A DREAM FULFILLED: MY JOURNEY AS AN ADB-JSP SCHOLAR IN JAPAN

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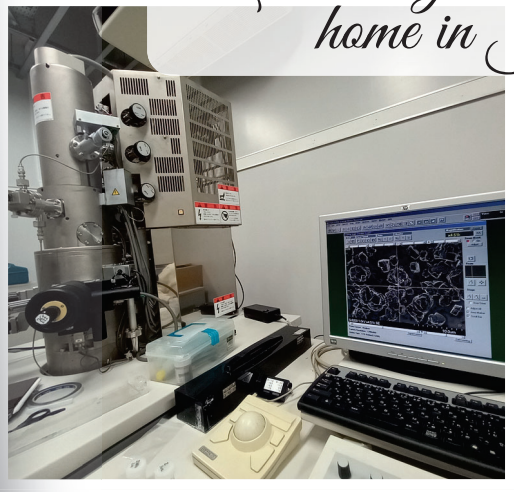
Master of Engineering in Chemical Science and Engineering (Oct 2023 - Sep 2025)

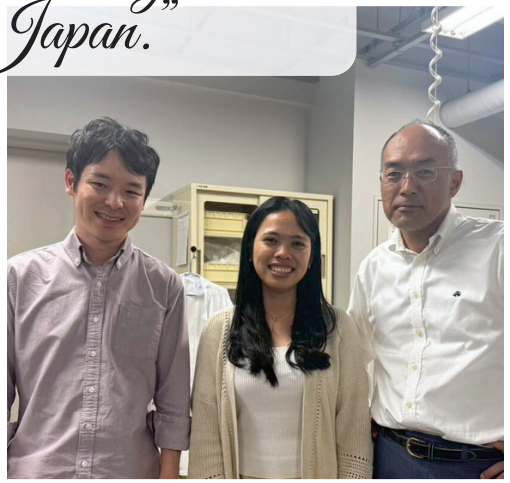
MY MOTIVATION & RESEARCH JOURNEY

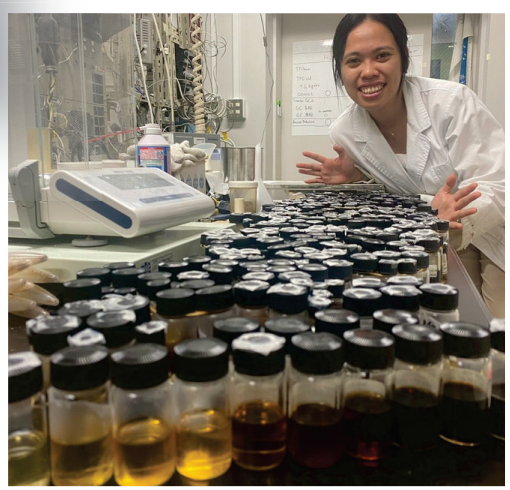
Before pursuing my Master's degree at Science Tokyo, I served as a faculty member at the University of the Philippines Visayas, mentoring students (academics and research) and engaging with local communities through extension services. Through this work, I gained a deeper understanding of the challenges in managing pre- and post-harvest agricultural wastes and recognized the significant potential for biomass conversion in the Philippines as an agricultural country.

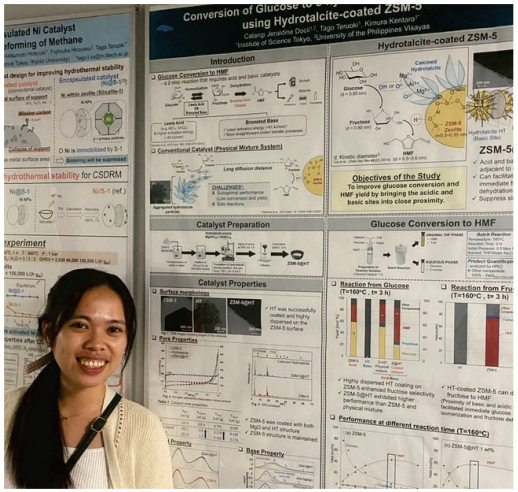
With the support of ADB–JSP and Science Tokyo, I pursued this mission through meaningful research on biomass conversion and catalyst design at a laboratory in the Department of Chemical Science and Engineering, made possible through the guidance of my professors, the support of my labmates, and the access to excellent research facilities.

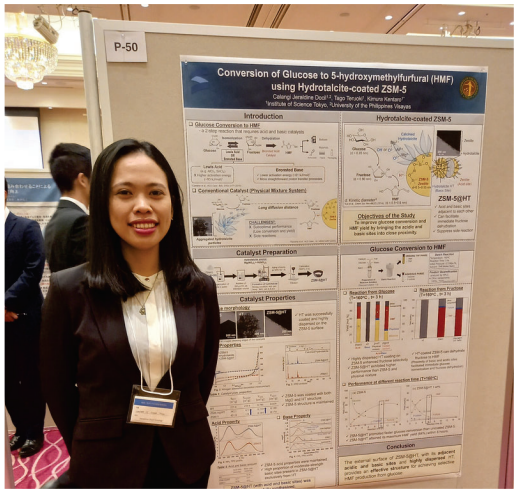
"Laboratory became my second home in Japan."

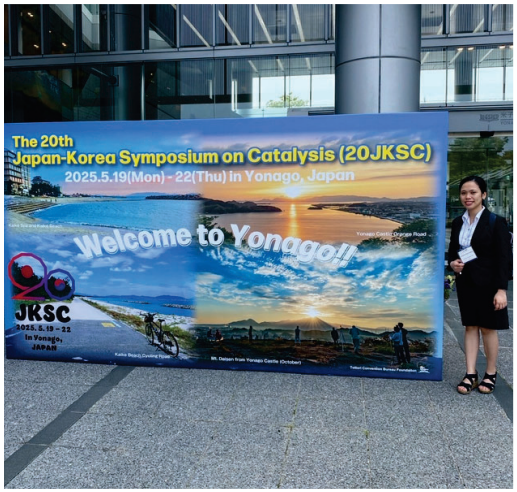












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Chemical Engineering Journal

Volume 519, 1 September 2025, 165013

Calcined hydrotalcite-coated ZSM-5 with acidic and basic bifunctionalities for 5-hydroxymethylfurfural production from glucose ☆

Jeraldine Docil Calangi [a b], Teruoki Tago [a], Kentaro Kimura [a]

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Applied Catalysis A: General

Available online 16 October 2025, 120648

In Press, Journal Pre-proof What's this?

Tailoring Mg/Al-Tuned Calcined Hydrotalcite-Coated ZSM-5: Enhancing Basicity for Improved Glucose to HMF Conversion

Jeraldine Docil Calangi [a b], Teruoki Tago [a], Kentaro Kimura [a]

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Applied Catalysis A: General

Volume 709, 5 January 2026, 120614

Development of alumina-supported hydrotalcite-derived CuMgFe catalysts for efficient hydrocarbon synthesis via CO_2 hydrogenation

Kentaro Kimura [a], Ken Nakamura [a], Jeraldine Docil Calangi [a b], Teruoki Tago [a]

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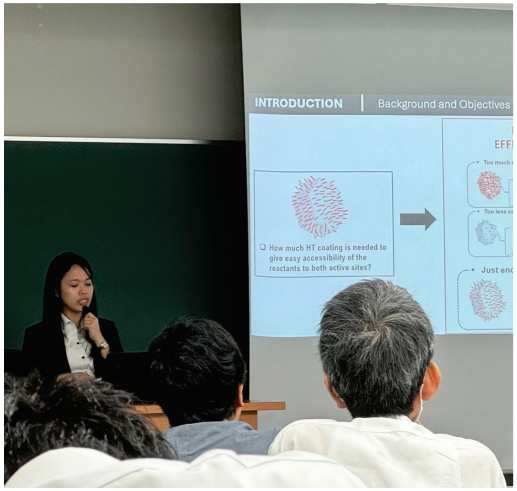


OPPORTUNITIES & GROWTH

After months of hard work and with the generous guidance and support of my professors, I was fortunate to present the results of my research at several national and international conferences. This experience not only allowed me to share our findings with the wider scientific community but also helped me grow as a researcher, gaining valuable insights from the experts in the field.

From this work, we were also able to publish research papers in reputable journals - achievements that I deeply appreciate and that continue to inspire me to explore ways to make a meaningful impact in the field of biomass conversion and catalyst design.

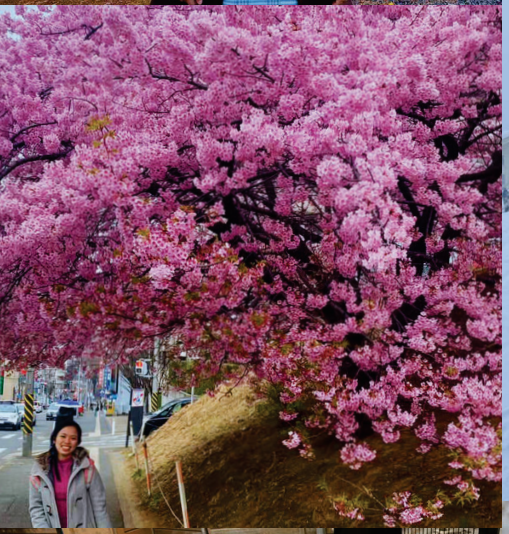
MY SUPPORT SYSTEM IN JAPAN

My first few weeks in Japan were filled with challenges—adjusting to a new language, being far from my family, and learning to operate advanced research equipment for the first time. The research environment was far more intensive than what I was used to, yet these experiences shaped me and helped me grow.

I am deeply grateful for the unwavering support of everyone I met along the way, especially the warmth of friends. Japan is such a beautiful country, and I was glad to share and appreciate it with friends, particularly during difficult moments. I am especially thankful for the friendships I formed with my fellow Filipino scholars and with other international residents in our shared house. Whenever I felt exhausted from experiments, they were always there to encourage and support me—whether through going out to karaoke, exploring new places, cooking and sharing meals, or simply spending time together—which helped me overcome challenges and enjoy this journey to the fullest.










Beyond academics, Japan became a place of cherished memories. Every season offered something new to marvel at, each one deepening my appreciation and love for this beautiful country.

REFLECTION

Living and working in Japan taught me so much about its culture—its honesty, patience, discipline, and unwavering dedication and punctuality. These values have left a lasting imprint on me and continue to shape the way I approach both research and life.

Seeing the growth in my ‘after two years’ self, I can truly appreciate how much I have developed—not only as a researcher but also as a person.

PAYING IT FORWARD

As I return home to the Philippines, I carry with me not only the knowledge and skills I have gained, but also the values and inspiration that Japan has instilled in me. I hope to pursue research that truly benefits communities and to guide young minds with the same passion that once inspired me.

I am deeply grateful to ADB–JSP staff and coordinator, and to the Institute of Science Tokyo, for believing in me and shaping this life-changing journey. I will carry this dream—and the lessons I have learned in Japan—with me always.

"This experience changed not only my career, but also my life."