CV – Jie Pan

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Located：Charlottesville,VA, USA

TOEFL 110(Speaking 23) GRE 336+4.0

Educational background

2021.08—2023.08 **University of Virginia** Electrical Engineering M.S
2015.09—2018.07 **Tsinghua University** Electronic Science and technology M.S
2011.09—2015.07 **Chongqing University** Optoelectronic Information Engineering B.S

Core Courses:Laser and optics,Optical Communication Devices,Nanoelectronics,Quantum mechanics,Semiconductor Device Physics,Quantum Electronics,Hardware for Modern Day Computing

Facility skills: Lithography,growth and deposition,EBL,ICP,RIE,SEM,AFM,X-ray diffraction,etc

Research Experience

2015.09—2018.07 Projects in the integrated Photonics group of lab in Tsinghua University include:

- Simulation of optoelectronic devices by MATLAB,Python,COMSOL,FDTD,Crosslight and other software
- MOCVD and MBE growth of GaN LED,LDs
- Visible-light Optomechanical integrated circuits based on III-nitride semiconductors
- Preparation and characterization of III-V quantum well microdisk laser
- High-speed electro absorption modulation laser(EML) based on big data transmission
- VECSEL based on high contrast grating (HCG) structure structure

2021.08—2023.08 Projects in the group of lab in University of Virginia include:

- Metamaterials, optical modulators, optical waveguide design.
- Photonic integrated circuits, and photodetectors with emphasis on high-speed applications.
- Design and simulation of high quantum efficiency waveguide segmented photodetector for quantum measurements

Work Experience

2020.01—2021.07

China Academy of Information and Communications Technology Senior Researcher

1.Large-area integration of semiconductor materials and their heterostructures by wafer bonding

2.Integrated Lithium Niobate nonlinear photonics

3.Research on the Quantum artifcial neural network architectures and components

4.Research on the optical communication and optical network technology towards the next generation data center

2018.07—2020.01

IBM Research – China Researcher of Optoelectronic Semiconductor

1.Epitaxial growth and structural characterization of semiconductor heterojunctions and quantum structures.

2.Research on the third generation of advanced wide band gap semiconductor optoelectronic such as GaN

3.Research on Micro-nano optoelectronic devices,systems,and Silicon-based Photonic Integrated Devices

4. Hybrid optoelectronic neural network algorithm and optical comupting for machine vision

Publications

1.Jie Pan et al.Vol. 55, No. 7 / March 1 2016. Applied Optics.Spoof surface plasmon polaritons based on ultrathin corrugated metallic grooves at terahertz frequency

2.Jie Pan et al.Influence of growth parameters on morphology of Large Size Epitaxial Lateral Overgrowth of GaN on Sapphire towards Photonic Integrated Platform. The 11th International Nano-Optoelectronics Workshop (iNOW)