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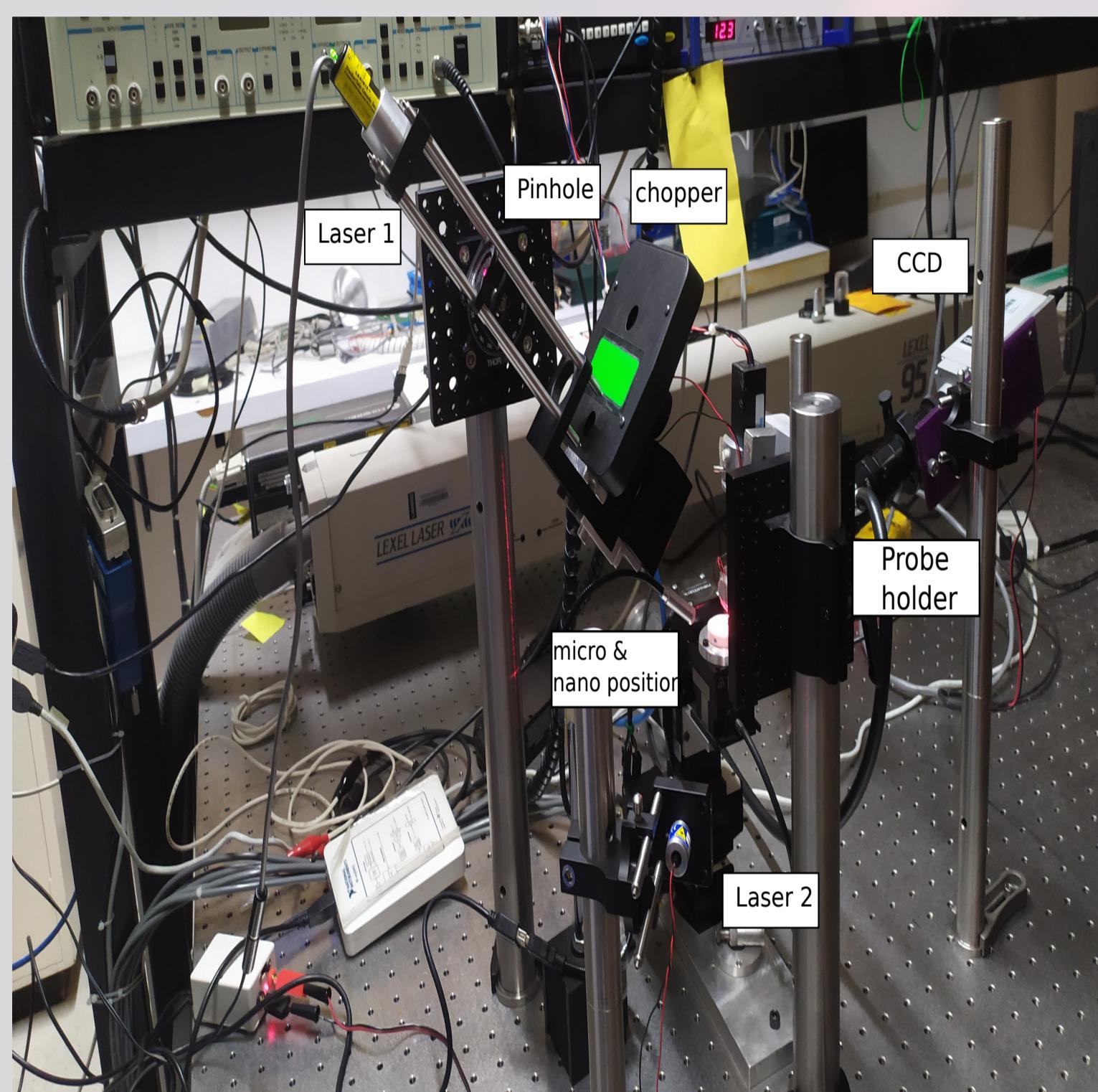
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INTRODUCTION

OBJETIVES

- Build a Near-Field Scanning Optical Microscope.
- Develop a Control Software in LabVIEW.
- Use the NSOM system to observe local optical properties in materials.

Figure 1: Optical setup of NSOM



Topographic

Figure 3: Topographic image of InP Grating in a region of $250 \times 10 \mu\text{m}$.

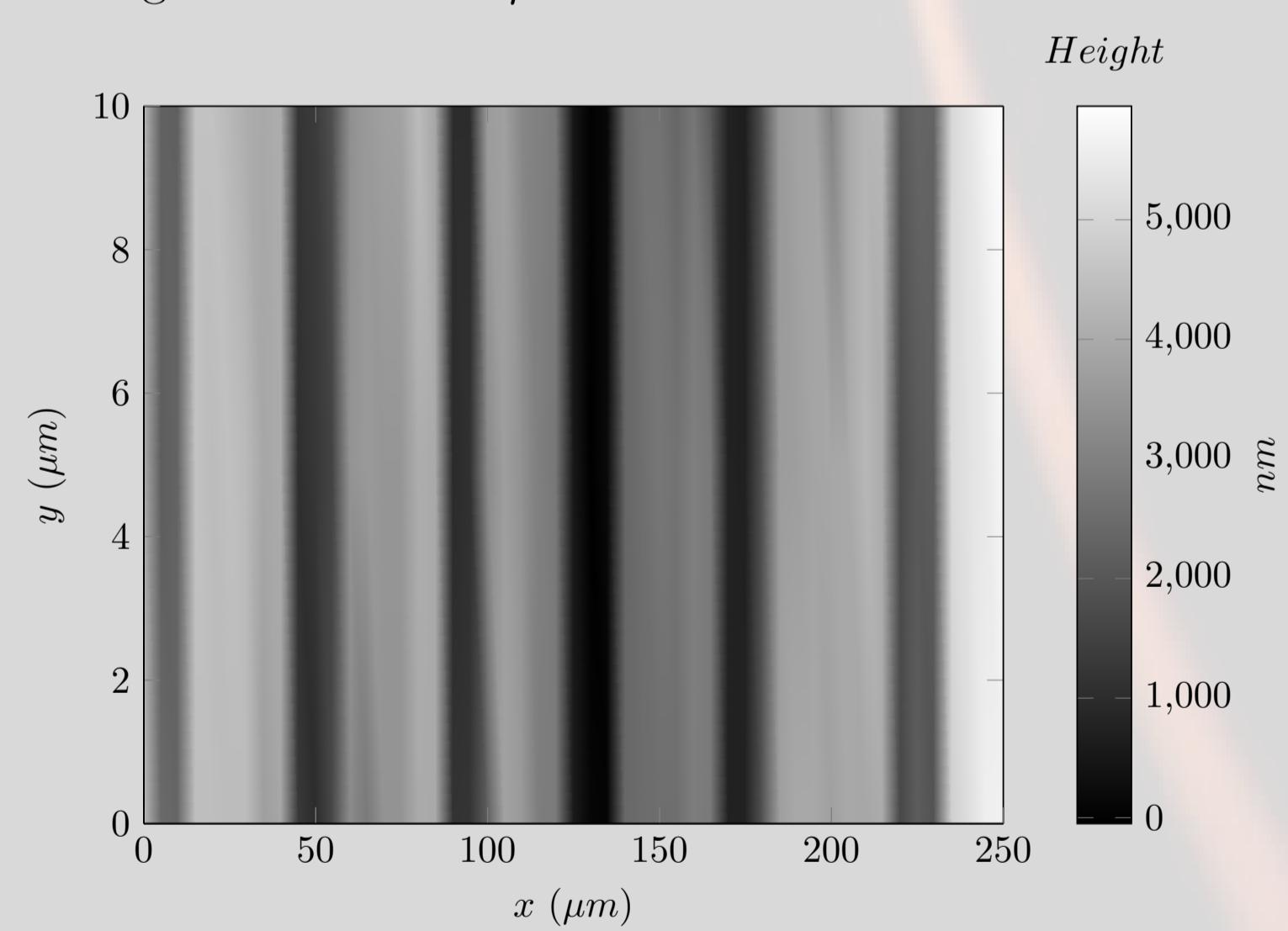
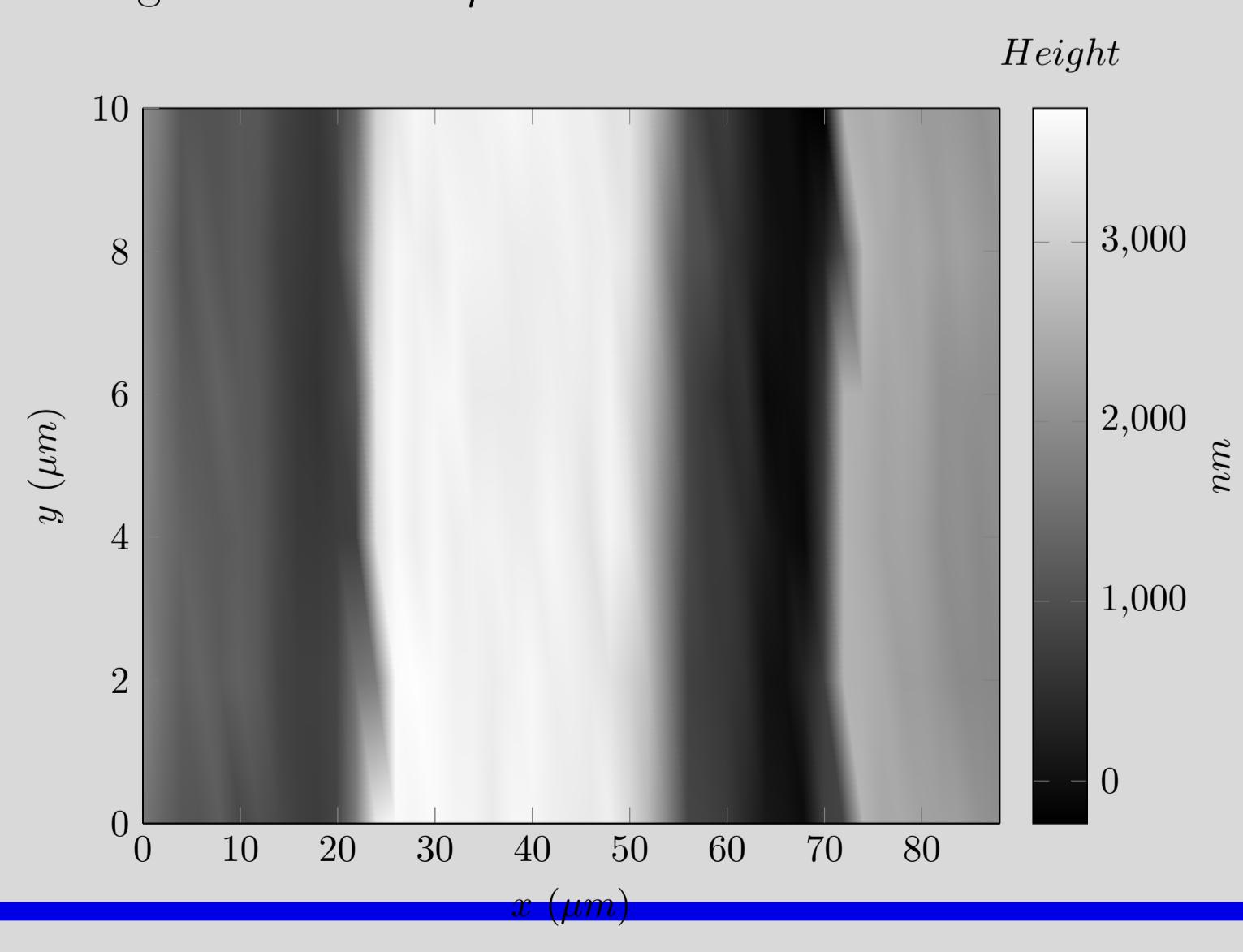


Figure 4: Topographic image of InP Grating in a region of $88 \times 10 \mu\text{m}$.

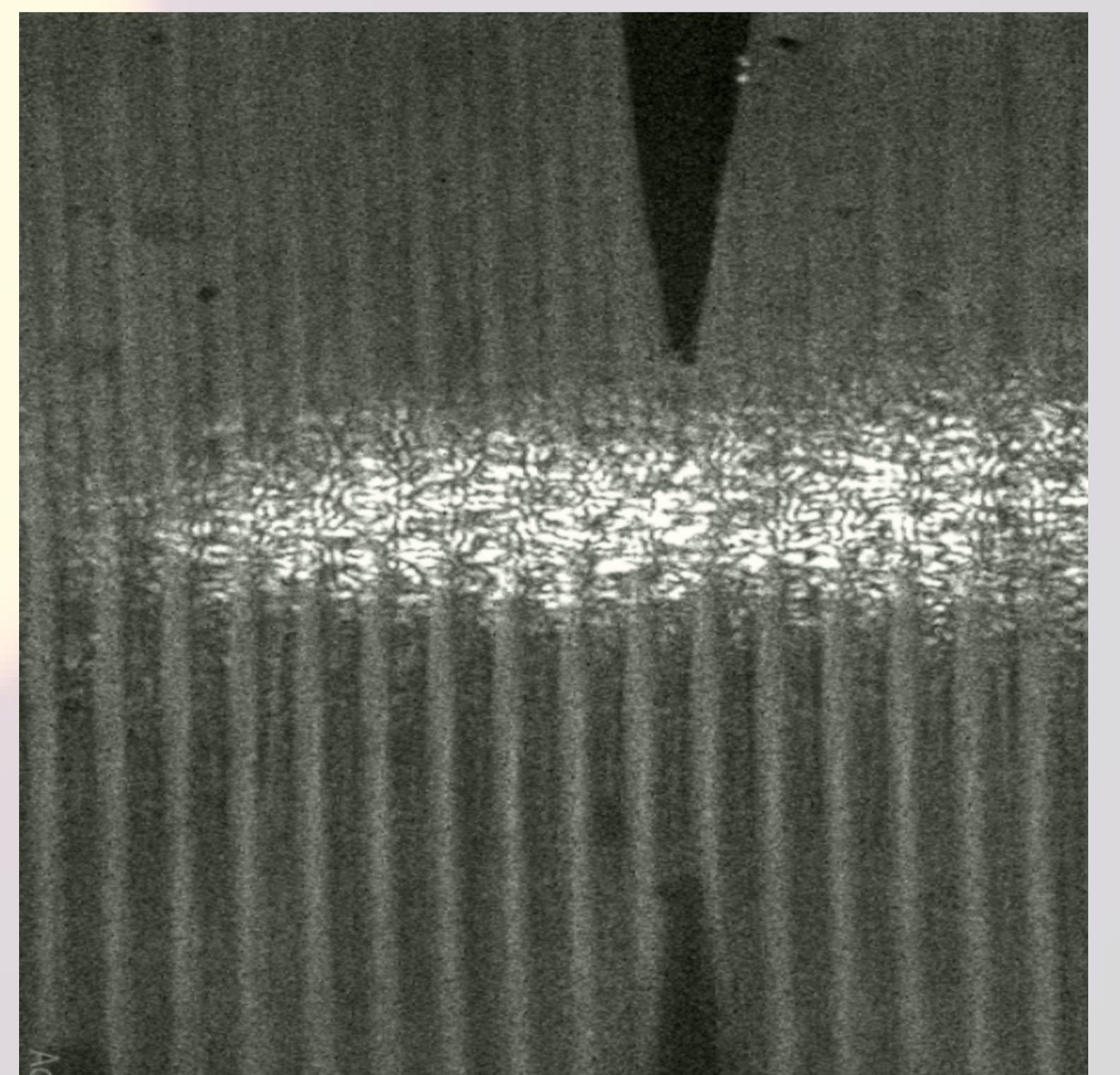


CONCLUSIONS

- An automation software capable of performing simultaneous topographic and near field measurements was developed using LabVIEW used to acquire the topographic and NSOM image.
- The first result show interesting properties and give information about the local optical properties.

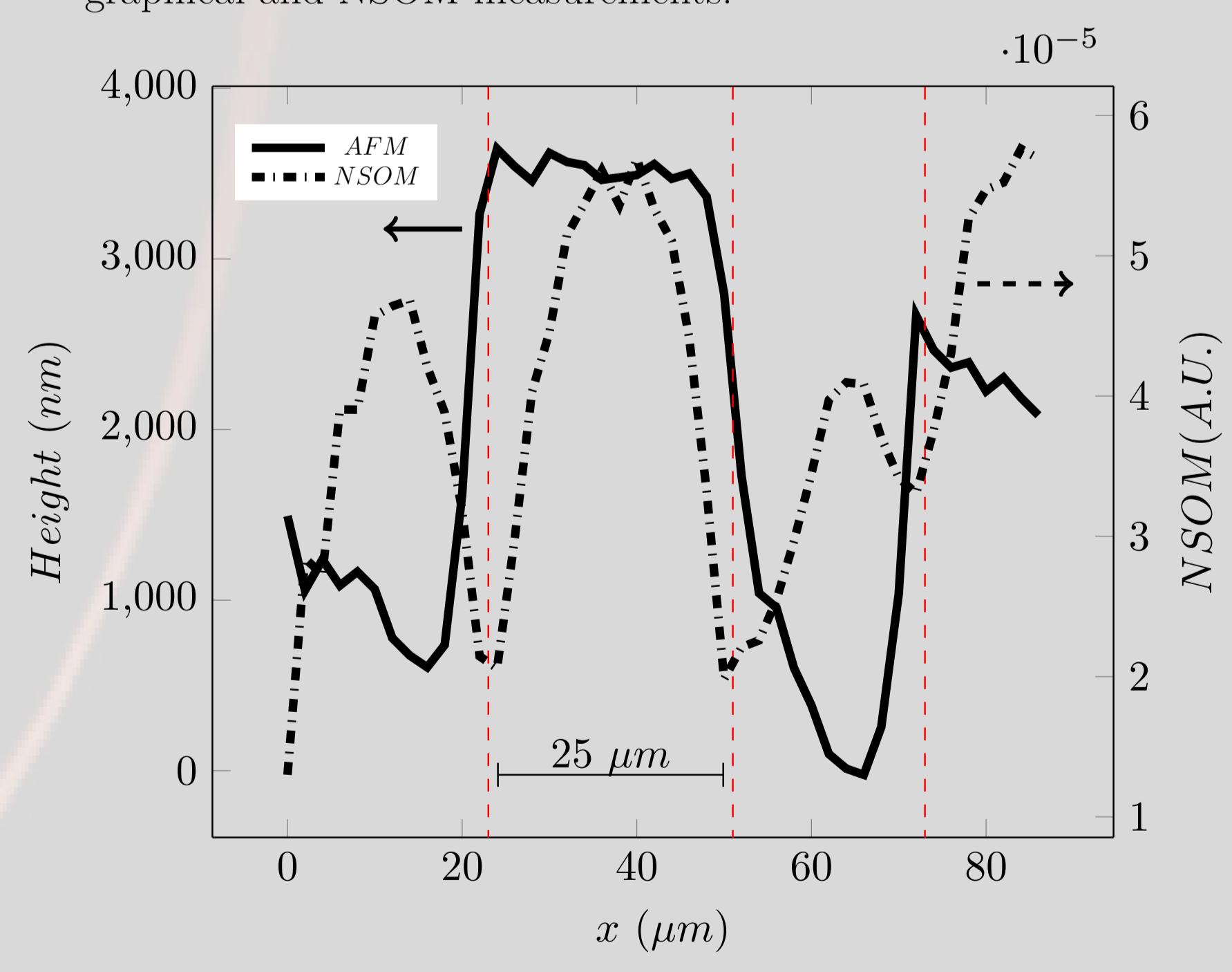
SAMPLE

Figure 2: Tip and Sample Image



RESULTS

Figure 5: Comparison bewteen profiles of topo-graphical and NSOM measurements.



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