

Doohong Min

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Education

2025.03– **M.S. Candidate in Mechanical Engineering,**
Korea Advanced Institute of Science and Technology.
Advisor: Prof. Jungchul Lee

2019.3–2025.02 **Bachelor of Mechanical Engineering,**
Hanyang University, GPA - 4.10/4.50.

Research Area

- Fabrication of porous silicon structures via photoelectrochemical etching.
- Through-hole silicon membranes for nanostencil and sensing applications
- MEMS/NEMS

Awards

May 2026 **Best Paper Award, 2026 Spring Conference of Korean Society of Mechanical Engineers (KSME).**

Doohong Min, Taeyeong Kim, Jungchul Lee

- Integration of heavy-metal ion sample filtration and surface photoluminescence analysis using macro-micropore hybrid silicon vias

May 2026 **Best Photo Contest Award, 2026 Spring Conference of Korean Society of Mechanical Engineers (KSME)– Micro Nano division.**

Doohong Min

- The Last Silicon Supper, Excellence Award

Mar. 2026 **Best Oral Presentation Award, 2026 Spring Conference of the Society of Micro and Nano Systems.**

Doohong Min, Taeyeong Kim, Jungchul Lee

- Fabrication of laser annealing-based nanoscale stencil thin films and fabrication of metal nanodisk arrays via stencil lithography

Nov. 2025 **Best Paper Award, 2025 Fall Conference of the Society of Micro and Nano Systems.**

Doohong Min, Taeyeong Kim, Kibum Jung, Jungchul Lee

- Growth and In-situ Morphology Control of Silicon Pores via Backside-Illuminated Photoelectrochemical Etching

Sep. 2025 **Bronze Award, KSME-SEMES Open Innovation Challenge.**

Kibum Jung, Taeyeong Kim, **Doohong Min,** Jungchul Lee

- 웨이퍼 표면 구조 검사를 위한 OPU 기반 10 nm-정밀 표면 스캐너

Feb. 2025 **Academic Excellence Award, Spring 2025 Graduation.**
Doohong Min
- Awarded for exceptional academic performances and achievements

Publications

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International Conferences

- Jan. 2026 **Hilton Head Workshop 2026: A Solid-State Sensors, Actuators and Microsystems Workshop**, Hilton Head Island, USA
(Poster) **Doohong Min**, Taeyeong Kim, Jungchul Lee
- Laser-annealing-based Nanostencil for Solvent-free Fabrication of Plasmonic Nanostructures
- Jan. 2026 **The 39th International Conference on Micro Electro Mechanical Systems (IEEE MEMS 2026)**, Salzburg
(Poster) **Doohong Min**, Taeyeong Kim, Kibum Jung, Jungchul Lee
- Fabrication of High-Aspect-Ratio Macro-Mesopore Arrays via Electrochemical Etching with Tunable Mode Transition
- Jan. 2026 **The 39th International Conference on Micro Electro Mechanical Systems (IEEE MEMS 2026)**, Salzburg
(Poster) **Doohong Min**, Taeyeong Kim, Jungchul Lee
- Fabrication of Aperture-Tunable Silicon Nanostencil Membrane via Localized Laser Annealing

Domestic Conferences

- Mar. 2026 **2026 Spring Conference of the Society of Micro and Nano Systems**, Jeju
(Oral) **Doohong Min**, Taeyeong Kim, Jungchul Lee
- Photo-excitation-controlled electrochemical etching for fabrication of high aspect ratio silicon macropore arrays and 3D microstructures
- Mar. 2026 **2026 Spring Conference of the Society of Micro and Nano Systems**, Jeju
(Oral) **Doohong Min**, Taeyeong Kim, Jungchul Lee
- Fabrication of laser annealing-based nanoscale stencil thin films and fabrication of metal nanodisk arrays via stencil lithography
- May 2025 **Spring Conference of the Korean Society of Mechanical Engineers (KSME)**
(Poster) - **Micro Nano division**, Gangneung
Doohong Min, Taeyeong Kim, Jungchul Lee
- Protein Separation Using Laser-annealed Nanoporous Silicon Membranes with High Uniformity
- Nov. 2023 **Fall Conference of the Korean Society of Rheology**, Jeju island
(Poster) **Doohong Min**, Myungsuk Chun, Minseon Yeom
- Conformational and Translational Diffusion of Water-soluble Polyelectrolyte Chain in Confined Spaces of Narrow Channels