

Personal Details (個人情報)

Name (氏名) Surname First Name Last Updated (更新日)
 : AJIRO (網代) Hiroharu (広治) 12th April, 2024

Nationality (国籍) : Japan (日本国)

Gender (性別) : Male (男性)

Date of birth (生年月日) : June 9th 1975

Age (年齢) : 48

Mailing address (住所) : Takayama-cho 8916-5, Ikoma, Nara 630-0192, Japan
 (〒630-0192 奈良県生駒市高山町 8916-5)

Tel. (電話) / Email (メール) : +81-(0)743-72-5508 / ajiro@ms.naist.jp

Current position (現職) : Professor (教授)
 Graduate School of Science and Technology, Division of Materials Science, Nara
 Institute of Science and Technology (NAIST)
 奈良先端科学技術大学院大学 先端科学技術研究科 物質創成科学領域



Committee in NAIST after 2019
 (主な学内委員)

2022.4~2024.3. : NAIST-ARIM, Member

2023.4~present : 奈良県立医科大学連携活性推進室 委員

Concurrent (兼任) after 2019

2020.4~present : Data Science Center, NAIST (データ駆動型サイエンス創造センター)

2023.4~2024.3. : Center for Materials Research Platform, NAIST (マテリアル研究プラットフォームセン
 ター)

2024.4~present Medilux Research Center, NAIST. Director of Research and Promotion. (メディル
 クス研究センター, 研究推進部門長)

Academic activity (学会活動)

2018.4~present : The Society of Polymer Science, Japan: Research Group on Precisely Designed
 Network Polymer, acting committee (高分子学会, 精密ネットワークポリマー研
 究会, 運営委員)

2022.4~2024.3. : The Society of Polymer Science, Japan: Research Group on Precisely Designed
 Network Polymer, Chairman (高分子学会, 精密ネットワークポリマー研究会, 運
 営委員長)

2022.6~present : The Society of Polymer Science, Japan: Kansai Regional Chapter, 2022.6.~ Board
 members (高分子学会関西支部, 常任幹事)

2023.3~present : The Chemical Society of Japan, Polymer division 2023.3~ Board members (日本化
 学会高分子ディビジョン, 幹事)

2023.5~present : The Society of Polymer Science, Japan, delegate (高分子学会, 代議員)

2023.7~present : NEXT Kobunshi [Kansai] (NEXT 高分子[関西] 企画委員長)

Educational Background (学歴)

1. Postgraduate education (大学院博士課程)

Year (年月日)	: March 25 th , 2004 (平成 16 年 3 月 25 日)
University, Department (大学院、専攻)	: Graduate School of Engineering, Nagoya University (名古屋大学大学院 工学研究科 応用科学専攻)
Research title (研究題目)	: Synthesis and Stereochemistry of Novel Polystyrene Derivatives with Controlled Structure (構造制御された新規ポリスチレン誘導体の合成と立体化学)
Supervisor (指導教官)	: Prof. Yoshio Okamoto (岡本佳男 教授)
Doctor's degree (学位)	: Doctor of Engineering, Ph.D. 博士 (工学)

2. Postgraduate education (大学院修士課程)

Year (年月日)	: March 26 th , 2001 (平成 13 年 3 月 26 日)
University, Department (大学院、専攻)	: Graduate School of Engineering, Nagoya University (名古屋大学大学院 工学研究科 応用科学専攻)
Research title (研究題目)	: Stereo control of polystyrene derivatives bearing aminomethyl groups at ortho position by anionic polymerization (オルト置換アミノメチルスチレン誘導体のアニオン重合における立体構造制御)
Supervisor (指導教官)	: Prof. Yoshio Okamoto (岡本佳男 教授)
Master's degree	: Master of Engineering 修士(工学)

3. Undergraduate education (学部)

Year (年月日)	: March 25 th , 1999 (平成 11 年 3 月 25 日)
University, Department (大学、学部)	: Nagoya University (名古屋大学 工学部 応用化学および物質化学研究科)
Undergraduate degree (学位)	: Bachelor of Engineering 学士 (工学)
Major courses (専攻)	: Applied Chemistry (応用化学科)

Work experience (職歴)

2019. 4 ~ Date	Nara Institute of Science and Technology, Graduate School of Science and Technology, Division of Materials Science (奈良先端科学技術大学院大学 先端科学技術研究科 物質創成科学領域)	Professor (教授)
2015. 1. ~ 2019.3	Nara Institute of Science and Technology, Institute for Research Initiatives [Concurrently: Graduate School of Materials Science] (奈良先端科学技術大学院大学 研究推進機構 [兼 物質創成科学研究科])	Associate Professor (特任准教授)
2014.10. ~ 2018.3.	JST PRESTO (科学技術振興機構 戦略的創造研究推進事業)	JST PRESTO Researcher (さきがけ研究者「分子技術と新機能創出」)
2011.4. ~ 2014.12.	Osaka University, The Center for Advanced Engineering and Informatics [Concurrently: Graduate School of Engineering] (大阪大学 臨床医工学融合研究教育センター [兼: 工学研究科])	Specially Appointed Associate Professor (特任准教授)
2006.4. ~ 2011. 3.	Osaka University, The Center for Advanced Engineering and Informatics [Concurrently: Graduate School of Engineering] (大阪大学 臨床医工学融合研究教育センター [兼: 工学研究科])	Specially Appointed Lecturer (特任講師)
2005.4. ~ 2006. 3.	Cornell University, USA (アメリカ合衆国 コーネル大学)	Postdoctoral Associate [Cornell Univ.] (博士研究員 [コーネル大学])
2004.4. ~ 2005. 3.	Japan Society for the Promotion of Science (日本学術振興会)	JSPS Research Fellow PD [Cornell Univ.] (特別研究員 PD [コーネル大学])
2003.4. ~ 2004. 3.	Japan Society for the Promotion of Science (日本学術振興会)	JSPS Research Fellow DC2 [Nagoya Univ.] (特別研究員 DC2 [名古屋大学])

Academic Society Members (所属学会など)

The Society of Polymer Science, Japan (SPSJ, 高分子学会), The Chemical Society of Japan (CSJ, 日本化学会), Japanese Society for Biomaterials (日本バイオマテリアル学会), The Kinki Chemical Society, Japan (近畿化学協会), The Society of Pure & Applied Coordination Chemistry (先端錯体工学研究会), Research Group on Precisely Designed Network Polymer, member of acting committee (精密ネットワークポリマー研究会). 14th Japanese-German Frontiers of Science Symposium (第14回 日独先端科学シンポジウム)

Visiting Lecturer etc. (外部審査、客員教員、非常勤講師など)

2022.4.1~現在	Concurrent Lecturer at Faculty of Engineering, Nara Women's University, Japan (奈良女子大学工学部工学科 兼任講師)
2024.5.10.	Visiting Lecturer at Graduate School of Engineering, Nagoya University, Japan (名古屋大学 非常勤講師)
2022.9.13~9.14.	Visiting Lecturer at Graduate School of Engineering, College of Engineering, Osaka Metropolitan University, Japan (大阪公立大学 非常勤講師)
2023.12.~2024.3.	Visiting Lecturer at Faculty of Materials Engineering, Kasetsart University, Thailand (タイ国カセサート大学 Materials Engineering, 客員講師, online)
2023.2.2~2.14	Visiting Lecturer at Faculty of Materials Engineering, Kasetsart University, Thailand (タイ国カセサート大学 Materials Engineering, 客員講師, online)
2022.2.21~3.23	Visiting Lecturer at Faculty of Materials Engineering, Kasetsart University, Thailand (タイ国カセサート大学 Materials Engineering, 客員講師, online)
2022.1.31.	An external PhD thesis Chairperson for Mr. Junta Sano, at Department of Applied Chemistry, Graduate School of Engineering, Chubu University, Japan (中部大学大学院工学研究科応用科学専攻 佐野潤太 氏, 博士学位 外部審査員, 2022年1月31日)
2020.12.8~12.18	Visiting Lecturer at Faculty of Materials Engineering, Kasetsart University, Thailand (タイ国カセサート大学 Materials Engineering, 客員講師, online)
2020.3.27~28.	An external Master thesis Chairperson for Ms. Natjaya Ekapakul at Kasetsart University, Department of Materials Science, Faculty of Science, Thailand (タイ国カセサート大学 Ms. Natjaya Ekapakul, 修士学位 外部審査員, 2020年3月27日-28日)
2019.11.18~11.21	Visiting Lecturer at Faculty of Materials Engineering, Kasetsart University, Thailand (タイ国カセサート大学 Materials Engineering, 客員講師)
2018.11.29~12.4	Visiting Lecturer at Faculty of Materials Engineering, Kasetsart University, Thailand (タイ国カセサート大学 Materials Engineering, 客員講師)
2018.9.20~22.	Visiting Lecturer at Faculty of Science, Kochi University (高知大学 理学部理学・応用理学および総合人間自然科学研究科 非常勤講師)
2018.5.9.	An external PhD thesis Chairperson for Ms. Visuta Engkagul at Chulalongkorn University, The petroleum and Petrochemical College, Thailand (タイ国チュラロンコン大学 Dr. Visuta Engkagul 博士学位 外部審査員, 2018年5月9日)

Awards (受賞)

2013, July	Young Scientist Lecture Award; The Society of Polymer Science, Japan and Kansai Region Branch (2013) (第59回高分子研究発表会[神戸] ヤングサイエンティスト講演賞 [高分子学会・高分子学会関西支部])
2010, May	Award for Encouragement of Research in Polymer Science; The Society of Polymer Science, Japan (2010) (平成21年度 高分子研究奨励賞 [高分子学会])
2010, April	CSJ Presentation Award 2010 (日本化学会第90春季年会 優秀講演賞(学術) [日本化学会])
2000, May	Poster Award; The 48 th Annual Conference on Mass Spectrometry; The Mass Spectrometry Society of Japan (第48回質量分析総合討論会 ポスター賞 [日本質量分析学会])

Grant (研究助成: 研究代表者として)

2024.4~2028.3	Grant in Aid for Scientific Research (B) (General)	科研 基盤研究(B)	大きな双極子モーメントを持つ分解性高分子と多糖類による複合材料
2024.4~2025.6	The Descente and Ishimoto Memorial Foundation for the Promotion of Sports Science	公益財団法人 石本記念デサントスポーツ科学振興財団	衝撃吸収材を目指したキトサン誘導体による新規高分子材料創製
2024.4~2025.3	The Iwatani Naoji Foundation	公益財団法人 岩谷直治記念財団	ガスハイドレート生成防止剤のために構造制御された N-ビニルアミド共重合体の創製

2024.4~2025.3	The Eno Science Foundation	公益財団法人 江野科学振興財団	トリメチレンカーボネートによる分解性ゴムの多様化
2024.4~2025.3	Koyanagi Foundation	公益財団法人 小柳財団	運動器疼痛に適したジバニリンによる新規分解性粒子の調製
2023.12~2024.11	Suzuken Memorial Foundation	公益財団法人 鈴木謙三記念医学応用研究財団	組成制御されたポリトリメチレンカーボネート誘導体薄膜による薬物徐放制御
2023.11~2025.10	Steel Foundation for Environmental Protection Technology	公益財団法人 鉄鋼環境基金	工場排熱エネルギーを高効率で輸送する蓄熱材粒子の創製
2023.10~2024.9	Foundation of Institute for Chemical Fibers, Japan	公益財団法人 日本化学繊維研究所	バイオマス活用を目指した両末端ポリフェノール結合型ポリ乳酸共重合体の創製
2024.3~2025.5	Foundation for Promotion of Material Science and Technology of Japan (MST)	一般財団法人 材料科学技術振興財団	N-ビニルアミドとイソプレンの共重合体を用いた天然ゴム粒子の表面修飾
2023.6~2024.6	The Murata Science Foundation	公益財団法人 村田学術振興財団 第39回(2023年度)研究助成	新しい圧電素子を目指した高い双極子を持つポリトリメチレンカーボネート誘導体の創製
2023.1~2025.3.	Toshiaki Ogasawara Memorial Foundation, General Research Grant	公益財団法人 小笠原敏晶記念財団 一般研究助成	可逆的化学結合を持つビトリマーにおける立体規則性の効果と高分子材料特性
2022.4~2024.3.	Grant in Aid for scientific Research on Innovative Areas (Research in a Proposed Research Area)(Publicly Offered Research)	科研 新学術(公募)	N-ビニルアミドに特徴的な水和挙動解析と化学結合型表面修飾による新規ゲル材料創出
2022.4~2024.3.	JSPS Bilateral Joint Research Projects (Vietnam-Japan)	JSPS 二国間交流事業(共同研究) ベトナム - 日本	「セルロースと天然ゴムを使用する架構構造を利用した新しい高分子材料創成」(研究代表者: 網代広治、ベトナム国側代表者: Nguyen Ha Thu(ベトナム国ハノイ工科大))
2022.4~2023.3	Collaborative research with Nara Medical University	令和4年度 公立大学法人奈良県立医科大学との共同研究助成	慢性運動器疼痛に対するカテーテル治療における新規高分子微粒子の開発
2022. 4 ~2024. 3	The Mazda Foundation	公益財団法人 マツダ財団	柔らかい疎なグラフト鎖を有する合成高分子と多糖類とのブレンドによる高分子特性制御
2021.12 ~2022.11	CASIO SCIENCE PROMOTION FOUNDATION	公益財団法人 カシオ科学振興財団	フォトクロミックエレクトロニクスを利用した新しいエステルフリー型分解性高分子材料の分解制御
2021.6 ~ 2024.3.	NEDO Feasibility Study Program	「NEDO 先導研究プログラム/新技術先導研究プログラム」のうち「マテリアル革新技術先導研究プログラム」、研究開発テーマ名:「データ駆動科学によるスマートスケラブルケミストリーの確立」	「データを活用した革新的マテリアル製造プロセスインフォマティクス技術の開発」 研究代表者: 藤井幹也(奈良先端大)、研究分担者: 網代広治(奈良先端大)、松原崇充(奈良先端大)、宮尾知幸(奈良先端大)、畑中美穂(慶応義塾大学)、大西裕也(JSR 株式会社)、菅原哲徳(JSR 株式会社)
2021.6 ~ 2023.3.	Next Generation Interdisciplinary Research Project	奈良先端科学技術大学院大学 次世代融合領域推進プロジェクト	土壌に用いる機能性生分解性高分子による循環型材料の開発
2020.4 ~2024.3	Grant in Aid for Scientific Research (B) (General)	科研 基盤研究(B)	汎用五大高分子の代替となるエステルフリー型生分解性高分子の設計と合成
2020.4 ~2022.3	Grant in Aid for scientific Research on Innovative Areas (Research in a Proposed Research Area)(Publicly Offered Research)	科研 新学術(公募)	過酷な環境に調和する N-ビニルアミドを用いた高強度保水材の開発
2020.4 ~2022.3	TEPCO Memorial Foundation	公益財団法人 東電記念財団	交互積層薄膜とマンニトール微粒子による高効率蓄熱材料の創製
2020.4 ~2022.3	Research Foundation for the Electrotechnology of Chubu	公益財団法人 中部電気利用基礎研究振興財団	N-ビニルアミド系高分子の最適化による革新的ガスハイドレード生成防止剤

2020.4 ~ 2022.3	AMED	AMED 橋渡し研究戦略的推進プログラム 大阪大学 異分野融合型研究シーズ支援 研究費	分解しても中性を保つ新しい生体吸収性ステントを目指した生分解性高分子材料設計
2019.11~2020.11	JST A-STEP	JST A-STEP 機能検証フェーズ:試験研究 タイプ	うがいによって薬物送達できる高分子材料の創製
2019.10~2023.3	JSPS Fund for the Promotion of Joint International Research (Fostering Joint International Research (B))	JSPS 国際共同研究加速基金(国際共同 研究強化 (B))	動脈若返りのために複数薬剤徐放と分解をタイムプログ ラムした高分子材料創製(日本側研究代表者:網代広 治、フランス国側代表者 Prof. Blanca Martin-Vaca、Dr.
2018.4~2022.3	JSPS Bilateral Joint Research Projects (Thailand-Japan)	JSPS 二国間交流事業(共同研究) タイ- 日本	「皮膚の創傷治療を目指したキトサンと生体吸収性合成 高分子の複合体(日本側研究代表者: 網代広治、タイ国 側代表者: Dr. Chantiga Choochottiros, Kasetsart
2018.4 ~ 2020.3	The Asahi Glass Foundation	公益財団法人 旭硝子財団	生体材料応用を目指したセンチピード型ポリウレタンの創 製
2017.6 ~ 2020.3.	Next Generation Interdisciplinary Research Project	奈良先端科学技術大学院大学 次世代融 合領域推進プロジェクト	免疫応答と生分解性高分子を融合させた機能性高分子 の設計と合成
2016.4. ~ 2018.3.	Grant-in-Aid for Challenging Exploratory Research	科研 挑戦的萌芽研究	ペプチドの構造異性体に着目した非分解性の安全な抗菌 性高分子材料の創製
2016.4. ~ 2019.3.	TEPCO Memorial Foundation	公益財団法人 東電記念財団	高効率ガスハイドレート防止剤のための高分子合成
2014.10. ~ 2018.3.	JST PRESTO "Molecular Technology"	さきがけ「分子技術と新機能創出」	複機能性高分子による循環器治療バイオマテリアルの創 出
2014.4. ~ 2016.3.	Grant-in-Aid for Challenging Exploratory Research	科研 挑戦的萌芽研究	ステレオコンプレックスに関するファンデルワールス力測 定と界面接合による接着材料
2014.1. ~ 2015.3.	The Ogasawara Foundation for the Promotion of Science & Engineering	公益財団法人 小笠原科学技術振興財団	キトサンとスルホン含有架橋剤による新規スキャホールド の創製
2012.10. ~ 2013.9.	Sekisui-Kagaku Research-Aid Program on 'The Nature-Guided Materials Processing'.	積水化学 自然に学ぶものづくり研究助成	DNA複製メカニズムを模倣したメタクリル酸誘導体の立体 特異性テンプレート重合とその反応機構
2012.4. ~ 2014.3.	Grant-in-Aid for Young Scientists(B)	科研 若手研究 (B)	表面カチオン化ポリ(N-ビニルアミド)ゲルを利用した新規 薬物徐放制御材料の創製
2012.4. ~ 2014.3.	Arai Science and Technology Foundation	公益財団法人 新井科学技術振興財団	N-ビニルアミド誘導体を用いた石油パイプライン用安定剤 の開発
2011.3. ~ 2012.2.	Shorai Foundation for Science and Technology	公益財団法人 松籙科学技術振興財団	残留農薬物を除去できる保水材の開発
2010.4. ~ 2011.3.	Showahokokai	財団法人 昭和報公会	立体規則性を有する両親媒性ブロック共重合体を用いた ナノ構造体の構築
2010.5. ~ 2011.4.	Tokuyama Science Foundation	公益財団法人 徳山科学技術振興財団	高分子間相互作用を利用した立体規則性ポリスチレンに よる新規ナノ反応場創製
2009.10. ~ 2010.9.	Kurita Water and Environment Foundation	公益財団法人 クリタ水・環境科学振興財団	リサイクル可能な有機溶剤回収用機能性ゲルの創製
2009.4. ~ 2010.3.	The Kinki Regional Invention Center.	公益財団法人 近畿地方発明センター	立体規則性ポリビニルアミンの合成
2009.4. ~ 2012.3.	Grant-in-Aid for Young Scientists(B)	科研 若手研究 (B)	交互浸漬法を用いたポリイオンコンプレックス相形成によ るインテリジェントゲルの創製
2007.4. ~ 2009.3.	Grant-in-Aid for Young Scientists(start up)	科研 若手研究 (スタートアップ)	N-ビニルアルキルアミドを成分とする高強度ゲルと経皮吸 収製剤用基剤の開発

Publication List

- (1) Nalinthip Chanthaset*, Nichagarn Greetatorn, Oratai Jongprateep, **Hiroharu Ajiro** *, Kanapol Jutamanee*, "Sustainable Coating Materials: Exploring the Influence of Adjuvants on Kaolinite Suspension with Insights from Five Local Mining Clays", *ACS Omega* accepted on 12th April **2024**.
- (2) Masayasu Totani, **Hiroharu Ajiro**, Jun-ichi Kadokawa, Masao Tanihara, Tsuyoshi Ando*, "Surface zeta potential and protein adsorption properties on the coating surface of heteroarm star polymer with controlled hydrophilic/hydrophobic arm ratio", *Polym. J.* Accepted on 27th February **2024**.
- (3) Hiroaki Yoshida*, Tsurugi Kikukawa, Go Matsuba, **Hiroharu Ajiro***, "Chemically bound hydrophobic modification on hydrogel surface with poly(N-vinylamide)s", *Polymer*, accepted on January 11, **2024**.
- (4) Daisuke Aoki, Hiroaki Yoshida, **Hiroharu Ajiro***, "Comb polyurethanes Consisting of Hard Segment Backbone and Dangling Soft Segments for Tailoring Mechanical Properties of Thermoplastics", *Macromolecules*, accepted on 19th December **2023**.
- (5) Jaeyeong Choi, **Hiroharu Ajiro** *, "Proposal of pseudo-capping effects by polymer-polymer interaction through preparation of stereocomplex pseudo-polyrotaxane with cyclodextrin and PEG-PLA triblock copolymers", *Macromol. Chem. Phys.*

Accepted on 20th November 2023.

- (6) Rikyu Miyake, **Hiroharu Ajiro***, "Investigation of the Mechanical Properties and Degradation of Ester-free Poly(trimethylene carbonate) Derivatives Bearing Various Bulky Aromatic Groups", *Polym. J.* <Special Issue>, accepted on 23rd October 2023.
- (7) Malcolm A. Kelland,* Erik G. Dirdal, Janronel Pomicpic, **Hiroharu Ajiro**, Aniruddha Nag, "Kinetic hydrate inhibitors – the effect of pre- or post-polymerization solvent addition on performance, and a powerful new glycol ether solvent synergist", *Energ. Fuel*, **2023**, 37, 11853-11863.
- (8) Malcolm A. Kelland,* Erik G. Dirdal, Radhakanta Ghosh, **Hiroharu Ajiro**, "Improved gas hydrate kinetic inhibition for 5-methyl-3-vinyl-2-oxazolidinone copolymers and synergists", *ACS Omega*, **2023**, 8, 28859-28865.
- (9) Shohei Shimizu, Hiroaki Yoshida, Koichi Mayumi, **Hiroharu Ajiro**, Yoshimitsu Sagara*, "Mechanochromic luminescence of phase-separated hydrogels that contain cyclophane mechanophores", *Mater. Chem. Front.* **2023**, 7, 4073-4079.
- (10) Shogo Takasuka, Shunto Oikawa, Takayoshi Yoshimura, Sho Ito, Yosuke Harashima, Tomoaki Takayama, Shigehito Asano, Akira Kurosawa, Tetsunori Sugawara, Miho Hatanaka, Tomoyuki Miyao, Takamitsu Matsubara, Yu-ya Ohnishi, **Hiroharu Ajiro**, Mikiya Fujii*, "Extrapolation performance improvement by quantum chemical calculations for machine-learning-based predictions of flow-synthesized binary copolymers", *Digital Discovery*, **2023**, 2, 809-818.
- (11) Araki Wakiuchi, Swarit Jasial, Shigehito Asano, Ryo Hashizume, Miho Hatanaka, Yu-ya Ohnishi, Takamitsu Matsubara, **Hiroharu Ajiro***, Tetsunori Sugawara, Mikiya Fujii, Tomoyuki Miyao,* "Chemometrics Approach based on Wavelet Transform for the Estimation of Monomer Concentrations from FTIR Spectra", *ACS Omega*, **2023**, 8, 19781-19788.
- (12) Araki Wakiuchi, Shogo Takasuka, Shigehito Asano, Ryo Hashizume, Aniruddha Nag, Miho Hatanaka, Tomoyuki Miyao, Yuya Ohnishi, Takamitsu Matsubara, Tsuyoshi Ando, Tetsunori Sugawara, Mikiya Fujii, **Hiroharu Ajiro***, "Composition Regulation by Flow Copolymerization of Methyl Methacrylate and Glycidyl Methacrylate with Free Radical Method", *Macromol. Mater. Eng.* **2023**, 308, 2200626(6).
- (13) Takami Akagi, Tomomi Yamada, Hiromi Miyazaki, Hiroyuki Taguchi, Hidefumi Ikeda, Masakazu Katoh, Simona Mura, Patrick Couvreur, Paninee Chetprayoon, Rawiwan Maniratanachote, Hiroaki Yoshida, **Hiroharu Ajiro**, Koji Hashimoto, Takao Ashikaga, Hajime Kojima, Mitsuru Akashi*, "Validation study for in vitro skin irritation test using reconstructed human skin equivalents constructed by layer-by-layer cell coating technology", *J. Appl. Toxicol.* **2023**, 43, 874-886.
- (14) Nalinthip Chanthaset*, Akari Maehara, **Hiroharu Ajiro***, "Particles and film preparation of ester-free type poly(trimethylene carbonate) derivatives bearing aromatic groups initiated with hydrophilic initiators", *Colloids Surf. A*. **2023**, 667, 131413(8).
- (15) Lee Yae Tan, Nalinthip Chanthaset*, Arif Fadlan, **Hiroharu Ajiro***, "Synthesis of Ester-free Poly(trimethylene carbonate) Bearing Cinnamyl Moiety for Antibacterial Biomaterials Applications", *React. Funct. Polym.* **2023**, 186, 105563(8).
- (16) Nobuo Murase*, Hideharu Kurioka, Chisato Komura, **Hiroharu Ajiro**, Tsuyoshi Ando*, "Synthesis of a novel carboxybetaine copolymer with different spacer lengths and inhibition of nonspecific protein adsorption on its polymer film", *Soft Matter* **2023**, 19, 2330-2338.
- (17) Kamolchanok Sarisuta, Mizuho Iwami, Blanca Martin-Vaca, Nalinthip Chanthaset*, **Hiroharu Ajiro***, "The pH Effect on Particle Aggregation of Vanillin End-capped Polylactides Bearing Hydrophilic Group Connected by Cyclic Acetal Moiety", *Langmuir* **2023**, 39, 3994-4004.
- (18) Tsuyoshi Ando*, Kazuki Yamaguchi, **Hiroharu Ajiro***, "Thermoresponsive star-shaped polymer with heteroarm type with methacrylates prepared by living radical polymerization method", *Polym. Chem.* **2023**, 14, 1027-1035.
- (19) Miguel Palenzuela, Kamolchanok Sarisuta, Marta Navarro, Narumi Kumamoto, Nalinthip Chanthaset, Julien Monot, **Hiroharu Ajiro**, Blanca MARTIN-VACA,* Didier Bourissou*, "5-Methylene-1,3-Dioxane-2-One: A First Choice Comonomer for Trimethylene Carbonate", *Macromolecules* **2023**, 56, 678-689.
- (20) Ryo Kawatani, Taiga Hamawaki, Tomonori Waku, Naoki Tanaka, **Hiroharu Ajiro***, "Evaluation of Biocompatible Films using Copolymers of N-Vinylbenzamide with Cationic Moieties by Hydrolysis of N-Vinylformamide", *Macromol. Chem. Phys.* **2023**, 224, 2200386.
- (21) Izabela Kurowska, Alexis Dupre--Demorsy, Stéphane Balayssac, Marie Hennetier, Audrey Ric, Valérie Bourdon, Tsuyoshi Ando, **Hiroharu Ajiro**, Olivier Coutelier, Mathias Destarac*, "Tailor-made poly(vinylamine) via purple LED-activated RAFT polymerization of N-vinylformamide", *Macromol. Rapid Commun.* **2023**, 44, 2200729 (6), OPEN ACCESS.
- (22) Jaeyeong Choi, **Hiroharu Ajiro***, "Preparation of stereocomplex and pseudo-polyrotaxane with various cyclodextrins as wheel components using triblock copolymer of poly(ethylene glycol) and polylactide", *Soft Matter*, **2022**, 18, 8885-8893.
- (23) Alexis Dupre--Demorsy, Izabela Kurowska, Stéphane Balayssac, Marie Hennetier, Audrey Ric, Valérie Bourdon, Tsuyoshi Ando, **Hiroharu Ajiro**, Olivier Couteliera, Mathias Destarac*, "RAFT polymerisation of N-vinylformamide and corresponding double hydrophilic block copolymers", *Polym. Chem.* **2022**, 13, 6229-6237.
- (24) Malcolm A. Kelland,* Radhakanta Ghosh, Audun Undheim, Erik G. Dirdal, **Hiroharu Ajiro**, "Oxyvinylenelactam polymers - a new class of lactam-based kinetic hydrate inhibitor polymers", *ACS Omega*, **2022**, 7, 35686-35693.
- (25) Natjaya Ekapakul, Chomdao Sinthuvanich, Hiroharu Ajiro, Chantiga Choochottiros*, "Bioactivity of Star-shaped Polycaprolactone/Chitosan Composite Hydrogels for Novel Biomaterials", *Int. J. Biol. Macromol.* **2022**, 212, 420-431.
- (26) Lee Yae Tan, Nalinthip Chanthaset*, **Hiroharu Ajiro***, "Surface Coating and Characteristics of Ester-free Poly(trimethylene carbonate) Bearing an Aromatic Urea Moiety for Biomaterials Use", *Mater. Adv.* **2022**, 3, 5778-5785.
- (27) Daisuke Aoki, Francisco Lossada, Daniel Hoenders, **Hiroharu Ajiro***, Andreas Walther*, "Efficient softening and toughening strategies of cellulose nanofibril nanocomposites using comb polyurethane", *Biomacromolecules* **2022**, 23, 1693-1702.
- (28) Rikyu Miyake, Akari Maehara, Nalinthip Chanthaset, **Hiroharu Ajiro***, "Thermal property control by copolymerization of trimethylene carbonate and its derivative bearing triphenylmethyl group", *ChemistrySelect*, **2022**, 7, e202104326.
- (29) Malcolm Kelland*, Erik Dirdal, Radhakanta Ghosh, **Hiroharu Ajiro**, "5-Methyl-3-vinyl-2-oxazolidinone (VMOX) – investigations of a new monomer for kinetic hydrate inhibitor polymers", *Energ. Fuel*, **2022**, 36, 2609-2615.
- (30) Alexis Dupre--Demorsy, Olivier Coutelier, Mathias Destarac*, Clémence Nadal, Valérie Bourdon, Tsuyoshi Ando,

- Hiroharu Ajiro**, "RAFT Polymerization of *N*-Methyl-*N*-Vinylacetamide and Related Double Hydrophilic Block copolymers", *Macromolecules*, **2022**, *55*, 1127-1138.
- (31) Hiroaki Yoshida*, Hiroya Furumai, **Hiroharu Ajiro***, "Preparation and Characterization of Thermoresponsive Poly(*N*-vinylisobutylamide) Microgels", *Langmuir* **2022**, *38*, 5269-5274.
- (32) Shin Asano, Jaeyeong Choi, Tran Thi Tran, Nalinthip Chanthaset, **Hiroharu Ajiro***, "The influence of chain-end functionalization and stereocomplexation on the degradation stability under alkaline condition", *Polym. Adv. Technol.* **2022**, *33*(3), 991-999.
- (33) Jaeyeong Choi*, **Hiroharu Ajiro***, "Preparation and analyses of stereocomplexes of a polylactide homopolymer and copolymer with poly(ethylene glycol) and urethane capping" *Polym. J.* **2022**, *54*, 151-160.
- (34) Oratai Jongprateep*, Chittlada Mani-lata, Yosita Sakunrak, Krittanant Audcharuk, Tithametha Narapong, Siraprapa Pitiphattharabun, Amornrat Lertworasirikul, Apirat Laobuthee, Naris Thengchaisri, **Hiroharu Ajiro**, Hiroaki Yoshida, Gasidit Panomsuwan*, "Titanium Dioxide and Fluoropolymer-based Coating for Smart Gowns with Antimicrobial and Fluid Repellent Properties", *RSC Adv.* **2022**, *12*, 588-594.
- (35) Jaeyeong Choi, Malcolm A. Kelland, Hiroya Furumai, Yumi Miyaji, Yukako Nakai, Masayuki Fukushima, **Hiroharu Ajiro***, "Preparation of poly(*N*-vinyl caprolactam) with various end groups using chain transfer agents and evaluation of their effects on kinetic hydrate inhibition", *Polym. Bull.* **2022**, *79*, 3513-3522.
- (36) Ikuo Yamamoto*, Shinichi Minami, Tsuyoshi Ando, **Hiroharu Ajiro***, "Radical Copolymerization on Fluoroalkyl α -Chloroacrylate Monomers for Copolymer Composition Control", *Polym. Bull.* **2022**, *79*, 2237-2247.
- (37) Daisuke Aoki, Akihiro Miyake, Wanpen Tachaboonyakiat*, **Hiroharu Ajiro***, "Remarkable Diastereomeric Effect on Thermoresponsive behavior of Polyurethane based on Lysine and Tartrate Ester Derivatives", *RSC Adv.* **2021**, *11*(56), 35607-35613.
- (38) Ryoga Fujiwara, Rikako Sanuki, **Hiroharu Ajiro**, Toshiaki Fukui, Shosuke Yoshida*, "Direct fermentative conversion of poly(ethylene terephthalate) into poly(hydroxyalkanoate) by *Ideonella sakaiensis*", *Sci. Rep.* **2021**, *11*, 19991.
- (39) Hiroaki Nobuoka, Rikyu Miyake, Jaeyeong Choi, Hiroaki Yoshida, Nalinthip Chanthaset, **Hiroharu Ajiro***, "Synthesis of ester free type poly(trimethylene carbonate) derivatives bearing cycloalkyl side groups" *Eur. Polym. J.* **2021**, *160*, 110782.
- (40) Lee Yae Tan, Nalinthip Chanthaset*, Shinsuke Nanto, Ryoichi Soba, Masakazu Nagasawa, Hiroshi Ohno, **Hiroharu Ajiro***, "Synthesis and Preparation of Cross-linked Films with Ester-Free Poly(trimethylene carbonate) Bearing Aromatic Urea Moiety", *Macromolecules* **2021**, *54*(12) 5518-5525.
- (41) Jaeyeong Choi, Toshikazu Takata, **Hiroharu Ajiro***, "Pseudo-polyrotaxane stereocomplex with α -cyclodextrin and block copolymers using poly(ethylene glycol) and polylactide", *Macromolecules* **2021**, *54*(11) 5087-5093.
- (42) Daisuke Aoki, **Hiroharu Ajiro***, "One-shot Preparation of Thermoresponsive Comb Polyurethane Hydrogel for Both High Toughness and Volume Switching", *Macromol. Rapid Commun.* **2021**, *42*(13) 2100128.
- (43) Koichi Irikura, Natjaya Ekapakul, Chantiga Choochottiros, Nalinthip Chanthaset, Hiroaki Yoshida, **Hiroharu Ajiro***, "Fabrication of flexible blend films using a chitosan derivative and poly(trimethylene carbonate)", *Polym. J.* **2021**, *53*(7) 823-833.
- (44) Daisuke Aoki, **Hiroharu Ajiro***, "Clarification of the effects of topological isomer on mechanical strength of comb polyurethane", *Polym. Chem.* **2021**, *12*(10), 1533-1539.
- (45) Steffen Seitz, Masaya Tsujimoto, Nalinthip Chanthaset, Hiroaki Yoshida, **Hiroharu Ajiro***, "Novel approach to recover copper ions using poly(ethylene imine) based layer-by-layer coatings on icosane particles", *J. Appl. Polym. Sci.* **2021**, *138*, 50202.
- (46) Jaeyeong Choi, **Hiroharu Ajiro***, "Preparation of novel branch polymer by lactide polymerization using pseudorotaxane as initiator", *J. Network Polym., Jpn.* **2020**, *41*, 226-236.
- (47) Narumi Kumamoto, Nalinthip Chanthaset, **Hiroharu Ajiro***, "Polylactide stereocomplex bearing vinyl groups at chain ends prepared by allyl alcohol, malic acid, and citric acid", *Polym. Degrad. Stab.* **2020**, *180*, 109311(1-7).
- (48) Hiroaki Nobuoka, Masakazu Nagasawa, Nalinthip Chanthaset, Hiroaki Yoshida, Yoshiaki Haramiishi, **Hiroharu Ajiro***, "Synthesis of amphiphilic block copolymer using trimethylene carbonate bearing oligo(ethylene glycol) and investigation of thin film including cilostazol", *J. Polym. Sci. Part A., Polym. Chem.* **2020**, *58*, 2347-2354.
- (49) Yoshiaki Haramiishi, Ryo Kawatani, Nalinthip Chanthaset, **Hiroharu Ajiro***, "Preparation of Block Copolymer of Poly(trimethylene carbonate) with Oligo(ethylene glycol) and the Surface Properties of the Dip Coated Film", *Polym. Test.* **2020**, *86*, 106484.
- (50) Ryo Kawatani, Malcolm A. Kelland, **Hiroharu Ajiro***, "Design of a Rigid Side Chain for Poly(*N*-vinylamide) Derivatives Bearing an Alkenyl Group and Evaluation of Their Ability to Inhibit Tetrahydrofuran Hydrate Crystal Growth", *J. Appl. Polym. Sci.* **2020**, *137*(38), 49154(1-9).
- (51) Natjaya Ekapakul, Koichi Irikura, **Hiroharu Ajiro**, Chantiga Choochottiros*, "Star-shaped Polycaprolactone/Chitosan Composite Hydrogels: Fabrication and Characterization", *Polym. Int.* **2020**, *69*, 584-591.
- (52) Qian Zhang*, Malcolm A. Kelland*, **Hiroharu Ajiro**, "Polyvinylsulfonamides as Kinetic Hydrate Inhibitors", *Energ Fuel*, **2020**, *34*, 2230-2237.
- (53) Nalinthip Chanthaset, Klaus Beckerle, Jun Okuda, **Hiroharu Ajiro***, "Investigation of Polymerization of 5-[2-(2-methoxyethoxy)ethoxy]-5-methyl-1,3-dioxane-2-one by Organometallic Catalysts", *J. Appl. Polym. Sci.* **2020**, *137*(36), 49073(1-12).
- (54) Nobuo Murase*, Tsuyoshi Ando, **Hiroharu Ajiro***, "Synthesis of Spiropyran-Based Methacrylate at the Benzopyran Moiety and Control of the Water Repellency and Cell Adhesion of its Polymer Film", *J. Mater. Chem. B.* **2020**, *8*, 1489-1495.
- (55) Kenta Yamatani, Ryo Kawatani, **Hiroharu Ajiro***, "Synthesis of Glucosamine Derivative with Double Caffeic Acid Moieties at *N*- and 6-*O*-Positions for Developments of Natural Based Materials", *J. Mol. Struct.* **2020**, *1206*, 127689(1-6).
- (56) Preeyarad Charoensumran, **Hiroharu Ajiro***, "Controlled Release of Testosterone by Polymer-polymer Interaction Enriched Organogel as a Novel Transdermal Drug Delivery System: Effect of Limonene/PG and Carbon-chain Length on Drug Permeability", *React. Funct. Polym.* **2020**, *148*, 104461(1-9).

- (57) Yoshiaki Haramiishi, Ryo Kawatani, Nalinthip Chanthaset, **Hiroharu Ajiro***, "Viscoelastic Evaluation of Poly(trimethylene carbonate)s Bearing Oligoethylene glycol Units Which Shows Thermoresponsive Properties at Body Temperature", *Macromol. Chem. Phys.* **2019**, *220*, 1900019(1-6).
- (58) Hiroaki Nobuoka, **Hiroharu Ajiro***, "Development of Ester Free Type Poly(trimethylene carbonate) Derivatives with Pendant Fluoroaromatic Groups", *Macromol. Chem. Phys.* **2019**, *220*, 1900051(1-5).
- (59) Kai Kan*, Mitsuru Akashi, **Hiroharu Ajiro***, "Dynamic Self-Assembly and Synthesis of Polylactide Bearing 5-Hydroxymethylfurfural Chain Ends", *ACS Applied Polym. Mater.* **2019**, *1*, 267-274.
- (60) Soma Chakraborty*, James Nicolas M. Pagaduan, Zarah Melgar, Steffen Seitz, Kai Kan, **Hiroharu Ajiro***, "Glycerol-Modified Poly(ϵ -caprolactone): A Biocatalytic Approach to Improve The Hydrophilicity of Poly(ϵ -caprolactone)", *Polym. Bull.* **2019**, *76*(4), 1915-1928.
- (61) Hiroaki Nobuoka, **Hiroharu Ajiro***, "Biodegradable and Biocompatible Crosslinked Film with Trimethylene Carbonate Bearing Oligo(ethylene glycol)", *Chem. Lett.*, **2019**, *48*(3), 245-248.
- (62) Nalinthip Chanthaset, **Hiroharu Ajiro***, "Preparation of Thermosensitive Biodegradable Hydrogel Using Poly(5-[2-{2-(2-methoxyethoxy)ethoxy}-ethoxymethyl]-5-methyl-1,3-dioxo-2-one) Derivatives", *Materialia*, **2019**, *5*, 100178.
- (63) Hiroaki Nobuoka, **Hiroharu Ajiro***, "Novel synthesis method of ester free trimethylene carbonate derivatives", *Tetrahedron Lett.*, **2019**, *60*(2), 164-170.
- (64) Steffen Seitz, **Hiroharu Ajiro***, "Self-Assembling Weak Polyelectrolytes for the Layer-by-Layer Encapsulation of Paraffin-Type Phase Change Material Icosane", *Sol. Energy Mater. Sol. Cells* **2019**, *190*, 57-64
- (65) Preeyarad Charoensumran, **Hiroharu Ajiro***, "Cationic Moieties in Polystyrene Gels Swollen with D-limonene Improved Transdermal Delivery System", *Polymers*, **2018**, *10*, 1200.
- (66) Ryo Kawatani, Yuuki Kawata, Shin-ichi Yusa, Malcom A. Kelland, **Hiroharu Ajiro***, "Synthesis of Thermosensitive Poly(N-vinylamide) Derivatives Bearing Oligo Ethylene Glycol Chain for Kinetic Hydrate Inhibitor", *Macromolecules*, **2018**, *51*(19), 7845-7852.
- (67) Preeyarad Charoensumran, **Hiroharu Ajiro***, "The Electrostatic Advantages on Cross-linked Polystyrene Organogels Swollen with Limonene for Selective Adsorbent and Hydrophobic Drug Storage", *Polym. J.* **2018**, *50*, 1021-1028.
- (68) Mohamed Mady, Preeyarad Charoensumran, **Hiroharu Ajiro**, Malcolm A. Kelland*, "Synthesis and Characterization of Modified Aliphatic Polycarbonates as Environmentally-Friendly Oilfield Scale Inhibitors", *Energy & Fuels*, **2018**, *32*, 6746-6755.
- (69) Daisuke Aoki, **Hiroharu Ajiro***, "Thermoresponsive Polyurethane Bearing Oligo(ethylene glycol) as Side Chain Without Polyol at Polymer backbone Achieved Excellent Hydrophilic and Hydrophobic Switching", *Macromol. Rapid Commun.*, **2018**, *39* 1800239.
- (70) Qian Zhang, Ryo Kawatani, **Hiroharu Ajiro**, Malcolm A. Kelland*, "Optimizing the Kinetic Hydrate Inhibition Performance of N-Alkyl-N-vinylamide Copolymers", *Energy & Fuels*, **2018**, *32*, 4925-4931
- (71) Kai Kan, **Hiroharu Ajiro***, "Switchable Thermal Responsive Interpenetrate Polymer Network Gels by Poly(N-vinylacetamide) and Poly(N-vinylisobutyramide)", *Chem. Lett.*, **2018**, *47*(4), 591-593.
- (72) Nalinthip Chanthaset, **Hiroharu Ajiro**, Mitsuru Akashi, Chantiga Choochottiros*, "A Novel Comb-shaped Polymethacrylate-based Copolymers with Immobilized 2,4-Dihydroxybenzaldehyde for Antifungal Activity", *Polym. Bull.*, **2018**, *75*(4), 1349-1363.
- (73) Shinya Fujishiro, Daiki Minamino, Ikuo Obataya, Nobuhiro Saitoh, Yoichiro Hosokawa, **Hiroharu Ajiro***, "Observation of Polylactide Stereocomplex by Atomic Force Microscopy", *Chem. Lett.* **2018**, *47*(1), 82-84.
- (74) Daisuke Aoki, **Hiroharu Ajiro***, "Design of Polyurethane Composed of Only Hard Main Chain with Oligo(ethylene glycol) Units as Side Chain Simultaneously Achieved High Biocompatible and Mechanical Properties", *Macromolecules* **2017**, *50*(17), 6529-6538.
- (75) Nalinthip Chanthaset, Yoshikazu Takahashi, Yoshiaki Haramiishi, Mitsuru Akashi, **Hiroharu Ajiro***, "Control of Thermoresponsivity of Biocompatible Poly(trimethylene carbonate) with Direct Introduction of Oligo(ethylene glycol) under Various Circumstances", *J. Polym. Sci. Part A: Polym. Chem.* **2017**, *55*(20), 3466-3474.
- (76) Seitz Steffen, Mitsuru Akashi, **Hiroharu Ajiro***, "Pentaerythritol Particles Covered by Layer-by-Layer Self Assembled Thin Films with Stereocomplex of isotactic Poly(methyl methacrylate) and syndiotactic Poly(methyl methacrylate)", *Colloid Polym. Sci.*, **2017**, *295*, 1541-1548.
- (77) Ryo Kawatani, Yasuhiro Nishiyama, Hironari Kamikubo, Kiyomi Kakiuchi, **Hiroharu Ajiro*** "Aggregation control by multi-stimuli-responsive poly(N-vinylamide) derivatives in aqueous system" *Nanoscale Res. Lett.*, **2017**, *12*, 461.
- (78) Hayato Matsui*, Yuu Tada, Ryoji Fushimi, Sakiko Fujita, Masahiro Ito, Takashi Kawabe, Eiichi Ozeki*, **Hiroharu Ajiro**, "Novel class of nanofiber hydrogels based on the biodegradable amphiphilic copolymers poly(sarcosine) and poly(L-lactic acid) and prepared using alcohols", *Mater. Today Commun.* **2017**, *11*, 156-162.
- (79) Asuka Kato, Kai Kan, **Hiroharu Ajiro**, Mitsuru Akashi*, "Development of a Rapid in vitro Tissue Deadhesion System Using the Thermoresponsive Sol-gel Transition of Hydroxybutyl Chitosan", *J. Biomater. Sci. Polym. Ed.* **2017**, *28*, 958-973.
- (80) Shinya Fujishiro, Kai Kan, Mitsuru Akashi, **Hiroharu Ajiro***, "Controlled and Selective Adhesion by Stereocomplex Formation of Poly lactides and Hybridization with Nanoparticles", *Polym. Degrad. Stab.* **2017**, *141*, 69-76.
- (81) Hang Thi Tran, **Hiroharu Ajiro***, Yi-Ju Hsiao, Mitsuru Akashi*, "Stereocomplex Formation between Thermally Stable Poly lactides with Both Terminal Conjugation by Inkjet Printing", *Polym. J.* **2017**, *49*(3), 327-334.
- (82) **Hiroharu Ajiro***, Kai Kan, Mitsuru Akashi*, "Thermal Treatment of Poly(N-vinylformamide) Produced Hydrogels without the Use of Chemical Crosslinkers", *J. Nanosci. Nanotechnol.* **2017**, *17*(1), 837-841.
- (83) Kai Kan, Mitsuru Akashi, **Hiroharu Ajiro***, "Polylactides bearing vanillin at chain end provided dual dynamic interactions: stereocomplex formation, and nanostructure control", *Macromol. Chem. Phys.* **2016**, *217*(24), 2679-2685. **[Back Cover]**
- (84) **Hiroharu Ajiro**, Shun Takahama, Masashi Mizukami, Kai Kan, Mitsuru Akashi*, Kazue Kurihara*, "Force Estimation on the Contact of Poly(L,L-lactide) and Poly(D,D-lactide) Surfaces Regarding Stereocomplex Formation", *Langmuir* **2016**,

- 32(37), 9501-9506.
- (85) Kai Kan, Michiya Fujiki*, Mitsuru Akashi*, **Hiroharu Ajiro***, "Near-Ultraviolet Circular Dichroism of Achiral Phenolic Termini Induced by Nonchromophoric Poly(L,L-lactide) and Poly(D,D-lactide)", *ACS Macro Letters* **2016**, *5*, 1014-1018.
- (86) **Hiroharu Ajiro***, Tatsuaki Ueyama, Mitsuru Akashi*, "Preparation of Macroporous Replica Particles Using Stereocomplex of isotactic Poly(methyl methacrylate) and syndiotactic poly(methacrylic acid)", *Colloids Surf. A* **2016**, *506*, 338-343.
- (87) Wanpen Tachaboonyakiat, **Hiroharu Ajiro**, Mitsuru Akashi*, "Controlled DNA Interppolyelectrolyte Complex Formation or Dissociation via Stimuli-Responsive Poly(vinylamine-co-N-vinylisobutylamide)", *J. Appl. Polym. Sci.* **2016**, *133*(35), 43852.
- (88) Yoshiaki Haramiishi, Nalinthip Chanthaset, Kai Kan, Mitsuru Akashi, **Hiroharu Ajiro***, "Contrast Effect on Hydrolysis of Poly(trimethylene carbonate) Depending on Accelerated Species Due To the Hydrophilic Oligo(ethylene glycol) Units at Side Groups" *Polym. Degrad. Stab.* **2016**, *130*, 78-82.
- (89) Ryo Kawatani, Kai Kan, Malcolm A. Kelland, Mitsuru Akashi, **Hiroharu Ajiro***, "Remarkable Effect on Thermosensitive Behavior Regarding Alkylation at the Amide Position of Poly(N-vinylamide)s", *Chem. Lett.* **2016**, *45*(6), 589-591.
- (90) **Hiroharu Ajiro***, Shogo Ito, Kai Kan, Mitsuru Akashi*, "Catechin Modified Polylactide Stereocomplex at Chain End Improved Antibacterial Property", *Macromol. Biosci.* **2016**, *16*, 694-704.
- (91) **Hiroharu Ajiro**, Yukie Takemoto, Kazuya Takemura, Taka-aki Asoh, Mitsuru Akashi*, "Releasing Property from Surface Polyion Complex Gel", *J. Appl. Polym. Sci.*, **2015**, *132*, 42081.
- (92) Hang Thi Tran, **Hiroharu Ajiro**, Mitsuru Akashi*, "Thermal Stable Polylactides by Stereocomplex Formation and Both Terminal Conjugation with Bio-based Cinnamic Acid Derivatives", *RSC Adv.* **2015**, *5*, 91423-91430.
- (93) **Hiroharu Ajiro***, Ayaka Kuroda, Kai Kan, Mitsuru Akashi*, "Stereocomplex Film Using Triblock Copolymers of Polylactide and Poly(ethylene glycol) Retain Paclitaxel on Substrates by Aqueous Inkjet System", *Langmuir*, **2015**, *31*(38), 10583-10589.
- (94) Malcolm Kelland*, Eirin Abrahamsen, **Hiroharu Ajiro**, Mitsuru Akashi, "Kinetic Hydrate Inhibition with N-Alkyl-N-vinylformamide Polymers: Comparison of Polymers with N-Propyl and iso-Propyl Groups", *Energy Fuels*, **2015**, *29*(8), 4941-4946.
- (95) Yukie Takemoto, **Hiroharu Ajiro**, Mitsuru Akashi*, "Hydrogen Bonded Multi-layer Films based on Poly(N-vinylamide) Derivatives and Tannic acid", *Langmuir* **2015**, *31*(24), 6863-6869.
- (96) Kazuya Takemura, **Hiroharu Ajiro**, Tomoko Fujiwara, Mitsuru Akashi*, "A Novel Substrate for Testosterone: Biodegradable and Biocompatible Oil Gel", *Polym. J.* **2015**, *47*(6), 460-463.
- (97) **Hiroharu Ajiro**, Kazuya Takemura, Mitsuru Akashi*, "Surface Polyion Complex Gel with Poly(vinylphosphonic acid) and Poly(N-vinylamide)s", *J. Polym. Sci. Part A, Polym. Chem.*, **2015**, *53*(4), 562-566. **[Cover Picture]**
- (98) **Hiroharu Ajiro**, Tatsuaki Ueyama, Mitsuru Akashi*, "Temperature Effect on Template Polymerization of Methacrylic Acid Using Stereocomplex Formation on Quartz Crystal Microbalance Substrates", *J. Polym. Sci. Part A, Polym. Chem.*, **2014**, *52*(21), 3032-3036.
- (99) **Hiroharu Ajiro**, Mitsuru Akashi*, "Rapid Photogelation of Amphiphilic Poly(N-vinylacetamide) Bearing Coumarin Moiety in Water and Organic Solvents", *Chem. Lett.*, **2014**, *43*(10), 1613-1615.
- (100) Kazuya Takemura, **Hiroharu Ajiro**, Tomoko Fujiwara, Mitsuru Akashi*, "Oil gels with a chemically cross-linked copolymer of a trimethylene carbonate derivative and L-lactide: preparation and stereocomplex formation within gels" *RSC Adv.*, **2014**, *4*(63), 33462-33465.
- (101) **Hiroharu Ajiro**, Yoshikazu Takahashi, Mitsuru Akashi*, Tomoko Fujiwara*, "Surface Control of Hydrophilicity and Degradability with Block Copolymers Composed of Lactide and Cyclic Carbonate Bearing Methoxyethoxyl Groups", *Polymer*, **2014**, *55*(16), 3591-3598.
- (102) Yukie Takemoto, **Hiroharu Ajiro**, Mitsuru Akashi*, "Amphiphilic Poly(N-vinylacetamide) Gels Strengthened with Swelling Solvent", *Macromol. Chem. Phys.* **2014**, *215*(4), 384-390.
- (103) Giuseppe Tronci, **Hiroharu Ajiro**, Stephen J. Russell, David J. Wood, Mitsuru Akashi*, "Tunable Drug-loading Capability of Chitosan Hydrogels with Varied Network Architectures", *Acta Biomaterialia*, **2014**, *10*(2), 821-830.
- (104) **Hiroharu Ajiro**, Mitsuru Akashi*, "Interpenetrating Polymer Network Using Amphiphilic Poly(N-vinyl acetamide) and Poly(2-hydroxyethyl methacrylate) to Deactivate Phosphate Ester Compounds", *Chem. Lett.* **2013**, *42*(12), 1540-1541.
- (105) Wanpen Tachaboonyakiat, **Hiroharu Ajiro**, Mitsuru Akashi*, "Synthesis of a Thermosensitive Polycation by Random Copolymerization of N-vinylformamide and N-vinylbutyramide", *Polym. J.* **2013**, *45*(9), 971-978.
- (106) Masumi Maegawa, **Hiroharu Ajiro**, Daisuke Kamei, Mitsuru Akashi*, "A Study on Template Effects Using Irregular Porous Isotactic Poly(methyl methacrylate) Films Constructed with Syndiotactic Rich Poly(methacrylic acid) and Isotactic Poly(methyl methacrylate)", *Polym. J.* **2013**, *45*(9), 898-903.
- (107) **Hiroharu Ajiro**, Yi-Ju Hsiao, Hang Thi Tran, Tomoko Fujiwara, Mitsuru Akashi*, "Thermally Stabilized Poly(lactide)s Stereocomplex with Bio-based Aromatic Groups at Both Initiating and Terminating Chain Ends", *Macromolecules* **2013**, *46*(13), 5150-5156.
- (108) **Hiroharu Ajiro**, Tomoaki Hinoue, Mitsuru Akashi*, "Inkjet Approaches Contribute to Facile Isotactic Poly(Methyl)/Syndiotactic Poly(Methyl Methacrylate) Stereocomplex Surface Preparation", *Macromol. Chem. Phys.* **2013**, *214*(14), 1590-1595. **[Cover Picture]**
- (109) Pei Cheng Chua*, Malcolm A. Kelland, **Hiroharu Ajiro**, Fumika Sugihara, Mitsuru Akashi, "Poly(vinylalkanamide)s as Kinetic Hydrate Inhibitors: Comparison of Poly(N-vinylisobutylamide) with Poly(N-isopropylacrylamide)", *Energy Fuels*, **2013**, *27*(1), 183-188.
- (110) Hong Chu, **Hiroharu Ajiro**, Yoshikazu Takahashi, Mingqing Chen, Mitsuru Akashi*, "Nanoparticle Fabrication with Biodegradable Block Copolymer Composed of Hydrophilic Poly(trimethylene carbonate) Derivative and Hydrophobic Polylactide", *Chem. Lett.* **2013**, *42*(1), 74-76.
- (111) Mitsuru Yokota, **Hiroharu Ajiro**, Mitsuru Akashi*, "Transmission Electron Microscopic Observations of the Multilevel Microstructure of Crosslinked Copolymers with Methacrylates and Siloxane Macromer by a Radically Polymerizable Tuning Approach", *J. Appl. Polym. Sci.* **2013**, *127*(5), 3325-3332.

- (112) Mitsuru Yokota, **Hiroharu Ajiro**, Mitsuru Akashi*, "Effect of Copolymerizing Fluorine-Bearing Monomers on the Relationship Among Internal Structure, Gas Permeability, and Transparency in Copolymer Networks Composed of Methacrylates and Siloxane Macromers", *J. Appl. Polym. Sci.* **2013**, 127(1), 535-543.
- (113) **Hiroharu Ajiro**, Yoshikazu Takahashi, Mitsuru Akashi*, Tomoko Fujiwara*, "Polylactide Block Copolymers using Trimethylene Carbonate with Methoxyethoxy Side Groups for Dual Modifications on Hydrophilicity and Biodegradability", *Macromol. Biosci.* **2012**, 12(10), 1315-1320.
- (114) **Hiroharu Ajiro**, Chizuru Hongo, Masumi Maegawa, Daisuke Kamei, Sono Sasaki, Hiroaki Ogawa, Hiroyasu Masunaga, Yukie Takemoto, Kazuyuki Horie, Mitsuru Akashi*, "Structural Nanospace Feature and Substrate Contribution to Maintaining Stable Porosity of Polymer Chain in Layer-by-layer Assembled isotactic Poly(methyl methacrylate) Films", *Macromolecules* **2012**, 45(18), 7660-7663.
- (115) **Hiroharu Ajiro**, Yi-Ju Hsiao, Tran Han Thi, Tomoko Fujiwara*, Mitsuru Akashi*, "A Stereocomplex of Poly(lactide)s with Chain End Modification: Simultaneous Resistances to Melting and Thermal Decomposition", *Chem. Commun.* **2012**, 48(68), 8478-8480. **[Cover Picture]**
- (116) Mitsuru Yokota, **Hiroharu Ajiro**, Mitsuru Akashi*, "The Role of Amide Groups in Vinyl Monomers Containing Siloxane Groups for Highly Oxygen Permeable Hydrogels", *Bull. Chem. Soc. J.* **2012**, 85(5), 584-591. **[Editor's Choice: Selected Paper]**
- (117) Mitsuru Yokota, Yuko Miwa, **Hiroharu Ajiro**, Mitsuru Akashi*, "The Systematic Study on the Microstructure of Crosslinked Copolymers of Siloxane Macromonomer and Methacrylates by Changing Composition and Components", *Polym. J.* **2012**, 44(4), 301-305. **[Editor's Choice: Highlighted Paper]**
- (118) **Hiroharu Ajiro**, Yoshikazu Takahashi, Mitsuru Akashi*, "Thermosensitive Biodegradable Homopolymer of Trimethylene Carbonate Derivative at Body Temperature", *Macromolecules* **2012**, 45(6), 2668-2674.
- (119) **Hiroharu Ajiro**, Klaus Beckerle, Jun Okuda, Mitsuru Akashi*, "Layer-by-Layer Assembly of Partially Sulfonated Isotactic Polystyrene with Poly(vinylamine)", *Langmuir* **2012**, 28(12), 5372-5378.
- (120) **Hiroharu Ajiro**, Masumi Maegawa, Mitsuru Akashi*, "Nanospace Preparation by Crosslinking Helical *syndiotactic*-Poly(methacrylic acid) in Acetonitrile/Water After Stereocomplexation", *J. Polym. Sci. Part A: Polym. Chem.*, **2012**, 50(8), 1469-1476.
- (121) **Hiroharu Ajiro**, Mitsuru Akashi*, "Radical Polymerization of Novel *N*-Substituted-*N*-vinylformamide Derivatives with Bulky Chiral Substituents", *J. Polym. Sci. Part A: Polym. Chem.* **2012**, 50(1), 134-141.
- (122) Mitsuru Yokota, Naoki Shimoyama, Kazuhiko Fujisawa, Masataka Nakamura, **Hiroharu Ajiro**, Mitsuru Akashi*, "Novel method for Surface Modification of Silicone Containing Hydrogel Using Addition Reaction", *Chem. Lett.* **2011**, 40(11), 1297-1299.
- (123) **Hiroharu Ajiro**, Yukie Takemoto, Mitsuru Akashi*, "Interpenetrating Polymer Networks of Poly(*N*-vinylacetamide) and Stimuli Responsive Polymers Applied to Novel Amphiphilic Gel", *J. Nanosci. Nanotechnol.* **2011**, 11(8), 7047-7049.
- (124) Mitsuru Yokota, Masataka Nakamura, **Hiroharu Ajiro**, Mitsuru Akashi*, "Synthesis of a Novel Silicone Monomer Bearing Amide Groups to Improve Compatibility with Hydrophilic Vinyl Monomers", *Chem. Lett.*, **2011**, 40(8), 858-859.
- (125) Daisuke Kamei, **Hiroharu Ajiro**, Mitsuru Akashi*, "Fusion of Porous Isotactic Poly(methyl methacrylate) Thin Films Fabricated on Silica Nanoparticles with Stepwise Stereocomplex Assembly", *J. Nanosci. Nanotechnol.* **2011**, 11(3), 2545-2548.
- (126) **Hiroharu Ajiro**, Yukie Takemoto, Mitsuru Akashi, Pei Cheng Chua, Malcolm A. Kelland*, "A Study of the Kinetic Hydrate Inhibitor Performance of a Series of Poly(*N*-alkyl-*N*-vinylacetamide)s", *Energy Fuels*, **2010**, 24(12), 6400-6410.
- (127) **Hiroharu Ajiro**, Mitsuru Akashi*, "Cell Proliferation on Stereoregular *isotactic*- Poly(propylene oxide) as a Bulk Substrate", *Biomacromolecules* **2010**, 11(11), 2840-2844.
- (128) Daisuke Kamei, **Hiroharu Ajiro**, Mitsuru Akashi*, "Specific Recognition of Syndiotactic Poly(methacrylic acid) in Porous Isotactic Poly(methyl methacrylate) Thin Films Based on the Effects of Stereoregularity, Temperature, and Solvent", *J. Polym. Sci. Part A: Polym. Chem.* **2010**, 48(16), 3651-3657.
- (129) **Hiroharu Ajiro**, Masumi Maegawa, Mitsuru Akashi*, "Thermal Stability of Porous *it*-PMMA Thin Film Obtained by the Extraction of *st*-PMAA from *it*-PMMA/*st*-PMAA Stereocomplex with Layer-by-layer Assembly on Substrate", *J. Polym. Sci. Part A: Polym. Chem.* **2010**, 48(15), 3265-3270.
- (130) Yukie Takemoto, **Hiroharu Ajiro**, Taka-aki Asoh, Mitsuru Akashi*, "Fabrication of Surface-Modified Hydrogels with Polyion Complex for Controlled Release", *Chem. Mater.* **2010**, 22(9), 2923-2929.
- (131) **Hiroharu Ajiro**, Mitsuru Akashi*, "Nano Grape Formation by *isotactic*-Poly(methacrylic acid)-*block*-poly(butyl acrylate)", *Macromol. Rapid Commun.*, **2010**, 31(8), 714-717. **[Cover Picture]**
- (132) Daisuke Kamei, **Hiroharu Ajiro**, Mitsuru Akashi*, "Morphological Changes of Isotactic Poly(methyl methacrylate) Thin Films via Self-organization and Stereocomplex Formation", *Polym. J.* **2010**, 42(2), 131-137.
- (133) **Hiroharu Ajiro**, Chizuru Hongo, Mitsuru Akashi*, "Design and Synthesis of *N*-Vinylacetamide Derivative with Bulky Group by Nucleophilic Substitution Reaction", *J. Mol. Struct.* **2010**, 964(1-3), 67-71.
- (134) **Hiroharu Ajiro**, Kathryn L. Peretti, Emil B. Lobkovsky, Geoffrey W. Coates*, "On the Mechanism of Isospecific Epoxide Polymerization by Salen Cobalt (III) Complexes: Evidence for Solid-state Catalysis", *Dalton Trans.* **2009**, (41), 8828-8830.
- (135) **Hiroharu Ajiro**, Yukie Takemoto, Taka-aki Asoh, Mitsuru Akashi*, "Novel Polyion Complex with Interpenetrating Polymer Network of Poly(acrylic acid) and Partially Protected Poly(vinylamine) Using *N*-Vinylacetamide and *N*-Vinylformamide", *Polymer* **2009**, 50(15), 3503-3507.
- (136) **Hiroharu Ajiro**, Daisuke Kamei, Mitsuru Akashi*, "Mechanistic Studies on Template Polymerization in Porous Isotactic Poly(methyl methacrylate) Thin Films by Radical Polymerization and Postpolymerization of Methacrylate Derivatives", *Macromolecules* **2009**, 42(8), 3019-3025.
- (137) **Hiroharu Ajiro**, Yukie Takemoto, Mitsuru Akashi*, "Interpenetrating Polymer Networks of Poly(*N*-vinylacetamide) and Poly(acrylic acid) Applied to Novel Amphiphilic Drug Release Substrates with Mechanically Modified Strengths", *Chem. Lett.* **2009**, 38(4), 368-369.

- (138) **Hiroharu Ajiro**, Mitsuru Akashi*, "Radical Polymerization of Novel *N*-Substituted-*N*-vinylacetamides and Regulated Polymer Structure by Bulky Substituents and Menthol Coordination", *Macromolecules* **2009**, 42(2), 489-493.
- (139) **Hiroharu Ajiro**, Daisuke Kamei, Mitsuru Akashi*, "Macroporous Silicagel Substrate for Stereoregular Template Polymerization of Methacrylic Acid Using Stereocomplex Assembled Thin Film", *Polym. J.* **2009**, 41(1), 90-93. **[Cover Picture]**
- (140) Daisuke Kamei, **Hiroharu Ajiro**, Chizuru Hongo, Mitsuru Akashi*, "Solvent Effects on Isotactic Poly(methyl methacrylate) Crystallization and Syndiotactic Poly(methacrylic acid) Incorporation in Porous Thin Films Prepared by Stepwise Stereocomplex Assembly", *Langmuir* **2009**, 25(1), 280-285.
- (141) **Hiroharu Ajiro**, Daisuke Kamei, Mitsuru Akashi*, "Methacrylic Acid and Methyl Methacrylate Oligomers Adsorbed to Porous Isotactic Poly(methyl methacrylate) Ultrathin Films and Mechanistic Studies of Living Template Polymerization", *J. Polym. Sci. Part A: Polym. Chem.* **2008**, 46(17), 5879-5886.
- (142) Daisuke Kamei, **Hiroharu Ajiro**, Chizuru Hongo, Mitsuru Akashi*, "Dynamics of Polymer Chains in Porous Thin Films Prepared by Layer-by-Layer Assembly of Isotactic Poly(methyl methacrylate) and Syndiotactic Poly(methacrylic acid)", *Chem. Lett.* **2008**, 37(3), 332-333.
- (143) **Hiroharu Ajiro**, Junji Watanabe, Mitsuru Akashi*, "Cell Adhesion and Proliferation on Poly(*N*-vinylacetamide) Hydrogels and Double Network Approaches for Changing Cellular Affinities", *Biomacromolecules* **2008**, 9(2), 426-430.
- (144) **Hiroharu Ajiro**, Junji Watanabe, Mitsuru Akashi*, "Diversification of Nonionic Amphiphilic Poly(*N*-vinylacetamide) Hydrogels by a Double Network Approach", *Chem. Lett.* **2007**, 36(9), 1134-1135.
- (145) Kathryn L. Peretti, **Hiroharu Ajiro**, Claire T. Cohen, Emil B. Lobkovsky, Geoffrey W. Coates*, "A Highly Active, Isospecific Cobalt Catalyst for Propylene Oxide Polymerization", *J. Am. Chem. Soc.* **2005**, 127(33), 11566-11567.
- (146) **Hiroharu Ajiro**, Shigeki Habaue, Yoshio Okamoto*, "Anionic Polymerization of Novel Styrene Derivatives Bearing Various Amino Groups at *ortho*-Position", *Polym. J.* **2004**, 36(4), 323-328.
- (147) Shigeki Habaue*, **Hiroharu Ajiro**, Yasuhiro Yoshii, Tetsuya Hirasa, "Asymmetric Oxidative Coupling Polymerization Affording Polynaphthylene with 1,1'-Bi-naphthol Units", *J. Polym. Sci. Part A: Polym. Chem.* **2004**, 42(18), 4528-4534.
- (148) **Hiroharu Ajiro**, Osamu Ikeshima, Shigeki Habaue, Yoshio Okamoto*, "Immobilization of Vinyl Polymer Chains on Macroporous Silica Gel by Atom Transfer Radical Polymerization and Surface Structure Control", *Kobunshi Ronbunshu* **2004**, 61(4), 250-255.
- (149) Shigeki Habaue, Tomoaki Seko, Masaya Isonaga, **Hiroharu Ajiro**, Yoshio Okamoto*, "Stereoselective Synthesis of (*R,R*)-, (*S,S*)-, and (*R,S*)-Poly(2,3-dihydroxy-1-4-naphthylene) Derivatives by Asymmetric Oxidative Coupling Polymerization", *Polym. J.* **2003**, 35(7), 592-597.
- (150) Kozo Matsumoto, **Hiroharu Ajiro**, Shigeki Habaue, Yoshio Okamoto*, "Detection of Inorganic Species by Chemical Reaction Laser Desorption Ionization Mass Spectrometry", *Rapid Commun. Mass Spectrom.* **2003**, 17(7), 678-684.
- (151) **Hiroharu Ajiro**, Shigeki Habaue, Yoshio Okamoto*, "Stereochemistry in Anionic Polymerization of Styrene Derivatives Bearing Optically Active Amino Groups at *ortho*-Position", *Polym. J.* **2002**, 34(2), 57-62.
- (152) Kozo Matsumoto, **Hiroharu Ajiro**, Shigeki Habaue, Yoshio Okamoto*, "Application of TLC-MALDI-TOFMS to Identification of Co(II) and Co(III) Acetylacetonates", *J. Mass Spectrom. Soc. Jpn.* **2002**, 50(1), 15-17.
- (153) Kozo Matsumoto, **Hiroharu Ajiro**, Shigeki Habaue, Yoshio Okamoto*, "Detection of Solid Cobalt Species by MALDI-TOF-MS", *Rapid Commun. Mass Spectrom.* **2002**, 16(7), 730-732.
- (154) Kozo Matsumoto, **Hiroharu Ajiro**, Shigeki Habaue, Yoshio Okamoto*, "Modifications of TLC-MALDI-TOFMS for Lower Detection Limits Comparable with Conventional MALDI-TOFMS", *J. Mass Spectrom. Soc. Jpn.* **2001**, 49(3), 127-132.
- (155) Shigeki Habaue, Osamu Ikeshima, **Hiroharu Ajiro**, Yoshio Okamoto*, "Surface Structure Control of Macroporous Silica Gel by Atom Transfer Radical Polymerization", *Polym. J.* **2001**, 33(11), 902-905.
- (156) Shigeki Habaue, **Hiroharu Ajiro**, Yoshio Okamoto*, "Anionic Polymerization of *o*-Substituted Styrene Derivatives: Control of Reactivity and Stereochemistry by Aminomethyl Group", *J. Polym. Sci. Part A: Polym. Chem.* **2000**, 38(22), 4088-4094.
- (157) Kozo Matsumoto, Shigeki Habaue, **Hiroharu Ajiro**, Yoshio Okamoto*, "Application of TLC-MALDI/TOFMS to Identification of Unknown Mixtures Produced in an Organic Synthetic Process", *J. Mass Spectrom. Soc. Jpn.* **1999**, 47(4), 274-280.

Reviews, Books etc.

- (1) **網代広治**, "エステルフリー型分解性高分子材料" 「高分子材料の分解制御技術」, 監修: 粕谷健一, 株式会社シーエムシー, in press, 2024年4月.
- (2) **網代広治**, "エステルフリー型ポリトリメチレンカーボネート誘導体の設計と合成" 「医療デバイスに用いられている材料の現状と今後」材料の科学と工学 —特集号—, 日本材料科学会, 61(1), 2024年2.20, in press.
- (3) 千田こころ, 森村友香, 安藤剛, **網代広治**, "キトサンおよびグルコサミンを用いた新規材料創出のための分子設計" 「バイオマス材料の開発と応用-プラスチック/粘・接着剤/コーティング/添加剤-」株式会社技術情報協会. 2章8節, pp95-104, 2023年3月.
- (4) **網代広治**, 吉田裕安材, "非環式 *N*-ビニルアミドの最近の動向", *月刊高分子~最近の進歩~*, **2021**, 70(7), 373-377.
- (5) Nalinthip Chanthaset, **Hiroharu Ajiro***, "Synthetic Biodegradable Polymers with Chain End Modification: Polylactide, Poly(butylene succinate), and Poly(hydroxyalkanoate)". <Highlight Review, Special edition at 50th Anniversary>, *Chem. Lett.*, **2021**, 50(4), 767-777.
- (6) **網代広治***, "ポリ乳酸ステレオコンプレックスの表面における相互作用と抗菌性付与", 接着と技術誌 -特集: 表面・界面 (抗菌) -, **2021**, 40(4) submitted.
- (7) **網代広治***, "高分子間相互作用を利用した抗菌性材料の開発", 「抗菌・抗ウイルスのメカニズム、材料開発、付与技術と評価手法」 (第3章、第2節), 株式会社技術情報協会. Submitted.

- (8) **網代広治***, “反応性末端を有する新規開始剤によるポリ乳酸合成とステレオコンプレックス化”, 「重合開始剤、硬化剤、架橋剤の選び方、使い方とその事例」(第1章、第9節), 株式会社技術情報協会. 2021年2月発刊予定.
- (9) **Hiroharu Ajiro**, Takamasa Sakai, “Molecular Technology for Degradable Synthetic Hydrogels for Biomaterials”, Molecular Technology. Life Innovation, Wiley-VCH Verlag GmbH & Co. KGaA, Rights & Licenses, Boschstr. 12, 69469 Weinheim, Germany. Editors: Hisashi Yamamoto, Takashi Kato. Published 10 December 2018. 発売日 2019/4/24 .
- (10) **網代広治***, “ポリ乳酸のステレオコンプレックス形成による耐熱性向上”, 「樹脂の高耐熱化と応用技術」, (第12章2節予定), 出版社 株式会社 技術情報協会 2018年7月頃の予定, submitted.
- (11) 川谷諒, **網代広治***, *N*-ビニルアミド誘導体ポリマーの刺激応答材料設計, 「刺激応答性高分子ハンドブック-Stimuli-Responsive Polymers Handbook-」, (1編 1章6節予定) 監修 宮田隆志, 出版社 株式会社エヌ・ティー・エス, 2018, submitted.
- (12) カン凱, **網代広治***, 明石満, “末端修飾と高分子間相互作用を利用したポリ乳酸系材料の創製”, *高分子論文集* -特集号-医用高分子〔総合論文〕, **2018**, 75, 9-22.
- (13) **網代広治**, “育児と仕事”, *高分子*, -特集 みんなで元気に! 高分子-, **2017**, 66(1), 13.
- (14) **網代広治**, “複機能性ポリトリメチレンカーボネート誘導体の設計”, *化学経済*, **2016**, 63(9), 54-58.
- (15) **Hiroharu Ajiro** *, Yoshiaki Haramiishi, Nalinthip Chanthaset, Mitsuru Akashi*, “Polymer Design Using Trimethylene Carbonate with Ethylene Glycol Units for Biomedical Application” *Polym. J.* [Focus Review], **2016**, 48, 751-760.
- (16) **網代広治**, “末端修飾と高分子間相互作用によるポリ乳酸の複機能化” *化学工業*, <特集> 次世代高効率材料の開発, **2016**, 67(6) 12-20.
- (17) **Hiroharu Ajiro**, Daisuke Kamei, Masumi Maegawa, Tatsuaki Ueyama, Mitsuru Akashi*, “Study on the Porous it-PMMA Thin Film Which Recognize Stereoregularity Prepared by Layer-by-layer Assembly”〔総合論文〕 「ポリメタクリル酸メチルを用いた交互積層薄膜から構築される立体規則性を認識可能なナノ反応場に関する研究」, *高分子論文集*〔特集号〕-精密高分子合成の展望-, **2015**, 72(5), 261-274.
- (18) Mitsuru Akashi*, **Hiroharu Ajiro**, “Template Polymerization (molecular templating)”, *Encyclopedia of Polymeric Nanomaterials*. Springer. Editors: Shiro Kobayashi, Klaus Müllen. ISBN 978-3-642-36199-9 (**2014**).
- (19) **網代広治**, “Essays バイオマテリアルの夢を語る- 連携とアウフヘーベン”, *バイオマテリアル*, 32巻2号、page134. 発行日 **2014**年4月.
- (20) 竹本友紀恵, **網代広治**, 明石満, “第1章 徐放のための材料. 1. 高分子 ②合成高分子(非吸収性)” *ここまで広がるドラッグ徐放技術の最前線-古くて新しいドラッグデリバリーシステム(DDS), 遺伝子医学MOOK*, pp. 40-44. 発行日 2013年3月20日. 編集 田畑泰彦. 出版 株式会社メディカルドゥ. 発行人 大上均. 編集部 小早川久美.
- (21) Michiya Matsusaki, **Hiroharu Ajiro**, Toshiyuki Kida, Takeshi Serizawa, Mitsuru Akashi, “LbL Assembly Through Weak Interactions and Their Biomedical Applications”, *Adv. Mater.* **2012**, 24(4), 454-474.
- (22) **Hiroharu Ajiro**, Peter C. B. Widger, Syud M. Ahmed, Scott D. Allen, Geoffrey W. Coates, “Stereoselective Ring-Opening Polymerization of Epoxides”, *In Polymer Science: A Comprehensive Reference, Chapter 4*; Matyjaszewski, K., Möller, M., Eds.; Elsevier: Amsterdam, **2012**; 165-181.
- (23) Takeshi Serizawa, Mitsuru Akashi, Michiya Matsusaki, **Hiroharu Ajiro**, Toshiyuki Kida, “LbL Assemblies Using van der Waals or Affinity Interaction and Their Applications”, G. Decher and J. Schlenoff Eds., *Multilayer Thin Films Sequential Assembly of Nanocomposite Materials*, 2nd Edition (Wiley-VCH, Verlag GmbH & Co. KGaA, Weinheim, Germany), **2012**, 99-133.
- (24) **網代広治**, 明石満, “第4編 第2章 第3節 ポリマーゲル”, *ラジカル重合ハンドブック*, pp. 741-747. 発行日 **2010**年9月10日. 監修者 蒲池幹治, 遠藤剛, 岡本佳男, 福田猛. 発行者 吉田隆. 発行所 株式会社エヌ・ティー・エス. 編集 有限会社 新日本編集企画. 印刷製本 新日本印刷株式会社. ISBN 978-4-86043-274-4.
- (25) **Hiroharu Ajiro**, Yukie Takemoto, Taka-aki Asoh, Mitsuru Akashi, “Simple Polyion Complex Hydrogel by Poly(acrylic acid) and Partially Protected Poly(vinylamine)” *高分子* 59巻7号, Hot Topics, pp.461. 発行日 **2010**年7月1日. 発行 社団法人 高分子学会. 印刷 日本印刷株式会社. ISSN 0454-1138.
- (26) **網代広治**, 明石満, “ポリ(*N*-ビニルアミド誘導体)の構造制御”, *未来材料* 9巻4号, pp.38-44. 発行日 **2009**年4月10日. 編集人 遠藤剛. 発行人 吉田隆. 発行所 株式会社エヌ・ティー・エス. 印刷所 三美印刷株式会社. ISBN 978-4-86043-177-8.
- (27) **Hiroharu Ajiro**, Scott D. Allen, Geoffrey W. Coates, “Discrete Catalysts for Stereoselective Epoxide Polymerization”, Editors: Baugh, Lisa S.; Canich, Jo Ann M. *Stereoselective Polymerization with Single-Site Catalysts*, **2008**, 627-644. Publisher: CRC Press LLC, Boca Raton, New York.