

# MINSEOK KIM

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## ■ PROFESSIONAL SUMMARY

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- Ph. D. in Mechanical Engineering with expertise in **low pressure RF-driven nonthermal plasma**
- Recognized by **4 fellowships** and **6 awards** by academia and industry
- Authored **19 publications** in peer-reviewed journals

## ■ EDUCATION

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- Ph. D.** Sep. 2020–Sep. 2024, Department of Mechanical Engineering, University of California Riverside  
Thesis: *Nonthermal Plasma Surface Activation: Ammonia Synthesis, Selective Desorption of Carbon Monoxide, and Thermalization of Phenylphosphonic Acid*  
Supervisor: Dr. Lorenzo Mangolini
- M. S.** Mar. 2018–Aug. 2020, Department of Nuclear and Energy Engineering, Jeju National University  
Thesis: *Synthesis of Boron Nitride Nanotubes Using Atmospheric Pressure Thermal Plasma Jet*  
Supervisor: Dr. Sooseok Choi
- B. S.** Mar. 2012–Feb. 2018, Department of Nuclear and Energy Engineering, Jeju National University  
(Including 2 years mandatory enlistment in the Republic of Korea Marine Corps)

## ■ EXPERIENCE

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 Nov. 2024–Present, Intel Corporation, Module Development Engineer  
Hillsboro, Oregon, United States

## ■ SELECTED PUBLICATIONS

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[Google Scholar](#) (Citations: 233 and h-index: 10)

1. **M. Kim**, S. Biswas, I. B. Alvarez, P. Christopher, B. M. Wong, L. Mangolini, “Nonthermal Plasma Activation of Adsorbates: The Case of CO on Pt”, *JACS Au* **2024**, 4, 2979–2988.
2. **M. Kim** and L. Mangolini, “Using Surface-Enhanced Raman Spectroscopy to Probe Surface-Localized Nonthermal Plasma Activation”, *J. Phys. Chem. Lett.* **2024**, 15, 4136–4141.
3. **M. Kim**, S. Biswas, G. Nava, B. M. Wong, and L. Mangolini, “Reduced Energy Cost of Ammonia Synthesis Via RF Plasma Pulsing”, *ACS Sustainable Chem. Eng.* **2022**, 10, 15135–15147.

## ■ SELECTED FELLOWSHIPS AND AWARDS

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<b>Dissertation Completion Fellowship</b>	<b>2024</b>
All Tuitions, Student Service Fee, Student Health Insurance, and Stipend	United States
<b>Hyundai Motor Chung Mong-Koo Foundation Fellowship</b>	<b>2020–2024</b>
Supplemental stipend, Support for International Conference, and Incentive for Publication	South Korea
<b>Dean’s Distinguished Fellowship</b>	<b>2020–2021</b>
All Tuitions, Student Service Fee, Student Health Insurance, and Stipend	United States

<b>Poster Presentation Award</b> The 25 <sup>th</sup> International Symposium on Plasma Chemistry	<b>2023</b> Japan
<b>Talent Award of Korea</b> Awarded from South Korea Deputy Prime Minister and Secretary of Education	<b>2020</b> South Korea
<b>Springer Poster Award</b> The 32 <sup>nd</sup> US-Korea Conference on Science, Technology and Entrepreneurship	<b>2019</b> United States

## ■ SELECTED PRESENTATIONS

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1. **M. Kim** and L. Mangolini, “Combining in operando FTIR and Raman to investigate the plasma-surface interaction”, *The 76<sup>th</sup> Annual Gaseous Electronics Conference*, Oct. 9–13, 2023, Michigan, United States. (*Oral Presentation*)  
*\*GEC Student Excellence Award Finalist Presentation*
2. **M. Kim**, S. Biswas, G. Nava, B. M. Wong, and L. Mangolini, “Detailed Characterization of a Low-Temperature Plasma-driven Ammonia Synthesis Process”, *2022 MRS Spring Meeting & Exhibit*, May 23–25, 2022, Hawaii, United States. (*Oral Presentation*)
3. **M. Kim**, S. Biswas, G. Nava, B. M. Wong, and L. Mangolini, “Plasma pulsing: An effective approach for the reduction of the energy cost of ammonia synthesis”, *2022 ACS Spring Meeting & Expositions*, Mar. 20–24, 2022, San Diego, United States. (*Oral Presentation*)

## ■ REFERENCE CONTACTS

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**Name:** Lorenzo Mangolini

**Role:** Professor at University of California, Riverside

**Address:** 900 University Av, Riverside, CA, 92521

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**Name:** Sooseok Choi

**Role:** Professor at Jeju National University

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