

Takuya Yamamoto

List of Publications by Year in descending order

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103
papers

3,455
citations

159585

30
h-index

149698

56
g-index

109
all docs

109
docs citations

109
times ranked

3028
citing authors

#	ARTICLE	IF	CITATIONS
1	Topological polymer chemistry: a cyclic approach toward novel polymer properties and functions. <i>Polymer Chemistry</i> , 2011, 2, 1930.	3.9	255
2	Topology-Directed Control on Thermal Stability: Micelles Formed from Linear and Cyclized Amphiphilic Block Copolymers. <i>Journal of the American Chemical Society</i> , 2010, 132, 10251-10253.	13.7	200
3	Tuneable enhancement of the salt and thermal stability of polymeric micelles by cyclized amphiphiles. <i>Nature Communications</i> , 2013, 4, 1574.	12.8	149
4	Cyclic polymers revealing topology effects upon self-assemblies, dynamics and responses. <i>Soft Matter</i> , 2015, 11, 7458-7468.	2.7	130
5	Effective Click Construction of <i>Bridged</i> - and <i>Spiro</i> -Multicyclic Polymer Topologies with Tailored Cyclic Prepolymers (<i>kyklo</i> -Telechelics). <i>Journal of the American Chemical Society</i> , 2010, 132, 14790-14802.	13.7	129
6	Light- and Heat-Triggered Reversible Linear \leftrightarrow Cyclic Topological Conversion of Telechelic Polymers with Anthryl End Groups. <i>Journal of the American Chemical Society</i> , 2016, 138, 3904-3911.	13.7	126
7	Enhanced dispersion stability of gold nanoparticles by the physisorption of cyclic poly(ethylene) Tj ETQq1 1 0.784314 rgBT / Overlock 105	12.8	105
8	Dynamic Equilibrium of a Supramolecular Dimeric Rhomboid and Trimeric Hexagon and Determination of Its Thermodynamic Constants. <i>Journal of the American Chemical Society</i> , 2003, 125, 12309-12317.	13.7	102
9	Self-Assembly of Flexible Supramolecular Metallacyclic Ensembles: Structures and Adsorption Properties of Their Nanoporous Crystalline Frameworks. <i>Journal of the American Chemical Society</i> , 2004, 126, 10645-10656.	13.7	101
10	Coordination-Driven Face-Directed Self-Assembly of Trigonal Prisms. Face-Based Conformational Chirality. <i>Journal of the American Chemical Society</i> , 2008, 130, 7620-7628.	13.7	100
11	Conductive One-Handed Nanocoils by Coassembly of Hexabenzocoronenes: Control of Morphology and Helical Chirality. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 1672-1675.	13.8	94
12	Stabilization of a Kinetically Favored Nanostructure: Surface ROMP of Self-Assembled Conductive Nanocoils from a Norbornene-Appended Hexa-peri-hexabenzocoronene. <i>Journal of the American Chemical Society</i> , 2006, 128, 14337-14340.	13.7	86
13	Synthesis of a Bis(pyridyl)-Substituted Perylene Diimide Ligand and Incorporation into a Supramolecular Rhomboid and Rectangle via Coordination Driven Self-Assembly. <i>Journal of Organic Chemistry</i> , 2005, 70, 797-801.	3.2	77
14	Multimode Diffusion of Ring Polymer Molecules Revealed by a Single-Molecule Study. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 1418-1421.	13.8	76
15	Self-Assembly of Molecular Prisms via an Organometallic κ^3 -Clip. <i>Organic Letters</i> , 2002, 4, 913-915.	4.6	74
16	Synthesis of Orientationally Isomeric Cyclic Stereoblock Polylactides with Head-to-Head and Head-to-Tail Linkages of the Enantiomeric Segments. <i>ACS Macro Letters</i> , 2012, 1, 902-906.	4.8	74
17	Straightforward synthesis of functionalized cyclic polymers in high yield via RAFT and thiolactone \leftrightarrow disulfide chemistry. <i>Polymer Chemistry</i> , 2013, 4, 184-193.	3.9	71
18	A Programmed Polymer Folding: Click and Clip Construction of Doubly Fused Tricyclic and Triply Fused Tetracyclic Polymer Topologies. <i>Journal of the American Chemical Society</i> , 2011, 133, 19694-19697.	13.7	70

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19	Alkali Metal Carboxylate as an Efficient and Simple Catalyst for Ring-Opening Polymerization of Cyclic Esters. <i>Macromolecules</i> , 2018, 51, 689-696.	4.8	61
20	Radially Diblock Nanotube: Site-Selective Functionalization of a Tubularly Assembled Hexabenzocoronene. <i>Journal of the American Chemical Society</i> , 2008, 130, 1530-1531.	13.7	57
21	Structural Characteristics of Amphiphilic Cyclic and Linear Block Copolymer Micelles in Aqueous Solutions. <i>ACS Macro Letters</i> , 2014, 3, 233-239.	4.8	57
22	Constructing a Macromolecular $K_{3,3}$ Graph through Electrostatic Self-Assembly and Covalent Fixation with a Dendritic Polymer Precursor. <i>Journal of the American Chemical Society</i> , 2014, 136, 10148-10155.	13.7	53
23	Photoinduced topological transformation of cyclized polylactides for switching the properties of homocrystals and stereocomplexes. <i>Polymer Chemistry</i> , 2015, 6, 3591-3600.	3.9	51
24	Self-Assembly of Nanoscale Supramolecular Truncated Tetrahedra. <i>Journal of Organic Chemistry</i> , 2005, 70, 4861-4864.	3.2	49
25	Synthesis of Well-Defined Three- and Four-Armed Cage-Shaped Polymers via Topological Conversion from Trefoil- and Quatrefoil-Shaped Polymers. <i>Macromolecules</i> , 2017, 50, 97-106.	4.8	43
26	Synthesis of cyclic polymers and topology effects on their diffusion and thermal properties. <i>Polymer Journal</i> , 2013, 45, 711-717.	2.7	40
27	Folding Construction of a Pentacyclic Quadruply <i>fused</i> Polymer Topology with Tailored <i>kyklo</i> -Telechelic Precursors. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 8688-8692.	13.8	36
28	Facile and Efficient Modification of Polystyrene- <i>block</i> -poly(methyl methacrylate) for Achieving Sub-10 nm Feature Size. <i>Macromolecules</i> , 2018, 51, 8064-8072.	4.8	35
29	Single-Molecule Study on Polymer Diffusion in a Melt State: Effect of Chain Topology. <i>Analytical Chemistry</i> , 2013, 85, 7369-7376.	6.5	33
30	Multicyclic Polymer Synthesis through Controlled/Living Cyclopolymerization of β , γ -Dinorbornenyl-Functionalized Macromonomers. <i>Macromolecules</i> , 2018, 51, 3855-3864.	4.8	33
31	Effective Synthesis of Polymer Catenanes by Cooperative Electrostatic/Hydrogen-Bonding Self-Assembly and Covalent Fixation. <i>Macromolecules</i> , 2010, 43, 168-176.	4.8	32
32	Construction of Double-Eight and Double-Trefoil Polymer Topologies with Core-Clickable <i>kyklo</i> -Telechelic Precursors. <i>Macromolecules</i> , 2014, 47, 8214-8223.	4.8	30
33	One-Step Production of Amphiphilic Nanofibrillated Cellulose Using a Cellulose-Producing Bacterium. <i>Biomacromolecules</i> , 2017, 18, 3432-3438.	5.4	29
34	Microphase separation of carbohydrate-based star-block copolymers with sub-10 nm periodicity. <i>Polymer Chemistry</i> , 2019, 10, 1119-1129.	3.9	29
35	Programmed Polymer Folding with Periodically Positioned Tetrafunctional Telechelic Precursors by Cyclic Ammonium Salt Units as Nodal Points. <i>Journal of the American Chemical Society</i> , 2019, 141, 7526-7536.	13.7	29
36	A versatile synthetic strategy for macromolecular cages: intramolecular consecutive cyclization of star-shaped polymers. <i>Chemical Science</i> , 2019, 10, 440-446.	7.4	28

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37	Folding Construction of Doubly Fused Tricyclic, $\hat{1}^2$ - and $\hat{1}^3$ -Graph Polymer Topologies with kyklo-Telechelic Precursors Obtained through an Orthogonal Click/ESA-CF Protocol. <i>Macromolecules</i> , 2013, 46, 7303-7315.	4.8	27
38	ATRP-RCM polymer cyclization: synthesis of amphiphilic cyclic polystyrene- <i>b</i> -poly(ethylene oxide) copolymers. <i>Polymer Chemistry</i> , 2012, 3, 1903-1909.	3.9	26
39	Chain-End Functionalization with a Saccharide for 10 nm Microphase Separation: Classical PS- <i>b</i> -PMMA versus PS- <i>b</i> -PMMA-Saccharide. <i>Macromolecules</i> , 2018, 51, 8870-8877.	4.8	25
40	Carbohydrates as Hard Segments for Sustainable Elastomers: Carbohydrates Direct the Self-Assembly and Mechanical Properties of Fully Bio-Based Block Copolymers. <i>Macromolecules</i> , 2020, 53, 5408-5417.	4.8	24
41	Click Construction of Spiro- and Bridged-Quatrefoil Polymer Topologies with Kyklo-Telechelics Having an Azide Group. <i>Macromolecular Rapid Communications</i> , 2014, 35, 412-416.	3.9	23
42	Phase separation and self-assembly of cyclic amphiphilic block copolymers with a main-chain liquid crystalline segment. <i>Polymer Chemistry</i> , 2015, 6, 4167-4176.	3.9	22
43	Construction of Hybrid-Multicyclic Polymer Topologies Composed of Dicyclic Structure Units by Means of An ESA-CF/Click-Linking Protocol. <i>Macromolecules</i> , 2016, 49, 4076-4087.	4.8	21
44	Synthesis and Topological Conversion of an 8-shaped Poly(THF) Having a Metathesis-Cleavable Unit at the Focal Position. <i>Macromolecules</i> , 2010, 43, 7062-7067.	4.8	19
45	Macrocyclic poly(<i>p</i> -phenylenevinylene)s by ring expansion metathesis polymerisation and their characterisation by single-molecule spectroscopy. <i>Chemical Science</i> , 2018, 9, 2934-2941.	7.4	19
46	Rapid access to discrete and monodisperse block co-oligomers from sugar and terpenoid toward ultrasmall periodic nanostructures. <i>Communications Chemistry</i> , 2020, 3, .	4.5	19
47	An organocatalytic ring-opening polymerization approach to highly alternating copolymers of lactic acid and glycolic acid. <i>Polymer Chemistry</i> , 2020, 11, 6365-6373.	3.9	18
48	Metal-Organic Frameworks for Practical Separation of Cyclic and Linear Polymers. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 11830-11834.	13.8	18
49	Synthesis, Isolation, and Properties of All Head-to-Tail Cyclic Poly(3-hexylthiophene): Fully Delocalized Exciton over the Defect-Free Ring Polymer. <i>Macromolecules</i> , 2018, 51, 9284-9293.	4.8	17
50	Topological polymer chemistry by programmed self-assembly and effective linking chemistry. <i>European Polymer Journal</i> , 2011, 47, 535-541.	5.4	16
51	NMR Relaxometry for the Thermal Stability and Phase Transition Mechanism of Flower-like Micelles from Linear and Cyclic Amphiphilic Block Copolymers. <i>Langmuir</i> , 2015, 31, 8739-8744.	3.5	16
52	Micelle Structure Details and Stabilities of Cyclic Block Copolymer Amphiphile and Its Linear Analogues. <i>Polymers</i> , 2019, 11, 163.	4.5	16
53	A facile strategy for manipulating micellar size and morphology through intramolecular cross-linking of amphiphilic block copolymers. <i>Polymer Chemistry</i> , 2017, 8, 3647-3656.	3.9	15
54	Facile synthesis of poly(trimethylene carbonate) by alkali metal carboxylate-catalyzed ring-opening polymerization. <i>Polymer Journal</i> , 2020, 52, 103-110.	2.7	15

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55	Suzukiâ€™Miyaura catalyst-transfer polycondensation of triolborate-type fluorene monomer: toward rapid access to polyfluorene-containing block and graft copolymers from various macroinitiators. <i>Polymer Chemistry</i> , 2020, 11, 6832-6839.	3.9	15
56	Downsizing feature of microphase-separated structures <i>via</i> intramolecular crosslinking of block copolymers. <i>Chemical Science</i> , 2019, 10, 3330-3339.	7.4	14
57	Formation and Properties of Vesicles from Cyclic Amphiphilic PSâ€™PEO Block Copolymers. <i>Langmuir</i> , 2016, 32, 10344-10349.	3.5	13
58	ESA-CF Synthesis of Linear and Cyclic Polymers Having Densely Appended Perylene Units and Topology Effects on Their Thin-Film Electron Mobility. <i>Macromolecules</i> , 2016, 49, 5831-5840.	4.8	13
59	Programmed folding into spiro-multicyclic polymer topologies from linear and star-shaped chains. <i>Communications Chemistry</i> , 2020, 3, .	4.5	13
60	Oneâ€™Shot Intrablock Crossâ€™Linking of Linear Diblock Copolymer to Realize Janusâ€™Shaped Singleâ€™Chain Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 18122-18128.	13.8	13
61	Hydrogel formation by the â€™topological conversionâ€™™ of cyclic PLAâ€™PEO block copolymers. <i>Polymer Journal</i> , 2016, 48, 391-398.	2.7	12
62	Trimethyl Glycine as an Environmentally Benign and Biocompatible Organocatalyst for Ring-Opening Polymerization of Cyclic Carbonate. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 8868-8875.	6.7	12
63	Metallopolymer-<i>block</i>-oligosaccharide for sub-10 nm microphase separation. <i>Polymer Chemistry</i> , 2020, 11, 2995-3002.	3.9	11
64	Improving the mechanical properties of polycaprolactone using functionalized nanofibrillated bacterial cellulose with high dispersibility and long fiber length as a reinforcement material. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022, 158, 106978.	7.6	11
65	Systematic Synthesis of Block Copolymers Consisting of Topological Amphiphilic Segment Pairs from <i>kÿklo</i>- and <i>kentro</i>-Telechelic PEO and Poly(THF). <i>ACS Macro Letters</i> , 2013, 2, 427-431.	4.8	10
66	Single-molecule imaging reveals topological isomer-dependent diffusion by 4-armed star and dicyclic 8-shaped polymers. <i>Polymer Chemistry</i> , 2015, 6, 4109-4115.	3.9	10
67	Regioselective Ring-Emitting Esterification on Azacyclohexane Quaternary Salts: A DFT and Synthetic Study for Covalent Fixation of Electrostatic Polymer Self-Assemblies. <i>Journal of Organic Chemistry</i> , 2013, 78, 3086-3094.	3.2	9
68	Concise Click/ESA-CF Synthesis of Periodically-Positioned Trifunctional kÿklo-Telechelic Poly(THF)s. <i>Macromolecules</i> , 2015, 48, 6077-6086.	4.8	9
69	Topological â€™interfacialâ€™-polymer chemistry: Dependency of polymer â€™shapeâ€™-on surface morphology and stability of layer structures when heating organized molecular films of cyclic and linear block copolymers of <i>n</i>-butyl acrylate-ethylene oxide. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2016, 54, 486-498.	2.1	9
70	Detailed Structural Analyses of Nanofibrillated Bacterial Cellulose and Its Application as Binder Material for a Display Device. <i>Biomacromolecules</i> , 2020, 21, 581-588.	5.4	9
71	PEGylation of silver nanoparticles by physisorption of cyclic poly(ethylene glycol) for enhanced dispersion stability, antimicrobial activity, and cytotoxicity. <i>Nanoscale Advances</i> , 2022, 4, 532-545.	4.6	9
72	Highly asymmetric lamellar nanostructures from nanoparticleâ€™linear hybrid block copolymers. <i>Nanoscale</i> , 2020, 12, 16526-16534.	5.6	8

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73	Enhanced Self-Assembly and Mechanical Properties of Cellulose-Based Triblock Copolymers: Comparisons with Amylose-Based Triblock Copolymers. ACS Sustainable Chemistry and Engineering, 2021, 9, 9779-9788.	6.7	8
74	Self-Assembled Nanotubes and Nanocoils from ss-Conjugated Building Blocks. , 2008, , 1-27.		7
75	Synthesis of core-fluorescent four-armed star and dicyclic 8-shaped poly(THF)s by electrostatic self-assembly and covalent fixation (ESAâ€“CF) protocol. Reactive and Functional Polymers, 2014, 80, 3-8.	4.1	7
76	Topology effects of cyclic polymers: Controlling the topology for innovative functionalities. Reactive and Functional Polymers, 2018, 132, 43-50.	4.1	7
77	Synthesis and Unimolecular ESA-CF Polymer Cyclization of Zwitterionic Telechelic Precursors. Macromolecules, 2019, 52, 9208-9219.	4.8	7
78	S_N2 regioselectivity in the esterification of 5- and 7-membered azacycloalkane quaternary salts: a DFT study to reveal the transition state ring conformation prevailing over the ground state ring strain. Organic and Biomolecular Chemistry, 2014, 12, 6717-6724.	2.8	6
79	Synthesis of 1/4-ABC Tricyclic Miktoarm Star Polymer via Intramolecular Click Cyclization. Polymers, 2018, 10, 877.	4.5	6
80	Self-Assembly of Linear and Cyclic Polylactide Stereoblock Copolymers with a Parallel and Antiparallel Chain Arrangement Distinguishing Their Directions on a Water Surface. Langmuir, 2020, 36, 6216-6221.	3.5	6
81	Comparative Thermodynamic Studies of the Micellization of Amphiphilic Block Copolymers before and after Cyclization. Langmuir, 2022, 38, 5033-5039.	3.5	6
82	A study on emulsion stabilization induced with linear and cyclized polystyrene-poly(ethylene oxide) block copolymer surfactants. Polymer Journal, 2015, 47, 408-412.	2.7	5
83	Installing a functional group into the inactive ̳-chain end of PMMA and PS- <i>b</i> -PMMA by terminal-selective transesterification. Polymer Chemistry, 2019, 10, 3390-3398.	3.9	5
84	Effect of hydrogenâ€“deuterium exchange in amide linkages on properties of electrospun polyamide nanofibers. Polymer, 2021, 229, 123994.	3.8	5
85	Densely Arrayed Cage-Shaped Polymer Topologies Synthesized via Cyclopolymerization of Star-Shaped Macromonomers. Macromolecules, 2021, 54, 9079-9090.	4.8	5
86	Topological Polymer Chemistry: New Synthesis of Cyclic and Multicyclic Polymers and <i>Topology Effects</i>; Thereby. Kobunshi Ronbunshu, 2011, 68, 782-794.	0.2	4
87	Load-Induced Frictional Transition at a Well-Defined Alkane Loop Surface. Langmuir, 2017, 33, 2396-2401.	3.5	4
88	Cyclization of PEG and Pluronic Surfactants and the Effects of the Topology on Their Interfacial Activity. Langmuir, 2021, 37, 6974-6984.	3.5	4
89	A <i>Twisting</i> Ring Polymer: Synthesis and Thermally Induced Chiroptical Responses of a Cyclic Poly(tetrahydrofuran) Having Axially Chiral Units. Macromolecules, 2017, 50, 5323-5331.	4.8	3
90	Oneâ€“Shot Intrablock Crossâ€“Linking of Linear Diblock Copolymer to Realize Janusâ€“Shaped Singleâ€“Chain Nanoparticles. Angewandte Chemie, 2021, 133, 18270-18276.	2.0	3

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91	Molecular Arrangement of Organized Molecular Films of Linear and Cyclic Amphiphilic Block Copolymers with Different Shapes. Transactions of the Materials Research Society of Japan, 2014, 39, 79-82.	0.2	3
92	Suzuki's Miyaura Catalyst-Transfer Polycondensation of Triolborate-Type Carbazole Monomers. Polymers, 2021, 13, 4168.	4.5	3
93	Emergence of Functionalities Originating from the Topology of Polymers. Kobunshi Ronbunshu, 2011, 68, 550-561.	0.2	2
94	Effective Synthesis and Crystal Structure of a 24-Membered Cyclic Decanedisulfide Dimer. Chemistry Letters, 2012, 41, 1678-1680.	1.3	2
95	Direct Synthesis of Chain-End-Functionalized Poly(3-hexylthiophene) without Protecting Groups Using a Zincate Complex. Macromolecular Rapid Communications, 2020, 41, 2000148.	3.9	2
96	Topology-Dependent Interaction of Cyclic Poly(ethylene glycol) Complexed with Gold Nanoparticles against Bovine Serum Albumin for a Colorimetric Change. Langmuir, 2021, , .	3.5	2
97	Topology and Sequence-Dependent Micellization and Phase Separation of Pluronic L35, L64, 10R5, and 17R4: Effects of Cyclization and the Chain Ends. Polymers, 2022, 14, 1823.	4.5	2
98	Fabrication of Ultrafine, Highly Ordered Nanostructures Using Carbohydrate-Inorganic Hybrid Block Copolymers. Nanomaterials, 2022, 12, 1653.	4.1	2
99	SELF-ASSEMBLY AND FUNCTIONS OF CYCLIC POLYMERS. , 2013, , 329-347.		0
100	Synthesis of Cyclic Polymers and Characterization of Their Diffusive Motion in the Melt State at the Single Molecule Level. Journal of Visualized Experiments, 2016, , .	0.3	0
101	Metal-Organic Frameworks for Practical Separation of Cyclic and Linear Polymers. Angewandte Chemie, 2021, 133, 11936-11940.	2.0	0
102	Recent Developments in the Synthesis of Cyclic Polymers by Ring-Expansion Polymerization. Yuki Gosei Kagaku Kyokaiishi/Journal of Synthetic Organic Chemistry, 2009, 67, 947-948.	0.1	0
103	Dependency of the "Shape" on Surface Morphology of Organized Molecular Films of Cyclic and Linear Block Copolymer of Polyethylene Oxide - Butyl Acrylate. Transactions of the Materials Research Society of Japan, 2014, 39, 83-86.	0.2	0