

Original Papers

21. Makino, H.; Nishikawa, T.\*; Ouchi, M.\*  
Polymer Degradation by Synergistic Dual Stimuli: Base Interaction and Photocatalysis to Unlock a Boron Pendant Trigger for Main-Chain Scission  
*Macromolecules*, **2023**, Accepted.
20. Suzuki, H.; Nishikawa, T.\*; Makino, H.; Ouchi, M.\*  
Anthranilamide-protected vinylboronic acid: Rational monomer design for improved polymerization/ transformation ability providing access to conventionally inaccessible copolymers  
*Chem. Sci.*, **2022**,13(43), 12703–12712.  
\*Highlighted in 2022 Chemical Science Hot Article Collection.
19. Makino, H.; Nishikawa, T.\*; Ouchi, M.\*  
Incorporation of boryl pendant as the trigger in methacrylate polymer for backbone degradation  
*Chem. Commun.*, **2022**, 58(85), 11957–11960.
18. Kanazawa, T.; Nishikawa, T.\*; Ouchi, M.\*  
Orthogonal C–B Bond Transformation as an Approach for Versatile Synthesis of End-Functionalized Polymers  
*ACS Macro Lett.*, **2022**, 11(5), 706–710.
17. Makino, H.; Nishikawa, T.\*; Ouchi, M.\*  
Vinylboronic acid pinacol ester as a vinyl alcohol-precursor monomer in radical copolymerizations with styrene.  
*Chem. Commun.*, **2021**, 57, 7410–7413.
16. Kanazawa, T.; Nishikawa, T.\*; Ouchi, M.\*  
RAFT polymerization of isopropenyl boronate pinacol ester and subsequent terminal olefination: precise synthesis of poly(alkenyl boronate)s and evaluation of their thermal properties.  
*Polym. J.*, **2021**, 53, 1167–1174.  
\*Special issue: Rising Stars in Polymer Science 2021  
\*Selected as a front cover.

15. Makino, H.; Nishikawa, T.\*; Ouchi, M.\*  
Elucidating Monomer Character of an Alkenyl Boronate through Radical Copolymerization Leads to Copolymer Synthesis beyond the Limitation of Copolymerizability by Side-Chain Replacement.  
*ACS Macro Lett.*, **2020**, *9*, 788–793.
14. Nishikawa, T.; Ouchi, M.\*  
An Alkenyl Boronate as a Monomer for Radical Polymerizations: Boron as a Guide for Chain Growth and as a Replaceable Side Chain for Post-Polymerization Transformation.  
*Angew. Chem., Int. Ed.*, **2019**, *58*, 12435–12439.  
\*Selected as a Hot Paper.
13. Nishikawa, T.; Narita, H.; Ogi, S.\*; Sato, Y.; Yamaguchi, S.\*  
Hydrophobicity and CH/ $\pi$ -interaction-driven self-assembly of amphiphilic aromatic hydrocarbons into nanosheets.  
*Chem. Commun.*, **2019**, *55*, 14950–14953.
12. Nagata, Y.\*; Nishikawa, T.; Terao, K.; Hasegawa, H.; Suginome, M.\*  
A Bidirectional Screw-sense Induction of Poly(quinoxaline-2,3-diyl)s that Depends on the Degree of Polymerization.  
*J. Polym. Sci., Part A: Polym. Chem.*, **2019**, *57*, 260–263.
11. Nagata, Y.\*; Shimada, Y.; Nishikawa, T.; Takeda, R.; Uno, M.; Ogoshi, T.\*; Suginome, M.\*  
A Planar-Chiral Pillar[5]arene-Based Monophosphine Ligand with Induced Chirality at the Biaryl Axis.  
*Synlett.* **2018**, *29*, 2167–2170.
10. Nagata, Y.\*; Nishikawa, T.; Suginome, M.\*  
Abnormal Sergeants-and-Soldiers Effect of Poly(quinoxaline-2,3-diyl)s Enabling Discrimination of One-Carbon Homologous *n*-Alkanes through a Highly Sensitive Solvent-dependent Helix Inversion.  
*Chem. Commun.*, **2018**, *54*, 6867–6870.

9. Nagata, Y.\*; Nishikawa, T.; Suginome, M.\*; Sato, S.; Sugiyama, M.\*; Porcar, L.; Martel, A.; Inoue, R.; Sato, N.  
Elucidating the Solvent Effect on the Switch of the Helicity of Poly(quinoxaline-2,3-diyl)s: A Conformational Analysis by Small-Angle Neutron Scattering.  
*J. Am. Chem. Soc.*, **2018**, *140*, 2722–2726.  
\*Press release from Kyoto University.
8. Leung, F. K.-C.; Ishiwari, F.; Shoji, Y.; Nishikawa, T.; Takeda, R.; Nagata, Y.; Suginome, M.; Uozumi, Y.; Yamada, Y. M. A.\*; Fukushima, T.\*  
Synthesis and Catalytic Applications of a Triptycene-Based Monophosphine Ligand for Palladium-Mediated Organic Transformations.  
*ACS Omega* **2017**, *2*, 1930–1937.
7. Nishikawa, T.; Nagata, Y.\*; Suginome, M.\*  
Poly(quinoxaline-2,3-diyl) as a Multifunctional Chiral Scaffold for Circularly Polarized Luminescent Materials: Color Tuning, Energy Transfer, and Switching of the CPL Handedness.  
*ACS Macro Lett.*, **2017**, *6*, 519–522.
6. Nagata, Y.; Nishikawa, T.; Suginome, M.\*  
Solvent Effect on the Sergeants-and-Soldiers Effect Leading to Bidirectional Induction of Single-Handed Helical Sense of Poly(quinoxaline-2,3-diyl)s Copolymers in Aromatic Solvents.  
*ACS Macro Lett.*, **2016** *5*, 519–522.
5. Nagata, Y.; Nishikawa, T.; Suginome, M.\*  
Exerting Control over the Helical Chirality in the Main-Chain of Sergeants-and-Soldiers-Type Poly(quinoxaline-2,3-diyl)s by Changing from Random to Block Copolymerization Protocols.  
*J. Am. Chem. Soc.*, **2015**, *137*, 4070–4073.
4. Nagata, Y.; Nishikawa, T.; Suginome, M.\*  
Poly(quinoxaline-2,3-diyl)s Bearing (*S*)-3-Octyloxymethyl Side Chains as an Efficient Amplifier of Alkane Solvent Effect Leading to Switch of Main Chain Helical Chirality.  
*J. Am. Chem. Soc.*, **2014**, *136*, 15901–15904.  
\*Highlighted in *JACS Spotlights (J. Am. Chem. Soc., 2014, 136, 16459–16460.)*.

3. Nagata, Y.; Nishikawa, T.; Suginome, M.\*  
Chirality-switchable Circularly Polarized Luminescence in Solution Based on the Solvent-dependent Helix Inversion of Poly(quinoxaline-2,3-diyl)s.  
*Chem. Commun.* **2014**, *50*, 9951–9953.
  
2. Nagata, Y.; Nishikawa, T.; Suginome, M.\*  
Solvent-dependent fluorescence and circular dichroism properties of poly(quinoxaline-2,3-diyl)s bearing pyrene pendants.  
*Chem. Commun.* **2012**, *48*, 11193–11195.
  
1. Uda, M. R.\*; Nishikawa, T.; Morita, Y.  
Disruption of reverse micelles and release of trapped ribonuclease A photochemically induced by Malachite Green leuconitrile derivative.  
*J. Colloid Interface Sci.* **2011**, *335*, 448–452.

## Reviews and accounts

### 3. 西川 剛\*, 大内 誠\*

「ビニルボロン酸誘導体の連鎖重合化学:ホウ素を活かすモノマー設計と側鎖置換による重合後変換」

*有機合成化学協会誌*, **2023**, *81(4)*, 313–323.

### 2. 西川 剛

「ホウ素の元素特性を活用する新規ビニルポリマーの開拓 -重合後変換による自在な高分子合成を目指して-」(飛翔する若手研究者)

*化学と工業*, **2022**, *75(9)*, 659–660.

### 1. Nishikawa, T.; Ouchi, M.\*

Recent Development in Polymer Reactions for Overcoming Synthetic Limitations in Chain-Growth Polymerization. *Chem. Lett.*, **2021**, *50*, 411–417. (Highlight Review Collecition)

\*Selected as an inside cover.