

Hsiang-Chen Wang

List of Publications by Year in descending order

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105
papers

1,317
citations

331259

21
h-index

500791

28
g-index

106
all docs

106
docs citations

106
times ranked

1363
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrafast Responsive Non-volatile Flash Photomemory via Spatially Addressable Perovskite/Block Copolymer Composite Film. <i>Advanced Functional Materials</i> , 2020, 30, 2000764.	7.8	61
2	Temperature-dependent exciton dynamics in a ZnO thin film. <i>Applied Physics Letters</i> , 2005, 87, 252117.	1.5	45
3	Hyperspectral Imaging Combined with Artificial Intelligence in the Early Detection of Esophageal Cancer. <i>Cancers</i> , 2021, 13, 4593.	1.7	45
4	Endoscopic screening for synchronous esophageal neoplasia among patients with incident head and neck cancer: Prevalence, risk factors, and outcomes. <i>International Journal of Cancer</i> , 2017, 141, 1987-1996.	2.3	43
5	Compact and vertically-aligned ZnO nanorod thin films by the low-temperature solution method. <i>Thin Solid Films</i> , 2010, 518, 4156-4162.	0.8	41
6	Optimal lighting of RGB LEDs for oral cavity detection. <i>Optics Express</i> , 2012, 20, 10186.	1.7	37
7	Nano-structure ZnO/Cu ₂ O photoelectrochemical and self-powered biosensor for esophageal cancer cell detection. <i>Optics Express</i> , 2017, 25, 7689.	1.7	34
8	Optical and Material Characteristics of MoS ₂ /Cu ₂ O Sensor for Detection of Lung Cancer Cell Types in Hydroplegia. <i>International Journal of Molecular Sciences</i> , 2022, 23, 4745.	1.8	33
9	Air Pollution: Sensitive Detection of PM _{2.5} and PM ₁₀ Concentration Using Hyperspectral Imaging. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 4543.	1.3	32
10	High performance Cu ₂ O/ZnO core-shell nanorod arrays synthesized using a nanoimprint GaN template by the hydrothermal growth technique. <i>Optical Materials Express</i> , 2014, 4, 1473.	1.6	30
11	Crystallinity Improvement of ZnO Thin Film on Different Buffer Layers Grown by MBE. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-7.	1.5	29
12	Endoscopic Images by a Single-Shot Multibox Detector for the Identification of Early Cancerous Lesions in the Esophagus: A Pilot Study. <i>Cancers</i> , 2021, 13, 321.	1.7	29
13	Enhanced visualization of oral cavity for early inflamed tissue detection. <i>Optics Express</i> , 2010, 18, 11800.	1.7	27
14	Visual perception enhancement for detection of cancerous oral tissue by multi-spectral imaging. <i>Journal of Optics (United Kingdom)</i> , 2013, 15, 055301.	1.0	26
15	Thermal annealing effects on an InGaN film with an average indium mole fraction of 0.31. <i>Applied Physics Letters</i> , 2003, 83, 3906-3908.	1.5	25
16	Crystallinity improvement of ZnO thin film by hierarchical thermal annealing. <i>Optical Materials Express</i> , 2013, 3, 295.	1.6	25
17	Design of a Lab-On-Chip for Cancer Cell Detection through Impedance and Photoelectrochemical Response Analysis. <i>Biosensors</i> , 2022, 12, 405.	2.3	25
18	Growth Mechanism of Periodic-Structured MoS ₂ by Transmission Electron Microscopy. <i>Nanomaterials</i> , 2022, 12, 135.	1.9	24

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19	Defect detection and property evaluation of indium tin oxide conducting glass using optical coherence tomography. <i>Optics Express</i> , 2011, 19, 7559.	1.7	23
20	Synthesis and characterization of ZnO/ZnMgO multiple quantum wells by molecular beam epitaxy. <i>Optical Materials Express</i> , 2013, 3, 237.	1.6	23
21	Characterizing Esophageal Cancerous Cells at Different Stages Using the Dielectrophoretic Impedance Measurement Method in a Microchip. <i>Sensors</i> , 2017, 17, 1053.	2.1	23
22	Carrier relaxation in InGaN ^x GaN quantum wells with nanometer-scale cluster structures. <i>Applied Physics Letters</i> , 2004, 85, 1371-1373.	1.5	20
23	Anti-glare LED lamps with adjustable illumination light field. <i>Optics Express</i> , 2014, 22, 5183.	1.7	20
24	Early identification of esophageal squamous neoplasm by hyperspectral endoscopic imaging. <i>Scientific Reports</i> , 2018, 8, 13797.	1.6	20
25	Synthesis of CIGS thin film by solvothermal route. <i>Optical Materials Express</i> , 2013, 3, 54.	1.6	19
26	How Smart LEDs Lighting Benefit Color Temperature and Luminosity Transformation. <i>Energies</i> , 2017, 10, 518.	1.6	19
27	Influence of catalyst choices on transport behaviors of InAs NWs for high-performance nanoscale transistors. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 2654.	1.3	17
28	Diagnosis of Human Bladder Cancer Cells at Different Stages Using Multispectral Imaging Microscopy. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014, 20, 81-88.	1.9	17
29	Spectral design and evaluation of OLEDs as light sources. <i>Organic Electronics</i> , 2014, 15, 2194-2209.	1.4	17
30	Efficient carrier relaxation and fast carrier recombination of <i>N</i> -polar InGaN/GaN light emitting diodes. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	17
31	Time-evolution of the electrical characteristics of MoS ₂ field-effect transistors after electron beam irradiation. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 9038-9044.	1.3	17
32	Simplified Approach to Detect Satellite Maneuvers Using TLE Data and Simplified Perturbation Model Utilizing Orbital Element Variation. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 10181.	1.3	17
33	Cu ₂ O/PEDOT:PSS/ZnO Nanocomposite Material Biosensor for Esophageal Cancer Detection. <i>Sensors</i> , 2020, 20, 2455.	2.1	16
34	Carrier dynamics in coalescence overgrowth of GaN nanocolumns. <i>Thin Solid Films</i> , 2010, 519, 863-867.	0.8	15
35	Indium droplet formation in InGaN thin films with single and double heterojunctions prepared by MOCVD. <i>Nanoscale Research Letters</i> , 2014, 9, 334.	3.1	15
36	Identified early stage mycosis fungoides from psoriasis and atopic dermatitis using non-invasive color contrast enhancement by LEDs lighting. <i>Optical and Quantum Electronics</i> , 2015, 47, 1599-1611.	1.5	15

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37	Low-temperature-grown p ⁺ n ZnO nanojunction arrays as rapid and self-driven UV photodetectors. <i>Chemical Communications</i> , 2016, 52, 12853-12856.	2.2	15
38	Effect of Catalyst Morphology on the Quality of CVD Grown Graphene. <i>Journal of Nanomaterials</i> , 2013, 2013, 1-6.	1.5	14
39	All-reflective RGB LED flashlight design for effective color mixing. <i>Optics Express</i> , 2016, 24, 4411.	1.7	14
40	Carrier capture times of the localized states in an InGaN thin film with indium-rich nanocluster structures. <i>Applied Physics Letters</i> , 2006, 89, 011906.	1.5	13
41	Carrier trapping effects on photoluminescence decay time in InGaN ⁺ GaN quantum wells with nanocluster structures. <i>Journal of Applied Physics</i> , 2007, 101, 063511.	1.1	13
42	Intelligent Identification of MoS ₂ Nanostructures with Hyperspectral Imaging by 3D-CNN. <i>Nanomaterials</i> , 2020, 10, 1161.	1.9	13
43	The impact of trimethylindium treatment time during growth interruption on the carrier dynamics of InGaN/GaN multiple quantum wells. <i>Thin Solid Films</i> , 2011, 519, 6092-6096.	0.8	12
44	Non-degenerate fs pump-probe study on InGaN with multi-wavelength second-harmonic generation. <i>Optics Express</i> , 2005, 13, 5245.	1.7	11
45	Large-area few-layered graphene film determination by multispectral imaging microscopy. <i>Nanoscale</i> , 2015, 7, 9033-9039.	2.8	11
46	Growth and characterization of textured well-faceted ZnO on planar Si(100), planar Si(111), and textured Si(100) substrates for solar cell applications. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 1939-1945.	1.5	11
47	Hollow Light Guide Module Involving Mini Light-Emitting Diodes for Asymmetric Luminous Planar Illuminators. <i>Energies</i> , 2019, 12, 2755.	1.6	11
48	Comparative Analysis of Stress and Deformation between One-Fenced and Three-Fenced Dental Implants Using Finite Element Analysis. <i>Journal of Clinical Medicine</i> , 2021, 10, 3986.	1.0	11
49	Ultrafast ablation dynamics in fused silica with a white light beam probe. <i>Optics Express</i> , 2011, 19, 16390.	1.7	10
50	Light extraction efficiency enhancement of flip-chip blue light-emitting diodes by anodic aluminum oxide. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 1602-1612.	1.5	10
51	Hyperspectral Ophthalmoscope Images for the Diagnosis of Diabetic Retinopathy Stage. <i>Journal of Clinical Medicine</i> , 2020, 9, 1613.	1.0	10
52	Ultrafast carrier dynamics in an InGaN thin film. <i>Journal of Applied Physics</i> , 2005, 97, 033704.	1.1	9
53	Luminescence mechanism and carrier dynamic studies of InGaN-based dichromatic light emitting diodes with ultraviolet and blue emissions. <i>Thin Solid Films</i> , 2008, 517, 909-915.	0.8	9
54	Suppression of surface recombination in surface plasmon coupling with an InGaN/GaN multiple quantum well sample. <i>Optics Express</i> , 2011, 19, 18893.	1.7	9

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55	Optical perception for detection of cutaneous T-cell lymphoma by multi-spectral imaging. Journal of Optics (United Kingdom), 2014, 16, 125301.	1.0	9
56	The effects of indium aggregation in InGaN/GaN single and multiple quantum wells grown on nitrogen-polar GaN templates by a pulsed metalorganic chemical vapor deposition. Journal of Luminescence, 2017, 182, 196-199.	1.5	9
57	Identification of Skin Lesions by Using Single-Step Multiframe Detector. Journal of Clinical Medicine, 2021, 10, 144.	1.0	9
58	Ultrafast biexciton dynamics in a ZnO thin film. Applied Physics Letters, 2005, 87, 072103.	1.5	8
59	Optical properties of InGaN/GaN multiple quantum wells with trimethylindium treatment during growth interruption. Journal of Crystal Growth, 2011, 325, 41-45.	0.7	8
60	Laser Headlamp with a Tunable Light Field. Energies, 2019, 12, 707.	1.6	8
61	Characterizations and growth of textured well-faceted ZnO films by low-pressure chemical vapor deposition on ITO glass substrates. Superlattices and Microstructures, 2017, 111, 1073-1081.	1.4	7
62	Identifying the incidence level of periodontal disease through hyperspectral imaging. Optical and Quantum Electronics, 2018, 50, 1.	1.5	7
63	Depth dependence of optical property beyond the critical thickness of an InGaN film. Journal of Crystal Growth, 2006, 288, 18-22.	0.7	6
64	Carrier dynamics in InGaN/GaN multiple quantum wells based on different polishing processes of sapphire substrate. Thin Solid Films, 2010, 518, 7291-7294.	0.8	6
65	Vision correction via multi-layer pattern corneal surgery. Optics Communications, 2013, 300, 293-298.	1.0	6
66	Plan-view transmission electron microscopy study on coalescence overgrowth of GaN nano-columns by MOCVD. Optical Materials Express, 2013, 3, 1459.	1.6	6
67	Nanostructure analysis of InGaN/GaN quantum wells based on semi-polar-faced GaN nanorods. Optical Materials Express, 2017, 7, 320.	1.6	6
68	Growth, characterization, and analysis of the nanostructures of ZnO:B thin films grown on ITO glass substrates by a LPCVD: a study on the effects of boron doping. Journal of Materials Science: Materials in Electronics, 2019, 30, 5698-5705.	1.1	6
69	Real time monitoring of fs laser annealing on indium tin oxide. Optics and Laser Technology, 2019, 111, 380-386.	2.2	6
70	Ultrafast Exciton Dynamics in a ZnO Thin Film. Japanese Journal of Applied Physics, 2009, 48, 022402.	0.8	5
71	Nanostructure study of the coalescence growth of GaN columns with molecular beam epitaxy. Optical Materials Express, 2013, 3, 1450.	1.6	5
72	Optimal Silicon Doping Layers of Quantum Barriers in the Growth Sequence Forming Soft Confinement Potential of Eight-Period In _{0.2} Ga _{0.8} N/GaN Quantum Wells of Blue LEDs. Nanoscale Research Letters, 2017, 12, 591.	3.1	5

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73	Nanoparticle-Doped Polydimethylsiloxane Fluid Enhances the Optical Performance of AlGaIn-Based Deep-Ultraviolet Light-Emitting Diodes. <i>Nanoscale Research Letters</i> , 2019, 14, 236.	3.1	5
74	Influences of Contact Metals on the Performances of MoS ₂ Devices under Strains. <i>Journal of Physical Chemistry C</i> , 2019, 123, 30696-30703.	1.5	5
75	Characteristics of P-Type and N-Type Photoelectrochemical Biosensors: A Case Study for Esophageal Cancer Detection. <i>Nanomaterials</i> , 2021, 11, 1065.	1.9	5
76	Photoluminescence temperature behavior and Monte Carlo simulation of exciton hopping in InGaIn multiple quantum wells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 2809-2812.	0.8	4
77	The Role of Growth-Pressure on the Determination of Anisotropy Properties in Nonpolar-m-Plane GaIn. <i>ECS Journal of Solid State Science and Technology</i> , 2012, 1, R50-R53.	0.9	4
78	Rainbow glare by retinal imaging. <i>Optics Communications</i> , 2016, 370, 160-167.	1.0	4
79	Contact lens with peripheral refractive correction. <i>Optik</i> , 2019, 185, 223-231.	1.4	4
80	Carrier localization effect in polarized InGaIn multiple quantum wells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 2753-2756.	0.8	3
81	Ultrafast pump-probe spectroscopy in the UV-blue range with an extremely broad probe spectrum for the carrier relaxation study in an InGaIn thin film with indium-rich nano-clusters. <i>Optics Express</i> , 2007, 15, 3417.	1.7	3
82	Enhancing carrier transport and carrier capture with a good current spreading characteristic via graphene transparent conductive electrodes in InGaIn/GaIn multiple-quantum-well light emitting diodes. <i>Scientific Reports</i> , 2020, 10, 10539.	1.6	3
83	Human eye cataract microstructure modeling and its effect on simulated retinal imaging. <i>Optics Communications</i> , 2017, 385, 59-65.	1.0	2
84	Carrier Dynamics in InGaIn/GaIn on the Basis of Different In Concentrations. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 2279.	1.3	2
85	Detection of weak micro-scratches on aspherical lenses using a Gabor neural network and transfer learning. <i>Applied Optics</i> , 2022, 61, 6046.	0.9	2
86	Monte Carlo simulation approach for a quantitative characterization of the band edge in InGaIn quantum wells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 1023-1026.	0.8	1
87	Non-Volatile Flash Photomemory: Ultrafast Responsive Non-Volatile Flash Photomemory via Spatially Addressable Perovskite/Block Copolymer Composite Film (<i>Adv. Funct. Mater.</i> 21/2020). <i>Advanced Functional Materials</i> , 2020, 30, 2070135.	7.8	1
88	Thermal annealing effects on the optical properties of high-indium InGaIn epi-layers. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003, 0, 2654-2657.	0.8	0
89	Characteristics of amplified spontaneous emission of high indium content InGaIn/GaIn quantum wells with various silicon doping conditions. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003, 0, 2670-2673.	0.8	0
90	Indium aggregated quantum dot structures in InGaIn compounds. , 0, , .		0

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91	Effects of thermal annealing on InGaN/GaN quantum well structures with silicon doping. , 0, , .		0
92	Application of optical coherence tomography to monitoring the subsurface morphology of archaic jades. , 0, , .		0
93	Quantum dot structures and their optical properties of a high-indium InGaN film. , 0, , .		0
94	Femtosecond pump-probe studies on carrier dynamics in InGaN/GaN quantum wells with indium aggregated quantum dot structures. , 0, , .		0
95	Observations of exciton density of state variations in a ZnO thin film with fs pump-probe experiments. , 2005, , .		0
96	Anomalous exciton lifetime increasing trend with temperature in ZnO thin films. , 2005, , .		0
97	Fs pump-probe spectroscopy on ZnO thin films. , 2005, , .		0
98	Non-degenerate fs pump-probe study in the UV-blue range with multi-wavelength second-harmonic generations. , 2005, , .		0
99	Ultrafast carrier dynamics in nano-clustered InGaN. , 2006, , .		0
100	Extremely broadband second-harmonic generation pumped by a 7 fs Ti:sapphire laser. , 2006, , .		0
101	Ultrafast Pump-probe Experiment Based on Extremely Broadband Second-harmonic Generation. , 2007, , .		0
102	Carrier dynamics in GaN layers overgrown on nanocolumnar structures. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1856-1858.	0.8	0
103	Precursor Duration and Thermal Annealing Effects in InGaN/GaN Multiple Quantum Wells Grown on Nitrogen-Polar GaN Templates by a Pulsed Metallorganic Chemical Vapor Deposition. ECS Journal of Solid State Science and Technology, 2018, 7, R161-R165.	0.9	0
104	(Invited) Molybdenum Disulfide Biosensors. ECS Meeting Abstracts, 2018, , .	0.0	0
105	Co-dosing Ozone and Deionized Water as Oxidant Precursors of ZnO Thin Film Growth by Atomic Layer Deposition. Nanoscale Research Letters, 2020, 15, 154.	3.1	0