

# Hieu Pham Trung Nguyen

## List of Publications by Year in descending order

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76  
papers

2,452  
citations

304743

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49  
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78  
docs citations

78  
times ranked

2363  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | p-Type Modulation Doped InGaN/GaN Dot-in-a-Wire White-Light-Emitting Diodes Monolithically Grown on Si(111). Nano Letters, 2011, 11, 1919-1924.   | 9.1  | 255       |
| 2  | One-Step Overall Water Splitting under Visible Light Using Multiband InGaN/GaN Nanowire Heterostructures. ACS Nano, 2013, 7, 7886-7893.   | 14.6 | 190       |
| 3  | III-Nitride nanowire optoelectronics. Progress in Quantum Electronics, 2015, 44, 14-68.   | 7.0  | 188       |
| 4  | Highly Stable Photoelectrochemical Water Splitting and Hydrogen Generation Using a Double-Band InGaN/GaN Core/Shell Nanowire Photoanode. Nano Letters, 2013, 13, 4356-4361.                   | 9.1  | 186       |
| 5  | Controlling Electron Overflow in Phosphor-Free InGaN/GaN Nanowire White Light-Emitting Diodes. Nano Letters, 2012, 12, 1317-1323.   | 9.1  | 178       |
| 6  | Breaking the Carrier Injection Bottleneck of Phosphor-Free Nanowire White Light-Emitting Diodes. Nano Letters, 2013, 13, 5437-5442.   | 9.1  | 135       |
| 7  | Full-color InGaN/GaN dot-in-a-wire light emitting diodes on silicon. Nanotechnology, 2011, 22, 445202.  | 2.6  | 93        |
| 8  | Engineering the Carrier Dynamics of InGaN Nanowire White Light-Emitting Diodes by Distributed p-AlGaIn Electron Blocking Layers. Scientific Reports, 2015, 5, 7744.                           | 3.3  | 93        |
| 9  | Alternating-Current InGaN/GaN Tunnel Junction Nanowire White-Light Emitting Diodes. Nano Letters, 2015, 15, 6696-6701.  | 9.1  | 85        |
| 10 | High efficiency photoelectrochemical water splitting and hydrogen generation using GaN nanowire photoelectrode. Nanotechnology, 2013, 24, 175401.   | 2.6  | 84        |
| 11 | Color-tunable, phosphor-free InGaN nanowire light-emitting diode arrays monolithically integrated on silicon. Optics Express, 2014, 22, A1768.  | 3.4  | 82        |
| 12 | Growth of large-scale vertically aligned GaN nanowires and their heterostructures with high uniformity on SiO <sub>2</sub> by catalyst-free molecular beam epitaxy. Nanoscale, 2013, 5, 5283. | 5.6  | 79        |
| 13 | InN p-i-n Nanowire Solar Cells on Si. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 1062-1069.  | 2.9  | 68        |
| 14 | Temperature-dependent nonradiative recombination processes in GaN-based nanowire white-light-emitting diodes on silicon. Nanotechnology, 2012, 23, 194012.                                    | 2.6  | 64        |
| 15 | Highly efficient, spectrally pure 340 nm ultraviolet emission from Al <sub>x</sub> Ga <sub>1-x</sub> N nanowire based light emitting diodes. Nanotechnology, 2013, 24, 345201.                | 2.6  | 53        |
| 16 | Full-Color InGaN/AlGaIn Nanowire Micro Light-Emitting Diodes Grown by Molecular Beam Epitaxy: A Promising Candidate for Next Generation Micro Displays. Micromachines, 2019, 10, 492.         | 2.9  | 51        |
| 17 | High-Efficiency InGaN/GaN Dot-in-a-Wire Red Light-Emitting Diodes. IEEE Photonics Technology Letters, 2012, 24, 321-323.  | 2.5  | 38        |
| 18 | On the Carrier Injection Efficiency and Thermal Property of InGaN/GaN Axial Nanowire Light Emitting Diodes. IEEE Journal of Quantum Electronics, 2014, 50, 483-490.                           | 1.9  | 35        |

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|----|--|-----|-----------|
| 19 | High performance electron blocking layer-free InGaN/GaN nanowire white-light-emitting diodes. Optics Express, 2020, 28, 665.   | 3.4 | 35        |
| 20 | Atomic Ordering in InGaN Alloys within Nanowire Heterostructures. Nano Letters, 2015, 15, 6413-6418.   | 9.1 | 32        |
| 21 | High efficiency green/yellow and red InGaN/AlGaIn nanowire light-emitting diodes grown by molecular beam epitaxy. Journal of Science: Advanced Materials and Devices, 2017, 2, 150-155.  | 3.1 | 28        |
| 22 | p-Type dopant incorporation and surface charge properties of catalyst-free GaN nanowires revealed by micro-Raman scattering and X-ray photoelectron spectroscopy. Nanoscale, 2014, 6, 9970-9976.   | 5.6 | 26        |
| 23 | Interplay of strain and indium incorporation in InGaIn/GaN dot-in-a-wire nanostructures by scanning transmission electron microscopy. Nanotechnology, 2015, 26, 344002.  | 2.6 | 24        |
| 24 | Epitaxial Growth and Characterization of AlInN-Based Core-Shell Nanowire Light Emitting Diodes Operating in the Ultraviolet Spectrum. Scientific Reports, 2020, 10, 2547.  | 3.3 | 23        |
| 25 | Improving carrier transport in AlGaIn deep-ultraviolet light-emitting diodes using a strip-in-a-barrier structure. Applied Optics, 2020, 59, 5276.   | 1.8 | 20        |
| 26 | Controlling color emission of InGaIn/AlGaIn nanowire light-emitting diodes grown by molecular beam epitaxy. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .  | 1.2 | 19        |
| 27 | Phosphor-Free InGaIn/GaN Dot-in-a-Wire White Light-Emitting Diodes on Copper Substrates. Journal of Electronic Materials, 2014, 43, 868-872.   | 2.2 | 17        |
| 28 | Deep red fluoride dots-in-nanoparticles for high color quality micro white light-emitting diodes. Optics Express, 2020, 28, 26189.   | 3.4 | 17        |
| 29 | Tunable, full-color nanowire light emitting diode arrays monolithically integrated on Si and sapphire. Proceedings of SPIE, 2016, , .  | 0.8 | 14        |
| 30 | Photonic crystal-based permutation switch for optical networks. Photonic Network Communications, 2018, 35, 90-96.  | 2.7 | 14        |
| 31 | Enhancing the light extraction efficiency of AlInN nanowire ultraviolet light-emitting diodes with photonic crystal structures. Optics Express, 2020, 28, 22908.   | 3.4 | 14        |
| 32 | On the efficiency droop of top-down etched InGaIn/GaN nanorod light emitting diodes under optical pumping. AIP Advances, 2013, 3, .  | 1.3 | 13        |
| 33 | Fabrication of Phosphor-Free III-Nitride Nanowire Light-Emitting Diodes on Metal Substrates for Flexible Photonics. ACS Omega, 2017, 2, 5708-5714.   | 3.5 | 13        |
| 34 | Controlling Fano resonances in multilayer dielectric gratings towards optical bistable devices. Scientific Reports, 2018, 8, 16404.  | 3.3 | 13        |
| 35 | Numerical investigation on the device performance of electron blocking layer free AlInN nanowire deep ultraviolet light-emitting diodes. Optical Materials Express, 2020, 10, 472.   | 3.0 | 12        |
| 36 | Engineering the color rendering index of phosphor-free InGaIn/(Al)GaIn nanowire white light emitting diodes grown by molecular beam epitaxy. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, 02C113. | 1.2 | 11        |

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| 37 | High-performance electron-blocking-layer-free deep ultraviolet light-emitting diodes implementing a strip-in-a-barrier structure. <i>Optics Letters</i> , 2020, 45, 5125.   | 3.3 | 11        |
| 38 | Single and double-gate based AlGaIn/GaN MOSFETs for the design of low-noise amplifiers: a comparative study. <i>IET Circuits, Devices and Systems</i> , 2020, 14, 1018-1025.  | 1.4 | 11        |
| 39 | Improvement of the emission properties from InGaIn/GaN dot-in-a-wire nanostructures after treatment in the flowing afterglow of a microwave N <sub>2</sub> plasma. <i>Nanotechnology</i> , 2014, 25, 435606.  | 2.6 | 9         |
| 40 | Experimental and numerical optical characterization of plasmonic copper nanoparticles embedded in ZnO fabricated by ion implantation and annealing. <i>Journal of Alloys and Compounds</i> , 2016, 669, 246-253.                                    | 5.5 | 9         |
| 41 | Effects of optical absorption in deep ultraviolet nanowire light-emitting diodes. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2018, 28, 106-110.  | 2.0 | 9         |
| 42 | Enhanced hole transport in AlGaIn deep ultraviolet light-emitting diodes using a double-sided step graded superlattice electron blocking layer. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, 2564.               | 2.1 | 9         |
| 43 | Polyol Synthesis of Zinc Oxide-Graphene Composites: Enhanced Dye-Sensitized Solar Cell Efficiency. <i>Current Nanomaterials</i> , 2018, 3, 52-60.   | 0.4 | 8         |
| 44 | High-performance nanowire ultraviolet light-emitting diodes with potassium hydroxide and ammonium sulfide surface passivation. <i>Applied Optics</i> , 2020, 59, 7352.  | 1.8 | 8         |
| 45 | Full-Color III-Nitride Nanowire Light-Emitting Diodes. <i>Khoa Học Công Nghệ</i> , 2019, 3, 551.  | 3.0 | 7         |
| 46 | 4-Port reciprocal optical circulators employing photonic crystals for integrated photonics circuits. <i>Optik</i> , 2017, 144, 586-590.   | 2.9 | 6         |
| 47 | Nanostructured Optoelectronics: Materials and Devices. <i>Journal of Nanomaterials</i> , 2016, 2016, 1-2.   | 2.7 | 5         |
| 48 | Fano-induced spontaneous emission enhancement of molecule placed in a cluster of asymmetrically-arranged metallic nanoparticles. <i>Journal of Luminescence</i> , 2016, 173, 199-202.   | 3.1 | 5         |
| 49 | Improving Color Quality of Nanowire White Light-Emitting Diodes with Mn <sup>4+</sup> Doped Fluoride Nanosheets. <i>Micromachines</i> , 2021, 12, 965.  | 2.9 | 5         |
| 50 | Preparing nano-hole arrays by using porous anodic aluminum oxide nano-structural masks for the enhanced emission from InGaIn/GaN blue light-emitting diodes. <i>Advances in Natural Sciences: Nanoscience and Nanotechnology</i> , 2012, 3, 045018. | 1.5 | 4         |
| 51 | Improved Performance of Electron Blocking Layer Free AlGaIn Deep Ultraviolet Light-Emitting Diodes Using Graded Staircase Barriers. <i>Micromachines</i> , 2021, 12, 334.   | 2.9 | 4         |
| 52 | Enhancing Efficiency of AlGaIn Ultraviolet Light-Emitting Diodes with Graded p-AlGaIn Hole Injection Layer. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2021, 218, 2100003.   | 1.8 | 4         |
| 53 | Spectral and spatial contributions to white light generation from InGaIn/GaN dot-in-a-wire nanostructures. <i>Journal of Applied Physics</i> , 2013, 114, 164305.   | 2.5 | 3         |
| 54 | Observation of Fano-like resonance in dual-blade shaped gold nanostructures. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 045106.  | 2.8 | 3         |

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|----|--|------|-----------|
| 55 | Editorial of Special Issue “Nanostructured Light-Emitters”, Micromachines, 2020, 11, 601.  | 2.9  | 3         |
| 56 | Carrier transport mechanism in bottom gate $\text{thin-film}$ transistor with $\text{SnO}_2$ as active layer for CMOS displays. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2022, 35, .                               | 1.9  | 3         |
| 57 | Polarization-Engineered p-Type Electron-Blocking-Layer-Free III-Nitride Deep-Ultraviolet Light-Emitting Diodes for Enhanced Carrier Transport. Journal of Electronic Materials, 2022, 51, 838-846.   | 2.2  | 3         |
| 58 | Graphene-driving novel strain relaxation towards AlN film and DUV photoelectronic devices. Light: Science and Applications, 2022, 11, .  | 16.6 | 3         |
| 59 | Molecular beam epitaxial growth and characterization of InGaN/GaN dot-in-a-wire nanoscale heterostructures: toward ultrahigh efficiency phosphor-free white light emitting diodes. , 2013, , .   |      | 2         |
| 60 | Optical phonon modes in InGaN/GaN dot-in-a-wire heterostructures grown by molecular beam epitaxy. Applied Physics Letters, 2013, 102, 121901.  | 3.3  | 2         |
| 61 | InGaN/GaN dot-in-a-wire: ultimate terahertz nanostructure. Laser and Photonics Reviews, 2015, 9, 105-113.  | 8.7  | 2         |
| 62 | Enhanced Efficiency of Dye-Sensitized Solar Cells Based on Polyol-Synthesized Nickel-Zinc Oxide Composites. Journal of Electronic Materials, 2019, 48, 252-260.  | 2.2  | 2         |
| 63 | Controlled carrier mean free path for the enhanced efficiency of III-nitride deep-ultraviolet light-emitting diodes. Applied Optics, 2021, 60, 3088.   | 1.8  | 2         |
| 64 | Effect of HfO <sub>2</sub> Passivation Layer on Light Extraction Efficiency of AlInN Nanowire Ultraviolet Light-Emitting Diodes. ECS Transactions, 2021, 102, 35-42.   | 0.5  | 2         |
| 65 | High-efficiency InGaN blue LEDs with reduced positive sheet polarization. Applied Optics, 0, , .   | 1.8  | 2         |
| 66 | Near-infrared InN nanowire optoelectronic devices on Si. , 2014, , .   |      | 1         |
| 67 | High-power phosphor-free InGaN/AlGaIn dot-in-a-wire core-shell white light-emitting diodes. Proceedings of SPIE, 2015, , .   | 0.8  | 1         |
| 68 | $2\text{DEG}$ characteristics of $\text{InAlAs}/\text{InP}$ based HEMTs by solving Schrödinger and Poisson equations followed by device characteristics. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2022, 35, e2941. | 1.9  | 1         |
| 69 | Electron Blocking Layer Free Full-Color InGaN/GaN White Light-Emitting Diodes. ECS Meeting Abstracts, 2020, MA2020-02, 2743-2743.  | 0.0  | 1         |
| 70 | Phosphor-free InGaN/GaN/AlGaIn core-shell dot-in-a-wire white light-emitting diodes. , 2014, , .   |      | 0         |
| 71 | Effect of HfO <sub>2</sub> Passivation Layer on Light Extraction Efficiency of AlInN Nanowire Ultraviolet Light-Emitting Diodes. ECS Meeting Abstracts, 2021, MA2021-01, 1073-1073.  | 0.0  | 0         |
| 72 | Enhanced Terahertz Generation from InGaN/GaN Dot-in-a-Wire Light Emitting Diodes. , 2013, , .  |      | 0         |

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|----|--|-----|-----------|
| 73 | III-Nitride Based Narrow Band Far-UVC LEDs for Airborne and Surface Disinfection. ECS Transactions, 2020, 98, 83-89.                     | 0.5 | 0         |
| 74 | Full-Color MicroLEDs for Display Technologies. , 2020, , .   |     | 0         |
| 75 | III-Nitride Based Narrow Band Far-UVC LEDs for Airborne and Surface Disinfection. ECS Meeting Abstracts, 2020, MA2020-02, 1825-1825.     | 0.0 | 0         |
| 76 | Ultraviolet Light-Emitting Diodes Using Aluminium Indium Nitride Nanowire Structures. ECS Meeting Abstracts, 2020, MA2020-02, 2739-2739. | 0.0 | 0         |