Shu-Wei Chang

List of Publications by Year
in descending order

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	Analytical Modeling of Tunnel-Junction Transistor Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-8.	1.9	1
2	In situ tunable circular dichroism of flexible chiral metasurfaces composed of plasmonic nanorod trimers. Nanoscale Advances, 2022, 4, 2428-2434.	2.2	3
3	Microfluidic channel integrated with a lattice lightsheet microscopic system for continuous cell imaging. Lab on A Chip, 2021, 21, 344-354.	3.1	28
4	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
5	Increasing responsivity-bandwidth margin of germanium waveguide photodetector with simple corner reflector. Optics Express, 2021, 29, 10364.	1.7	2
6	5D superresolution imaging for a live cell nucleus. Current Opinion in Genetics and Development, 2021, 67, 77-83.	1.5	4
7	Strain Effects on Rashba Spinâ€Orbit Coupling of 2D Hole Gases in GeSn/Ge Heterostructures. Advanced Materials, 2021, 33, e2007862.	11.1	15
8	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
9	Visible Light Communication System Technology Review: Devices, Architectures, and Applications. Crystals, 2021, 11, 1098.	1.0	40
10	Plasmon-Enhanced Solar-Driven Hydrogen Evolution Using Titanium Nitride Metasurface Broadband Absorbers. ACS Photonics, 2021, 8, 3125-3132.	3.2	32
11	Upconversion Plasmonic Lasing from an Organolead Trihalide Perovskite Nanocrystal with Low Threshold. ACS Photonics, 2021, 8, 335-342.	3.2	26
12	Characteristics of Blue GaN/InGaN Quantum-Well Light-Emitting Transistor. IEEE Electron Device Letters, 2020, 41, 91-94.	2.2	5
13	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
14	Perovskite Quantum Dot Lasing in a Gap-Plasmon Nanocavity with Ultralow Threshold. ACS Nano, 2020, 14, 11670-11676.	7.3	71
15	High Circular Polarized Nanolaser with Chiral Gammadion Metal Cavity. Scientific Reports, 2020, 10, 7880.	1.6	8
16	Photonic Crystal Circular Nanobeam Cavity Laser with Type-II GaSb/GaAs Quantum Rings as Gain Material. Scientific Reports, 2020, 10, 4757.	1.6	3
17	Chiral Second-Harmonic Generation from Monolayer WS₂/Aluminum Plasmonic Vortex Metalens. Nano Letters, 2020, 20, 2857-2864.	4.5	36
18	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

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19	Chirp-free optical-signal generation using dual-and-direct current-voltage modulation of transistor lasers. Optics Letters, 2020, 45, 2474.	1.7	2
20	Nanometer Resolution of Tip-Enhanced Raman Spectroscopy in Tunneling Regime. , 2020, , .		0
21	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
22	Thermally-enhanced current gain of quantum-well heterojunction bipolar transistor. Journal of Applied Physics, 2019, 126, .	1.1	5
23	Rapid single-wavelength lightsheet localization microscopy for clarified tissue. Nature Communications, 2019, 10, 4762.	5.8	25
24	Pulse Compression using Chirp of Transistor Lasers Regardless of Types of Fiber Dispersions. , 2019, , .		1
25	Theoretical analysis on optical frequency response of tunnel-junction transistor lasers operated in different configurations. Journal of Applied Physics, 2019, 125, .	1.1	7
26	Lightsheet localization microscopy enables fast, large-scale, and three-dimensional super-resolution imaging. Communications Biology, 2019, 2, 177.	2.0	46
27	Investigation of Electronic Properties of MoxW1â€“xS2 Alloy by Tight-binding Method for Interband transition. , 2019, , .		0
28	Pulse compression irrespective of fiber dispersion using chirp of transistor lasers. Optics Letters, 2019, 44, 2109.	1.7	5
29	Circularly polarized lasing of ultraviolet plasmonic gammadion nanocavity. , 2019, , .		0
30	Carrier lifetime of heavily p-doped base in light-emitting transistors and transistor lasers. , 2019, , .		0
31	Circular Dichroism Control of Tungsten Diselenide (WSe₂) Atomic Layers with Plasmonic Metamolecules. ACS Applied Materials & Interfaces, 2018, 10, 15996-16004.	4.0	25
32	Ultrathin Planar Cavity Metasurfaces. Small, 2018, 14, e1703920.	5.2	30
33	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
34	High Speed Data Transmission under Voltage Modulation of Transistor Lasers. , 2018, , .		1
35	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
36	Absorption enhancement in type-II coupled quantum rings due to existence of quasi-bound states. , 2018, , .		0

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37	Artifacts in fluorescence lifetime imaging of gold step-like nanostructures. , 2018, , .		0
38	Efficient pattern modeling of plasmonic nanostructures probed by nanoscale near-field scanning microscope tips with different polarized outputs. , 2018, , .		0
39	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
40	Artifacts in fluorescence lifetime imaging of gold nanorod dimer. , 2017, , .		0
41	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
42	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
43	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
44	Improving accuracy using subpixel smoothing for multiband effective-mass Hamiltonians of semiconductor nanostructures. Computer Physics Communications, 2016, 201, 63-76.	3.0	5
45	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
46	Enhancing accuracy with subpixel smoothing for multiband effective-mass Hamiltonians of semiconductor nanostructures. Proceedings of SPIE, 2016, , .	0.8	0
47	The role of optoelectronic feedback on Franz-Keldysh voltage modulation of transistor lasers. , 2016, , .		0
48	Criteria of backscattering in chiral one-way photonic crystals. , 2016, , .		0
49	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
50	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
51	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
52	High Q/V_mhybrid photonic-plasmonic crystal nanowire cavity at telecommunication wavelengths. Proceedings of SPIE, 2015, , .	0.8	3
53	Dressed Linewidth Enhancement Factors in Small Semiconductor Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 157-164.	1.9	12
54	Incomplete immunity to backscattering in chiral one-way photonic crystals. Optics Express, 2015, 23, 10327.	1.7	2

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55	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
56	Toward bound-to-continuum photon absorption with quantum tunneling in type-II nanostructures: a source-radiation scheme using perfectly-matched layers. , 2014, , .		0
57	Design of metal-dielectric grating lasers only supporting surface-wave-like modes. Optics Express, 2014, 22, 27845.	1.7	2
58	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
59	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
60	Plasmonic gap mode nanocavities at telecommunication wavelengths. , 2014, , .		0
61	Bidirectionality in Bianistropic but Reciprocal Photonic Crystals and Its Usage in Active Photonics. Journal of Lightwave Technology, 2014, 32, 10-19.	2.7	3
62	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
63	Plasmonic gap-mode nanocavities with metallic mirrors in high-index cladding. Optics Express, 2013, 21, 13479.	1.7	11
64	Frequency-domain formulation of photonic crystals using sources and gain. Optics Express, 2013, 21, 1972.	1.7	6
65	Bound-to-continuum absorption with tunneling in type-II nanostructures: a multiband source-radiation approach. Optics Express, 2013, 21, 30778.	1.7	10
66	Optical cavity modes of a single crystalline zinc oxide microsphere. Optics Express, 2013, 21, 3010.	1.7	38
67	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
68	Whispering gallery modes of a single crystalline zinc oxide microsphere at visible wavelengths. , 2013, , .		0
69	Self-induced spin polarization in active photonic devices without extrinsic magnetism. , 2013, , .		0
70	Intra-cavity stimulated emissions of photons in almost pure spin states without imposed nonreciprocity. Optics Express, 2012, 20, 2516.	1.7	6
71	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
72	Self-induced spin-polarized carrier source in active photonic device with artificial optical chirality. Applied Physics Letters, 2012, 101, 181106.	1.5	4

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73	In-Plane Gate Transistors With a 40-$muhbox{m}$-Wide Channel Width. IEEE Electron Device Letters, 2012, 33, 1129-1131.	2.2	8
74	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
75	Room temperature lasing with high group index in metal-coated GaN nanoring. Applied Physics Letters, 2011, 99, 251111.	1.5	13
76	Homogeneous circular polarizers using a bilayered chiral metamaterial. Applied Physics Letters, 2011, 99, 031111.	1.5	51
77	Quality Factor of a Nanobowtie Antenna. Journal of Lightwave Technology, 2011, 29, 3107-3114.	2.7	6
78	Full frequency-domain approach to reciprocal microlasers and nanolasersâ€“perspective from Lorentz reciprocity. Optics Express, 2011, 19, 21116.	1.7	16
79	Metal-Cavity Surface-Emitting Microlaser. , 2011, , .		0
80	Metal-Coated Zinc Oxide Nanocavities. IEEE Journal of Quantum Electronics, 2011, 47, 245-251.	1.0	15
81	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
82	CW substrate-free metal-cavity surface microemitters at 300 K. Semiconductor Science and Technology, 2011, 26, 014012.	1.0	16
83	Metal-cavity surface-emitting micro/nanolasers. , 2011, , .		0
84	Low Thermal Impedance of Substrate-Free Metal Cavity Surface-Emitting Microlasers. IEEE Photonics Technology Letters, 2011, 23, 1031-1033.	1.3	13
85	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
86	Substrate-free metal cavity surface-emitting laser with CW operation at room temperature. , 2010, , .		1
87	Theory of Plasmonic Fabry-Perot Nanolasers. Optics Express, 2010, 18, 15039.	1.7	94
88	Whispering Gallery Mode Lasing from Zinc Oxide Hexagonal Nanodisks. ACS Nano, 2010, 4, 3270-3276.	7.3	228
89	Metal-cavity surface-emitting microlaser at room temperature. Applied Physics Letters, 2010, 96, .	1.5	107
90	Coating effect on optical resonance of plasmonic nanobowtie antenna. Applied Physics Letters, 2010, 97, 063106.	1.5	35

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91	Characteristics of metal-cavity surface-emitting microlaser. , 2010, , .		2
92	Fundamental formulation of nanoplasmonic lasers. , 2010, , .		0
93	Quantum-dot laser with a metal-coated waveguide under continuous-wave operation at room temperature. Applied Physics Letters, 2009, 95, .	1.5	16
94	Fundamental Formulation for Plasmonic Nanolasers. IEEE Journal of Quantum Electronics, 2009, 45, 1014-1023.	1.0	94
95	Normal modes for plasmonic nanolasers with dispersive and inhomogeneous media. Optics Letters, 2009, 34, 91.	1.7	28
96	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
97	Strong tunable slow and fast lights using a gain-clamped semiconductor optical amplifier. Optics Express, 2009, 17, 21222.	1.7	3
98	Slow and fast light in quantum-well and quantum-dot semiconductor optical amplifiers. Chinese Optics Letters, 2008, 6, 736-742.	1.3	3
99	Theory for bowtie plasmonic nanolasers. Optics Express, 2008, 16, 10580.	1.7	74
100	Slow and Fast Light in Semiconductors. Optical Science and Engineering, 2008, , .	0.1	0
101	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
102	Optical and electrical control of slow light in p-doped and intrinsic quantum-dot electroabsorbers. Applied Physics Letters, 2007, 90, 251108.	1.5	8
103	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
104	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
105	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
106	Variable Slow Light Using Coherent Population Oscillation in Quantum Dot Electro-absorption Modulator. , 2006, , .		2
107	Slow light based on population oscillation in quantum dots with inhomogeneous broadening. Physical Review B, 2005, 72, .	1.1	30
108	Strain-induced enhancement of spin relaxation times in [110] and [111] grown quantum wells. Physical Review B, 2005, 72, .	1.1	7

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109	Slow light using excitonic population oscillation. Physical Review B, 2004, 70, .	1.1	39
110	Phonon- and Auger-assisted tunneling from a quantum well to a quantum dot. Physical Review B, 2004, 70, .	1.1	31
111	Slow light in semiconductor quantum wells. Optics Letters, 2004, 29, 2291.	1.7	291
112	Electroluminescence at silicon band gap energy from mechanically pressed indiumâ€“tinâ€“oxide/Si contact. Applied Physics Letters, 2001, 78, 1808-1810.	1.5	2
113	Model for band-edge electroluminescence from metalâ€“oxideâ€“semiconductor silicon tunneling diodes. Journal of Applied Physics, 2001, 90, 789-793.	1.1	18