

Hsiang-Chen Wang

List of Publications by Year in descending order

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Version: 2024-02-01

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 | Growth Mechanism of Periodic-Structured MoS ₂ by Transmission Electron Microscopy. <i>Nanomaterials</i> , 2022, 12, 135. | 1.9 | 24 |
| 2 | 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 |
| 3 | 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 |
| 4 | 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 |
| 5 | Identification of Skin Lesions by Using Single-Step Multiframe Detector. <i>Journal of Clinical Medicine</i> , 2021, 10, 144. | 1.0 | 9 |
| 6 | 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 |
| 7 | 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 |
| 8 | Hyperspectral Imaging Combined with Artificial Intelligence in the Early Detection of Esophageal Cancer. <i>Cancers</i> , 2021, 13, 4593. | 1.7 | 45 |
| 9 | 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 |
| 10 | 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 |
| 11 | 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 |
| 12 | Cu ₂ O/PEDOT:PSS/ZnO Nanocomposite Material Biosensor for Esophageal Cancer Detection. <i>Sensors</i> , 2020, 20, 2455. | 2.1 | 16 |
| 13 | 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 |
| 14 | Hyperspectral Ophthalmoscope Images for the Diagnosis of Diabetic Retinopathy Stage. <i>Journal of Clinical Medicine</i> , 2020, 9, 1613. | 1.0 | 10 |
| 15 | Intelligent Identification of MoS ₂ Nanostructures with Hyperspectral Imaging by 3D-CNN. <i>Nanomaterials</i> , 2020, 10, 1161. | 1.9 | 13 |
| 16 | Enhancing carrier transport and carrier capture with a good current spreading characteristic via graphene transparent conductive electrodes in InGaN/GaN multiple-quantum-well light emitting diodes. <i>Scientific Reports</i> , 2020, 10, 10539. | 1.6 | 3 |
| 17 | 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 |
| 18 | Co-dosing Ozone and Deionized Water as Oxidant Precursors of ZnO Thin Film Growth by Atomic Layer Deposition. <i>Nanoscale Research Letters</i> , 2020, 15, 154. | 3.1 | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Carrier Dynamics in InGaN/GaN on the Basis of Different In Concentrations. Applied Sciences (Switzerland), 2019, 9, 2279. | 1.3 | 2 |
| 20 | Hollow Light Guide Module Involving Mini Light-Emitting Diodes for Asymmetric Luminous Planar Illuminators. Energies, 2019, 12, 2755. | 1.6 | 11 |
| 21 | Nanoparticle-Doped Polydimethylsiloxane Fluid Enhances the Optical Performance of AlGaN-Based Deep-Ultraviolet Light-Emitting Diodes. Nanoscale Research Letters, 2019, 14, 236. | 3.1 | 5 |
| 22 | Laser Headlamp with a Tunable Light Field. Energies, 2019, 12, 707. | 1.6 | 8 |
| 23 | Contact lens with peripheral refractive correction. Optik, 2019, 185, 223-231. | 1.4 | 4 |
| 24 | 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 |
| 25 | Influences of Contact Metals on the Performances of MoS ₂ Devices under Strains. Journal of Physical Chemistry C, 2019, 123, 30696-30703. | 1.5 | 5 |
| 26 | Real time monitoring of fs laser annealing on indium tin oxide. Optics and Laser Technology, 2019, 111, 380-386. | 2.2 | 6 |
| 27 | Time-evolution of the electrical characteristics of MoS ₂ field-effect transistors after electron beam irradiation. Physical Chemistry Chemical Physics, 2018, 20, 9038-9044. | 1.3 | 17 |
| 28 | Identifying the incidence level of periodontal disease through hyperspectral imaging. Optical and Quantum Electronics, 2018, 50, 1. | 1.5 | 7 |
| 29 | 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 |
| 30 | Early identification of esophageal squamous neoplasm by hyperspectral endoscopic imaging. Scientific Reports, 2018, 8, 13797. | 1.6 | 20 |
| 31 | Light extraction efficiency enhancement of flip-chip blue light-emitting diodes by anodic aluminum oxide. Beilstein Journal of Nanotechnology, 2018, 9, 1602-1612. | 1.5 | 10 |
| 32 | (Invited) Molybdenum Disulfide Biosensors. ECS Meeting Abstracts, 2018, , . | 0.0 | 0 |
| 33 | Endoscopic screening for synchronous esophageal neoplasia among patients with incident head and neck cancer: Prevalence, risk factors, and outcomes. International Journal of Cancer, 2017, 141, 1987-1996. | 2.3 | 43 |
| 34 | 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 |
| 35 | Human eye cataract microstructure modeling and its effect on simulated retinal imaging. Optics Communications, 2017, 385, 59-65. | 1.0 | 2 |
| 36 | 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 |

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|----|--|-----|-----------|
| 37 | 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 |
| 38 | Nanostructure analysis of InGaN/GaN quantum wells based on semi-polar-faced GaN nanorods. <i>Optical Materials Express</i> , 2017, 7, 320. | 1.6 | 6 |
| 39 | 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 |
| 40 | How Smart LEDs Lighting Benefit Color Temperature and Luminosity Transformation. <i>Energies</i> , 2017, 10, 518. | 1.6 | 19 |
| 41 | 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. <i>Nanoscale Research Letters</i> , 2017, 12, 591. | 3.1 | 5 |
| 42 | 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 |
| 43 | Low-temperature-grown ZnO nanojunction arrays as rapid and self-driven UV photodetectors. <i>Chemical Communications</i> , 2016, 52, 12853-12856. | 2.2 | 15 |
| 44 | All-reflective RGB LED flashlight design for effective color mixing. <i>Optics Express</i> , 2016, 24, 4411. | 1.7 | 14 |
| 45 | Rainbow glare by retinal imaging. <i>Optics Communications</i> , 2016, 370, 160-167. | 1.0 | 4 |
| 46 | 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 |
| 47 | 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 |
| 48 | Large-area few-layered graphene film determination by multispectral imaging microscopy. <i>Nanoscale</i> , 2015, 7, 9033-9039. | 2.8 | 11 |
| 49 | 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 |
| 50 | Anti-glare LED lamps with adjustable illumination light field. <i>Optics Express</i> , 2014, 22, 5183. | 1.7 | 20 |
| 51 | Optical perception for detection of cutaneous T-cell lymphoma by multi-spectral imaging. <i>Journal of Optics (United Kingdom)</i> , 2014, 16, 125301. | 1.0 | 9 |
| 52 | 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 |
| 53 | Spectral design and evaluation of OLEDs as light sources. <i>Organic Electronics</i> , 2014, 15, 2194-2209. | 1.4 | 17 |
| 54 | 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 |

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|----|--|-----|-----------|
| 55 | 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 |
| 56 | Vision correction via multi-layer pattern corneal surgery. <i>Optics Communications</i> , 2013, 300, 293-298. | 1.0 | 6 |
| 57 | Synthesis and characterization of ZnO/ZnMgO multiple quantum wells by molecular beam epitaxy. <i>Optical Materials Express</i> , 2013, 3, 237. | 1.6 | 23 |
| 58 | Plan-view transmission electron microscopy study on coalescence overgrowth of GaN nano-columns by MOCVD. <i>Optical Materials Express</i> , 2013, 3, 1459. | 1.6 | 6 |
| 59 | Crystallinity improvement of ZnO thin film by hierarchical thermal annealing. <i>Optical Materials Express</i> , 2013, 3, 295. | 1.6 | 25 |
| 60 | Synthesis of CIGS thin film by solvothermal route. <i>Optical Materials Express</i> , 2013, 3, 54. | 1.6 | 19 |
| 61 | Nanostructure study of the coalescence growth of GaN columns with molecular beam epitaxy. <i>Optical Materials Express</i> , 2013, 3, 1450. | 1.6 | 5 |
| 62 | Effect of Catalyst Morphology on the Quality of CVD Grown Graphene. <i>Journal of Nanomaterials</i> , 2013, 2013, 1-6. | 1.5 | 14 |
| 63 | 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 |
| 64 | 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 |
| 65 | Optimal lighting of RGB LEDs for oral cavity detection. <i>Optics Express</i> , 2012, 20, 10186. | 1.7 | 37 |
| 66 | The Role of Growth-Pressure on the Determination of Anisotropy Properties in Nonpolar-m-Plane GaN. <i>ECS Journal of Solid State Science and Technology</i> , 2012, 1, R50-R53. | 0.9 | 4 |
| 67 | 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 |
| 68 | Ultrafast ablation dynamics in fused silica with a white light beam probe. <i>Optics Express</i> , 2011, 19, 16390. | 1.7 | 10 |
| 69 | 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 |
| 70 | Optical properties of InGaN/GaN multiple quantum wells with trimethylindium treatment during growth interruption. <i>Journal of Crystal Growth</i> , 2011, 325, 41-45. | 0.7 | 8 |
| 71 | 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 |
| 72 | 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 |

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|----|--|-----|-----------|
| 73 | Carrier dynamics in InGaN/GaN multiple quantum wells based on different polishing processes of sapphire substrate. <i>Thin Solid Films</i> , 2010, 518, 7291-7294. | 0.8 | 6 |
| 74 | Carrier dynamics in coalescence overgrowth of GaN nanocolumns. <i>Thin Solid Films</i> , 2010, 519, 863-867. | 0.8 | 15 |
| 75 | Carrier dynamics in GaN layers overgrown on nanocolumnar structures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 1856-1858. | 0.8 | 0 |
| 76 | Enhanced visualization of oral cavity for early inflamed tissue detection. <i>Optics Express</i> , 2010, 18, 11800. | 1.7 | 27 |
| 77 | Ultrafast Exciton Dynamics in a ZnO Thin Film. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 022402. | 0.8 | 5 |
| 78 | 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 |
| 79 | 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 |
| 80 | Ultrafast pump-probe spectroscopy in the UV-blue range with an extremely broad probe spectrum for the carrier relaxation study in an InGaN thin film with indium-rich nano-clusters. <i>Optics Express</i> , 2007, 15, 3417. | 1.7 | 3 |
| 81 | Ultrafast Pump-probe Experiment Based on Extremely Broadband Second-harmonic Generation. , 2007, , . | | 0 |
| 82 | 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 |
| 83 | Depth dependence of optical property beyond the critical thickness of an InGaN film. <i>Journal of Crystal Growth</i> , 2006, 288, 18-22. | 0.7 | 6 |
| 84 | Ultrafast carrier dynamics in nano-clustered InGaN. , 2006, , . | | 0 |
| 85 | Extremely broadband second-harmonic generation pumped by a 7 fs Ti:sapphire laser. , 2006, , . | | 0 |
| 86 | Observations of exciton density of state variations in a ZnO thin film with fs pump-probe experiments. , 2005, , . | | 0 |
| 87 | Monte Carlo simulation approach for a quantitative characterization of the band edge in InGaN quantum wells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 1023-1026. | 0.8 | 1 |
| 88 | Photoluminescence temperature behavior and Monte Carlo simulation of exciton hopping in InGaN multiple quantum wells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 2809-2812. | 0.8 | 4 |
| 89 | Carrier localization effect in polarized InGaN multiple quantum wells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 2753-2756. | 0.8 | 3 |
| 90 | Ultrafast carrier dynamics in an InGaN thin film. <i>Journal of Applied Physics</i> , 2005, 97, 033704. | 1.1 | 9 |

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|-----|--|-----|-----------|
| 91 | Anomalous exciton lifetime increasing trend with temperature in ZnO thin films. , 2005, , . | | 0 |
| 92 | Fs pump-probe spectroscopy on ZnO thin films. , 2005, , . | | 0 |
| 93 | Non-degenerate fs pump-probe study in the UV-blue range with multi-wavelength second-harmonic generations. , 2005, , . | | 0 |
| 94 | Non-degenerate fs pump-probe study on InGaN with multi-wavelength second-harmonic generation. Optics Express, 2005, 13, 5245. | 1.7 | 11 |
| 95 | Temperature-dependent exciton dynamics in a ZnO thin film. Applied Physics Letters, 2005, 87, 252117. | 1.5 | 45 |
| 96 | Ultrafast biexciton dynamics in a ZnO thin film. Applied Physics Letters, 2005, 87, 072103. | 1.5 | 8 |
| 97 | Carrier relaxation in InGa ^x N ^{1-x} GaN quantum wells with nanometer-scale cluster structures. Applied Physics Letters, 2004, 85, 1371-1373. | 1.5 | 20 |
| 98 | Thermal annealing effects on the optical properties of high-indium InGaN epi-layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2654-2657. | 0.8 | 0 |
| 99 | Characteristics of amplified spontaneous emission of high indium content InGaN/GaN quantum wells with various silicon doping conditions. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2670-2673. | 0.8 | 0 |
| 100 | Thermal annealing effects on an InGaN film with an average indium mole fraction of 0.31. Applied Physics Letters, 2003, 83, 3906-3908. | 1.5 | 25 |
| 101 | Indium aggregated quantum dot structures in InGaN compounds. , 0, , . | | 0 |
| 102 | Effects of thermal annealing on InGaN/GaN quantum well structures with silicon doping. , 0, , . | | 0 |
| 103 | Application of optical coherence tomography to monitoring the subsurface morphology of archaic jades. , 0, , . | | 0 |
| 104 | Quantum dot structures and their optical properties of a high-indium InGaN film. , 0, , . | | 0 |
| 105 | Femtosecond pump-probe studies on carrier dynamics in InGaN/GaN quantum wells with indium aggregated quantum dot structures. , 0, , . | | 0 |