

# Mia(Youngju) Son

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## EDUCATION

MS Chemical Engineering	Seoul National University, Seoul (GPA 3.70/4.0)	2019
BS Chemical and Biological engineering	Seoul National University, Seoul (GPA 3.51/4.0)	2017

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## PUBLICATIONS

- Hong, J., Bae, JH., Jo, H. and 30 others including Yo(u)ngju Son. Metastable hexagonal close-packed palladium hydride in liquid cell TEM. Nature 603, 631–636 (2022)
  - Youngju Son, Byung Hyo Kim, Back Kyu Choi, et al. In Situ Liquid Phase TEM of Nanoparticle Formation and Diffusion in a Phase-Separated Medium. ACS Applied Materials & Interfaces 14(20), 22810–22817 (2022)
  - Mouhong Lin and 13 others including Youngju Son. One-Pot Heterointerfacial Metamorphosis for Synthesis and Control of Widely Varying Heterostructured Nanoparticles. J. Am. Chem. Soc 143(9), 3383-3392(2021)
  - Hogeun Chang and 13 others including Youngju Son. Highly Fluorescent Gold Cluster Assembly J. Am. Chem. Soc 143 (1), 326-334(2020)
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## RESEARCH EXPERIENCE

Masters Research Project - Hyeon Research Group	2016-2019
<ul style="list-style-type: none"><li>Synthesized and evaluated nanoparticles of various properties - magnetic CoFe nanoparticle, luminescent gold nanoparticle and clusters</li><li>Established lab-scale semiconductor fabrication process flow to produce chip-based liquid cell for in situ TEM</li><li>Analyzed formation and behavior of silver nanoparticles in polymer solution via liquid cell TEM</li></ul>	

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## WORK EXPERIENCE

Process Engineer	Samsung Electronics, Gyeonggi-do	2019- Present
<ul style="list-style-type: none"><li>Executed optimization tests to increase reliability and uniformity of LPCVD, ALD films in batch process</li><li>Collaborated with engineers to reduce defects of SiN film, controlling precursor feeding rates in ALD recipe and arranging wafer layout</li></ul>		
Lecturer in Python	Samsung Electronics, Gyeonggi-do	2022 -Present
<ul style="list-style-type: none"><li>Teach classes on processing data based on python to engineers in class averaging 20</li></ul>		

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## TEACHING EXPERIENCE

Teaching assistant(Engineering Biology)	Seoul National University, Seoul	2018
<ul style="list-style-type: none"><li>Supervised students between classes to assist the professor</li></ul>		
Tutor for undergraduates (Calculus, Organic Chemistry)	Seoul National University, Seoul	2017
<ul style="list-style-type: none"><li>Helped students struggling with exam preparation by organizing tutoring sessions</li><li>Assisted in reviewing class materials and understanding concepts associated with homework</li></ul>		

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## RESEARCH INTERESTS

- Improving atomic(or molecular) layer deposition in terms of uniformity and productivity
  - Interaction between precursor and the substrate in formation of 2D materials
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## HONORS AND AWARDS

- Recipient of Seoul National Universtiy Merit-Based Scholarship(5 semesters)
- Recipient of National Scholarship For Science and Engineering