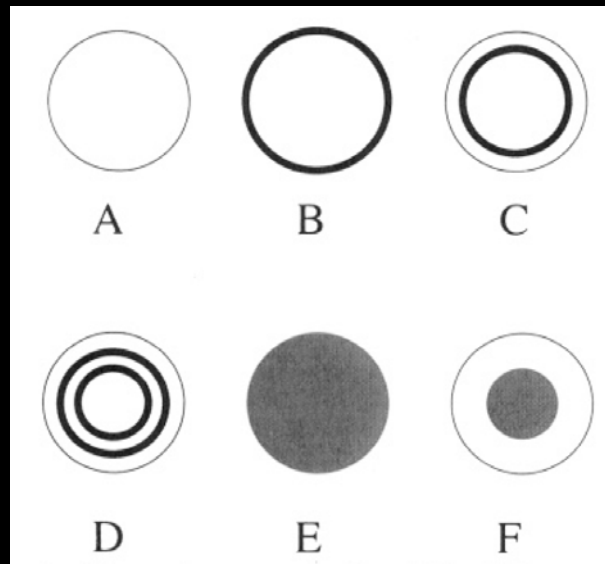


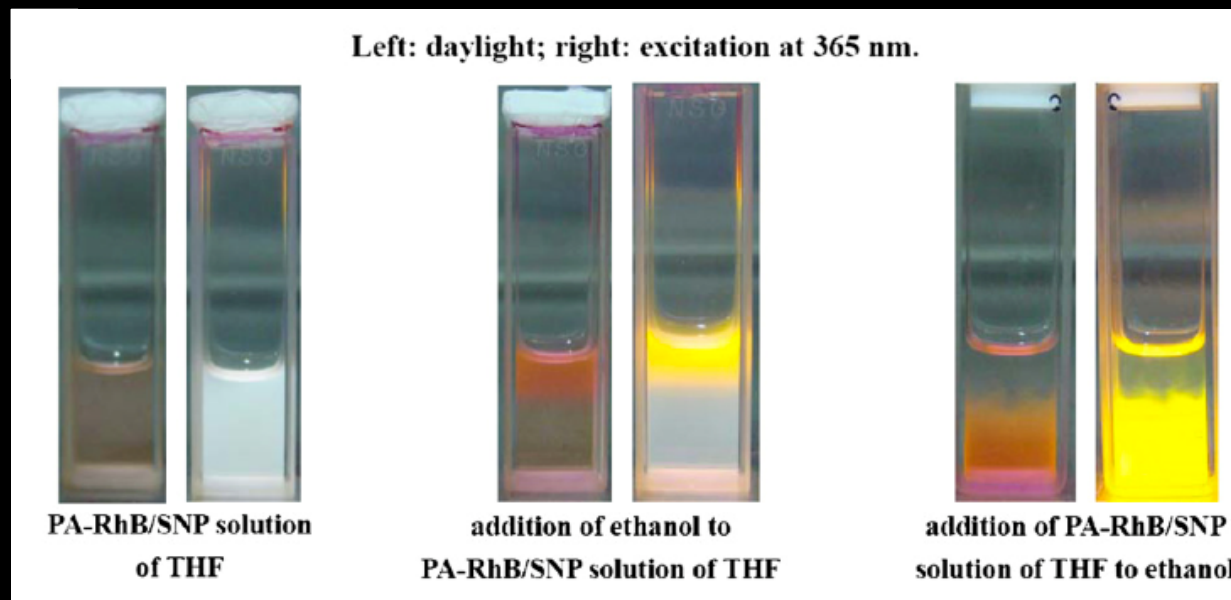
Synthesis and Characterization of Silica and Silicon Nanoparticles

Eli Whisnant

Advisor: Dr. Andrea Goforth



A. Van Blaaderen and
A. Vrij, Langmuir 8,
2921 (1992).

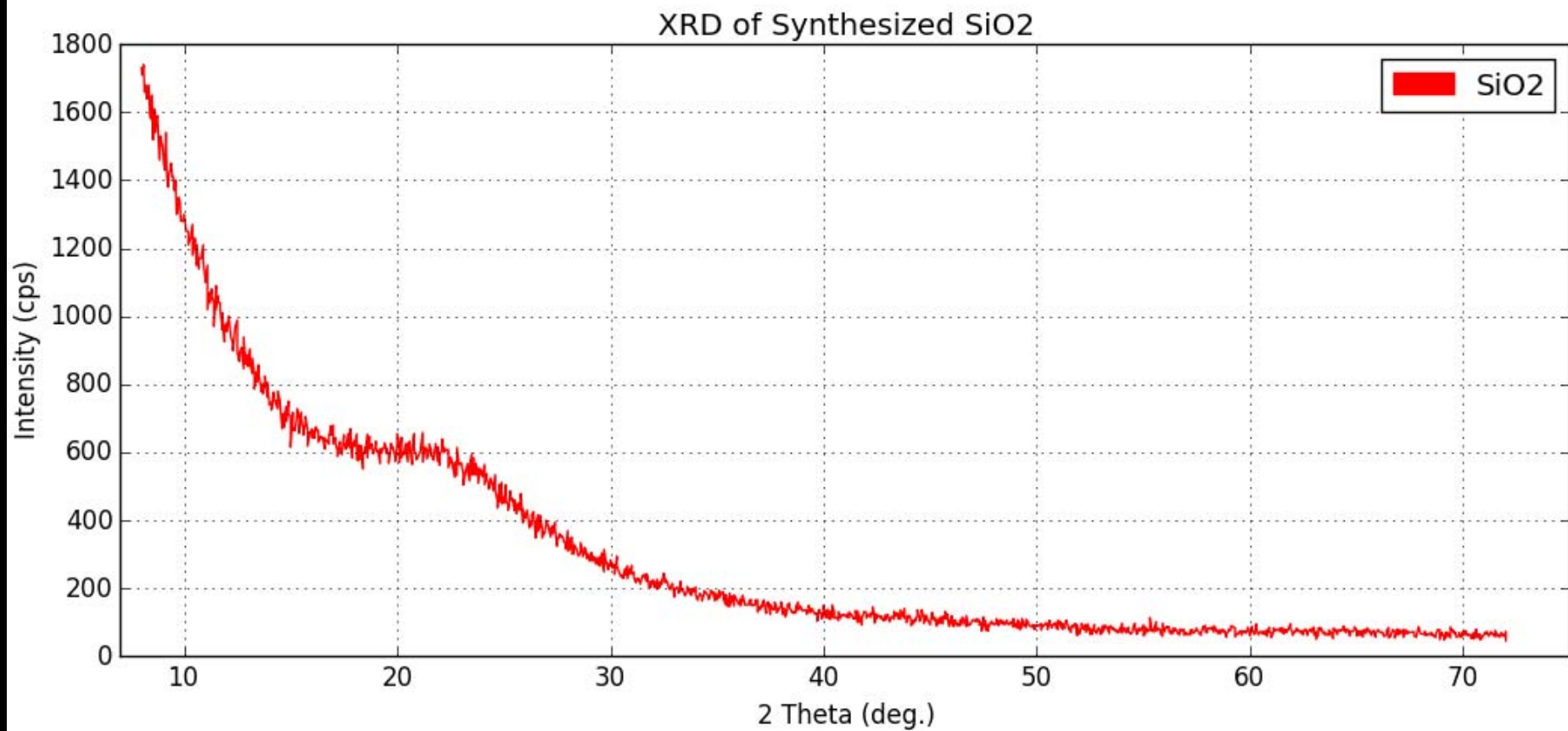


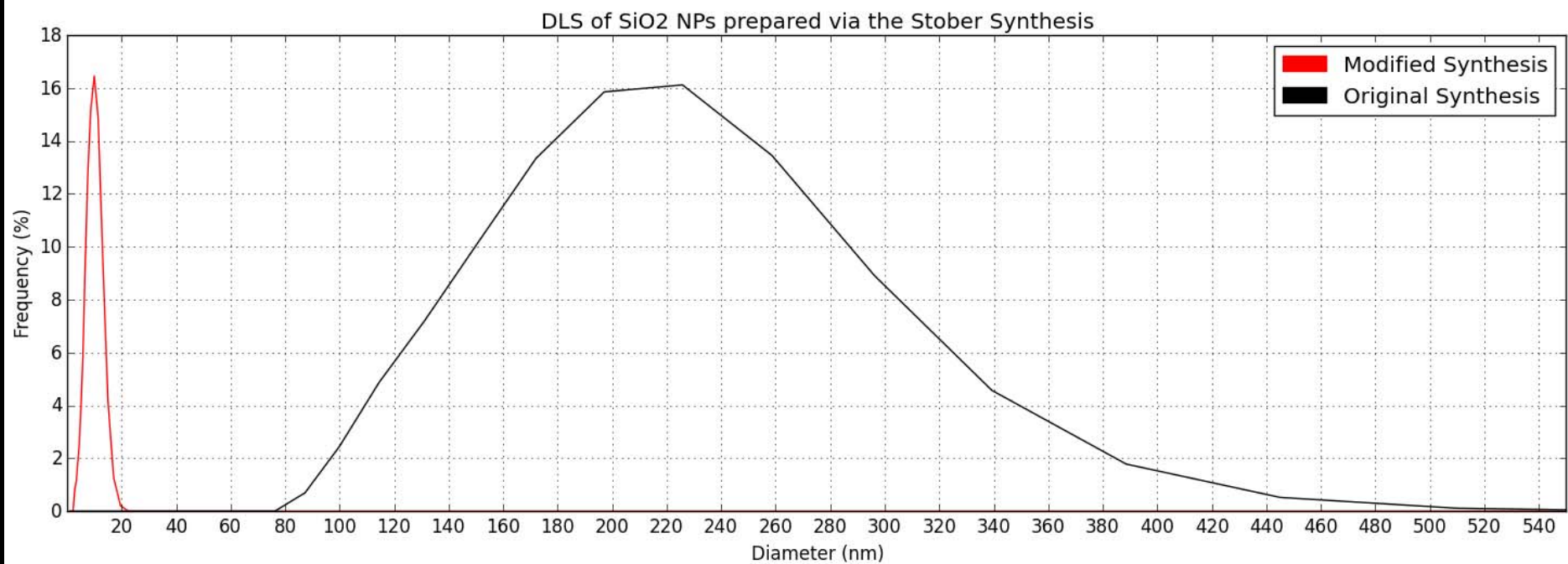
C.-Y. Hsu and Y.-L. Liu,
Journal of colloid and
interface

Silica Production

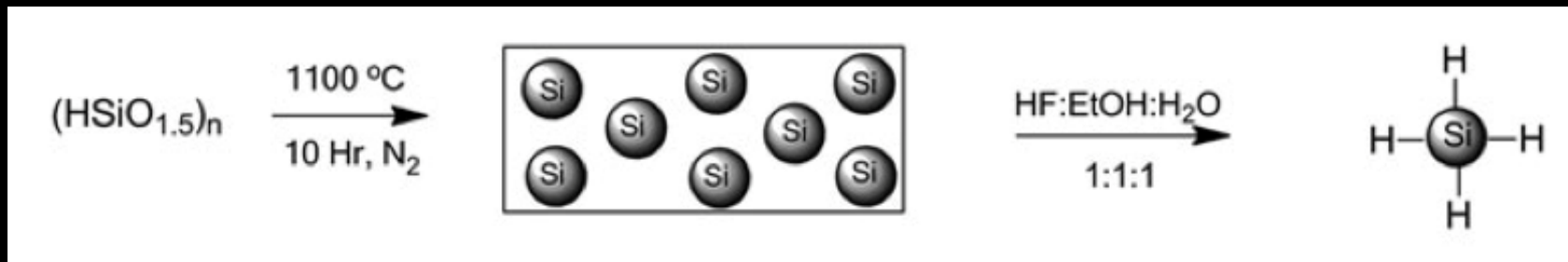
Stöber Synthesis



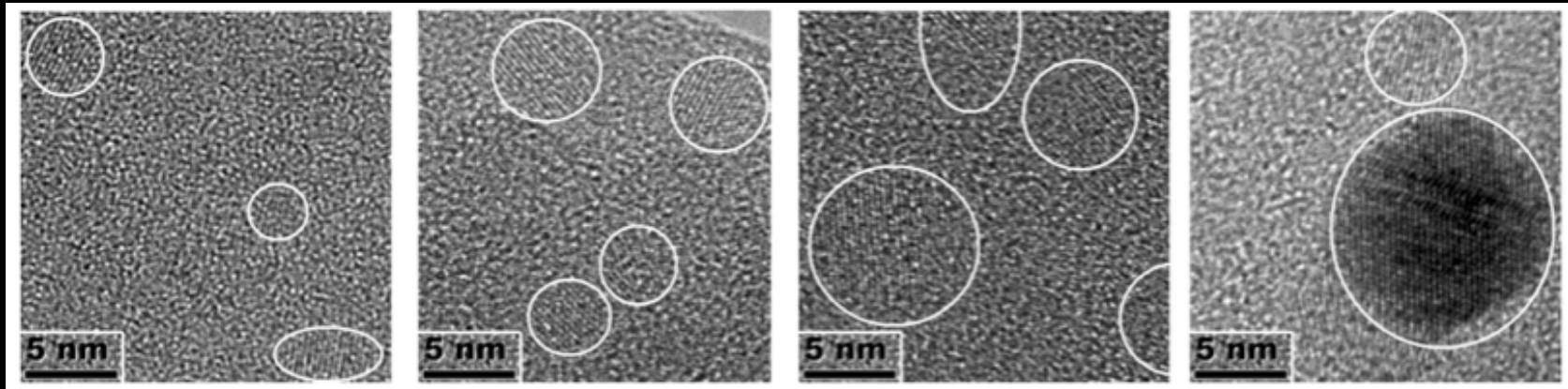




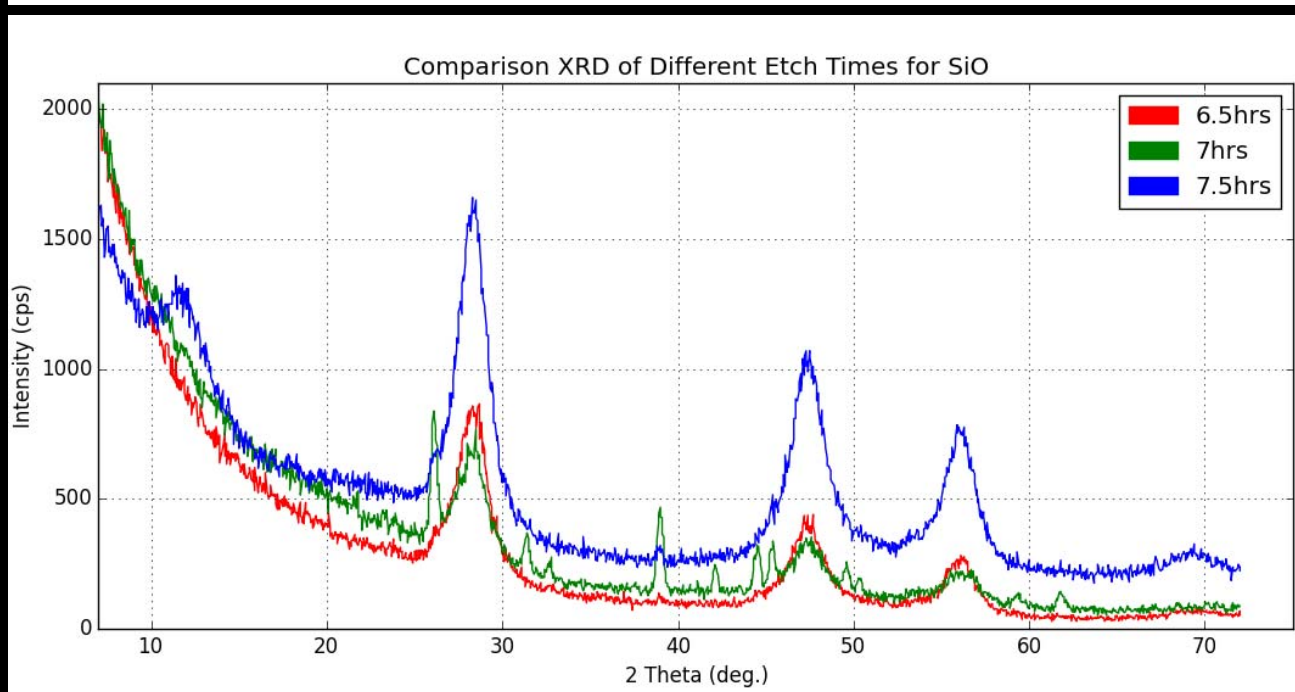
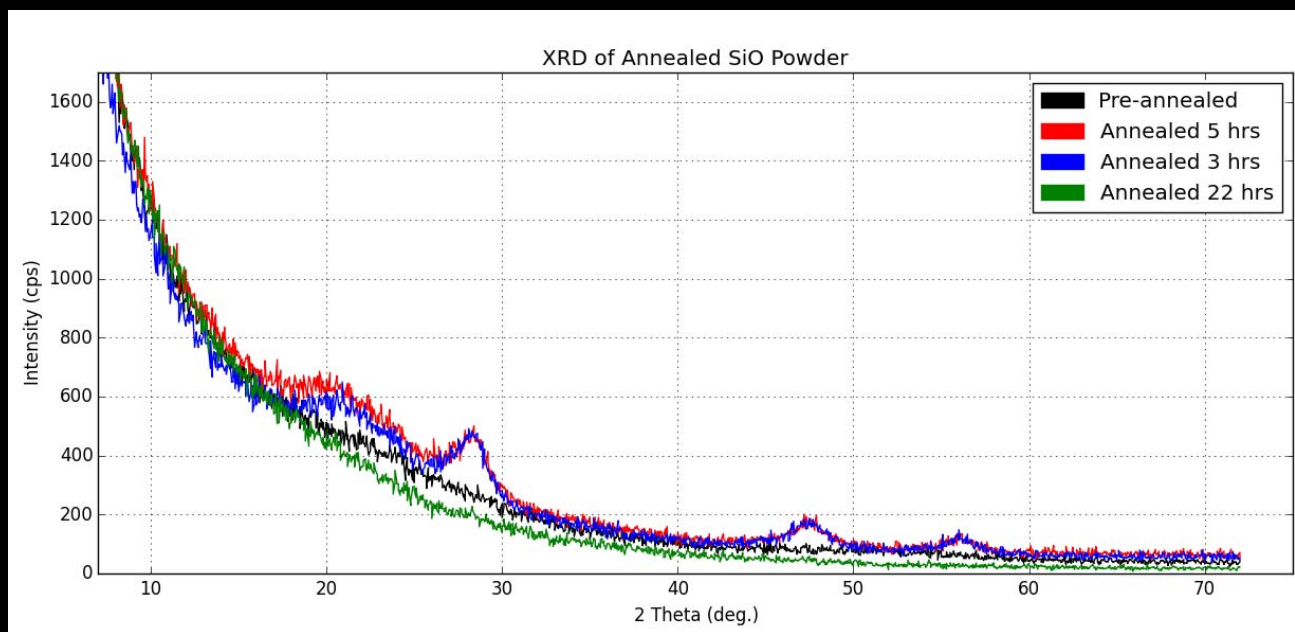
Silicon Production

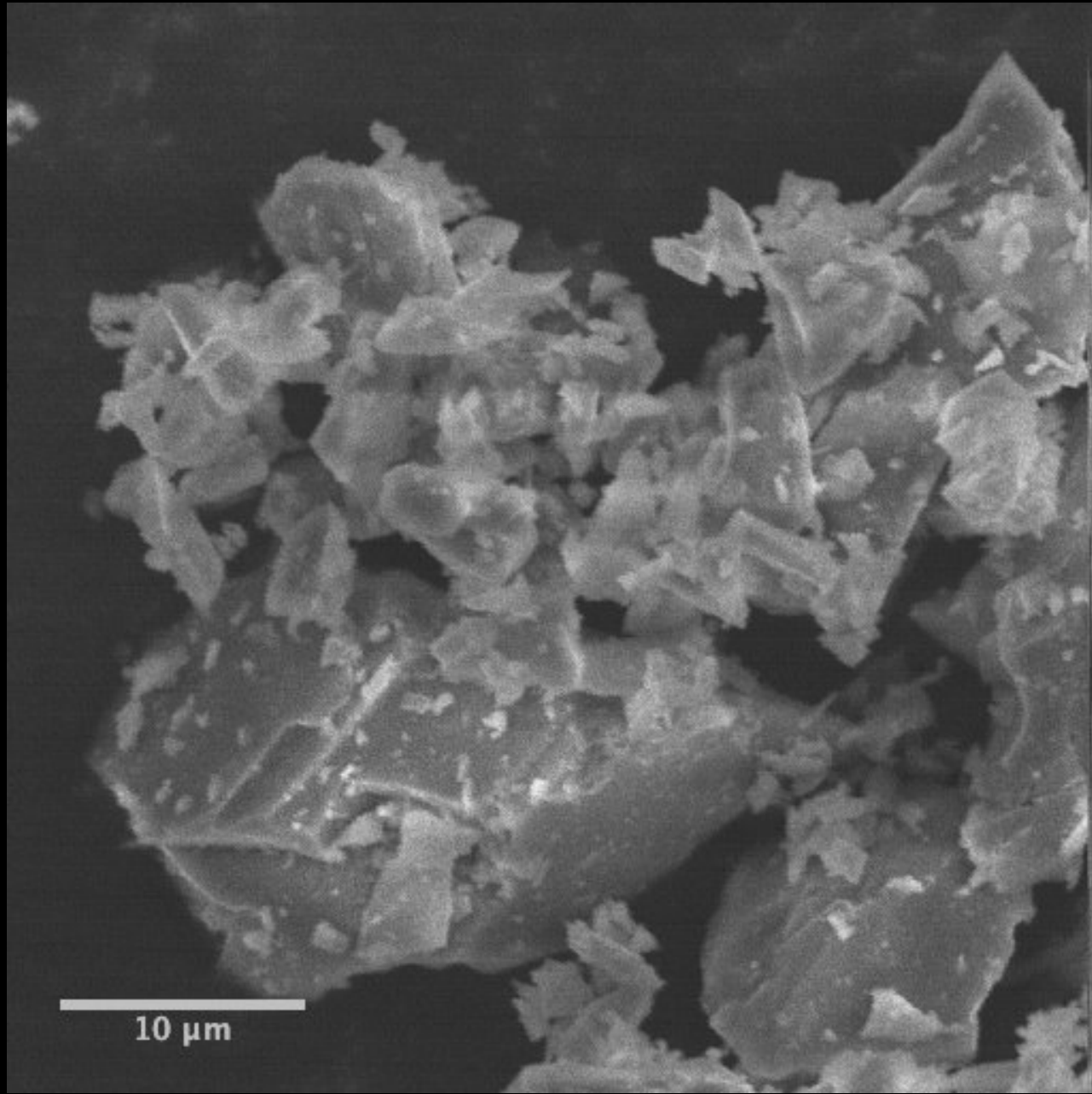


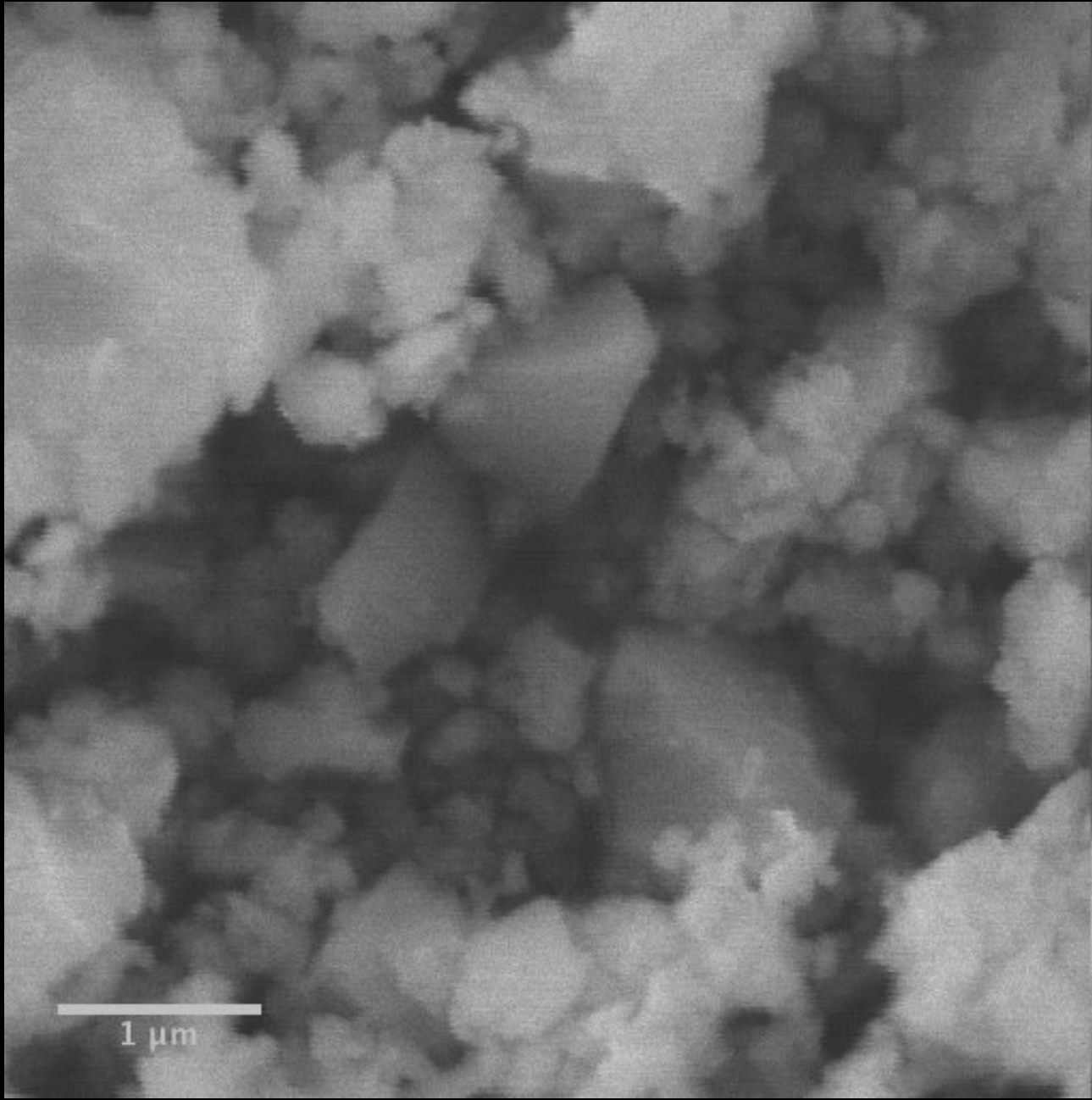
Chiu, Sheng-Kuei et al. *Journal of Materials Research* 28.02 (2013): 216–230.

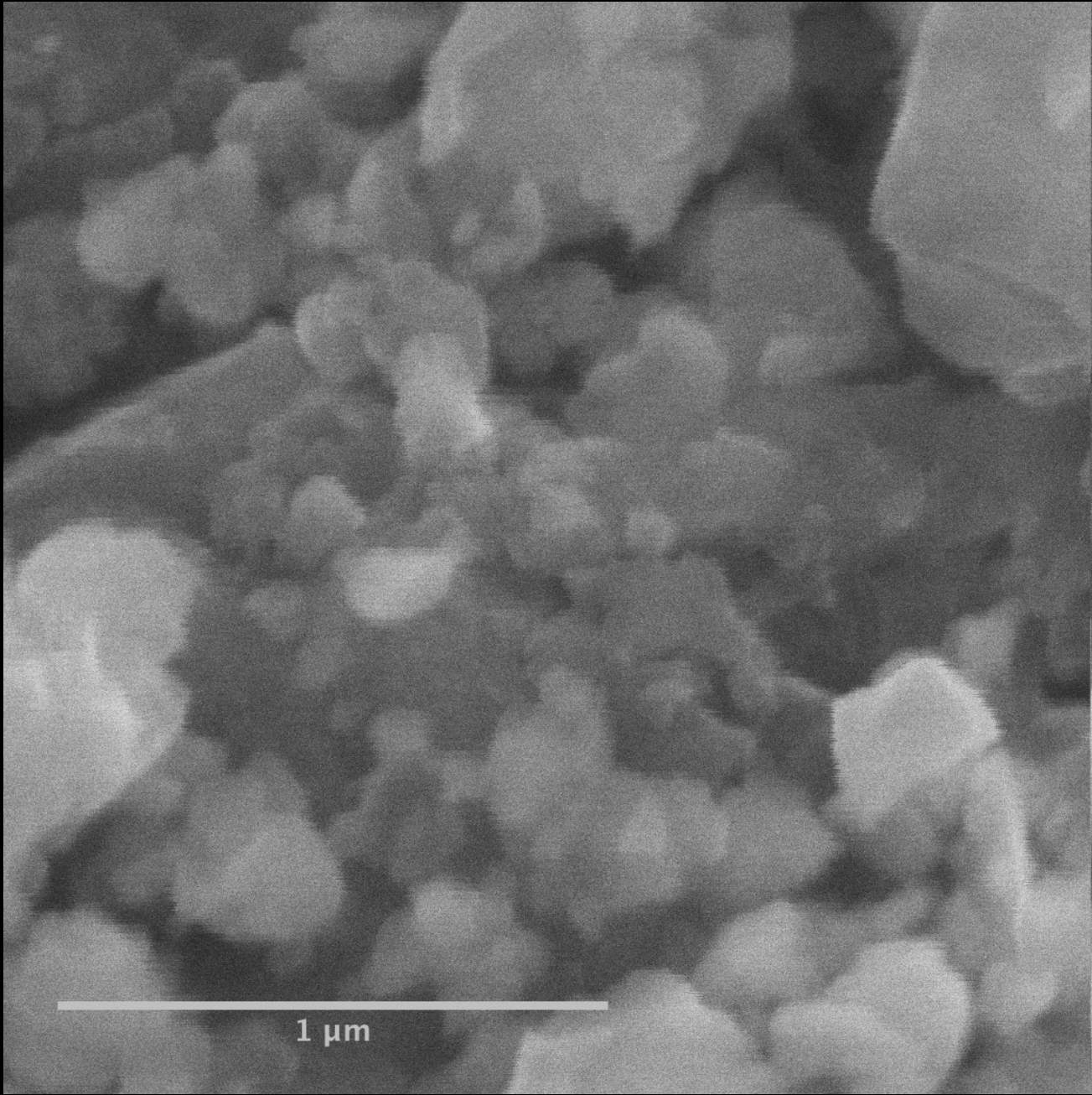


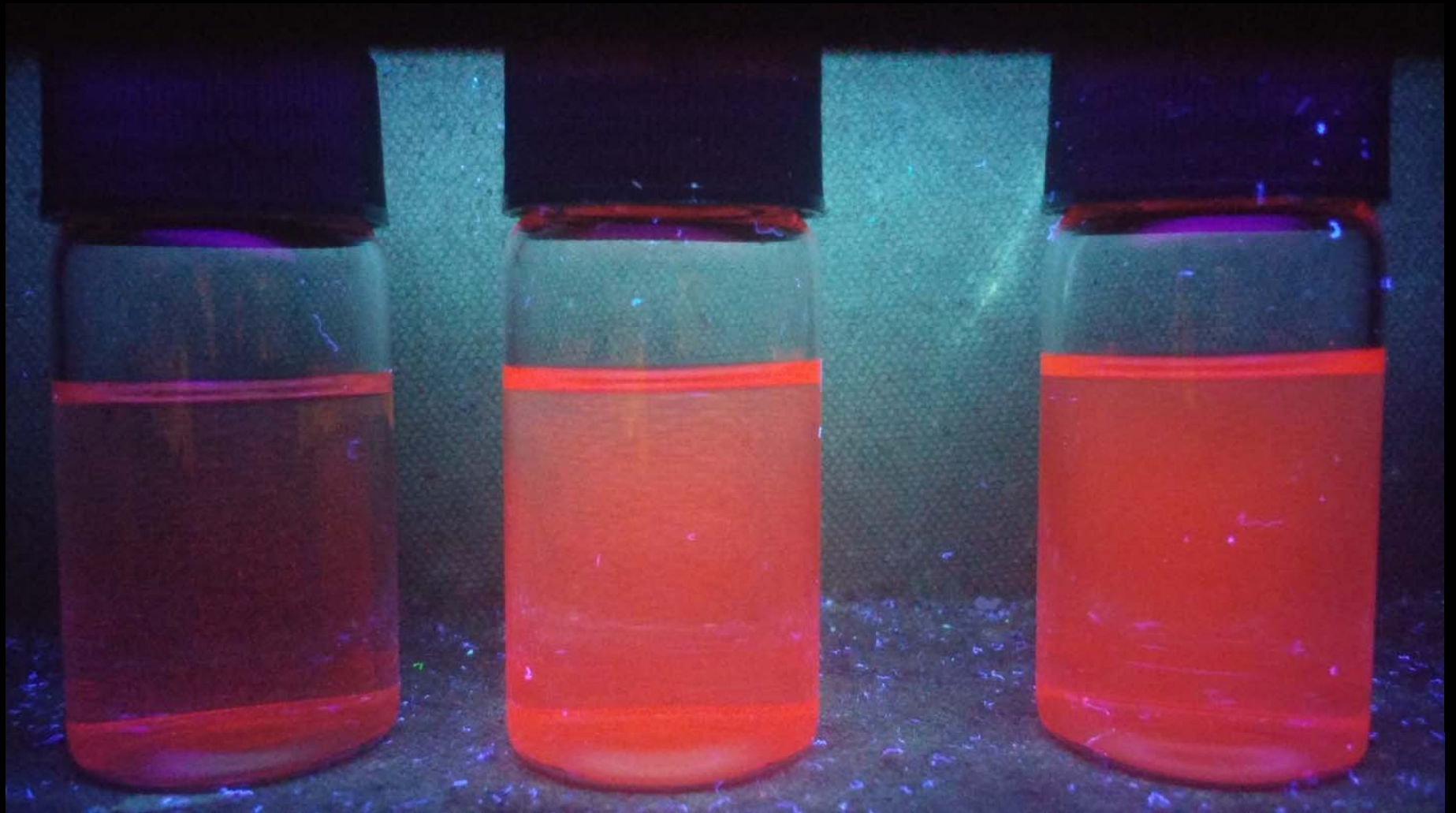
W. Ke et al. *Journal of Crystal Growth* 316 (2011) 191–195

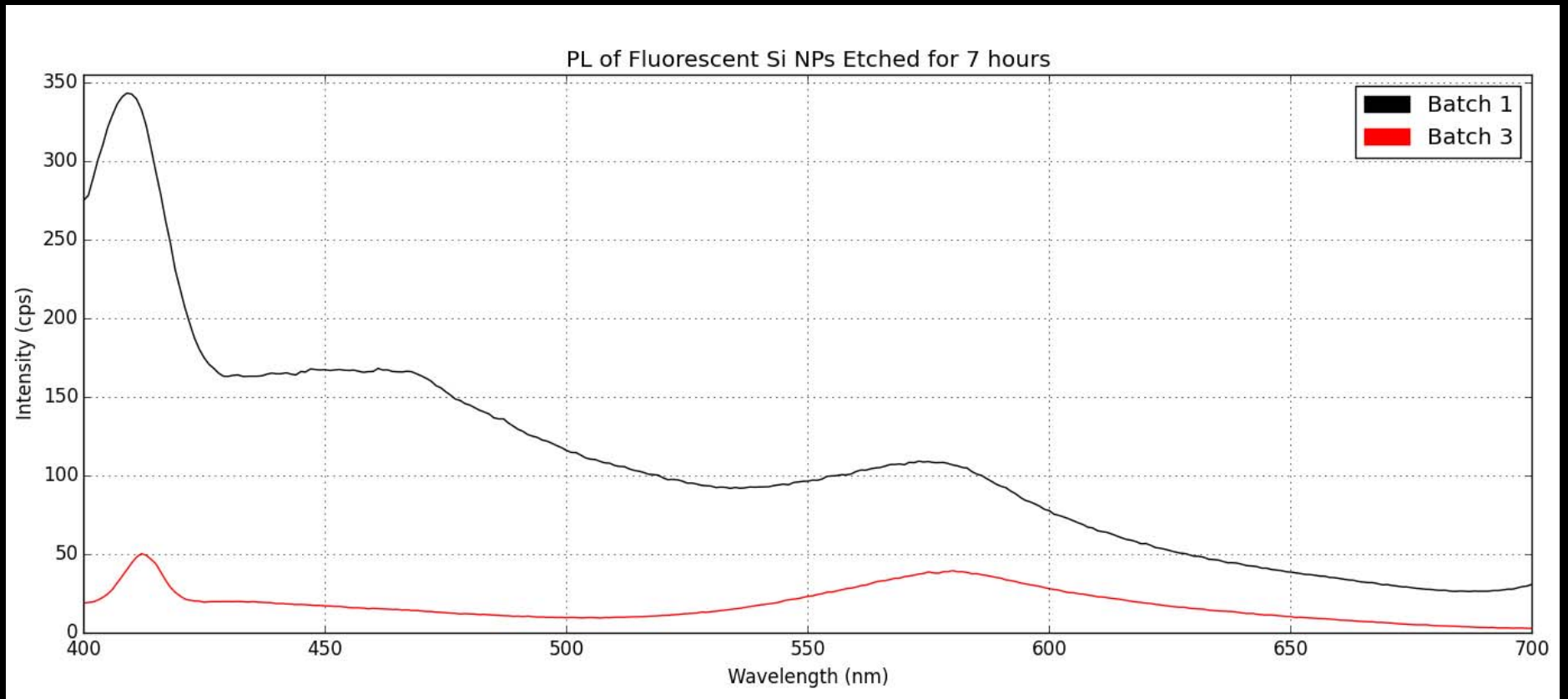




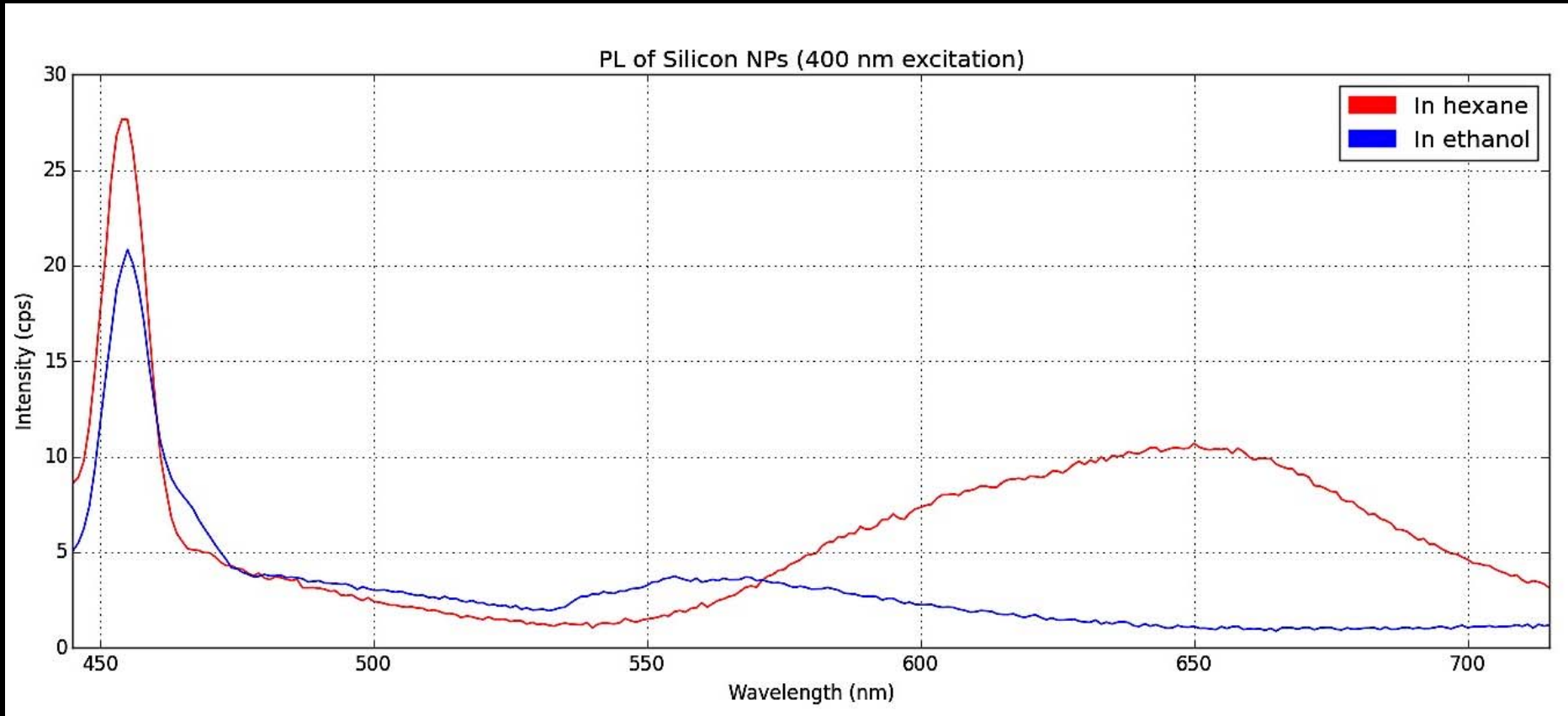


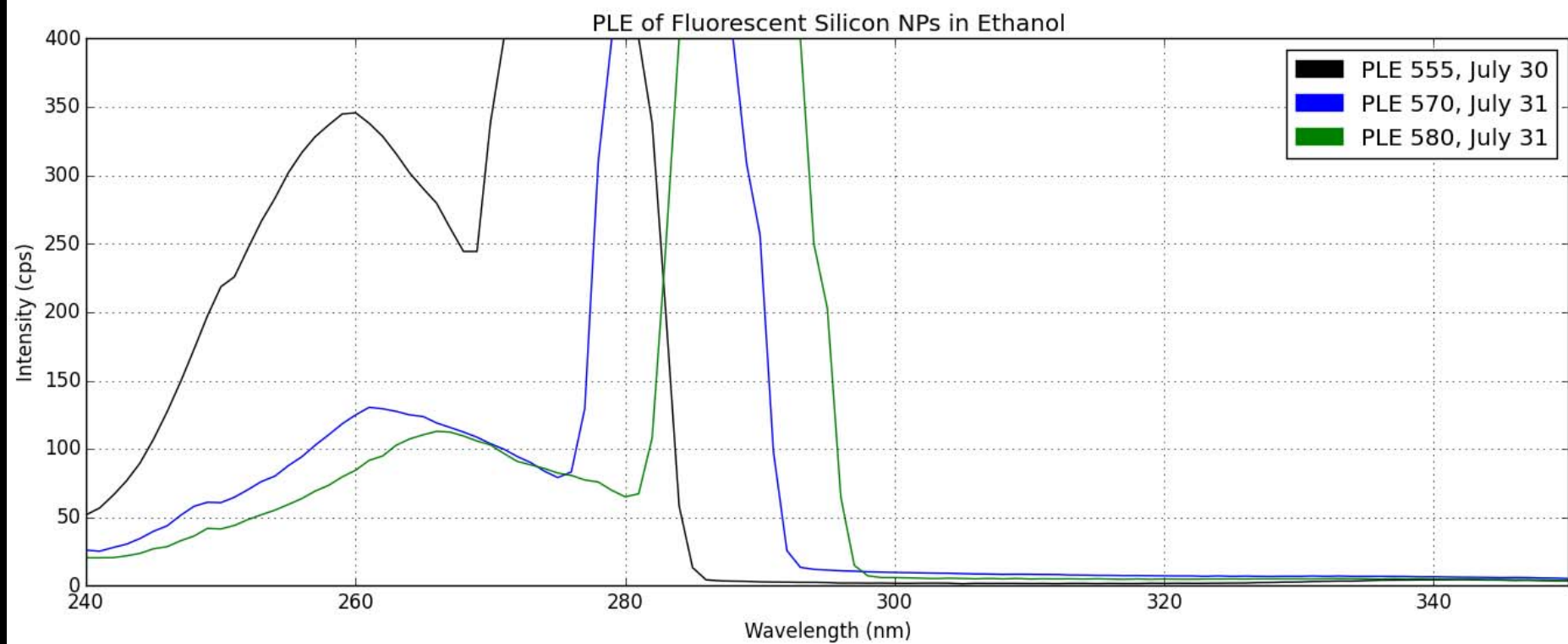






Photoluminescent Shift





Future Work

- Titrations
- Streamline Syntheses
- Replicate

Acknowledgements



Portland State
UNIVERSITY

Goforth Lab
nanochemistry

