

Curriculum Vitae



1. Personal Information

Name: Namhee Kim
Date of Birth: August 26, 1997
Current Address: ICRéDD Fusion Office 02-102, Hokkaido University, Kita 21, Nishi 10, Kita-Ku, Sapporo, 001-0021, Japan
Email Address: namhee@icredd.hokudai.ac.jp

2. Academic History

Period	Institution	Degree
2025.09 – present	WPI-ICReDD, Hokkaido University, Japan (Supervisor: Prof. Mingoo Jin)	Postdoctoral Fellow
2020.03 – 2025.08	Yonsei University, Korea (Advisor: Prof. Byeong-Su Kim)	Ph.D.
<i>Thesis: Stimuli-Responsive Chiral Assembly from C3-Symmetric Aromatic Compounds</i>		
2016.03 – 2020.02	Chungnam National University, Korea	B.S. (Summa Cum Laude)

3. Career History

Period	Position	Institution/Organization	Description
2023.12 – 2024.02	Visiting Researcher	Hokkaido University,	Research on crystalline
2024.05 – 2024.07	(MANABIYA)	Japan	molecular rotors and chiroptical properties in the Jin Group

4. Awards and Honors

- 2025.09 – 2027.09 JSPS Postdoctoral Fellowship, Japan Society for the Promotion of Science
- 2024.04 Best Presentation Award, The Polymer Society of Korea
- 2023.02 Outstanding Teaching Assistant Award, Department of Chemistry, Yonsei University
- 2022.10 Outstanding Poster Award, The Polymer Society of Korea
- 2022.06 – 2024.05 Ph.D. Fellowship from NRF (National Research Foundation) of Korea

5. Research Interests

- Design and synthesis of building blocks for self-assembly
- Self-assembly of chiral supramolecular polymers
- Design of crystalline molecular gears with functional properties

6. Selected Skills

- Organic synthesis of functional monomers for self-assembly
- Molecular self-assembly and characterization
- Instrumentation: Multidimensional NMR, IR, UV, CD, PL, CPL, AFM, SEM, TGA, DSC, DLS
- Introductory Experiences: TEM, XRD

7. Publications

First author Publications

- 1) **Namhee Kim**,[†] Junsu Kim,[†] Gwanyu Kim, Eunji Lee, Du Yeol Ryu* and Byeong-Su Kim*, “Zwitterionic Locking of Spiropyran-Based Block Copolymer Self-Assembly”, *European Polymer Journal* **2025**, 238, 114236
- 2) Jinsu Baek,[†] Aram Shin,[†] **Namhee Kim**,[†] Sang-Ho Lee* and Byeong-Su Kim*, “Topology-Controlled Polyethers: A Synthetic Platform for Tunable Properties and Applications”, *Accounts of Materials Research* **2025**, ASAP.

- 3) **Namhee Kim**, Pingyu Jiang, Ryunosuke Tomita, Ayana Sato-Tomita, Alexander Mikhedov, Byeong-Su Kim, and Mingoo Jin*, “Encasing Triaryltriazine with a Bulky Chiral Cap: Luminescent Chiral Crystalline Molecular Rotors with Modulation of Solid-State Chiroptical Properties Mediated by Molecular Rotation”, *Journal of the American Chemical Society* **2024**, *146*, 31062.
- 4) **Namhee Kim**, Jun Su Kang, Taesuk Jun, Jong-Min Suh, Deok-Ho Roh, Won-Woo Park, Oh-Hoon Kwon, Tae-Hyuk Kwon, Mi Hee Lim, Du Yeol Ryu, Myungeun Seo, and Byeong-Su Kim*, “Dynamic Chiral Supramolecular Assembly of C₃-Symmetric Triphenylene Triimides”, *Macromolecules* **2024**, *57*, 21.
- 5) Taehyung Kim,[†] Jiyoung Lee,[†] **Namhee Kim**,[†] Sujin Lee,[†] Minsu Gu,* and Byeong-Su Kim*, “Redox-Active Polyimides for Energy Conversion and Storage: From Synthesis to Application”, *Chemical Communications* **2023**, *59*, 153.
- 6) Jun Su Kang,[†] **Namhee Kim**,[†] Taehyung Kim, Myungeun Seo,* and Byeong-Su Kim*, “Circularly Polarized Light-Driven Supramolecular Chirality”, *Macromolecular Rapid Communications* **2022**, *43*, 2100649.
- 7) Nadeesha L. Kothalawala,[†] Sang Won Kim,[†] **Namhee Kim**,[†] Collan J. Henderson, Minsu Seol, Fuqian Yang, Seung-Yeon Kwak, Kyu Young Hwang, Won-Joon Son, Hyeon-Jin Shin,* Hyeonho Choi,* Byeong-Su Kim,* and Doo Young Kim*, “Identifying Molecular Fluorophore Impurities in the Synthesis of Low-Oxygen-Content, Carbon Nanodots Derived from Pyrene”, *New Journal of Chemistry* **2022**, *46*, 8324.
- 8) **Namhee Kim**,[†] Jiyoung Lee,[†] Minsu Gu,* and Byeong-Su Kim*, “Modulating Charge Carriers in Carbon Dots toward Efficient Solar-to-Energy Conversion”, *Carbon Energy* **2021**, *3*, 590.
- 9) Minju Park,[†] **Namhee Kim**,[†] Jiyoung Lee,[†] Minsu Gu,* and Byeong-Su Kim*, “Versatile Graphene Oxide Nanosheets via Covalent Functionalization and their Applications”, *Materials Chemistry Frontiers* **2021**, *5*, 4424.

Co-authored Publications

- 1) Do-Yeon Lee,[†] Minju Park,[†] **Namhee Kim**, Minsu Gu,* Hyung-il Kim,* and Byeong-

Su Kim*, “Sustainable Hydrogen Peroxide Production Based on Dopamine Through Janus-like Mechanism Transition from Chemical to Photocatalytic Reactions”, *Journal of Catalysis* **2022**, 411, 235.

† These authors contributed equally to this work.