

Photo-Induced Au versus Ag Deposition on Periodically Poled Lithium Niobate: Concentration Dependence

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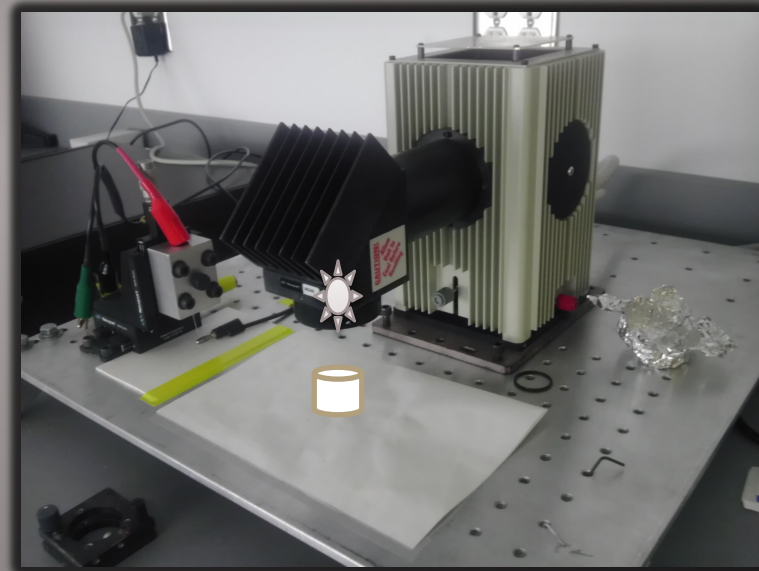
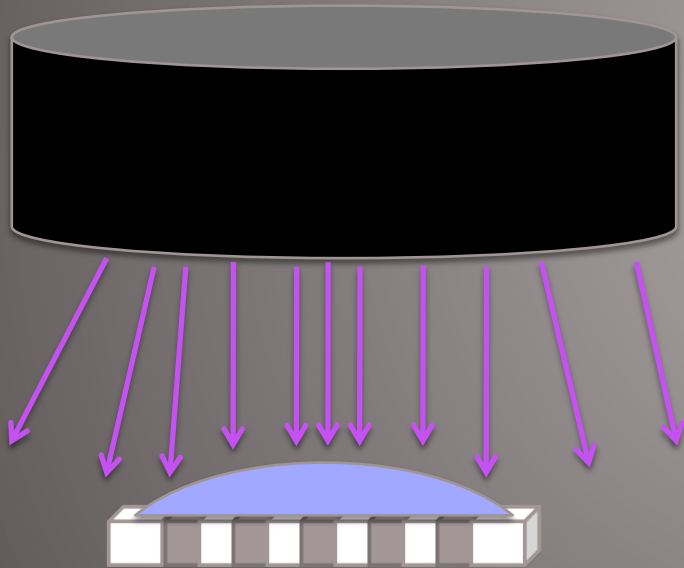
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Motivation

- High demand for metal nanostructures
- Unique electrical and optical properties
- Utilizing new technique of depositing gold nanoparticles onto periodically poled lithium niobate (PPLN) using ultraviolet (UV) light

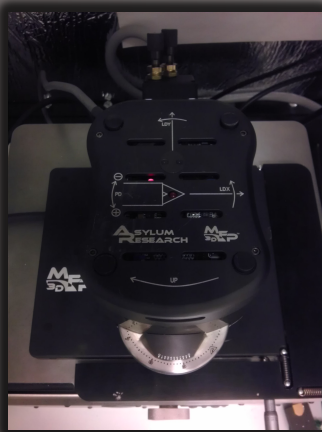
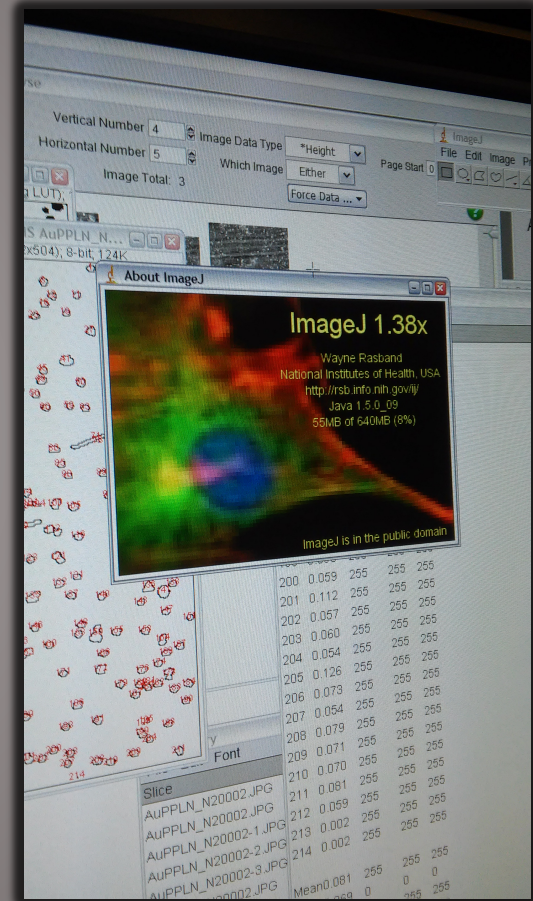
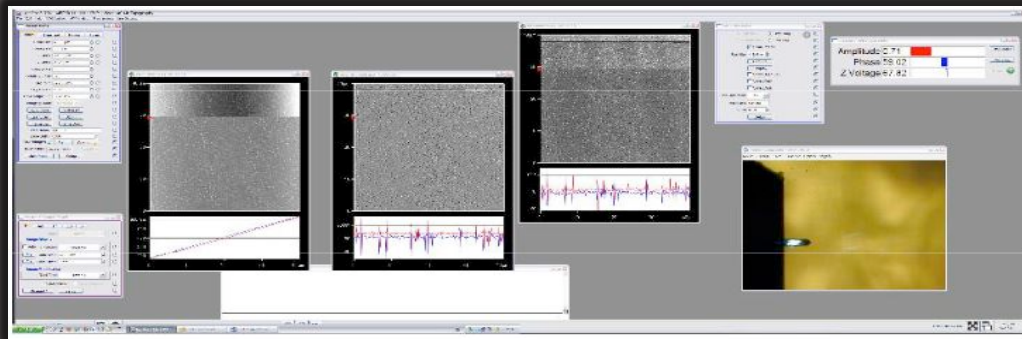
Production



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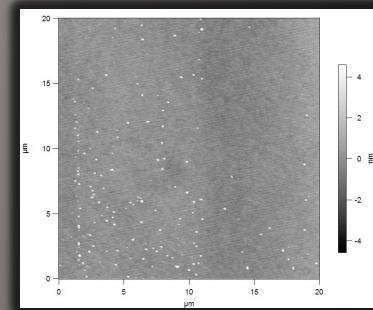
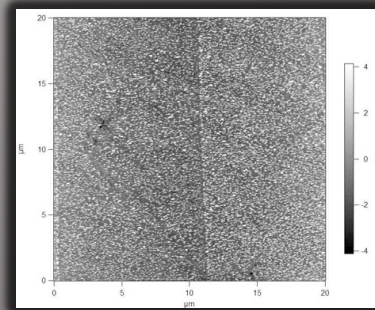
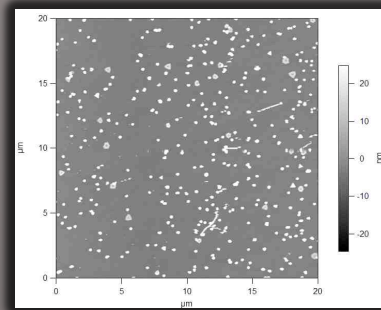
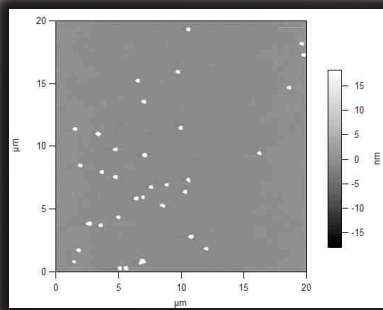
Analysis



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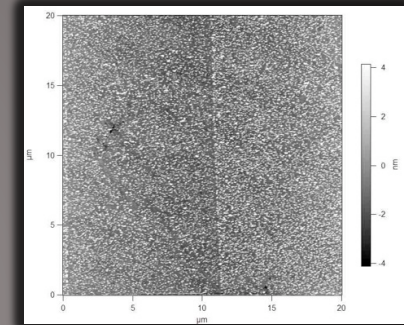
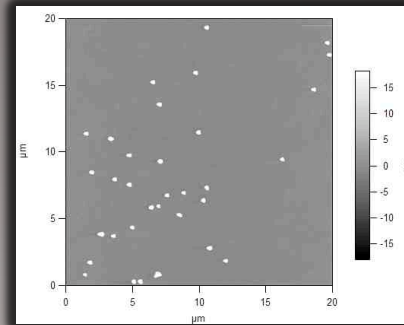
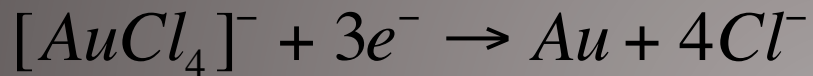


Results

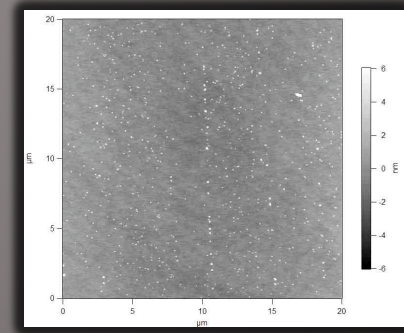
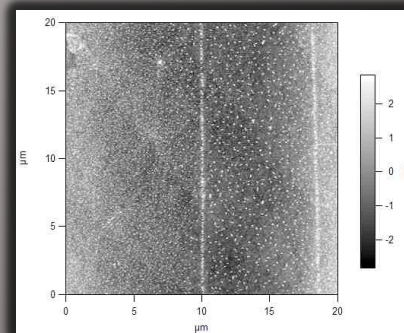
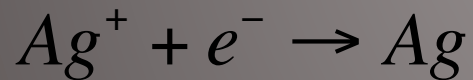


Interpretation

Gold Ion Reduction:



Silver Ion Reduction:



Next Steps

- Looking into the physics of the gold concentration graph
- Analyze deposition patterns of other metal solutions such as copper

Acknowledgments

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