

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

PURE Learning Plan

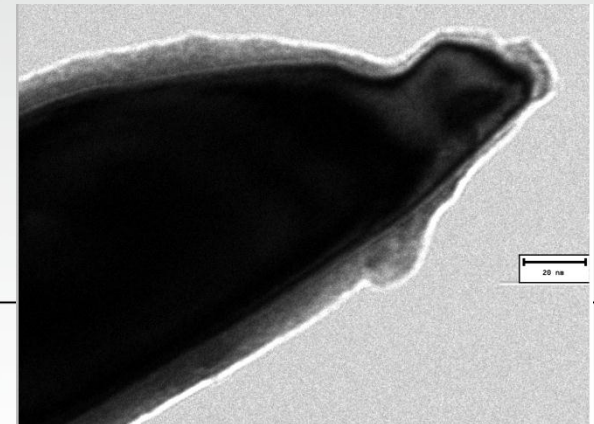
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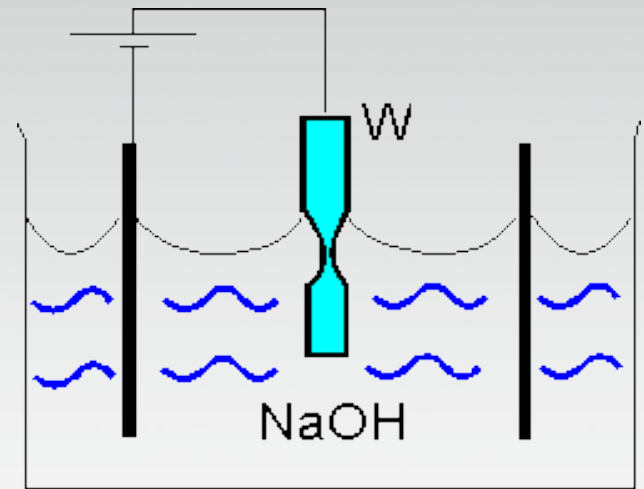
Project Basic Information

- Professor -- Joseph W. LYDING
- Mentor -- Adrian RADOCEA
- Major Project Goal
- Develop a Method for Parallel Scanning Tunneling Microscopy Tip Fabrication



Past Milestones

- Provision of Background Knowledge
- Lab Tour
- Chemical Lab Training
- Tip-Etching Training



Future Milestones

- Continued Tip-Etching Training
- TEM Training
- (Serial) Tip-Sharpening Training
- Design a Method for Parallel Tip Frabrication
- Material:
 - *Introduction to Scanning Tunneling Microscopy by C. Julian Chen*
 - *Atomically Precise Manufacturing: The Opportunity, Challenges, and Impact.*



Other Goals

- Develop Efficient & Reproducible Ways for Parallel Tip-Etching
- Develop Efficient Ways for Tip-Catching
- Develop Ways for Parallel Tip-Sharpener
- Find Substitute Materials for Tips
- Investigate Hard Coatings



Other Goals

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- Develop Efficient Ways for Tip-Catching
- Develop Ways for Parallel Tip-Sharpening
- Find Substitute Materials for Tips
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