

Mikihiro Hayashi

List of Publications by Year in descending order

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Version: 2024-02-01

45
papers

1,105
citations

566801

15
h-index

414034

32
g-index

47
all docs

47
docs citations

47
times ranked

1024
citing authors

#	ARTICLE	IF	CITATIONS
1	Design and properties of supramolecular polymer gels. <i>Soft Matter</i> , 2012, 8, 6416.	1.2	151
2	Mechanical Property Enhancement of ABA Block Copolymer-Based Elastomers by Incorporating Transient Cross-Links into Soft Middle Block. <i>Macromolecules</i> , 2015, 48, 421-431.	2.2	122
3	Fair Investigation of Cross-Link Density Effects on the Bond-Exchange Properties for Trans-Esterification-Based Vitrimers with Identical Concentrations of Reactive Groups. <i>Macromolecules</i> , 2020, 53, 182-189.	2.2	96
4	Synthesis of amorphous low T_g polyesters with multiple COOH side groups and their utilization for elastomeric vitrimers based on post-polymerization cross-linking. <i>Polymer Chemistry</i> , 2019, 10, 2047-2056.	1.9	81
5	N -Heterocyclic Carbene Initiated Anionic Polymerization of (E,E)-Methyl Sorbate and Subsequent Ring-Closing to Cyclic Poly(alkyl sorbate). <i>Journal of the American Chemical Society</i> , 2017, 139, 15005-15012.	6.6	78
6	Implantation of Recyclability and Healability into Cross-Linked Commercial Polymers by Applying the Vitrimer Concept. <i>Polymers</i> , 2020, 12, 1322.	2.0	73
7	Thermoreversible Supramolecular Polymer Gels via Metal-Ligand Coordination in an Ionic Liquid. <i>Macromolecules</i> , 2013, 46, 8304-8310.	2.2	66
8	Highly Extensible Supramolecular Elastomers with Large Stress Generation Capability Originating from Multiple Hydrogen Bonds on the Long Soft Network Strands. <i>Macromolecular Rapid Communications</i> , 2016, 37, 678-684.	2.0	51
9	Simple preparation of supramolecular polymer gels via hydrogen bonding by blending two liquid polymers. <i>Soft Matter</i> , 2011, 7, 1667.	1.2	39
10	Functionalization of triblock copolymer elastomers by cross-linking the end blocks via trans- N -alkylation-based exchangeable bonds. <i>Polymer Chemistry</i> , 2020, 11, 1713-1719.	1.9	35
11	Dominant Factor of Bond-Exchange Rate for Catalyst-Free Polyester Vitrimers with Internal Tertiary Amine Moieties. <i>ACS Applied Polymer Materials</i> , 2020, 2, 5365-5370.	2.0	32
12	Viscoelastic properties of supramolecular soft materials with transient polymer network. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014, 52, 755-764.	2.4	30
13	Preparation of Colorless, Highly Transparent, Epoxy-Based Vitrimers by the Thiol-Epoxy Click Reaction and Evaluation of Their Shape-Memory Properties. <i>ACS Applied Polymer Materials</i> , 2020, 2, 2452-2457.	2.0	30
14	Thermal stability enhancement of hydrogen bonded semicrystalline thermoplastics achieved by combination of amide chemistry and supramolecular chemistry. <i>Polymer Chemistry</i> , 2017, 8, 461-471.	1.9	22
15	Correlation between Self-Assembled Nanostructures and Bond Exchange Properties for Polyacrylate-Based Vitrimer-like Materials with a Trans- N -Alkylation Bond Exchange Mechanism. <i>Macromolecules</i> , 2022, 55, 1771-1782.	2.2	20
16	Achievement of a Highly Rapid Bond Exchange for Self-Catalyzed Polyester Vitrimers by Incorporating Tertiary Amino Groups on the Network Strands. <i>ACS Applied Polymer Materials</i> , 2021, 3, 4424-4429.	2.0	16
17	Direct observation of the formation of a cyclic poly(alkyl sorbate) via $chain\text{-}growth$ polymerization by an N -heterocyclic carbene initiator and $ring\text{-}closing$ without extreme dilution. <i>Journal of Polymer Science</i> , 2020, 58, 2936-2942.	2.0	15
18	Simple preparation, properties, and functions of vitrimer-like polyacrylate elastomers using trans- N -alkylation bond exchange. <i>Polymer Journal</i> , 2021, 53, 835-840.	1.3	13

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19	Rheological Characteristics of Cross-Linked Materials with Associative Bond Exchange Mechanisms. <i>Nihon Reoroji Gakkaishi</i> , 2022, 50, 15-20.	0.2	12
20	Simple Strategy for Dual Control of Crystallization and Thermal Property on Polyesters by Dispersing Metal Salts Via Multiple Coordination Bonds. <i>Macromolecular Chemistry and Physics</i> , 2018, 219, 1800127.	1.1	10
21	Preparation of All Polyester-Based Semi-IPN Elastomers Containing Self-Associative or Non-Associative Guest Chains via Post-Blending Cross-Linking. <i>Macromolecular Materials and Engineering</i> , 2019, 304, 1900147.	1.7	8
22	Hydrophobicity enhancement of polyurethanes by attaching fluorinated end blocks via ATRP and correlation between surface properties and self-assembly nature. <i>Polymer</i> , 2019, 172, 312-321.	1.8	8
23	Extraction of intrinsic cross-linking effects of A hard domains on segmental motion of B soft block for ABA triblock copolymer-based elastomers by utilizing photo cross-linking. <i>Polymer</i> , 2020, 192, 122343.	1.8	8
24	Versatile functionalization of polymeric soft materials by implanting various types of dynamic cross-links. <i>Polymer Journal</i> , 2021, 53, 779-788.	1.3	8
25	Lamellar structures in blends of amorphous "block" main-chain liquid crystal "block" amorphous copolymers and amorphous homopolymers: Effects of the amorphous homopolymer molecular weight. <i>Polymer</i> , 2019, 178, 121555.	1.8	7
26	Enhancement of Mechanical Properties of ABA Triblock Copolymer-Based Elastomers by Incorporating Partial Cross-Links on the Soft Bridge Chains. <i>ACS Applied Polymer Materials</i> , 2021, 3, 1271-1275.	2.0	7
27	Exploring the effects of bound rubber phase on the physical properties of nano-silica composites with a vitrimer-like bond exchangeable matrix. <i>Polymer Journal</i> , 2022, 54, 1307-1319.	1.3	7
28	Synthesis of sulfone-containing non-ionic polyurethanes for electrophoretic deposition coating. <i>Polymer Journal</i> , 2018, 50, 959-966.	1.3	5
29	Experimental and Theoretical Investigation of Intrinsic Pyridine Isomer Effects on Physical Property Tuning of Metallo Supramolecular Polymers Bearing Multiple Pyridine Ligands. <i>ACS Applied Polymer Materials</i> , 2020, 2, 2327-2337.	2.0	5
30	Advantage of graft architecture with a flexible main chain for implantation of ductile nature into brittle amorphous acrylic glass. <i>Polymer</i> , 2021, 236, 124316.	1.8	5
31	Deformation of Hierarchical Lamellar Structure Formed by a Liquid Crystalline Block Copolymer. <i>Macromolecular Chemistry and Physics</i> , 2020, 221, 2000042.	1.1	4
32	Quick and Efficient Thermal Stability Enhancement of Micro-Phase Separated Structure Formed from ABA Triblock Copolymers by Photo Cross-Linking Approach. <i>ChemistrySelect</i> , 2020, 5, 2842-2847.	0.7	4
33	One-pot synthesis of dual supramolecular associative copolymers by using a novel acrylate monomer bearing urethane and pendant pyridine groups. <i>Polymer Chemistry</i> , 2020, 11, 2318-2324.	1.9	4
34	Glass transition analysis of model metallosupramolecular polyesters bearing pendant pyridine ligands with a controlled ligand-ligand distance. <i>Polymer Journal</i> , 2020, 52, 505-514.	1.3	4
35	Design and basic properties of polyester vitrimers combined with an ionomer concept. <i>Molecular Systems Design and Engineering</i> , 2021, 6, 234-241.	1.7	4
36	One-Pot Synthesis of Dual Supramolecular Associative PMMA-Based Copolymers and the Precise Thermal Property Tuning. <i>Macromolecular Chemistry and Physics</i> , 2021, 222, 2000302.	1.1	4

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37	Extraction of intrinsic effects of glassy domain cross-linking on the tensile properties of ABA block copolymer elastomers via photo cross-linking approach. <i>Polymer</i> , 2021, 234, 124235.	1.8	4
38	Investigation of electrophoretic deposition behavior of fluorinated poly(methacrylate)s: A new paradigm of electrophoretic non-ionic polymers. <i>Polymer</i> , 2019, 167, 54-59.	1.8	3
39	Long-range lamellar formation in blends of divided-lamellar-forming liquid crystal block copolymers with liquid crystal homopolymers. <i>Polymer</i> , 2020, 211, 123086.	1.8	3
40	Importance of interfacial mixed layer to determine the middle block Tg in lamellar structures of uncross-linked and cross-linked hard-b-soft-b-hard triblock copolymers. <i>Polymer</i> , 2021, 227, 123868.	1.8	3
41	Versatile tensile and fracture behaviors of dual cross-linked elastomers by postpreparation photo tuning of local cross-link density. <i>Polymer</i> , 2021, 230, 124089.	1.8	3
42	Potential of Graftpolymers Bearing Inner Molten Block and Outer Glassy Block at the Graft Chains for Thermoplastic Elastomers with Enhanced Properties. <i>Macromolecular Chemistry and Physics</i> , 0, , 2200073.	1.1	3
43	Preparation and Viscoelasticity of Hydrogen Bonded Supramolecular Ion Gels Composed of ABA Triblock Copolymer and C Homopolymer in an Ionic Liquid. <i>Nihon Reoroji Gakkaishi</i> , 2014, 42, 135-141.	0.2	2
44	Macromol. Rapid Commun. 8/2016. <i>Macromolecular Rapid Communications</i> , 2016, 37, 732-732.	2.0	0
45	Conference Report for the 14 th ; International Workshop for East Asian Young Rheologists (IWEAYR-14) in Nagoya. <i>Nihon Reoroji Gakkaishi</i> , 2019, 47, 123-125.	0.2	0