



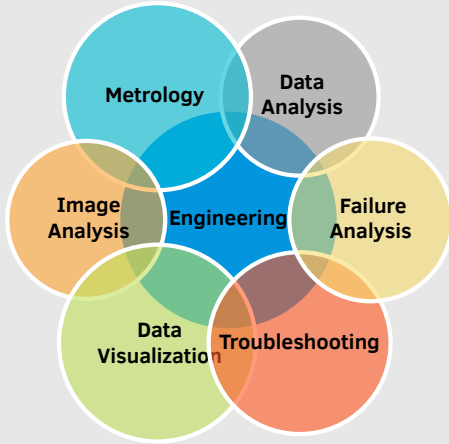
# Sara G. Bodde

## Multidisciplinary Engineer

 [sgbodde.github.io](https://github.com/sgbodde)  
 [/in/sgbodde](https://www.linkedin.com/in/sgbodde)

## Skill Overview

### Technical Competency



### Characterization

XRF XRD SEM EDX TEM  
AFM Mechanical Testing GC-MS  
Ion Chromatography Profilometry  
Spectrophotometry FTIR XPS

### Data/Analytics

SQL Grafana ImageJ Statistics  
JMP Python Matlab LabVIEW

### Process

Plasma Etching Photolithography  
Materials Selection ISO 5 AMC

### Transferable

Presentation Project Management  
FMEA 8D Lecturing/Teaching  
Technical Writing (English)

## Education

### M.S., Materials Science & Engineering

University of California, San Diego  
Specialization: Semiconductor Superlattices & Organometallics

### B.S., Chemical Engineering

University of California, San Diego  
Specialization: Electronic Materials

### Scholarly Research:

Publications listed at [Google Scholar](https://scholar.google.com/citations?user=sgbodde)

## Summary

Over a decade of experience in semiconductor capital equipment technology at Fortune 500 or Forbes global/multinational listed companies, from lightsource to inspection, from fundamental research to high volume manufacturing (HVM), from legacy technology to new product introduction (NPI)

- Solid logical and data-backed decision-making acumen and strategic process and negotiation skills
- Proven ability to lead cross-functionally and to collaborate globally
- Excellent in direct customer engagement and management of suppliers, vendors, and service providers, especially in the semiconductor ecosystem

## Selected Industry Experience

### Aug 2021 - Photo-Contamination Control Engineer

[KLA Corporation](#)

Feb 2024

- Drove technical supplier engagement in cleanrooms in U.S.A. and Europe to new standards, improving and implementing best known methods for optics handling for ultra clean vacuum
- Investigated and procured particle detection instrumentation for quantitative *in situ* monitoring of particle generation and shedding during critical assembly, manufacturing, and integration processes
- Conducted rigorous inspections and audits of processes in supplier cleanrooms and machine shops, e.g. caught a purge line purification non-compliance that would have compromised an >120k€ optic

Microsoft Visio

Microsoft Teams

Agilent MassHunter

### Sept 2019 - Lead EUV Coating Engineer

[Zygo Extreme Precision Optics](#)

Aug 2021

- Overhauled manufacturing and inspection operations for on-time delivery of substrata that met surface roughness and figure error as well as unprecedented contamination control specifications
- Forged collaborative relationship with the customer, and led international, cross-functional teams including consultants and suppliers

Microsoft Project

Sharepoint

### Oct 2012 - Sr. Scientist/Sr. Data Analyst

[Cymer, LLC./ASML U.S.](#)

Nov 2018

- Set up a spectrophotometry laboratory and failure analysis process to investigate lifetime of optics and sensors and recommended design changes to improve performance of photolithographic lightsource
- Developed a novel metric for forecasting optics lifetime based on transmission trends in upgraded opto-mechanical assembly and created a comparative visualization tool serving engineering, marketing, and finance stakeholders
- Delivered technical presentations and communications with customers and collaborators at multiple sites in U.S.A., Europe, and Asia, and conducted formal knowledge transfer and training sessions for colleagues
- Directed optics and ceramics lifetime studies to optimize UV XeF excimer laser chamber performance

Teamcenter

Confluence

JIRA

Agile

SAP

## Other Experience

### Teaching/Guest Lecturing

[UCSD Mechanical & Aerospace Engineering](#)

Undergraduate and graduate level, physics laboratory courses, biomaterials and mechanical behavior of biogenic materials, and most recently for Summer 2024, linear circuits, covering Kirchhoff's laws, node-voltage and mesh-current analysis, op-amps, frequency response, etc.

### Integrated Avionics Systems Apprenticeship

[United States Air Force Reserve](#)

Awarded Basic Training Honor Graduate ribbon (2004)

**Citizenship:** U.S.A **Residency:** San Diego, California, U.S.A.