

Duo Miao

1997-05 | Male

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Education

Sep. 2020 - Jun 2023

Jinan University

Optical Engineering (Master)

Awards: Second-class Graduate Scholarship (2020) ; Second-class Graduate Scholarship (2021) ; Second-class Graduate Scholarship (2022) .

Sep. 2016 - Jun 2020

Tianjin University of Technology

Opto-electronic Information Science and Engineering (Bachelor)

Awards: People's Scholarship

Professional experience

Jul 2023 - Present

SUSTech Ultrafast laser micro-nanofabrication laboratory

Project : Fundamental Research on the Application of Two-Photon Grayscale 3D Printing in the Fabrication of Optical Frequency Three-Dimensional Planar Luneburg Lenses

- 1.Complete the design construction of a two-photon gray scale printing optical path.
- 2.Three dimensional photoresist structure was prepared by single step projection exposure.

Submitting: Laser-guided anisotropic etching for precision machining of micro-engineered glass components.

Sep. 2020 - Jun 2023

JNU Nanolithography laboratory

Project : Research on Cross-Scale Micro-Nanostructure Fabrication and Device Applications Based on Photonic Beam Modulation

- 1.Complete the construction of laser direct writing and DMD projection composite light field exposure system.
- 2.Preparation of lines beyond the diffraction limit through laser direct writing.
- 3.Complete design and simulation of Hybrid Dammann Gratings.
- 4.Complete preparation and testing of Hybrid Dammann Gratings.

Published paper: Duo Miao, Yuan-Yuan Zhao, Xuan-Ming Duan,et al, "Generating an $M2 \times N2$ spot array with a dual-period hybrid Dammann grating fabricated using maskless projection lithography," Opt. Lett. 48(11) 3087-3090

Chinese invention patent: Yuan-Yuan Zhao, Duo Miao, Xuan-Ming Duan, A Dot Matrix Projector Device and Its Preparation Method, Patent number: 202310548259.9

Skills

Characterization: SEM、TEM、XRD、Raman、XPS、FTIR

Software: Python、FDTD、Matlab、Comsol、Office、Origin、3dMax、blender、ChemDraw

Certificate: NCRE-2 (C Programming Language) ; NCRE-3 (Network technology) ; CET-4

Optical path design and construction proficiency

Design of diffractive optical elements proficiency

Self-evaluation

I am a positive, optimistic, diligent student, who take my work seriously and responsibly, complete tasks with quality and quantity.