

Nickel Chloride-mediated Protein Attachment to Molybdenum Disulfide for Biosensing Applications

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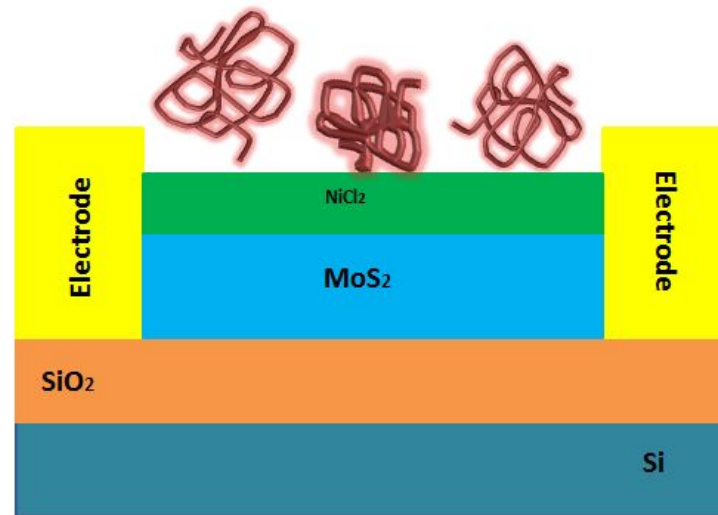
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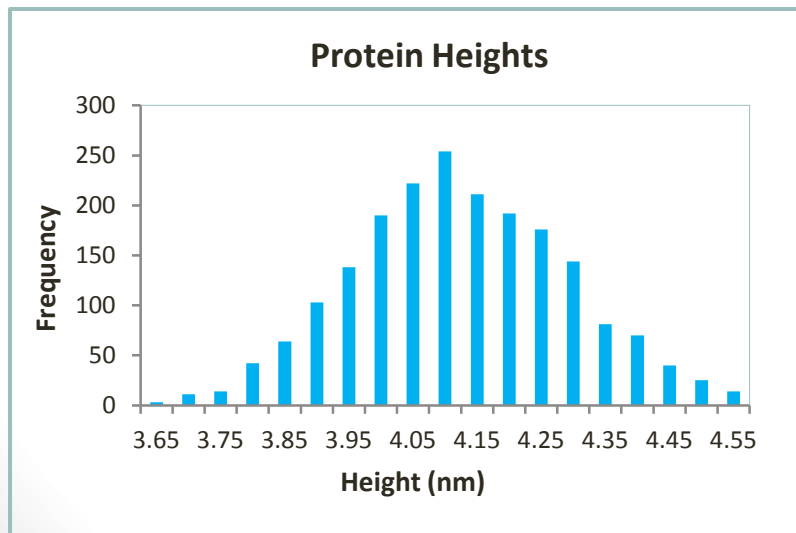
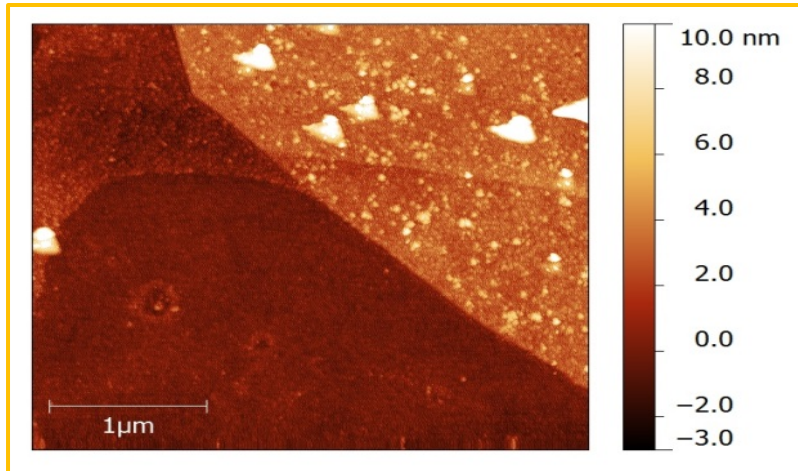
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Purpose

To develop a nickel-based chemistry method to attach proteins to molybdenum disulfide in order to create a new biosensor



Results



- A concentration of 11mM of nickel chloride (NiCl_2) works best
- Successfully attached 70 proteins per μm^2
- Average height of proteins is 4.1 nm

Future work

- Antigen binding
- Current-Voltage (I-V) characterization
- Reproducibility