

Optical/Laser Engineer

Halo Industries, Inc.

Palo Alto, California, United States



About

At Halo Industries, we're on a mission to reinvent a decades-old semiconductor manufacturing process that wastes billions of dollars each year. Our laser-based technology will provide a drastic reduction in cost and improvement in performance that will enable advancements in a diverse set of high-tech industries, such as solar, semiconductor, battery, LED, telecommunications and power electronics.

Our company spun out of Stanford University in 2014 and is funded by a combination of VCs, government grants, and strategic corporate partners. We are hitting the ground running after a recent funding round and are looking to continue building a passionate team to meet our next milestone of deploying a pilot production line to make the world more connected, efficient, and clean.

Description

As an Optical/Laser Engineer, you will have the following responsibilities:

- Design, implement, and maintain optical/laser test setups and test procedures
- Conduct hands-on experiments to characterize the underlying physical effects for novel optical systems
- Use data analysis and simulation to propose design improvements based on experimental results
- Identify causal relationships between observed performance and design parameters
- Interpret empirical data and reconcile it with first-principles analytical and/or numerical simulations
- Work with external vendors to fabricate custom optical components
- Work in a team and contribute to the implementation of next generation industrial semiconductor manufacturing equipment

Qualifications

The ideal candidate is a recent PhD (or an MS with 3-5 years of work experience) in Physics, EE, or Optics focusing on the development and experimental application of optical or laser devices and systems.

In addition, the candidate would have the following specific qualifications:

- Understanding of optical physics fundamentals and how they apply to laser materials processing
- Strong hands-on skills in the alignment, test, and characterization of optical devices and laser systems
- Proficiency in the analysis of experimental data
- Experience in optical system design, analysis, and simulation
- Experience with free-space optics
- Familiarity with optical simulation tools and techniques, including ray tracing software
- Programming experience in Matlab or Python for instrument control, data collection, and data analysis
- Excellent communication skills
- The ability to work well in an interdisciplinary team environment, collaborating with mechanical engineers and materials experts

Bonus

- Experience with semiconductor materials
- Experience with metrology and 3D surface analysis

Preferred Education & Experience

A PhD in Physics, Applied Physics, Optics, EE, or related field or an MS with 3-5 years of work experience