

CHEN Xiaoyu

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Address: Nagoya University, Furo-cho, Chikusa-ku, Nagoya, Aichi, Japan

EDUCATION

Nagoya University (Nagoya, Japan)	2022.04 – present
Chemical Systems Engineering – Doctoral candidate (3rd year)	
Nagoya University (Nagoya, Japan)	2020.04 – 2022.03
Chemical Systems Engineering – Master's degree	
Huizhou University (Huizhou, China)	2015.09 – 2019.06
Chemical Engineering and Technology – Bachelor's degree	

RESEARCH & TEACHING EXPERIENCE

Nagoya University	2022.04 – present
KITA Hideki's Lab	PhD Researcher / JSPS Research Fellowship
Project: <u>Integrated Research on Redox-type Chemical Heat Storage Systems Targeting Medium-high Temperature Regions</u> (prepared honeycomb-structure heat storage module based on redox-type chemical heat storage materials; designed a tubular furnace reactor base on honeycomb module; optimized module and reactor design using numerical simulation)	
Nagoya University	2020.04 – 2022.03
Aichi Knowledge Hub Aichi Priority Research Projects	Research Assistant
Project: <u>Energy Management Technology Based on Thermal / Electric Batteries</u> (Screened and developed redox-type chemical heat storage materials for medium-high temperature; Regulated the operating temperature of existing redox-type heat storage materials)	
Nagoya University	2022.05 – present
Nagoya University Mathematical and Data Science Center	Qualified Teaching Assistant
Project: <u>Practical Data Scientist Training Program</u> (Q&A for basic courses; Guiding groups through real-world data science related topics)	

SELECTED PUBLICATIONS

1. **Chen, X.** et al., Development of Redox-type Thermochemical Energy Storage Module: A Support-Free Porous Foam Made of $\text{CuMn}_2\text{O}_4/\text{CuMnO}_2$ Redox Couple. *Chem. Eng. J.*, 485, 149540 (2024).
2. **Chen, X.** et al., An In-depth Oxidation Kinetic Study of $\text{CuCr}_x\text{Mn}_{1-x}\text{O}_2$ ($x = 0, 0.1, 0.3$) for Thermochemical Energy Storage at Medium-high Temperature. *Sol. Energy Mater. Sol. Cells*, 260, 112495 (2023).
3. **Chen, X.** et al., Effect of Cr Addition on Cu–Mn Spinel/Delafossite Redox Couples for Medium-High Temperature Thermochemical Energy Storage. *ACS Appl. Energy Mater.*, 5(5), 5811-5821 (2022).
4. **Chen, X.** et al., Exploring Cu-Based Spinel/delafossite Couples for Thermochemical Energy Storage at Medium-high Temperature. *ACS Appl. Energy Mater.*, 4(7), 7242-7249 (2021).
5. **Chen, X.** et al., Investigation of Sr-based Perovskites for Redox-type Thermochemical Energy Storage Media at Medium-high Temperature. *J. Energy Storage*, 38, 102501 (2021).

INTERNATIONAL CONFERENCES

1. **Chen, X.**, Kubota, M., Kobayashi, N., Yamashita, S., Kita, H., *Materials Today Conference 2023*, Singapore, Aug 2023.
2. **Chen, X.**, Kubota, M., Kobayashi, N., Yamashita, S., Kita, H., *The Sixth International Symposium on Innovative Materials and Processes in Energy Systems (IMPRES 2022)*, Barcelona, Spain, Oct 2022.
3. **Chen, X.**, Kubota, M., Yamashita, S., Kita, H., *The 2nd Asian Conference on Thermal Sciences (2nd ACTS)*, Fukuoka, Japan, Oct 2021.

HONORS AND AWARDS

- Japan Society for the Promotion of Science (JSPS) Special Research Fellow DC2 (Apr 2023 - present)
- Nitto Academic Promotion Foundation, the 39th Overseas Dispatch Grant (Nov 2022)
- Nagoya University Akasaki Student Award for the Year 2022 (Aug 2022)
- Tokai National University Institution Fusion Pioneering Next Generation Researcher Accepted (Apr 2022 - Mar 2023)
- Nagoya University, Graduate School of Engineering, Chemical Systems Engineering, Best No.2 Master's Thesis Review and Presentation Award (Mar 2022)
- Society of Automotive Engineers of Japan, Graduate School Research Award for the Year 2021 (Mar 2022)