

Curriculum Vitae

Keisuke WADA

Specially Appointed Assistant Professor

Affiliation: Institute for Chemical Reaction Design and Discovery (WPI-ICReDD), Hokkaido University

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EDUCATION and Employment

Mar.2019: B.S. in College of Science and Engineering, Kanazawa University

Mar.2021: M.S. in Graduate School of Natural Science and Technology, Kanazawa University

Apr.2021–Mar.2024: Ph.D. student in Graduate School of Engineering, Kyoto University (Supervisor: Prof. Tomoki Ogoshi)

Aug.2021–Oct.2021 Visiting Fellow in National Institute for Materials Science (Supervisor: Prof. Takashi Nakanishi)

Apr.2021–Mar.2022: Kyoto University Science and Technology Innovation Creation Fellowship: Materials Science

Apr.2022–Mar.2024: Research Fellowship for Young Scientists of Japan Society for the Promotion of Science (JSPS, DC2)

Apr.2024–: Assistant Professor, ICReDD, Hokkaido University

AWARDS

2021: Award for NIMS Internship Program

2021: Symposium on Macromolecules Poster Award

2022: JSPS research fellowships for young scientists

Affiliated academic society

The Chemical Society of Japan, Japan

The Society of Physical Organic Chemistry, Japan

The Society of Polymer Science, Japan

Publications

1. Obvious Vapochromic Color Changes of a Pillar[6]arene Containing One Benzoquinone Unit with a Mechanochromic Change Before Vapor Exposure
Wada, K.; Kakuta, T.; Yamagishi, T.; Ogoshi, T.*
Chem. Commun. **2020**, 56, 4344–4347.
2. Supramolecular Conformational Control of Aliphatic Oligoketones by Rotaxane Formation
Manabe, Y.; **Wada, K.**; Baba, Y.; Yoneda, T.; Ogoshi, T.*; Inokuma, Y.*
Org. Lett. **2020**, 22, 3224–3228.
3. Development of Soft Crystals Based on Pillar [n]arenes
Wada, K.; Kato, K.; Ogoshi, T.*
Journal of the Crystallographic Society of Japan, **2021**, 63, 8–15. (Japanese)
4. Discrete chiral organic nanotubes by stacking pillar[5]arenes using covalent linkages
Shi, T.; Fa, S.; Nagata, Y.; **Wada, K.**; Ohtani, S.; Kato, K.; Ogoshi, T.*

- Cell Rep. Phys. Sci.* **2022**, *3*, 101173.
5. Real-time chirality transfer monitoring from statistically random to discrete homochiral nanotubes
Fa, S.; Shi, T.; Akama, S.; Adachi, **K.; Wada, K.**; Tanaka, S.; Oyama, N.; Kato, K.; Ohtani, S.; Nagata, Y.; Akine, H.; Ogoshi, T.*
Nat. Commun. **2022**, *13*, 7378.
 6. CPL on/off control of an assembled system by water soluble macrocyclic chiral sources with planar chirality
Fa, S.; Tomita, T.; **Wada, K.**; Yasuhara, K.; Ohtani, S.; Kato, K.; Gon, M.; Tanaka, K.; Kakuta, T.; Yamagishi, T.; Ogoshi, T.*
Chem. Sci. **2022**, *13*, 5846–5853.
 7. Dynamic-to-Static Planar Chirality Conversion in Pillar[5]arenes Regulated by Guest Solvents or Amplified by Crystallization
Wada, K.; Suzuki, M.; Kakuta, T.; Yamagishi, T.; Ohtani, S.; Fa, S.; Kato, K.; Akine, S.; Ogoshi, T.*
Angew. Chem. Int. Ed. **2023**, *62*, e202217971.
 8. Adaptive Planar Chirality of Pillar[5]arenes Invertible by *n*-Alkane Lengths
Adachi, K.; Fa, S. **Wada, K.**; Kato, K.; Ohtani, S.; Nagata, Y.; Akine, S.; Ogoshi, T.*
J. Am. chem. Soc. **2023**, *145*, 8114–8121.
 9. Efficient synthesis and unit-selective π -extension of π -fused [4.3.3]propellane as a chiral building block
Kato, K.; Tanaka, S.; Seto, N.; **Wada, K.**; Gon, M.; Fa, S.; Ohtani, S.; Tanaka, K.; Ogoshi, T.*
Chem. Commun. **2023**, *59*, 7080–7083.
 10. Diastereoselective Rotaxane Synthesis with Pillar[5]arenes via Co-crystallization and Solid State Mechanochemical Processes
Wada, K.; Yasuzawa, K.; Fa, S.; Nagata, Y.; Kato, K.; Ohtani, S.; Ogoshi, T.*
J. Am. Chem. Soc. **2023**, *145*, 15324–15330.
 11. Stable Planar Chirality of Arylated Pillar[6]arene and Its Thermal Response
Wada, K.; Ohtani, S.; Kato, K.; Ogoshi, T.*
Tetrahedron Lett. **2024**, 154891.
 12. Size-Selective Capture of Fluorocarbon Gases and Storage of Volatile Halogenated Organic Vapors with Low Boiling Points by Molecular-Scale Cavities of Crystalline Pillar[*n*]quinones
Ohtani, S.; Onishi, K.; **Wada, K.**; Hirohata, T.; Inagi, S.; Pirillo, J.; Hijikata, Y.; Mizuno, M.; Kato, K.; Ogoshi, T.*
Adv. Funct. Mater. **2024**, *34*, 2312304.
 13. Functionalization of pillar[*n*]arenes towards optically responsive systems via host–guest interactions
Wada, K.; Ogoshi, T.*
Mater. Chem. Front. **2024**, *8*, 1212–1229.
 14. Exciplex Formation by Complexation of an Electron-Accepting Guest in an Electron-Donating Pillar[5]arene Host Liquid
Ogoshi, T.*; Azuma, S.; **Wada, K.**; Tamura, Y.; Kato, K.; Ohtani, S.; Kakuta, T.; Yamagishi, T.
J. Am. Chem. Soc. **2024**, *146*, 9828–9835.
 15. Self-Inclusion Complexation of Electron-Accepting Guest into Electron-Donating Cyclic Host by Photoexcitation

Update May 2024

Wada, K.; Nagata, Y.; Cui, L.; Ono, T.; Akine, S.; Ohtani, S.; Kato, K.; Fa, F.; Ogoshi, T.*
Angew. Chem. Int. Ed. **2024**, e202404409.