

Xinang Yang

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EDUCATION

University of California, Los Angeles

Los Angeles, USA

Master of Quantum Science and Technology (MQST)

Expected 09/2024

Relevant coursework: Quantum Computation, Quantum Information, Quantum Programming, Theory of Quantum Devices, Quantum Algorithms, Quantum Optics & Computing Lab

Southwest Jiaotong University (Project 211 Institution in Chinese Universities)

Chengdu, China

Bachelor of Science in Physics

09/2018 – 06/2022

Major GPA: 3.56/4.0 (Top 7% of Physics Department)

Passed Credits/Credits for Graduation: 198.0/171.0

Relevant coursework: Electronic Measurement Basics (superconducting and quantum technology) (99.0), Solid Physics (95.0) General Physics-Optics (95.0), Integrated Optoelectronics (90.0), Material Physics (88.0) Thermodynamics and Statistical Physics (85.0), Sensor Technology (91.0) Analog Electronics Technology and Experiments (A), Electronic Technology Practice (A)

Awards and Honors: Mingcheng Scholarship of SWJTU, 2019 (top 5%)

Outstanding Student of SWJTU, 2020 - 2022 (top 8%)

Excellent Social Practice of “Going to the countryside in summer vacation” for an honorary title, 2020

Extracurricular Activities: Executive President - Student Union in School of Physical Science and Technology at SWJTU

TECHNICAL SKILLS

Software and Analysis Tools: Sonnet, Microwave Office, HFSS, AWR Design Environment, Advanced Design System, Geant4, ROOT, Linux, VMware Workstation, Origin, FDTD Solutions, JDPaint, Maxwell 3D

Quantum: IBM Qiskit, Google Cirq, QuTip, Quirk

Programming Languages: MATLAB, Python, C++

PUBLICATIONS

A Superconducting RF Low-Pass Filter Based on Ti/TiN Artificial Transmission Line for Detector and Qubit Readout

Co-first Author

11/2022

● Published an article to the *Journal of Low Temperature Physics* (ISSN:0022-2291) (Web of Science Core Collection: SCI-E (2022)) DOI: <https://doi.org/10.1007/s10909-022-02918-2>

A Sintered Body of Clustered Nano-Polycrystalline Diamond-Silicon Carbide and its Preparation Method

First Author

03/2022

● Published an invention patent application to the China National Intellectual Property Administration
Publication Number: [CN114105640A](https://pubchem.ncbi.nlm.nih.gov/compound/CN114105640A)

RESEARCH PROJECTS

An LPF Design Based on Superconducting Artificial Transmission Lines for Qubit Readout

Chengdu, China

Student Researcher of Quantum Optoelectronic Laboratory

10/2021 – 05/2021

- Constructed a superconducting LPF based on low- T_c (≈ 700 mK) Ti/TiN superconducting artificial (lumped-element-loaded) transmission lines on Sonnet;
- Studied the equivalent circuit model in AWR Microwave Office and compared their transmission characteristics, successfully simulated the cut-off frequency and the formation of spurious pass-band, added the microwave absorber, and introduced an aperiodic loading of unit structures to suppress the spurious pass-band and cavity resonance at high frequencies;
- Performed a detailed design and EM simulation through realistic material parameters on superconducting quantum circuits.

High-temperature and High-pressure Synthesis and Performance Testing of nPCBN

Chengdu, China

Project Leader (In a group of total 4 members)

05/2020 – 05/2021

- Utilized MATLAB, JDPaint to build model, engraved experimental materials, assembled the experimental equipment and filled in raw materials to successfully sinter the nPCBN, and studied its phase diagram and performances;
- Wrote a project report that passed the university's oral defense and won the first prize in the College Students' Innovation and Entrepreneurship Competition.

Nano-polycrystalline Diamond Sintered with Silicon

Chengdu, China

Individual Project, Person in Charge

05/2021 – 12/2021

- Synthesized nanocrystalline diamond composites under high pressure and high temperature, through scanning electron microscopy (SEM), drawing the XRD images by Origin, and indentation tests to study their mechanical behaviors and microstructures.