

HCF for Raman Spectroscopy

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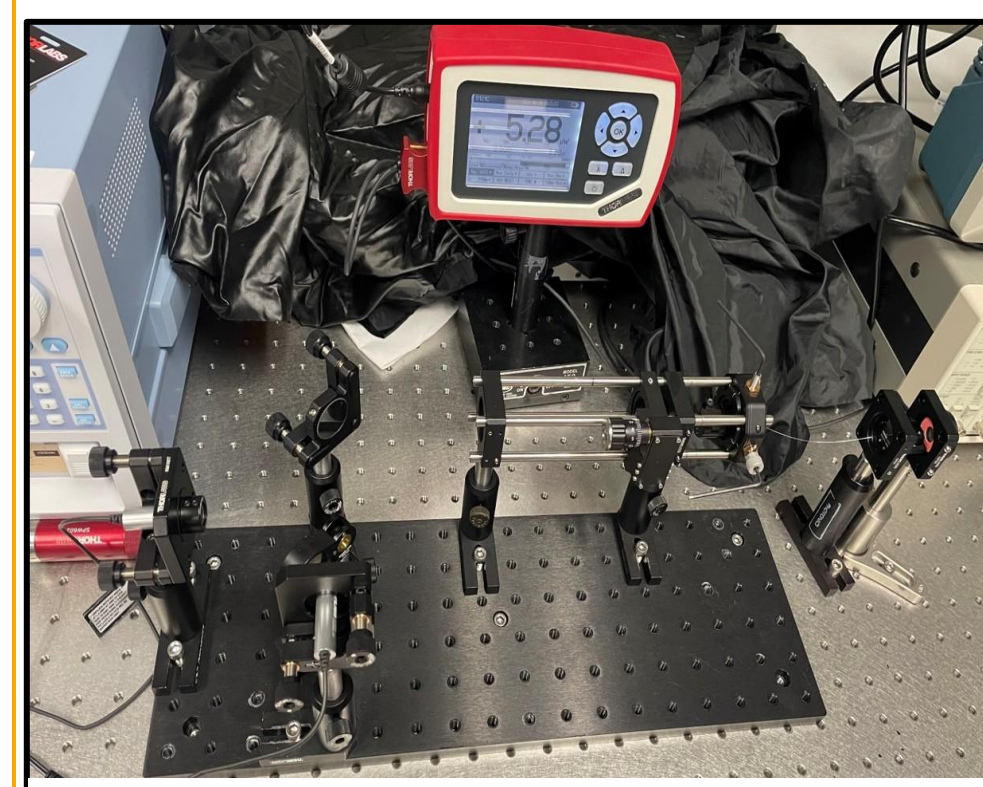
ABOUT ME

- Major: Mechanical Engineering
- Career Goals / interests

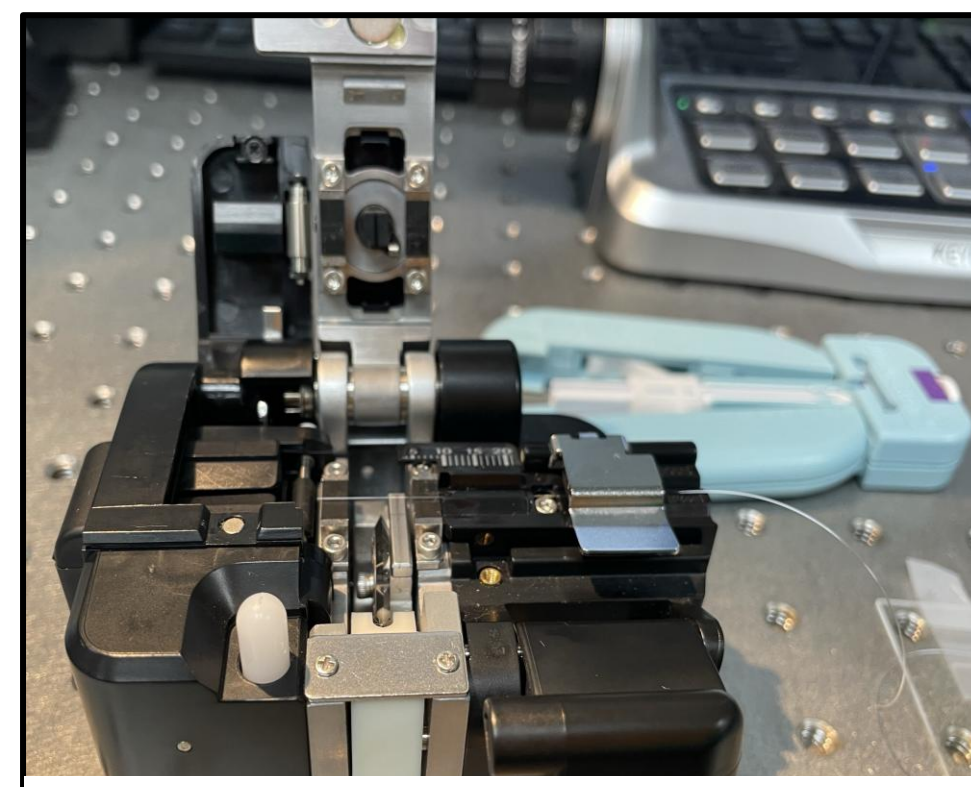
My career goals are to one day work in industry or as a research scientist.

- Why did you choose to have a fellowship at LLNL?

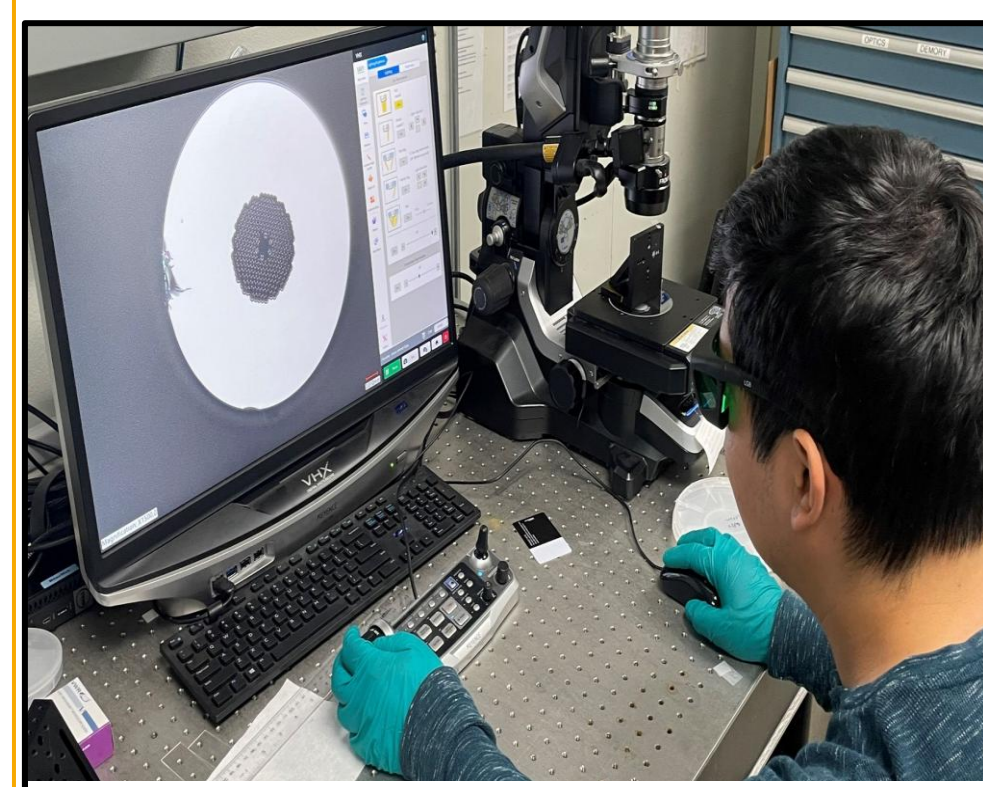
It is a once in a lifetime opportunity to immerse myself with curiosity and let my imagination run wild! The environment at LLNL has exceeded all my expectations.



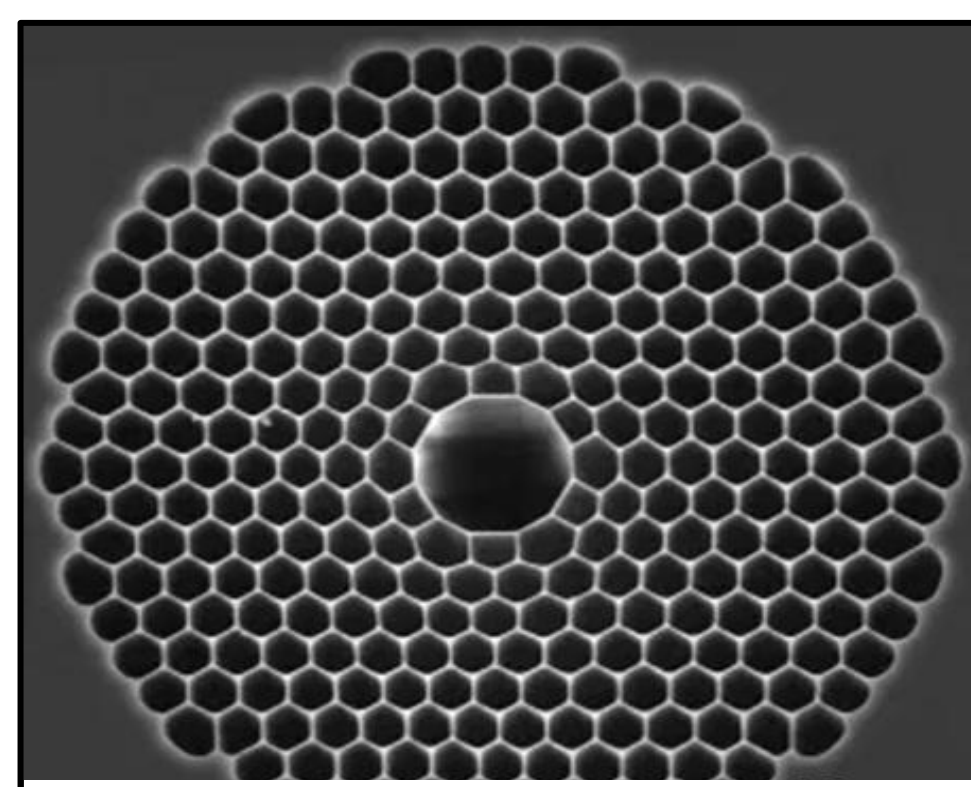
Optical setup for cutback measurement



Cleave w/fiber & Fiber Stripper



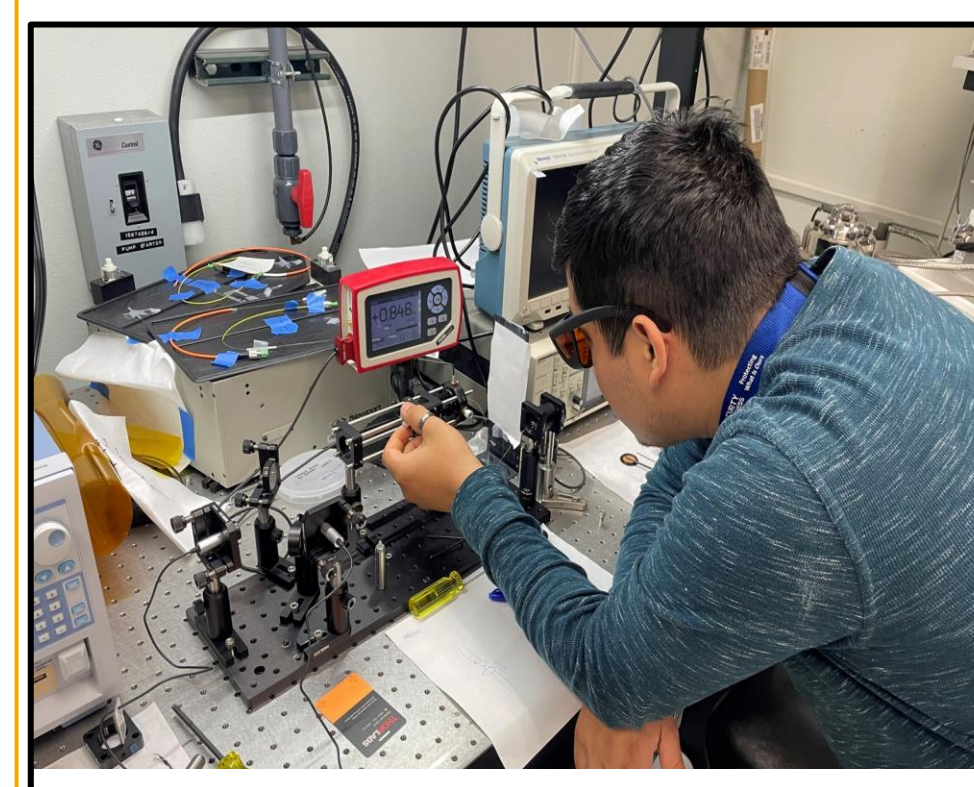
Optical microscope viewing fiber face



SEM of Fiber face view

SUMMER RESEARCH

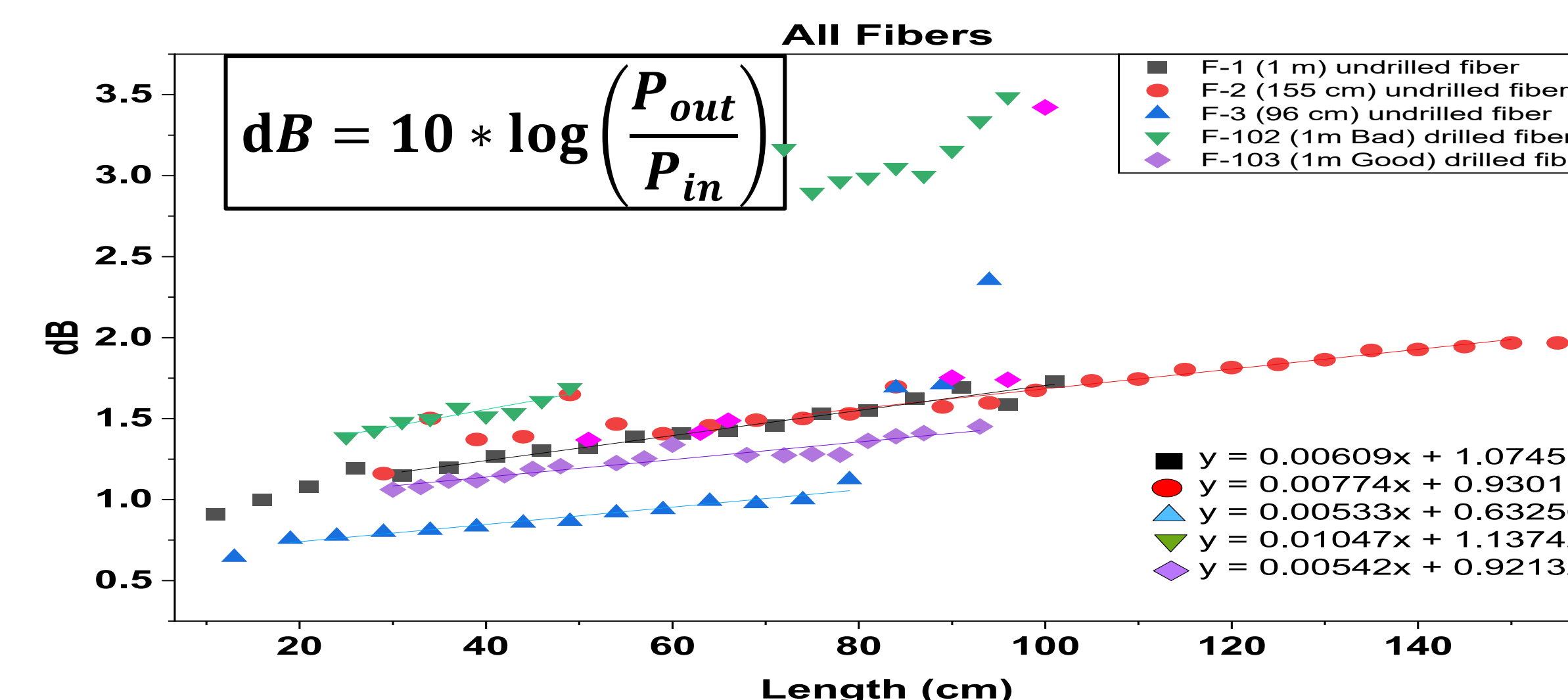
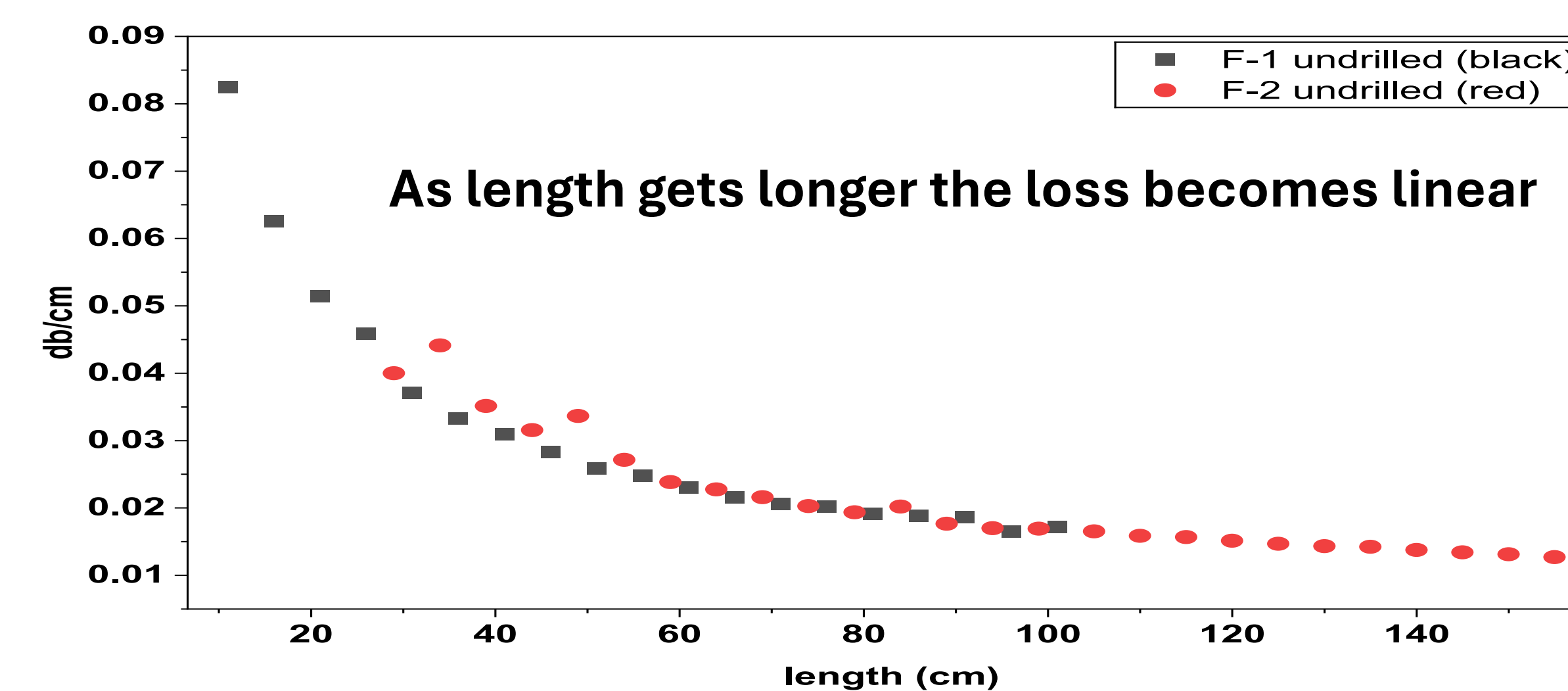
- Abstract: Hollow Core fiber drilled vs. un-drilled were cut at a constant rate to measure optical transmission. This difference in power output is attributed to the fiber losses, fiber drilling losses, and fiber coupling losses due to optical alignment of each trial. Each trial aims to find the maximum power output at each fiber length.
- Methods: Cut, fiber strip, wipe w/isopropyl alcohol, & cleave to measure optical transmission loss with respect to length.
- Results: Calculating the loss per unit length for each fiber type, revealing the non-linear relationship between fiber length and input optical power.



Laser Optical Alignment



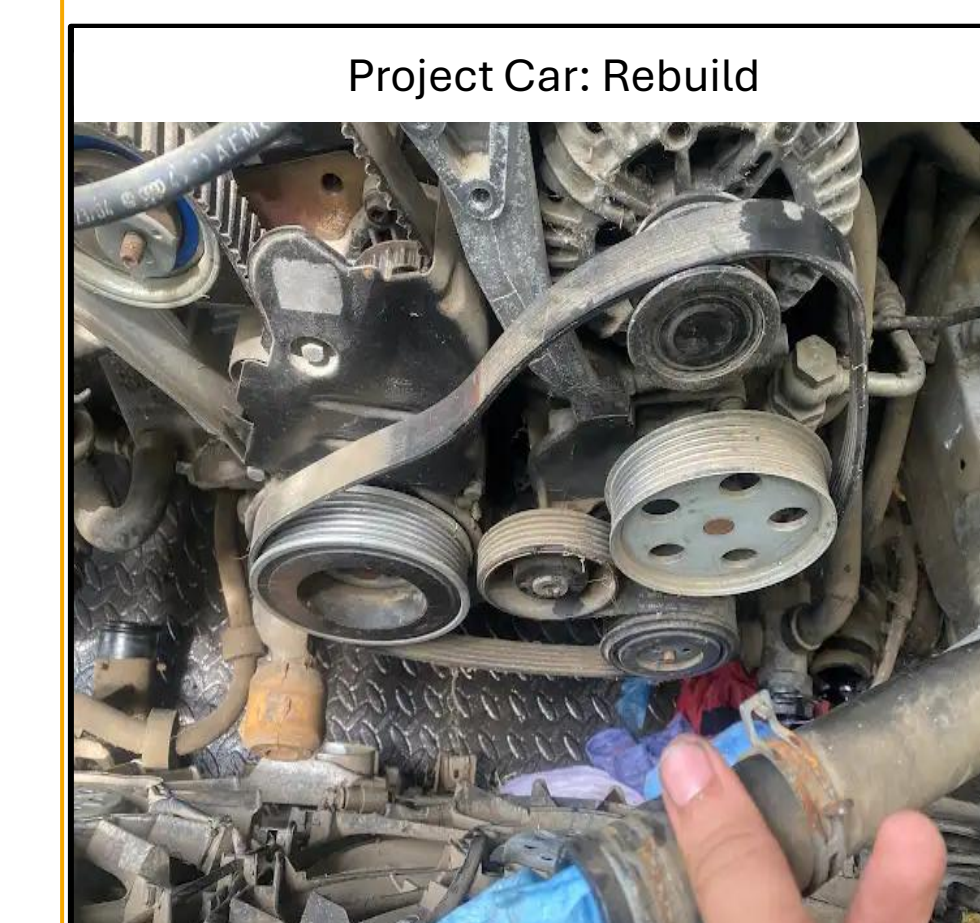
Laser beam at fiber face



LLF AWARD

- LLF Funds are being used towards living expenses and tuition.
- How has this fellowship impacted you?

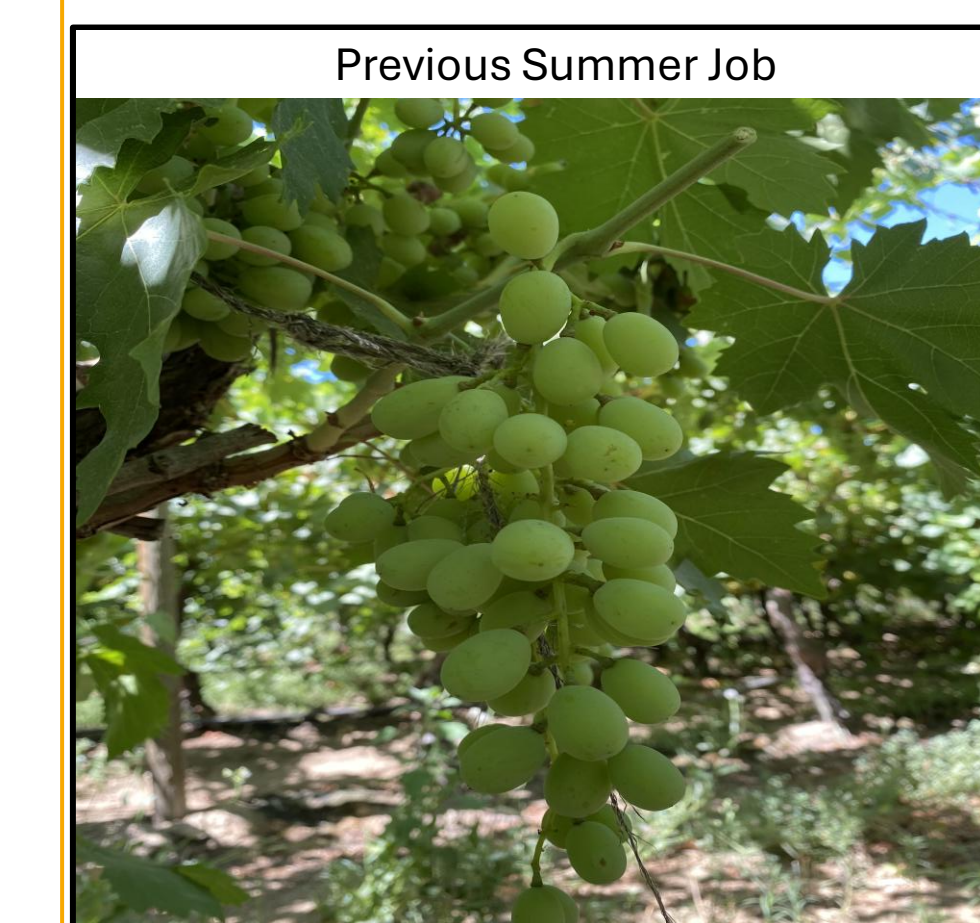
Being in an environment where world renowned research is undergoing made me realize that LLNL is a place that I could belong. Given the opportunity to engage in research allowed me to learn and grow, not only as an engineer but as a person.



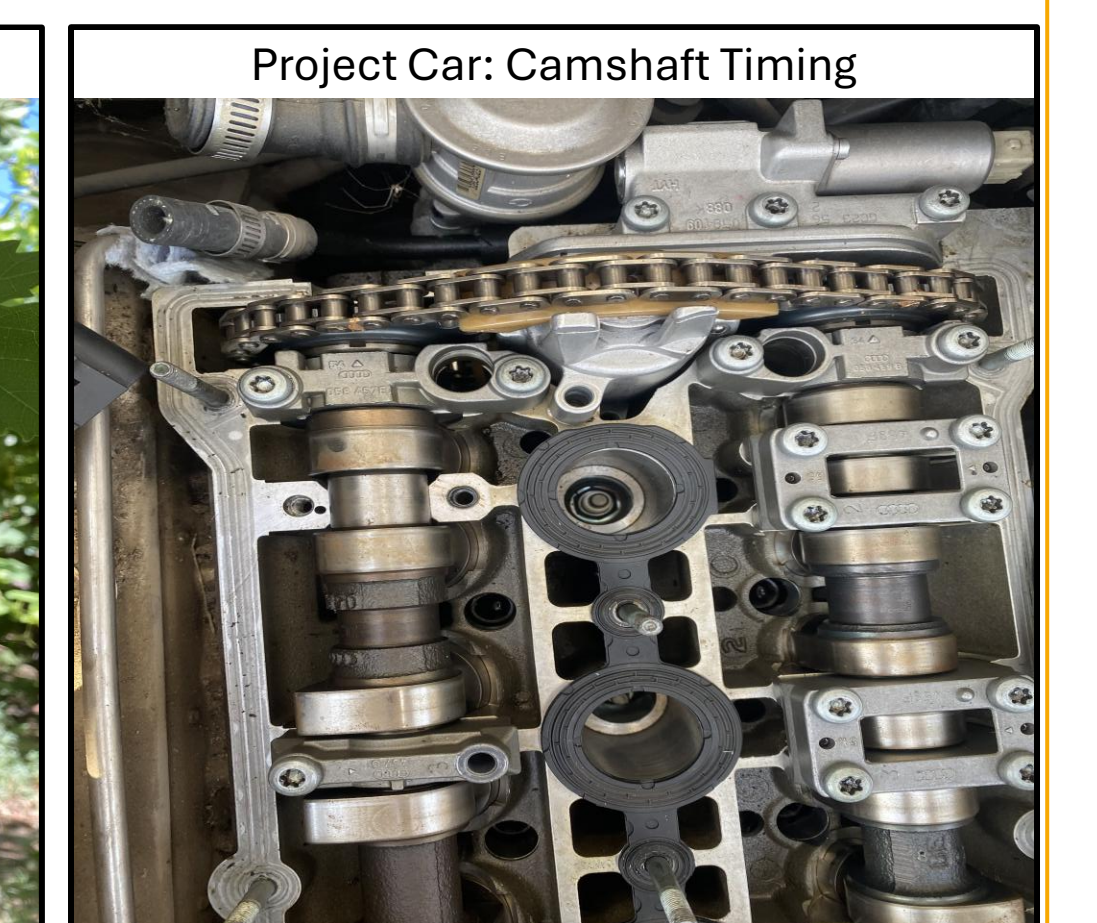
Project Car: Rebuild



Damaged Rim



Previous Summer Job



Project Car: Camshaft Timing

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