

Hirokazu Kobayashi

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Education

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|-------------|--------|------------------------------------------------------|
| 2006 – 2009 | Ph. D. | Tokyo Institute of Technology (Applied Chemistry) |
| 2004 – 2006 | M. S. | Tokyo Institute of Technology (Applied Chemistry) |
| 2000 – 2004 | B. S. | Tokyo Institute of Technology (Chemical Engineering) |

Professional Career

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| 2022.01 – Present | Associate Professor, Komaba Institute for Science, The University of Tokyo, Japan |
| 2015.10 – 2021.12 | Assistant Professor, Institute for Catalysis, Hokkaido University, Japan |
| 2009.04 – 2015.09 | Assistant Professor, Catalysis Research Center, Hokkaido University, Japan |
| 2006.04 – 2009.03 | JSPS Research Fellow, Japan |

Selected Publications

1. H. Kobayashi*, Y. Suzuki, T. Sagawa, M. Saito, and A. Fukuoka*, Selective Synthesis of Oligosaccharides by Mechanochemical Hydrolysis of Chitin over a Carbon-Based Catalyst. *Angew. Chem. Int. Ed.* 2023, 62, e202214229.
2. H. Kobayashi*, T. Sagawa, and A. Fukuoka, Catalytic conversion of chitin as a nitrogen-containing biomass. *Chem. Commun.* 2023, 59, 6301-6313.
3. L. Li, N.H. MD. Dostagir, A Shrotri, A Fukuoka, and H Kobayashi*, Partial Oxidation of Methane to Syngas via Formate Intermediate Found for a Ruthenium–Rhenium Bimetallic Catalyst. *ACS Catal.* 2021, 11, 3782-3789.
4. H. Kobayashi*, Y. Suzuki, T. Sagawa, K. Kuroki, J. Hasegawa, and A. Fukuoka*, Impact of tensile and compressive forces on the hydrolysis of cellulose and chitin. *Phys. Chem. Chem. Phys.* 2021, 23, 15908-15916.
5. S. Saito, N. Numadate, H. Teraoka, S. Enami, H. Kobayashi, and T. Hama*, Impurity contribution to ultraviolet absorption of saturated fatty acids. *Sci. Adv.* 2023, 9, adj6438.

Research Interests

1. Catalytic Biomass Conversion
2. Chemical Recycling of Plastic Waste
3. Selective Oxidation of Alkane

Awards

1. ChemComm Pioneering Investigators 2023, Royal Society of Chemistry (2023)
2. Catalysis Society of Japan, Award for Young Researchers (2020)
3. The Chemical Society of Japan, Award for Young Chemists (2017)