

Publication List of Akihito Hashidzume

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Original Papers

- (129) Synthesis and Metal Ion Adsorption Properties of a Dense Triazole Polymer Carrying Cysteine Residues, Ryo Ejima, Masaki Nakahata, Yuri Kamon, Akihito Hashidzume, *J. Polym. Sci.*, **63** (7), 1570-1579 (2025).
- (128) Additive-assisted macroscopic self-assembly and control of the shape of assemblies based on host–guest interaction, Akihito Hashidzume, Takahiro Itami, Masaki Nakahata, Yuri Kamon, Hiroyasu Yamaguchi, Akira Harada, *Sci. Rep.*, **14**, 20676 (2024).
- (127) Density function theory study on the energy and circular dichroism spectrum for methylene-linked triazole diads depending on the substitution position and conformation, Masaki Nakahata and Akihito Hashidzume, *Molecules*, **29** (12), 2931 (2024).
- (126) Interaction of Cyclodextrins with Amphiphilic Alternating Cooligomers Possessing the Dense Triazole Backbone, Tomoaki Yamamoto, Ryoichi Taguchi, Zijun Yan, Ryo Ejima, Linlin Xu, Masaki Nakahata, Yuri Kamon, and Akihito Hashidzume, *Langmuir*, **40** (13), 7178-7191 (2024).
- (125) Synthesis of an Alternating Polycation with the Dense 1,2,3-Triazole Backbone, Tomoki Omae, Masaki Nakahata, Yuri Kamon, and Akihito Hashidzume, *Synlett*, **35** (11), 1301-1305 (2024).
- (124) Synthesis of an Alternating Copolymer of the Dense 1,2,3-Triazole Backbone Carrying *t*-Butyl Ester and Nitrile Side Chains, Linlin Xu, Masaki Nakahata, Yuri Kamon, and Akihito Hashidzume, *J. Polym. Sci.*, **62** (6), 937-945 (2024).
- (123) Interactions of Mono- and Divalent Host Molecules with Multi- and Divalent Guest Molecules, Koki Ishitsuka, Masaki Nakahata, Yuri Kamon, and Akihito Hashidzume, *Chem. Lett.*, **52** (9), 752-756 (2023).
- (122) Synthesis of Dense 1,2,3-Triazole Oligomers Consisting Preferentially of 1,5-Disubstituted Units via Ruthenium(II)-Catalyzed Azide–Alkyne Cycloaddition, Ryoichi Taguchi, Masaki Nakahata, Yuri Kamon, and Akihito Hashidzume, *Polymers*, **15** (9), 2199 (2023).
- (121) Contrasting thermoresponsiveness of stereoisomers of a dense 1,2,3-triazole polymer carrying amide side chains, Koji Okuno, Junji Miura, Shota Yamasaki, Masaki

Nakahata, Yuri Kamon, and Akihito Hashidzume, *Polym. Chem.*, **14** (13), 1488-1496 (2023).

- (120) Preferential Formation of Specific Hexose and Heptose in Formose Reaction under Microwave Irradiation, Akihito Hashidzume, Toru Imai, Nanako Deguchi, Takashi Tanibayashi, Takumi Ikeda, Tomohiro Michitaka, Satoki Kuwahara, Masaki Nakahata, Yuri Kamon, and Yasuto Todokoro, *RSC Adv.*, **13** (6), 4089-4095 (2023).
- (119) Synthesis of Stereoregular Uniform Oligomers Possessing a Dense 1,2,3-Triazole Backbone, Yuri Kamon, Junji Miura, Koji Okuno, Shota Yamasaki, Masaki Nakahata, and Akihito Hashidzume, *Macromolecules*, **56** (1), 292-304 (2023).
- (118) Synthesis of New Thermoresponsive Polymers Possessing the Dense 1,2,3-Triazole Backbone, Koji Okuno, Takuya Arisawa, Yuri Kamon, Akihito Hashidzume, and Françoise M. Winnik, *Langmuir*, **38** (17), 5156-5165 (2022).
- (117) Synthesis of a New Polyanion Possessing Dense 1,2,3-Triazole Backbone, Linlin Xu, Yuri Kamon, and Akihito Hashidzume, *Polymers*, **13** (10), 1614 (2021).
- (116) Synthesis of Dense 1,2,3-Triazole Polymers Soluble in Common Organic Solvents, Shota Yamasaki, Yuri Kamon, Linlin Xu, and Akihito Hashidzume, *Polymers*, **13** (10), 1627 (2021).
- (115) The macroscopic shape of assemblies formed from microparticles based on host–guest interaction dependent on the guest content, Takahiro Itami, Akihito Hashidzume, Yuri Kamon, Hiroyasu Yamaguchi, and Akira Harada, *Sci. Rep.*, **11**, 6320 (2021).
- (114) Self-Healing Thermoplastic Elastomer Formed from Triblock Copolymers with Dense 1,2,3-Triazole Blocks, Yanqiong Yang, Yuri Kamon, Nathaniel A. Lynd, and Akihito Hashidzume, *Macromolecules*, **53** (23), 10323-10329 (2020).
- (113) A Simplified Model for Multivalent Interaction Competing with a Low Molecular Weight Competitor, Akihito Hashidzume, Takahiro Itami, Yuri Kamon, and Akira Harada, *Chem. Lett.*, **49** (11), 1306-1308 (2020).
- (112) Mechanical Properties of Network Polymers Formed from Monodisperse Oligo(ethylene glycol)s of Different Molecular Weights through Thiol–Yne Reaction, Koki Ishitsuka, James Nicolas M. Pagaduan, Yuri Kamon, and Akihito Hashidzume, *Mater. Today Commun.*, **22**, 100689 (2020).
- (111) A New Associative Diblock Copolymer of Poly(ethylene glycol) and Dense 1,2,3-Triazole Blocks: Self-Association Behavior and Thermoresponsiveness in Water,

Yanqiong Yang and Akihito Hashidzume, *Macromol. Chem. Phys.*, **220** (21), 1900317 (2019).

- (110) Emission Properties of Diblock Copolymers Composed of Poly(ethylene glycol) and Dense 1,2,3-Triazole Blocks, Yanqiong Yang, Asami Mori, and Akihito Hashidzume, *Polymers*, **11** (7), 1086 (2019).
- (109) 両親媒性カチオンブロック共重合体が塩化ナトリウム存在下において形成するシダの葉状モルフォロジー, 橋爪章仁, 光上義朗, 遊佐真一, 森島洋太郎, *高分子論文集*, **76** (1), 74-78 (2019).
- (108) Copper(I)-catalyzed azide–alkyne cycloaddition polymerization of *N*-butyl-*N*-ethynyl-4-azidobenzenesulfonamide, Tatsuya Harada, Yuri Kamon, and Akihito Hashidzume, *Mater. Today Commun.*, **17**, 229-237 (2018).
- (107) Toward a translational molecular ratchet: face-selective translation coincident with deuteration in a pseudo-rotaxane, Akihito Hashidzume, Akihiro Kuse, Tomoya Oshikiri, Seiji Adachi, Mitsutaka Okumura, Hiroyasu Yamaguchi, and Akira Harada, *Sci. Rep.*, **8**, 8950 (2018).
- (106) Visible chiral discrimination via macroscopic selective assembly, Yongtai Zheng, Yuichiro Kobayashi, Yoshinori Takashima, Akihito Hashidzume, Hiroyasu Yamaguchi, and Akira Harada, *Commun. Chem.*, **1**, 4 (2018).
- (105) Formose Reaction Controlled by a Copolymer of *N,N*-Dimethylacrylamide and 4-Vinylphenylboronic Acid, Tomohiro Michitaka, Toru Imai, and Akihito Hashidzume, *Polymers*, **9** (11), 549 (2017).
- (104) A pseudo-rotaxane of α -cyclodextrin and a two-station axis molecule consisting of pyridinium and decamethylene moieties, and its deuteration in deuterium oxide, Akihito Hashidzume, Akihiro Kuse, Tomoya Oshikiri, Seiji Adachi, Hiroyasu Yamaguchi, and Akira Harada, *Tetrahedron*, **73** (33), 4988-4993 (2017).
- (103) Formose Reaction Controlled by Boronic Acid Compounds, Toru Imai, Tomohiro Michitaka, and Akihito Hashidzume, *Beilstein J. Org. Chem.*, **12**, 2668-2672 (2016).
- (102) Formose Reaction Accelerated in Aerosol-OT Reverse Micelles, Makoto Masaoka, Tomohiro Michitaka, and Akihito Hashidzume, *Beilstein J. Org. Chem.*, **12**, 2663-2667 (2016).

- (101) Manual control of catalytic reactions: Reactions by an apoenzyme gel and a cofactor gel, Yuichiro Kobayashi, Yoshinori Takashima, Akihito Hashidzume, Hiroyasu Yamaguchi, and Akira Harada, *Sci. Rep.*, **5**, 16254 (2015).
- (100) A Light-Controlled Release System Based on Molecular Recognition of Cyclodextrins, Isaac Eng Ting Lee, Akihito Hashidzume, and Akira Harada, *Macromol. Rapid Commun.*, **36** (23), 2055-2059 (2015). **(Cover picture)**
- (99) Quaternization of 3-Azido-1-propyne Oligomer Obtained by Copper(I)-Catalyzed Azide-Alkyne Cycloaddition Polymerization, Shun Nakano, Akihito Hashidzume, and Takahiro Sato, *Beilstein J. Org. Chem.*, **11**, 1037-1042 (2015).
- (98) Water-Induced Formation of Reverse Micelles from Diblock Copolymer of Styrene and *N*-Isopropylacrylamide in 1,2-Dichloroethane, Tomoe Arai, Akihito Hashidzume, and Takahiro Sato, *Macromolecules*, **48** (12), 4055-4062 (2015).
- (97) Macroscopic Self-assembly Based on Complementary Interaction between Nucleobase Pairs, Masaki Nakahata, Yoshinori Takashima, Akihito Hashidzume, and Akira Harada, *Chem. Eur. J.*, **21** (7), 2770-2774 (2015).
- (96) フマルアミド/*N*-イソプロピルアクリルアミド共重合体の水溶液の相挙動, 石井直子, 松元亜紀子, 橋爪章仁, 佐藤尚弘, *高分子論文集*, **71** (8), 361-366 (2014).
- (95) A Metal-Ion-Responsive Adhesive Material via Switching of Molecular Recognition Properties, Takashi Nakamura, Yoshinori Takashima, Akihito Hashidzume, Hiroyasu Yamaguchi, and Akira Harada, *Nat. Commun.*, **5**, 4622 (2014).
- (94) Aggregation and phase separation of hydrophilically modified poly(dimethylsiloxane) in methanol-water mixtures, Takashi Okuhara, Akihito Hashidzume, Ken Terao, and Takahiro Sato, *Polym. J. (Tokyo, Jpn.)*, **46** (5), 264-271 (2014).
- (93) pH- and Sugar-Responsive Gel Assemblies Based on Boronate-Catechol Interactions, Masaki Nakahata, Shoko Mori, Yoshinori Takashima, Akihito Hashidzume, Hiroyasu Yamaguchi, and Akira Harada, *ACS Macro Lett.*, **3** (4) 337-340 (2014).
- (92) Aggregation behavior of polystyrene-based amphiphilic diblock copolymers in organic media, Tomoe Arai, Makoto Masaoka, Tomohiro Michitaka, Yosuke Watanabe, Akihito Hashidzume, and Takahiro Sato, *Polym. J. (Tokyo, Jpn.)*, **46** (3), 189-194 (2014).

- (91) pH-Responsive Self-Assembly by Molecular Recognition on Macroscopic Scale, Yongtai Zheng, Akihito Hashidzume, and Akira Harada, *Macromol. Rapid Commun.*, **34** (13), 1062-1066 (2013). **(Cover picture)**
- (90) Copper-catalyzed azide-alkyne cycloaddition oligomerization of 3-azido-1-propyne derivatives, Akihito Hashidzume, Tomoaki Nakamura, and Takahiro Sato, *Polymer*, **54** (14), 3448-3451 (2013).
- (89) Redox-Generated Mechanical Motion of Supramolecular Polymeric Actuator Based on Host-Guest Interactions, Masaki Nakahata, Yoshinori Takashima, Akihito Hashidzume, and Akira Harada, *Angew. Chem., Int. Ed.*, **52** (22), 5731-5735 (2013).
- (88) Macroscopic Self-Assembly Based on Molecular Recognition: Effect of Linkage between Aromatics and the Polyacrylamide Gel Scaffold, Amide versus Ester, Akihito Hashidzume, Yongtai Zheng, Yoshinori Takashima, Hiroyasu Yamaguchi, and Akira Harada, *Macromolecules*, **46** (5), 1939-1947 (2013).
- (87) Reversible self-assembly of gels through metal-ligand interactions, Yuichiro Kobayashi, Yoshinori Takashima, Akihito Hashidzume, Hiroyasu Yamaguchi, and Akira Harada, *Sci. Rep.*, **3**, 1243 (2013).
- (86) Expansion-contraction of photoresponsive artificial muscle regulated by host-guest interactions, Yoshinori Takashima, Shogo Hatanaka, Miyuki Otsubo, Masaki Nakahata, Takahiro Kakuta, Akihito Hashidzume, Hiroyasu Yamaguchi, and Akira Harada, *Nat. Commun.*, **3**, 1270 (2012), 7 pages.
- (85) Interaction of Cyclodextrins with Pyrene-Modified Polyacrylamide in a Mixed Solvent of Water and Dimethyl Sulfoxide as Studied by Steady State Fluorescence, Akihito Hashidzume, Yongtai Zheng, and Akira Harada, *Beilstein J. Org. Chem.*, **8**, 1312-1317 (2012).
- (84) Temperature-Sensitive Macroscopic Assembly Based on Molecular Recognition, Yongtai Zheng, Akihito Hashidzume, Yoshinori Takashima, Hiroyasu Yamaguchi, and Akira Harada, *ACS Macro Lett.*, **1** (8), 1083-1085 (2012).
- (83) Switching of macroscopic molecular recognition selectivity using a mixed solvent system, Yongtai Zheng, Akihito Hashidzume, Yoshinori Takashima, Hiroyasu Yamaguchi, and Akira Harada, *Nat. Commun.*, **3**, 831 (2012), 4 pages.
- (82) Phase Behavior of Aqueous Solutions of Copolymers of *N,N'*-Diisopropylfumaramide and *N*-Isopropylacrylamide. Effect of the Density of Side Chain, Akihito Hashidzume,

Akiko Matsumoto, Takeshi Mori, Toshiyuki Shikata, and Takahiro Sato, *Langmuir*, **28** (13), 5522-5526 (2012).

- (81) Photoswitchable gel assembly based on molecular recognition, Hiroyasu Yamaguchi, Yuichiro Kobayashi, Ryosuke Kobayashi, Yoshinori Takashima, Akihito Hashidzume, and Akira Harada, *Nat. Commun.*, **3**, 603 (2012), 5 pages.
- (80) Macroscopic Observations of Molecular Recognition: Discrimination of the Substituted Position on the Naphthyl Group by Polyacrylamide Gel Modified with β -Cyclodextrin, Yongtai Zheng, Akihito Hashidzume, Yoshinori Takashima, Hiroyasu Yamaguchi, and Akira Harada, *Langmuir*, **27** (22), 13790-13795 (2011).
- (79) Complex Formation of Cyclodextrins with a Dumbbell Molecule Bearing Two Ferrocene Moieties at the Ends, Takaya Yamamoto, Wataru Oi, Akihito Hashidzume, and Akira Harada, *Bull. Chem. Soc. Jpn.*, **84** (9), 918-925 (2011). (**Selected Papers**)
- (78) Frontal Analysis Continuous Capillary Electrophoresis Study on the Interaction of an Amphiphilic Alternating Copolymer with Triton X-100, Akihito Hashidzume, Takuya Shimomachi, and Takahiro Sato, *Int. J. Anal. Chem.*, **2011**, Article ID 617981, 6 pages (2011).
- (77) Photo-Regulated Switching of the Recognition Site of α -Cyclodextrin in a Side Chain Polyrotaxane Bearing Two Recognition Sites Linked with Oligo(ethylene glycol), Jie Hu, Akihito Hashidzume, and Akira Harada, *Macromol. Chem. Phys.*, **212** (10), 1032-1038 (2011). (**Cover picture**)
- (76) Self-Assembly of Gels through Molecular Recognition of Cyclodextrins: Shape Selectivity for Linear and Cyclic Guest Molecules, Hiroyasu Yamaguchi, Ryosuke Kobayashi, Yoshinori Takashima, Akihito Hashidzume, and Akira Harada, *Macromolecules*, **44** (8), 2395-2399 (2011).
- (75) Unicore—Multicore Transition of the Micelle Formed by an Amphiphilic Alternating Copolymer in Aqueous Media by Changing Molecular Weight, Motoki Ueda, Akihito Hashidzume, and Takahiro Sato, *Macromolecules*, **44** (8), 2970-2977 (2011).
- (74) NMR and fluorescence studies of the self-association behavior of an amphiphilic polyanion bearing hydrocarbon and fluorocarbon hydrophobes, Akihito Hashidzume, Kentaro Matsuda, Takahiro Sato, and Yotaro Morishima, *Polymer*, **52** (7), 1546-1553 (2011).

- (73) Macromolecular Recognition by Cyclodextrins. Interaction of Cyclodextrins with Poly(*N*-acryloyl-amino acids), Wataru Oi, Akihito Hashidzume, and Akira Harada, *Polymer*, **52** (3), 746-751 (2011).
- (72) Macromolecular Recognition: Discrimination between Human and Bovine Serum Albumins by Cyclodextrins, Wataru Oi, Mio Isobe, Akihito Hashidzume, and Akira Harada, *Macromol. Rapid Commun.*, **32** (6), 501-505 (2011). (**Cover picture**)
- (71) Macroscopic self-assembly through molecular recognition, Akira Harada, Ryosuke Kobayashi, Yoshinori Takashima, Akihito Hashidzume, and Hiroyasu Yamaguchi, *Nat. Chem.*, **3** (1), 34-37 (2011).
- (70) Light-Switchable Janus [2]Rotaxanes Based on α -Cyclodextrin Derivatives Bearing Two Recognition Sites Linked with Oligo(ethylene glycol), Shujing Li, Daisuke Taura, Akihito Hashidzume, and Akira Harada, *Chem. Asian J.*, **5** (10), 2281-2289 (2010).
- (69) Flower Micelle of Amphiphilic Random Copolymers in Aqueous Media, Yukio Tominaga, Mari Mizuse, Akihito Hashidzume, Yotaro Morishima, and Takahiro Sato, *J. Phys. Chem. B*, **114** (35), 11403-11408 (2010).
- (68) 糖存在下でのゾルゲル法による多孔性アルミナの調製と得られた多孔性アルミナの機能, 橋爪章仁, 藤本 拓, 正岡 誠, 真田雄介, 佐藤尚弘, 高分子論文集, **67** (5), 312-317 (2010).
- (67) Substituent effect on electrophoretic mobility for a series of poly(*N*-acryloyl-amino acid)s, Akihito Hashidzume, Takefumi Kawata, Atsushi Tanaka, Yukiko Takabayashi, and Takahiro Sato, *J. Chromatogr. A*, **1217** (17), 2990-2992 (2010).
- (66) Formation of Side-Chain *hetero*-Polypseudorotaxane Composed of α - and β -Cyclodextrins with a Water-Soluble Polymer Bearing Two Recognition Sites, Daisuke Taura, Shujing Li, Akihito Hashidzume, and Akira Harada, *Macromolecules*, **43** (4), 1706-1713 (2010).
- (65) Photocontrolled Size Changes of Doubly-threaded Dimer Based on an α -CD Derivative with Two Recognition Sites, Shujing Li, Daisuke Taura, Akihito Hashidzume, Yoshinori Takashima, Hiroyasu Yamaguchi, and Akira Harada, *Chem. Lett.*, **39** (3), 242-243 (2010).
- (64) Interaction of poly(*N*-acryloyl-amino acids) with saccharides in aqueous media, Akihito Hashidzume, Atsushi Tanaka, and Takahiro Sato, *Polymer*, **51** (1), 18-21 (2010).

- (63) Photo-polymerization of amphiphilic *N,O*-diacylated serine based monomers in their micellar states for an encapsulation, Itsuro Tomatsu, Akihito Hashidzume, and Akira Harada, *Macromol. Chem. Phys.*, **210** (19), 1640-1646 (2009).
- (62) Macromolecular Recognition of Cyclodextrin: Inversion of Selectivity of β -Cyclodextrin toward Adamantyl Groups Induced by Macromolecular Chains, Daisuke Taura, Yosuke Taniguchi, Akihito Hashidzume, and Akira Harada, *Macromol. Rapid Commun.*, **30** (20), 1741-1744 (2009).
- (61) Crisscross addition polymerization of alkyl aldazines and 1,4-phenylene diisocyanate, Akihito Hashidzume, Ruriko Imai, and Takahiro Sato, *Polymer*, **50** (10), 2246-2251 (2009).
- (60) Switching the selectivity of a polyglycerol dendrimer monomolecularly imprinted with D-(+)-fructose, Akihito Hashidzume and Steven C. Zimmerman, *Tetrahedron Lett.*, **50** (19), 2204-2207 (2009).
- (59) Micellization Behavior of an Amphiphilic Statistical Copolymer in Water-Methanol Mixtures, Takuya Mori, Akihito Hashidzume, and Takahiro Sato, *Polym. J. (Tokyo, Jpn.)*, **41** (3), 189-194 (2009).
- (58) Hierarchical Structures in Amphiphilic Random Copolymer Solutions, Takahiro Sato, Tomohiko Kimura, and Akihito Hashidzume, *Prog. Theor. Phys. Suppl.*, **175**, 54-63 (2008).
- (57) Cooperative Complexation of α -Cyclodextrin with Alternating Copolymers of Sodium Maleate and Dodecyl Vinyl Ether with Varying Molecular Weights, Daisuke Taura, Akihito Hashidzume, Yasushi Okumura, and Akira Harada, *Macromolecules*, **41** (10), 3640-3645 (2008).
- (56) Relative Rotational Motion between α -Cyclodextrin Derivatives and a Stiff Axle Molecule, Dai Nishimura, Tomoya Oshikiri, Yoshinori Takashima, Akihito Hashidzume, Hiroyasu Yamaguchi, and Akira Harada, *J. Org. Chem.*, **73** (7), 2496-2502 (2008).
- (55) Switching between Supramolecular Dimer and Supramolecular Self-Assembly Consisting of Stilbene amide α -Cyclodextrin by photoirradiation, Kazuhiro Yamauchi, Yoshinori Takashima, Akihito Hashidzume, Hiroyasu Yamaguchi, and Akira Harada, *J. Am. Chem. Soc.*, **130** (15), 5024-5025 (2008).
- (54) Macromolecular Recognition: Interactions of Cyclodextrins with Alternating Copolymer of Sodium Maleate and Dodecyl Vinyl Ether, Daisuke Taura, Akihito

Hashidzume, and Akira Harada, *Macromol. Rapid Commun.*, **28** (24), 2306-2310 (2007). ([Cover picture](#))

- (53) Mesophase Separation and Probe Dynamics in Protein-Polyelectrolyte Coacervates, A. Basak Kayitmazer, Himadri B. Bohidar, Kevin M. Mattison, Arijit Bose, Jayashri Sarkar, Akihito Hashidzume, Paul S. Russo, Werner Jaeger, and Paul L. Dubin, *Soft Matter*, **3** (7), 1064-1076 (2007).
- (52) Association-Dissociation Equilibrium of an Amphiphilic Polyelectrolyte in Aqueous Solution, Rika Nojima, Akihito Hashidzume, and Takahiro Sato, *Macromol. Symp.*, **249-250**, 502-508 (2007).
- (51) Micellar Structure of Amphiphilic Statistical Copolymers Bearing Dodecyl Hydrophobes in Aqueous Media, Takefumi Kawata, Akihito Hashidzume, and Takahiro Sato, *Macromolecules*, **40** (4), 1174-1180 (2007).
- (50) Cooperative Binding of Nonionic Surfactant to Hydrophobically Modified Polyanions as Studied by Frontal Analysis Continuous Capillary Electrophoresis, Akihito Hashidzume, Shin-ichi Watanabe, and Yotaro Morishima, *Langmuir*, **23** (4), 2191-2197 (2007).
- (49) Conformational Analysis of Poly(propionaldehyde azine) in Dilute Solution, Akihito Hashidzume, Yusuke Ueno, and Takahiro Sato, *Polym. J. (Tokyo, Jpn.)*, **38** (11), 1152-1159 (2006).
- (48) Cyclodextrin-Based Side Chain Polyrotaxane with Unidirectional Inclusion in Aqueous Media, Itsuro Tomatsu, Akihito Hashidzume, and Akira Harada, *Angew. Chem. Int. Ed.*, **45** (28), 4605-4608 (2006).
- (47) Characterization of pH-dependent micellization of polystyrene-based cationic block copolymers prepared by reversible addition-fragmentation chain transfer (RAFT) radical polymerization, Yoshiro Mitsukami, Akihito Hashidzume, Shin-ich Yusa, Yotaro Morishima, Andrew B. Lowe, and Charles L. McCormick, *Polymer*, **47** (12), 4333-4340 (2006).
- (46) Macromolecular recognition by cyclodextrins. Interaction of cyclodextrins with polymethacrylamides bearing hydrophobic amino acid residues, Akihito Hashidzume and Akira Harada, *Polymer*, **47** (10), 3448-3454 (2006).
- (45) Spectroscopic study on the interaction of cyclodextrins with naphthyl groups attached to poly(acrylamide) backbone, Akira Harada, Fumitaka Ito, Itsuro Tomatsu, Koichiro Shimoda, Akihito Hashidzume, Yoshinori Takashima, Hiroyasu Yamaguchi, and

Shigehiro Kamitori, *J. Photochem. Photobiol., A*, **179** (1-2), 13-19 (2006).

- (44) Contrast Viscosity Changes upon Photoirradiation for Mixtures of a Poly(acrylic acid) Carrying Azobenzene Moieties and Poly(acrylic acid)s Modified with α -Cyclodextrin through the 3- and 6-Positions, Itsuro Tomatsu, Akihito Hashidzume, and Akira Harada, *J. Am. Chem. Soc.*, **128** (7), 2226-2227 (2006).
- (43) Redox-Responsive Hydrogel System Using the Molecular Recognition of β -Cyclodextrin, Itsuro Tomatsu, Akihito Hashidzume, and Akira Harada, *Macromol. Rapid Commun.*, **27** (4), 238-241 (2006).
- (42) Synthesis and Structural Analysis of Self-Associating Amphiphilic Statistical Copolymers in Aqueous Media, Akihito Hashidzume, Atsushi Kawaguchi, Akiyo Tagawa, Katsuhiro Hyoda, and Takahiro Sato, *Macromolecules*, **39** (3), 1135-1143 (2006).
- (41) Polymer formation utilizing ‘crisscross’ addition (crisscross addition polymerization) of acetaldehyde azine and 1,4-phenylene diisocyanate, Akihito Hashidzume, Junya Shiota, Yusuke Ueno, Tetsuya Noda, Yoshinori Takashima, Akira Harada, and Mikiharu Kamachi, *Polymer*, **47** (2), 501-505 (2006).
- (40) Unique Associative Properties of Copolymers of Sodium Acrylate and Oligo(ethylene oxide) Alkyl Ether Methacrylates in Water, Itsuro Tomatsu, Akihito Hashidzume, Shin-ichi Yusa, and Yotaro Morishima, *Macromolecules*, **38** (18), 7837-7844 (2005).
- (39) Macromolecular Recognition by Polymer-Carrying Cyclodextrins. Interaction of a Polymer Bearing Cyclodextrin Moieties with Poly(acrylamide)s Bearing Aromatic Side Chains, Akihito Hashidzume, Fumitaka Ito, Itsuro Tomatsu, and Akira Harada, *Macromol. Rapid Commun.*, **26** (14), 1151-1154 (2005).
- (38) Studies of Dynamic Interactions Between a Pyrene-Labeled Polyelectrolyte and an Oppositely Charged Rodlike Micelle by a Fluorescence Quenching Technique with Use of a Hydrophobic Quencher, Tatsuyoshi Kawamoto, Akihito Hashidzume, and Yotaro Morishima, *J. Colloid Interface Sci.*, **291** (2), 537-542 (2005).
- (37) Photoresponsive Hydrogel System Utilizing Molecular Recognition of α -Cyclodextrin, Itsuro Tomatsu, Akihito Hashidzume, and Akira Harada, *Macromolecules*, **38** (12), 5223-5227 (2005).
- (36) Gel-to-Sol and Sol-to-Gel Transitions Utilizing the Interaction of α -Cyclodextrin with Dodecyl Side Chain Attached to Poly(acrylic acid) Backbone, Itsuro Tomatsu, Akihito Hashidzume, and Akira Harada, *Macromol. Rapid Commun.*, **26** (10), 825-829 (2005).

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- (35) Rheological behavior in water of complexes formed from poly(sodium 2-(acrylamido)-2-methylpropanesulfonate) and positively-charged rodlike micelles, Tatsuyoshi Kawamoto, Akihito Hashidzume, and Yotaro Morishima, *J. Colloid Interface Sci.*, **286** (1), 142-147 (2005).
- (34) Steady-state fluorescence and NMR study on self-association behavior of poly(methacrylamides) bearing hydrophobic amino acid residues, Akihito Hashidzume and Akira Harada, *Polymer*, **46** (5), 1609-1616 (2005).
- (33) Optimization of conditions for the formation of high molecular weight polymer of acetaldehyde azine, Mikiharu Kamachi, Atsushi Kajiwara, Akihito Hashidzume, Kentaro Matsuda, and Akira Harada, *Des. Monomers Polym.*, **7** (6), 701-710 (2004).
- (32) Polymerization of azastyrene derivatives, 4. Spontaneous Copolymerization of 2,6-diisopropyl-N-methyleneaniline and cyclic acid anhydride, Akihito Hashidzume, Yukie Kurokawa, Akira Harada, and Mikiharu Kamachi, *Des. Monomers Polym.*, **7** (4), 361-376 (2004).
- (31) Polymerizability of asymmetric azines bearing bicyclic substituents, Atsuki Tsuchiya, Akihito Hashidzume, Akira Harada, and Mikiharu Kamachi, *Des. Monomers Polym.*, **7** (3), 277-290 (2004).
- (30) Fluorescence Studies of Associative Behavior of Cationic Surfactant Moieties Covalently Linked to Poly(acrylamide) at the Surfactant Head or Tail, Hiromi Morimoto, Akihito Hashidzume, Yotaro Morishima, *Polymer*, **44** (4), 943-952 (2003).
- (29) Coacervation of Hydrophobically Modified Polyanions by Association with Nonionic Surfactants in Water, Akihito Hashidzume, Takeshi Ohara, and Yotaro Morishima, *Langmuir*, **18** (23), 9211-9218 (2002).
- (28) Characterization of Self-Association in Water of Polycations Hydrophobically Modified with Hydrocarbon and Siloxane Chains, Tomoe Nagayama, Akihito Hashidzume, and Yotaro Morishima, *Langmuir*, **18** (18), 6775-6782 (2002).
- (27) Synthesis of Amphiphilic Block Copolymers of 4-Substituted Styrene and Cyclohexene Oxide Utilizing Radical/Cation Transformation Polymerization, Akihito Hashidzume, Motoki Kurokawa, Yotaro Morishima, and Mikiharu Kamachi, *Macromolecules*, **35** (13), 5326-5330 (2002).
- (26) Synthesis and Characterization of Self-Associative Perfluoroalkyl-End-Capped

Polystyrene, Shin-ichi Yusa, Tohei Yamamoto, Akihito Hashidzume, and Yotaro Morishima, *Polym. J. (Tokyo, Jpn.)*, **34** (3), 117-124 (2002).

- (25) Static and Dynamic Fluorescence Quenching Studies of the Binding of Anionic Micelles to Polycation, Akihito Hashidzume, Katsunori Yoshida, Yotaro Morishima, and Paul L. Dubin, *J. Phys. Chem. A*, **106** (10), 2007-2013 (2002).
- (24) Rheological Properties of Transient Networks Formed From Copolymers of Sodium Acrylate and Methacrylates Substituted with Amphiphiles: A Comparison with Sodium 2-(Acrylamido)-2-methylpropanesulfonate Copolymers, Tetsuya Noda, Akihito Hashidzume, and Yotaro Morishima, *Langmuir*, **17** (19), 5984-5991 (2001).
- (23) Self-Association in Water of Copolymers of Acrylic Acid and *N*-Dodecylmethacrylamide As Studied by Fluorescence, Dynamic Light Scattering, and Rheological Techniques, Yoshiko Sato, Akihito Hashidzume, and Yotaro Morishima, *Macromolecules*, **34** (17), 6121-6130 (2001).
- (22) Side-Chain Micellization in Random Copolymers of Sodium Acrylate and Methacrylates Substituted with Nonionic Surfactant Moieties: A Comparison with Sodium 2-(Acrylamido)-2-methylpropanesulfonate Copolymers, Tetsuya Noda, Akihito Hashidzume, and Yotaro Morishima, *Polymer*, **42** (22), 9243-9252 (2001).
- (21) ドデシル基で修飾したポリスルホン酸ナトリウムの水／メタノール混合溶媒中の自己組織化挙動, 橋爪章仁, 東松逸朗, 森島洋太郎, 高分子論文集, **58** (4), 195-201 (2001).
- (20) Effects of Spacer Length on the Side-Chain Micellization in Random Copolymers of Sodium 2-(Acrylamido)-2-methylpropanesulfonate and Methacrylates Substituted with Ethylene Oxide Based Surfactant Moieties, Tetsuya Noda, Akihito Hashidzume, and Yotaro Morishima, *Macromolecules*, **34** (5), 1308-1317 (2001).
- (19) Self-Association Behavior of Hydrophobically Modified Poly(aspartic acid) in Water Studied by Fluorescence and Dynamic Light Scattering Techniques, Madoka Suwa, Akihito Hashidzume, Yotaro Morishima, Takeshi Nakato, and Masayuki Tomida, *Macromolecules*, **33** (21), 7884-7892 (2000).
- (18) Associative Properties in Water of Copolymers of Sodium 2-(Acrylamido)-2-methylpropanesulfonate and Methacrylamides Substituted with Alkyl Groups of Varying Lengths, Hiroshi Yamamoto, Itsuro Tomatsu, Akihito Hashidzume, and Yotaro Morishima, *Macromolecules*, **33** (21), 7852-7861 (2000).

- (17) Micellization Protocols for Amphiphilic Polyelectrolytes in Water: How Do the Polymers Undergo Intrapolymer Associations?, Hiroshi Yamamoto, Akihito Hashidzume, and Yotaro Morishima, *Polym. J. (Tokyo, Jpn.)*, **32** (9), 745-752 (2000).
- (16) Self-Association in Water of Copolymers of Sodium 2-(Acrylamido)-2-methylpropanesulfonate and *N*-Oleylmethacrylamide Characterized by Fluorescence Quenching, Hiroshi Yamamoto, Akihito Hashidzume, and Yotaro Morishima, *Polym. J. (Tokyo, Jpn.)*, **32** (9), 737-744 (2000).
- (15) Novel Spontaneous Polymer Formation of Acetaldehyde Azine and Maleic Anhydride via Radical Mechanism, Akihito Hashidzume, Tetsuya Noda, Yotaro Morishima, Atsushi Kajiwara, and Mikiharu Kamachi, *Macromolecules*, **33** (17), 6295-6302 (2000).
- (14) Solution Properties of Micelle Networks Formed by Nonionic Surfactant Moieties Covalently Bound to a Polyelectrolyte: Salt Effects on Rheological Behavior, Tetsuya Noda, Akihito Hashidzume, and Yotaro Morishima, *Langmuir*, **16** (12), 5324-5332 (2000).
- (13) Micelle Formation of Random Copolymers of Sodium 2-(Acrylamido)-2-methylpropanesulfonate and a Nonionic Surfactant Macromonomer in Water As Studied by Fluorescence and Dynamic Light Scattering, Tetsuya Noda, Akihito Hashidzume, and Yotaro Morishima, *Macromolecules*, **33** (10), 3694-3704 (2000).
- (12) Preparation and Polymerization of Benzaldehyde Formaldehyde Azine (1-Phenyl-2,3-diaza-1,3-butadiene), Akihito Hashidzume, Atsuki Tsuchiya, Yotaro Morishima, and Mikiharu Kamachi, *Macromolecules*, **33** (7), 2397-2402 (2000).
- (11) Interpolymer Association of Cholesterol Pendants Linked to a Polyelectrolyte As Studied by Quasielastic Light Scattering and Fluorescence Techniques, Shin-ichi Yusa, Akihito Hashidzume, and Yotaro Morishima, *Langmuir*, **15** (26), 8826-8831 (1999).
- (10) Self-Association of Dodecyl Moieties Covalently Linked to a Polyelectrolyte in a Small Amount, Akihito Hashidzume, Hiroshi Yamamoto, Masanobu Mizusaki, and Yotaro Morishima, *Polym. J. (Tokyo, Jpn.)*, **31** (11-2), 1009-1014 (1999).
- (9) Interaction of Unimolecular Micelles of Hydrophobically-Modified Polyelectrolytes with Nonionic/Ionic Mixed Surfactant Micelles, Akihito Hashidzume, Masanobu Mizusaki, Kenjiro Yoda, and Yotaro Morishima, *Langmuir*, **15** (12), 4276-4282 (1999).

- (8) Radical Homo- and Copolymerization of (2Z)-4-{1-(5-Methyl-2-pyrazolinyl)}-4-oxo-2-butenoic Acid, an Acyclic Z-1,2-Disubstituted Vinyl Compound, Akihito Hashidzume, Tetsuya Noda, Atsushi Kajiwara, Yotaro Morishima, and Mikiharu Kamachi, *Macromolecules*, **31** (19), 6712-6714 (1998).
- (7) Radical Polymerization of 5-(4'-Acrylamidophenyl)-10,15,20-triphenylporphine and 5-(4'-Methacrylamidophenyl)-10,15,20-triphenylporphine, Kaoru Aramata, Atsushi Kajiwara, Akihito Hashidzume, Yotaro Morishima, and Mikiharu Kamachi, *Polym. J. (Tokyo, Jpn.)*, **30** (9), 702-707 (1998).
- (6) Polymerization of Azastyrene Derivatives, 3. Preparation and Polymerization of N-Methyleneaniline, Akihito Hashidzume, Atsushi Kajiwara, Akira Harada, and Mikiharu Kamachi, *Macromolecules*, **31** (2), 535-537 (1998).
- (5) ジアザブタジエン誘導体の重合一高分子構造に対する置換基効果, 橋爪章仁, 梶原 篤, 藤井弘文, 原田 明, 蒲池幹治, *高分子論文集*, **54** (10), 738-745 (1997).
- (4) Polymerization of an Azastyrene Derivative, 2. Copolymerization of 2,6-Diisopropyl-N-methylenaniline with Maleic Anhydride, Akihito Hashidzume, Atsushi Kajiwara, Akira Harada, and Mikiharu Kamachi, *Macromolecules*, **30** (14), 4232-4234 (1997).
- (3) Polymerization of an azastyrene derivative, 1. 1,6-Addition polymerization of 2,6-diisopropyl-N-methylenaniline, Akihito Hashidzume, Atsushi Kajiwara, Akira Harada, and Mikiharu Kamachi, *Macromol. Rapid Commun.*, **17** (8), 529-537 (1996).
- (2) Preparation and Chemical Reactions of Trifluoroacetaldehyde Azine (1,1,1,6,6,6-Hexafluoro-3,4-diaza-2,4-hexadiene), Akihito Hashidzume, Atsushi Kajiwara, Akira Harada, Mikiharu Kamachi, and Masami Kusunoki, *Bull. Chem. Soc. Jpn.*, **68** (7), 2025-2031 (1995).
- (1) Polymerization of Trifluoroacetaldehyde Azine (1,1,1,6,6,6-Hexafluoro-3,4-diaza-2,4-hexadiene), Akihito Hashidzume, Atsushi Kajiwara, Akira Harada, and Mikiharu Kamachi, *Macromolecules*, **28** (2), 417-420 (1995).

Reviews

- (21) The Second Wave of Formose Research, Akihito Hashidzume, *BBA Adv.*, **7**, 100141 (2025).

- (20) Supramolecular Polymers and Materials Formed by Host-Guest Interactions, Akira Harada, Yoshinori Takashima, Akihito Hashidzume, and Hiroyasu Yamaguchi, *Bull. Chem. Soc. Jpn.*, **94** (10), 2381-2389 (2021).
- (19) Cyclodextrin-Based Rotaxanes: From Rotaxanes to Polyrotaxanes and Further to Functional Materials, Akihito Hashidzume, Hiroyasu Yamaguchi, and Akira Harada, *Eur. J. Org. Chem.*, **2019** (21), 3344-3357 (2019).
- (18) 解説：運動と化学反応が連動する分子マシン — 生体分子モーターに匹敵する高効率の人工分子マシンへ期待, 橋爪章仁, 原田 明, *化学*, **74** (1), 19-23 (2019).
- (17) 高分子材料の自己修復研究の現状, ホスト-ゲスト相互作用を用いた自己修復材料の開発, 原田 明, 高島義徳, 橋爪章仁, 山口浩靖, *色材協会誌*, **89** (4), 122-128 (2016).
- (16) 接着剤を用いず高分子材料を直接結合する新しい方法, 高島義徳, 橋爪章仁, 山口浩靖, 原田 明, *日本接着学会誌*, **51** (11), 472-478 (2015).
- (15) ソフトマテリアル界面における共有結合形成を利用した接着, 関根智子, 高島義徳, 橋爪章仁, 山口浩靖, 原田 明, *高分子論文集*, **72** (10), 590-596 (2015).
- (14) 高分子側鎖におけるホスト-ゲスト相互作用を利用した酸化還元応答性超分子材料の創製, 中畑雅樹, 高島義徳, 橋爪章仁, 山口浩靖, 原田 明, *高分子論文集*, **72** (10), 573-581 (2015).
- (13) シクロデキストリンによる高分子側鎖の認識とその機能化, 橋爪章仁, *超分子研究会アニュアルレビュー*, **34**, 2-3 (2014).
- (12) Synthesis and Polymerizability of C=N Monomers, Henry K. Hall, Jr., Anne Buyle Padias, Akihito Hashidzume, and Mikiharu Kamachi, *J. Polym. Sci., Part A.: Polym. Chem.*, **50** (17), 3467-3474 (2012).
- (11) 分子認識を“この目で”見る—巨視的世界で実現した超分子のホスト-ゲスト相互作用—, 原田 明, 山口浩靖, 高島義徳, 橋爪章仁, *化学*, **67** (6), 26-30 (2012).
- (10) 自己組織化超分子ポリマーの機能化—分子認識に基づく特異的なゲル集積—, 山口浩靖, 橋爪章仁, 高島義徳, 原田 明, *化学工業*, **63** (2), 96-104 (2012).
- (9) Recognition of Polymer Side Chains by Cyclodextrins, Akihito Hashidzume and Akira Harada, *Polym. Chem.*, **2** (10), 2146-2154 (2011).

- (8) 両親媒性ランダム共重合体の水溶液中のミセル構造, 佐藤尚弘, 富永幸雄, 水瀬麻里, 橋爪章仁, 森島洋太郎, *表面*, **48** (1), 11-20 (2010).
- (7) Supramolecular Polymers Based on Cyclodextrins and Their Derivatives, Akira Harada and Akihito Hashidzume, *Aust. J. Chem.*, **63** (4), 599-610 (2010).
- (6) 超分子ポリマー, 橋爪章仁, 原田 明, ネットワークポリマー, **30** (5), 273-282 (2009).
- (5) Polymeric Rotaxanes, Akira Harada, Akihito Hashidzume, Hiroyasu Yamaguchi, and Yoshinori Takashima, *Chem. Rev. (Washington, DC, U. S.)*, **109** (11), 5974-6023 (2009).
- (4) 水溶液中における両親媒性高分子, 橋爪章仁, 佐藤尚弘, *高分子*, **58** (3), 146-150 (2009).
- (3) Interaction of cyclodextrins with side chains of water soluble polymers: a simple model for biological molecular recognition and its utilization for stimuli-responsive systems, Akihito Hashidzume, Itsuro Tomatsu, and Akira Harada, *Polymer*, **47** (17), 6011-6027 (2006). **(Cover picture)**
- (2) Cyclodextrin-Based Supramolecular Polymers, Akira Harada, Akihito Hashidzume, and Yoshinori Takashima, *Adv. Polym. Sci.*, **201**, 1-43 (2006).
- (1) 両親媒性高分子電解質の自己組織化と機能, 橋爪章仁, 森島洋太郎, *高分子*, **51** (4), 232-235 (2002).

Book Chapters

- (26) マイクロ波照射によるホルムアルデヒドからの選択的糖合成, 橋爪章仁, マイクロ波化学の工業応用 事例集, 技術情報協会, 東京, 4章, 第4節, 印刷中.
- (25) Cyclodextrin-based Chemo- and pH-Responsive Polymer Systems for Pharmaceutical and Biomedical Applications, Akihito Hashidzume, Yuri Kamon, and Akira Harada, In *Chemoresponsive Materials: Stimulation by Chemical Biological Signals*, 2nd ed., Hans-Jorg Schneider, Ed., RSC Smart Materials, Royal Society of Chemistry, Cambridge, UK, P. 298-342 (2022).
- (24) 両親媒性高分子の相挙動, 橋爪章仁, 化学便覧 基礎編 改訂6版, 日本化学会編, 丸善, 東京, 8.8.2, P.35-37 (2021).

- (23) Mechanical Polymeric Materials Based on Cyclodextrins as Artificial Muscles, Akira Harada, Yoshinori Takashima, Akihito Hashidzume, and Hiroyasu Yamaguchi, in *Mechanically Responsive Materials for Soft Robotics*, Hideko Koshima, Ed., Wiley-VCH, Weinheim, Germany, P.179-208 (2020).
- (22) Multivalency in Cyclodextrin/Polymer Systems, Akihito Hashidzume and Akira Harada, in *Multivalency: Concepts, Research and Applications*, Jurriaan Huskens, Leonard J. Prins, Rainer Haag, and Bart Jan Ravoo, Eds., Wiley, Oxford, P.123-142 (2018).
- (21) ロタキサンおよび擬ロタキサンにおける環状成分の並進運動に基づく分子マシン, 橋爪章仁, 分子マシンの科学:分子の動きとその機能を見る, 日本化学会編, CSJ Current Review, Vol. 26, 化学同人, 京都, P.116-125 (2017).
- (20) Cyclodextrin, Akihito Hashidzume, Yoshinori Takashima, Hiroyasu Yamaguchi, and Akira Harada, in *Comprehensive Supramolecular Chemistry II*, Jerry L. Atwood, Ed., Elsevier, Oxford, Vol. 1, P.269–316 (2017).
- (19) シクロデキストリンと水溶性高分子の複合材料開発, 橋爪章仁, 原田 明, 水溶性高分子の最新動向, 野田公彦監修, シーエムシー出版, 東京, 第3章 12 (2015).
- (18) Macromolecular Recognition: Recognition of Polymer Side Chains by Cyclodextrin, Akihito Hashidzume and Akira Harada, in *International Conference of Computational Methods in Sciences and Engineering 2015 (ICCMSE 2015)*, Theodore E. Simos, Zacharoula Kalogiratou, and Theodore Monovasilis, Eds., AIP Conference Series 1702, AIP Publishing, Woodbury, NY, 090016 (2015).
- (17) Cyclodextrin-based Chemo- and pH-Responsive Polymer Systems for Pharmaceutical and Biomedical Applications, Akira Harada and Akihito Hashidzume, in *Chemoresponsive Materials: Stimulation by Chemical Biological Signals*, Hans-Jorg Schneider, Ed., RSC Smart Materials No. 14, Royal Society of Chemistry, Cambridge, UK, P. 167-207 (2015).
- (16) Poly(1,1-dichloroethylene), Akihito Hashidzume, in *Encyclopedia of Polymeric Nanomaterials*, Shiro Kobayashi and Klaus Müllen, Eds., Springer, Berlin Heidelberg, Germany, 382251 (4 pages) (2014).
- (15) エネルギー変換超分子材料, 橋爪章仁, 超分子材料の設計と応用展開, 原田 明監修, シーエムシー出版, 東京, P. 197-206 (2014).

- (14) Cyclodextrin-Based Molecular Machines, Akihito Hashidzume, Hiroyasu Yamaguchi, and Akira Harada, in *Molecular Machines and Motors*, Alberto Credi, Serena Silvi, and Margherita Venturi, Eds., Topics in Current Chemistry 354, Springer, Berlin, Germany, P. 71-110 (2014).
- (13) Stimuli-responsive Systems, Akihito Hashidzume and Akira Harada, In *Encyclopedia of Polymeric Nanomaterials*, Shiro Kobayashi and Klaus Müllen, Eds., Springer, Berlin Heidelberg, Germany, 363665 (5 pages) (2014).
- (12) Micelles and Vesicles, Akihito Hashidzume and Akira Harada, in *Encyclopedia of Polymeric Nanomaterials*, Shiro Kobayashi and Klaus Müllen, Eds., Springer, Berlin Heidelberg, Germany, 363673 (4 pages) (2014).
- (11) Polyrotaxanes, Akira Harada, Akihito Hashidzume, Hiroyasu Yamaguchi, and Yoshinori Takashima, in *Polymeric Materials*, Encyclopedia of Polymer Science and Technology, Wiley & Sons, Weinheim, Germany, P. 1-31 (2012).
- (10) Stimuli-Responsive Systems, Akihito Hashidzume and Akira Harada, in *Supramolecular Polymer Chemistry. Bridging Worlds*, Akira Harada, Ed., Wiley & Sons, Weinheim, Germany, Chapter 11, P. 231-267 (2012).
- (9) A15 接着剤の種類と特徴, 橋爪章仁, 物理化学実験法, 第5版, 千原秀昭, 須徳道夫, 中澤康浩編, 東京化学同人, 東京, P. 334-335 (2011).
- (8) 23 表面圧, 橋爪章仁, 物理化学実験法, 第5版, 千原秀昭, 須徳道夫, 中澤康浩編, 東京化学同人, 東京, P. 161-167 (2011).
- (7) 重合機構変換によるブロック共重合体の合成, 橋爪章仁, 蒲池幹治, ラジカル重合ハンドブック, 新訂版, 蒲池幹治, 遠藤 剛, 岡本佳男, 福田 猛監修, NTS, 東京, P. 263-285 (2010).
- (6) Polymers Involving Cyclodextrin Moieties, Akira Harada, Akihito Hashidzume, and Masahiko Miyauchi, in *Cyclodextrins and Their Complexes: Chemistry, Analytical Methods, Applications*, Helena Dodziuk, Ed., Wiley & Sons, New York, P. 65-92 (2006).
- (5) Self-Organization Behavior of Poly(methacrylamides) Bearing Amino Acid Residues, Akihito Hashidzume and Akira Harada, in *Structure and Dynamics in Macromolecular Systems with Specific Interactions. Proceedings of OUMS '04*, Keiichiro Adachi and Takahiro Sato, Eds., Osaka University Press, Suita, Osaka, Japan, P. 69-79 (2005).

- (4) Transient Network of Random Copolymers of Sodium 2-(Acrylamido)-2-methylpropanesulfonate and Associative Macromonomers, Yotaro Morishima, Tetsuya Noda, and Akihito Hashidzume, In *Polymer Gels: Fundamentals and Applications*, H. B. Bohidar, Paul Dubin, and Yoshihito Osada, Eds., ACS Symposium Series 833, American Chemical Society, Washington, DC, Chapter 2, P. 12-36 (2002).
- (3) Amphiphilic Polyelectrolytes, Akihito Hashidzume, Yotaro Morishima, and Krzysztof Szcubialka, in *Handbook of Polyelectrolytes and Their Applications*, S. K. Tripathy, J. Kumar, and H. S. Nalwa, Eds., American Scientific Publishers, New York, Vol. 2, Chapter 1, P. 1-63 (2002).
- (2) Stimuli-Responsive Associative Behavior of Polyelectrolyte-Bound Nonionic Surfactant Moieties in Aqueous Media, Akihito Hashidzume, Tetsuya Noda, and Yotaro Morishima, in *Stimuli-Responsive Water Soluble and Amphiphilic Polymers*, C. L. McCormick, Ed., ACS Symposium Series 780, American Chemical Society, Washington, DC, Chapter 2, P.14-37 (2001).
- (1) Single-Molecular Assemblies of Hydrophobically-Modified Polyelectrolytes and Their Functionalization, Yotaro Morishima and Akihito Hashidzume, in *Specialty Monomers and Polymers. Synthesis, Properties, and Applications*, K. O. Havelka and C. L. McCormick, Eds., ACS Symposium Series 755, American Chemical Society, Washington, DC, Chapter 7, P.76-106 (2000).