized Eigenvalue Approach. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 310-315.	1.9	0
97	Enhancing accuracy with subpixel smoothing for multiband effective-mass Hamiltonians of semiconductor nanostructures. Proceedings of SPIE, 2016, , .	0.8	0
98	The role of optoelectronic feedback on Franz-Keldysh voltage modulation of transistor lasers. , 2016, , .		0
99	Criteria of backscattering in chiral one-way photonic crystals. , 2016, , .		0
100	Type-I to Type-II Transformation of Hybrid Quantum Nanostructures. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 1-7.	1.9	0
101	Artifacts in fluorescence lifetime imaging of gold nanorod dimer. , 2017, , .		0
102	Enhanced Absorption Due to Formation of Quasi-Bound States in Type-II Coupled Quantum Rings. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-7.	1.9	0
103	Investigation of Electronic Properties of MoxW1â€“xS2 Alloy by Tight-binding Method for Interband transition. , 2019, , .		0
104	A Four-Port Model of Light-Emitting Transistors for Circuit Simulation and Application. IEEE Transactions on Electron Devices, 2020, 67, 5572-5580.	1.6	0
105	Slow and Fast Light in Semiconductors. Optical Science and Engineering, 2008, , .	0.1	0
106	Whispering gallery modes of a single crystalline zinc oxide microsphere at visible wavelengths. , 2013, , .		0
107	Self-induced spin polarization in active photonic devices without extrinsic magnetism. , 2013, , .		0
108	Absorption enhancement in type-II coupled quantum rings due to existence of quasi-bound states. , 2018, , .		0

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109	Artifacts in fluorescence lifetime imaging of gold step-like nanostructures. , 2018, , .		0
110	Efficient pattern modeling of plasmonic nanostructures probed by nanoscale near-field scanning microscope tips with different polarized outputs. , 2018, , .		0
111	Circularly polarized lasing of ultraviolet plasmonic gammadion nanocavity. , 2019, , .		0
112	Carrier lifetime of heavily p-doped base in light-emitting transistors and transistor lasers. , 2019, , .		0
113	Nanometer Resolution of Tip-Enhanced Raman Spectroscopy in Tunneling Regime. , 2020, , .		0