

Publication List

- 1) Programmable Construction of Supramolecular Polymers Achieved in Neutral Lipid Environments
M. Naruse, N. Fukaya, Y. Imai, S. Ogi,* M. Taki, S. Yamaguchi*
ChemRxiv. 29 July 2025. DOI: 10.26434/chemrxiv-2025-z6zkc
- 2) Curvature-emergent supramolecular polymerization of a porphyrin dyad with a scissor-shaped motif
R. Kawai, S. Ogi, H. Hanayama, R. Kudo, S. Yagai*
Chem. Sci., **17**, 2559–2565 (2026).
- 3) Kinetically Controlled Self-Assembly of a Lipophilic Fluorophore with Phenylalanine-based Diamides in Artificial Lipid Droplets
M. Naruse, S. Ogi,* K. Kajiwara, N. Fukaya, Y. Sato, M. Taki, S. Yamaguchi*
Small, **22**, e13411 (2026).
- 4) Seeded control of symmetry-directed diverse chiral π -stacked benzothiadiazole assemblies with leucine-based diamide units
S. Yamada, N. Inai, S. Ogi,* T. Yanai,* S. Yamaguchi*
Chem. Commun., **61**, 16981–16984 (2025).
- 5) Tunable Thermally Activated Delayed Fluorescence from Supramolecular Polymers towards Application in Aqueous Media
N. Bäumer, P. Hu, M. Naruse, S. Ogi,* Z. M. Hudson,* S. Yamaguchi*
Angew. Chem. Int. Ed., **64**, e202509241 (2025).
- 6) Elucidating the Boundary of Intercalation vs. Sequestration in Supramolecular Polymers by Retrosynthetic Design Towards the Construction of Complex Supramolecular Systems
N. Bäumer,* S. Ogi,* S. Yamaguchi
Angew. Chem. Int. Ed., **64**, e202501693 (2025).
- 7) Interfacing Flexible Design and Social Self-Sorting Enables Comprehensive Control over Photophysical and Self-Assembly Properties of Supramolecular Polymers
N. Bäumer,* S. Yamada, S. Ogi,* S. Yamaguchi
J. Am. Chem. Soc., **147**, 8300–8311 (2025).
- 8) Impact of Boron Desymmetrization on Supramolecular Polymerization of BODIPY Dyes
T. B. Tischer, Z. Fernández, L. Borsdorf, C. G. Daniliuc, S. Yamaguchi, S. Ogi,* G. Fernández*
Org. Chem. Front., **12**, 414–421 (2025).
- 9) Kinetic Control over Social and Narcissistic Self-Sorting from Multicomponent Mixtures in Seed-Initiated Supramolecular Polymerization by Fine-Tuning of Steric Effects
K. Matsumoto, N. Bäumer, S. Ogi,* S. Yamaguchi*
Angew. Chem. Int. Ed., **63**, e202416361 (2024).
Selected as a Very Important Paper
- 10) Introducing a π -Skeleton Perpendicular to the Central Methylene Carbon in Alkanediamides: Design of Supramolecular Polymers with an Offset π -Stacking Arrangement
Y. Hamada, S. Ogi,* S. Yamaguchi*
Angew. Chem. Int. Ed., **63**, e202409657 (2024).

- 11) Biomimetic Design of a Robustly Stabilized Folded State Enabling Seed-Initiated Supramolecular Polymerization under Microfluidic Mixing
S. Ogi,* A. Takamatsu, K. Matsumoto, S. Hasegawa, S. Yamaguchi*
Angew. Chem. Int. Ed., **62**, e202306428 (2023).
- 12) Amphiphile Desymmetrisation-Induced Steric Relief Governs Self-assembly Pathways in Aqueous Media
N. Bäumer, S. Ogi, L. Borsdorf, S. Yamaguchi,* G. Fernández*
Chem. Commun., **59**, 8937–8940 (2023).
- 13) Impact of Hydrophobic/Hydrophilic Balance on Aggregation Pathways, Morphologies, and Excited-State Dynamics of Amphiphilic Diketopyrrolopyrrole Dyes in Aqueous Media
N. Fukaya, S. Ogi,* H. Sotome, K. J. Fujimoto, T. Yanai,* N. Bäumer, G. Fernández, H. Miyasaka,* S. Yamaguchi*
J. Am. Chem. Soc., **144**, 22479–22492 (2022).
- 14) Diazulenylmethyl Cations with a Silicon Bridge: A π -Extended Cationic Motif to Form *J*-Aggregates with Near-Infrared Absorption and Emission
M. Murai,* M. Abe, S. Ogi, S. Yamaguchi*
J. Am. Chem. Soc., **144**, 20385–20393 (2022)
- 15) Fully Fused Boron-doped Polycyclic Aromatic Hydrocarbons: Their Synthesis, Structure–property Relationships, and Self-assembly Behavior in Aqueous Media
H. Narita, H. Choi, M. Ito, N. Ando, S. Ogi, S. Yamaguchi*
Chem. Sci., **13**, 1484–1491 (2022).
- 16) A Supramolecular Polymer Constituted of Antiaromatic Ni(II) Norcorroles
S. Ukai, A. Takamatsu, M. Nobuoka, Y. Tsutsui, N. Fukui, S. Ogi,* S. Seki,* S. Yamaguchi,* H. Shinokubo*
Angew. Chem. Int. Ed., **60**, e202114230 (2021).
- 17) Dual Trapping of a Metastable Planarized Triarylborane π -System Based on Folding and Lewis Acid–Base Complexation for Seeded Polymerization
H. Choi, S. Ogi,* N. Ando, S. Yamaguchi*
J. Am. Chem. Soc., **143**, 2953–2961 (2021).
- 18) Hydrophobicity-driven Folding and Seeded Polymerization of Cystine-based Dimeric Diamides in Aqueous Media
N. Fukaya, S. Ogi,* M. Kawashiro, S. Yamaguchi*
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- 19) Long-lived charge transfer state from B-N frustrated Lewis pairs enchainned in supramolecular copolymers
B. Adelizzi, P. Chidchob, N. Tanaka, B. A.G. Lamers, S. C. J. Meskers, S. Ogi, A. R. A. Palmans, S. Yamaguchi,* E. W. Meijer*
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- 20) Hydrophobicity and CH/ π -interaction-driven self-assembly of amphiphilic aromatic hydrocarbons into nanosheets
T. Nishikawa, H. Narita, S. Ogi,* Y. Sato, S. Yamaguchi*
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- 21) Seeded Polymerization of an Amide-Functionalized Diketopyrrolopyrrole Dye in Aqueous Media
S. Ogi,* N. Fukaya, Arifin, B. B. Skjelstad, Y. Hijikata, S. Yamaguchi*
Chem. Eur. J., **25**, 7303–7307 (2019).
- 22) Pathway complexity in the self-assembly of a zinc chlorin model system of natural bacteriochlorophyll J-aggregates
S. Ogi, C. Grzeszkiewicz, F. Würthner*
Chem. Sci., **9**, 2768–2773 (2018).
- 23) Seeded Polymerization through the Interplay of Folding and Aggregation of an Amino-Acid-based Diamide
S. Ogi,* K. Matsumoto, S. Yamaguchi*
Angew. Chem. Int. Ed., **57**, 2339–2343 (2018).
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Most accessed articles in February 2018
- 24) Living Supramolecular Polymerization of a Perylene Bisimide Dye into Fluorescent J-Aggregates
W. Wagner, M. Wehner, V. Stepanenko, S. Ogi, F. Würthner*
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- 25) Near-IR Absorbing J-Aggregate of an Amphiphilic BF₂-Azadipyromethene Dye by Kinetic Cooperative Self-Assembly
Z. Chen,* Y. Liu, W. Wagner, V. Stepanenko, X. Ren, S. Ogi, F. Würthner*
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- 26) Impact of Alkyl Spacer Length on Aggregation Pathways in Kinetically Controlled Supramolecular Polymerization
S. Ogi, V. Stepanenko, J. Thein, F. Würthner*
J. Am. Chem. Soc., **138**, 670–678 (2016).
- 27) Mechanism of Self-Assembly Process and Seeded Supramolecular Polymerization of Perylene Bisimide Organogelator
S. Ogi, V. Stepanenko, K. Sugiyasu, M. Takeuchi, F. Würthner*
J. Am. Chem. Soc., **137**, 3300–3307 (2015).
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- 28) Kinetic Control over Pathway Complexity in Supramolecular Polymerization through Modulating the Energy Landscape by Rational Molecular Design
S. Ogi, T. Fukui, M. L. Jue, M. Takeuchi,* K. Sugiyasu*
Angew. Chem. Int. Ed., **53**, 14363–14367 (2014).

Highlighted in NIMS Press Release

Highlighted in News Paper: 日刊工業新聞(11月28日27面); 科学新聞(12月19日4面)

- 29) Conductive Poly(2,5-substituted aniline)s Highly Soluble both in Water and Organic Solvents
S. Xu, S. Ogi, K. Sugiyasu, S. Sumi, Y. Kobayashi, M. Takeuchi*
J. Nanosci. Nanotechnol., **14**, 4449–4454 (2014).
- 30) Living supramolecular polymerization realized through a biomimetic approach
S. Ogi, K. Sugiyasu,* S. Manna, S. Samitsu, M. Takeuchi*
Nat. Chem., **6**, 188–195 (2014).
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- 31) Synthesis of Polyaniline with Low Polydispersity by Using a Supramolecular Ionic Assembly as the Reaction Medium
S. Xu, S. Das, S. Ogi, K. Sugiyasu, H. Okazaki, Y. Takano, T. Yasuda, K. Deguchi, S. Ohki, T. Shimizu, M. Takeuchi*
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- 32) Stimuli-Responsive Folding and Unfolding of a Polymer Bearing Multiple Cerium(IV) Bis(porphyrinate) Joints: Mechano-imitation of the Action of a Folding Ruler
M. Shibata, S. Tanaka, T. Ikeda, S. Shinkai,* K. Kaneko, S. Ogi, M. Takeuchi*
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- 33) Synthetic Molecular Gear Based on Double-Decker Porphyrin Complexes
S. Ogi, T. Ikeda, M. Takeuchi*
J. Inorg. Organomet. Polym., **23**, 193–199 (2013).
- 34) Synthesis and Fluorescence Resonance Energy Transfer Properties of an Alternating Donor-Acceptor Copolymer Featuring Orthogonally Arrayed Transition Dipoles along the Polymer Backbone
S. Ogi, K. Sugiyasu,* M. Takeuchi*
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- 35) Oligofluorene-based nanoparticles in aqueous medium: hydrogen bond assisted modulation of functional properties and color tunable FRET emission
B. Balan, C. Vijayakumar, S. Ogi, M. Takeuchi*
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- 36) Synthesis of Self-Threading Bithiophenes and their Structure-Property Relationships Regarding Cyclic Sidechains with Atomic Precision
Y. Ouchi, K. Sugiyasu,* S. Ogi, A. Sato, M. Takeuchi*
Chem. Asian J., **7**, 75–84 (2012).
- 37) Mechanically Interlocked Porphyrin Gears Propagating Two Different Rotational Frequencies
S. Ogi, T. Ikeda, R. Wakabayashi, S. Shinkai, M. Takeuchi*
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- 38) Synthesis of a Doubly Strapped Light-Harvesting Porphyrin Bearing Energy Donor Molecules Hanging on to the Straps: An Attempt toward Macroscopic Control over Molecular Conformation that Affects the Efficiency of Fluorescence Resonance Energy Transfer
S. Ogi, K. Sugiyasu,* M. Takeuchi*
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- 39) A Bevel-Gear-Shaped Rotor Bearing a Double-Decker Porphyrin Complex
S. Ogi, T. Ikeda, R. Wakabayashi, S. Shinkai,* M. Takeuchi*
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Highlighted in Chemistry World: “Molecular machines shift into gear” June (2010).

Accounts and Reviews

- 1) Perylene Bisimide Dye Assemblies as Archetype Functional Supramolecular Materials
F. Würthner,* C. R. Saha-Möller, B. Fimmel, S. Ogi, P. Leowanawat, D. Schmidt
Chem. Rev., **116**, 962–1052 (2016).
- 2) Strapped porphyrin-based polymeric systems
K. Sugiyasu,* S. Ogi, M. Takeuchi
Poly. J., **46**, 674–681 (2014).

著書・解説記事

- 1) 触媒/光増感剤ブレンドファイバー状集合体
大城宗一郎
化学 (6月号), 76, 63–64 (2021), 化学同人発行.
- 2) 会合様式と吸収・蛍光スペクトル
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- 3) 「超分子ポリマーを精密につくる」ヴェルツブルク大学・Würthner研より
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福井智也, 大城宗一郎, 竹内正之, 杉安和憲
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- 5) リビング超分子重合の実現
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高分子, **63**, 851–854 (2014), 高分子学会発行.