Shinichi Sakurai
Professor
Faculty of Fiber Science and Engineering (Department of Biobased Materials Science)
Matsugasaki, Sakyo-ku, Kyoto 606-8585, Japan
TEL : 075-724-7864, FAX: 075-724-7547, e-mail: shin@kit.ac.jp
http://www.biobased.kit.ac.jp/major/pn/index.html (only Japanese)

Adjunct Professor
Department of Chemical Engineering, Indian Institute of Technology Guwahati, India
ORCHID ID: 0000-0002-5756-1066.
Research Map account: https://researchmap.jp/read0013604.

Biography

Birthday: March 9th, 1962 (59 years old)
1984.3. Graduated from Kyoto University (Department of Polymer Chemistry)
1986.3. Master Degree (Kyoto U.)
1992.3. Dr. of Engineering, Kyoto U.
Thesis: MISCIBILITY AND PHASE TRANSITIONS OF POLYMER BLENDS AND BLOCK COPOLYMERS

1989.4. Assistant Prof., Kyoto Institute of Technology (Dept. of Polymer Eng. and Science)
1998.2. Associate Prof., Kyoto Institute of Technology (Dept. of Polymer Eng. and Science)
2010.4. Prof., Kyoto Institute of Technology (Department of Biobased Materials Science)

1986.11. ~ 1987.3. Guest Scientist (National Bureau of Standards, USA)
1988.7. ~ 1988.12. Guest Scientist (National Institute of Standards and Technology, USA)
1992.3.~1993.1. Sabbatical stay at UC Santa Barbara
2015.5.~2017. 5. President of Kansai Branch, The Society of Rubber Science and Technology, Japan
2017.4. ~ 2018.3. Visiting Professor, Kyoto University (Institute of Chemical Research), Japan
2019.4 ~ present Vice President of The Society of Rubber Science and Technology, Japan
2020.4 ~ present Chief of the Kansai Branch, The Society of Fiber Science and Technology, Japan

Awards

2006.6 Award from The Society of Fiber Science and Technology, Japan (major award)
2006.7 Award from SAS2006 conference (award for the outstanding service)
2011.5.30 8th The CERI Best Presentation Award
(The Society of Rubber Science and Technology, Japan)

Research Interests and expertise:

Polymer Physics, Synchrotron Small-Angle X-ray Scattering, Small-Angle Neutron Scattering, Pattern Formation, Dissipative Structures in Polymer System (convection), Multiphase Polymeric Materials, Biobased Materials, Structure and Properties Relationship, Small-Angle X-ray Scattering, Polymer Crystallization

Facilities in my laboratory:

Small-Angle X-ray Scattering
Wide-Angle X-ray Scattering
Atomic Force Microscope
Differential Scanning Calorimeter
Digital Microscope
Polarized Optical Microscope / Hot Stage
Stress-Strain Measurement
Surface Tension Measurement
Viscosity Measurement of Liquid Surface / Hot Stage

Number of Refereed Scientific Publications: 202

List of Recent Publications (since 2012)

(1) Original Article

1. Natchamon Sukhonthamethirat, Visit Vao-soongnern, Shigeru Okamoto, Shinichi Sakurai, "The effects of few 1-butene defects on isothermal crystallization of isotactic polypropylene", submitted to Polymer (2021).
2. Mariko Sasaki, Yusuke Kashihara, Shun Okada, Kazuma Shibamoto, Yuka Kubo, Yumi Hirata, Yoshiaki Urahama, Hajime Kishi, Shinichi Sakurai, Tomoyasu Hirai, Syuji Fujii, Yoshinobu Nakamura, "Phase structure and adhesion properties of acrylic block copolymer/tackifier blends as nanocomposite-like pressure-sensitive adhesives", J. Appl. Polym. Sci., in press (2021).
3. Huaizhong Xu, Jie Meng; Francesco Boschetto; Shinichi Yagi; Elia Marin; Tetsuya Adachi; Xuefei Chen; Giuseppe Pezzotti; Shinichi Sakurai; Hideki Yamane, "Design and Manufacturing of 3D High-precision Micro-fibrous Poly (L-lactic acid) Scaffold Using Melt Electrowriting Technique for Bone Tissue Engineering", submitted to Materials & Design (2021).
4. LIN, Shan; OKUDA, Hiroshi; NISHIKAWA, Yukihiro; Sakurai, Shinichi; Kabe, Taizo; Masunaga, Hiroyasu, "Nondestructive nanostructure analysis of Al / Al-Zn interdiffusion layer by quantitative SAXS tomography", submitted to Materials Transactions (2021).
5. Martina Viková, Shinichi Sakurai, Aravin Prince Periyasamy, Hidekazu Yasunaga, Miroslava Pechočiaková, Anna Ujhelyiová and Michal Vik, "DSC / SAXS analysis of UV sensible polypropylene filaments for UV sensors", submitted to Textile Research Journal (2021).
6. Nguyen, Toan; Nagata, Toshiteru ; Noso, Kosei ; Kaji, Kenshiro; Masunaga, Hiroyasu; Hoshino, Taiki; Hikima, Takaaki; Sakurai, Shinichi; Yamamoto, Kenta ; Miura, Yuta ; Aoki, Takashi; Yamane, Hideki; Sasaki, Sono, "Effect of the 3-hydroxyhexanoate Content on Melt-isothermal Crystallization Behavior of Microbial Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate)", submitted to Macromolecules (2021).
7. Bayomi, Rasha, Aoki, Takashi, Sasaki, Sono, Sakurai, Shinichi, "Regular Ordering of Spherical Microdomains in Dewetted Monolayer Islands Induced by Thermal Annealing of Spin-Coated Ultrathin Films of a Triblock Copolymer", Soft Matter in press, 2021
8. Kona Mondal, Purabi Bhagabati, Vaibhav V. Goud, Shinichi Sakurai, and Vimal Katiyar, "Utilization of Algae Residue derived Cellulose Nanocrystals: A Study on Crystallization Kinetics of Poly(ε-caprolactone) Biocomposites", submitted to Carbohydrate Polymers, 2021
9. Mulchandani, Neha; Masutani, Kazunari; Sakurai, Shinichi; Kimura, Yoshiharu; Katiyar, Vimal, "Acyclic Diene Metathesis Polymerization of a CO_2-Derived Lactone", submitted to Materials Horizons, 2021
10. Mulchandani, Neha; Masutani, Kazunari; Kumar, Sachin; Yamane, Hideki; Sakurai, Shinichi; Kimura, Yoshiharu; Katiyar, Vimal, "Toughened PLA-b-PCL-b-PLA Triblock Copolymer based Biomaterials: Effect of Self-Assembled Nanostructure and Stereocomplexation on the Mechanical Properties", submitted to Polymer Chemistry, 2021
11. Apisit Banpean; Hideaki Takagi; Nobutaka Shimizu; Noriyuki Igarashi; Shinichi Sakurai, "Small- and Wide-Angle X-ray Scattering Studies on Confined Crystallization of Poly(ethylene glycol) in Poly(L-lactic acid) Spherulite in a PLLA/PEG Blend", Polymer, 229, 123971 (2021).

12. Amit Kumar Pandey, Hideaki Takagi, Noriyuki Igarashi, Nobutaka Shimizu, Shinichi Sakurai, ”Enhanced Formation of Stereocomplex Crystallites in Poly(L-lactic acid)/Poly(D-lactic acid) Blends by Silk Fibroin Nanodisc”, Polymer, 229, 124001 (2021).
13. Doi, Takahiro; Takagi, Hideaki; Shimizu, Nobutaka; Igarashi, Noriyuki; Sakurai, Shinichi, "Stress-Strain and Stress-Relaxation Behaviors of Solution Coated Layers Composed of Block Copolymers Mixed with Tackifiers", ACS Omega, 6, 27, 17299–17313 (2021).
14. Suzuka Okamoto, Shinichi Sakurai, Kenji Urayama, “Effect of stretching angle on the stress plateau behavior of main-chain liquid crystal elastomers”, Soft Matter, 17, 3128-3136 (2021).
15. “Xuefei Chen, Jie Meng, Huaizhong Xu, Masaya Shinoda, Masanori Kishimoto, Shinichi Sakurai, and Hideki Yamane, ”Fabrication and Properties of Electrospun Collagen Tubular Scaffold Crosslinked by Physical and Chemical Treatments”, Polymers 2021, 13(5), 755; https://doi.org/10.3390/polym13050755 (2021).
16. Apisit Banpean, Shinichi Sakurai, “Confined crystallization of Poly(ethylene glycol) in spherulites of Poly(L-lactic acid) in a PLLA/PEG blend”, Polymer, 215, 123370 (2021).
17. Kona Mondal, Shinichi Sakurai, Yoko Okahisa, Vaibhav Goud, Vimal Katiyar, “Effect of cellulose nanocrystals derived from Dunaliella tertiolecta marine green algae residue on crystallization behaviour of poly(lactic acid)”, Carbohydrate Polymers, 261, 117881 (2021).
18. Takahiro Doi, Hideaki Takagi, Nobutaka Shimizu, Noriyuki Igarashi, Shinichi Sakurai, “Effects of conditions in hot-melt coating process on microphase-separated structures and macroscopic deformation in coated layers composed of di- and triblock copolymer blends”, Progress in Organic Coatings 152, 106115 (2021).
19. "Ion transfer channel network formed by flower and rod shape crystals of hair hydrolysate in poly(vinyl alcohol) matrix and its application as anion exchange membrane in fuel cells", Gaur, Surendra ; Dhar, Prodyut; Wani, Khalid ; Srivastava, Muskan ; Sakurai, Shinichi; Kumar, Amit; Katiyar, Vimal, Journal of Colloid and Interface Science, 587, 214-228 (2021).
20. “Relationship Between Formation of Kink Structure and Necking of a Specimen Comprising Hard and Soft Lamellar Microdomains Under Uniaxial Stretching”, Ruito Tanaka, Taizo Kabe, Hiroyasu Masunaga, Hideaki Takagi, Nobutaka Shimizu, Noriyuki Igarashi, Shinichi Sakurai, Zairyo (J. Soc. Mat. Sci, Jpn.), 70, pp.17-24 (2021). 田中累登、加部泰三、増永啓康、高木秀彰、清水伸隆、五十嵐教之、櫻井伸一、”硬軟２成分からなるラメラ状ミクロ相分離構造の一軸延伸によるキンク構造の発現とネッキングとの関係”、材料、70 巻 1 号 p. 17-24 (2021).
21. Mitsuhiko Morisue, Genki Saito, Daiki Sasada, Tomokazu Umeyama, Hiroshi Imahori, Koji Mitamura, Hiroyasu Masunaga, Taiki Hoshino, Shinichi Sakurai, Sono Sasaki, “Glassy Porphyrin/C_{60} Composites: Morphological Engineering of C_{60} Fullerene with Liquefied Porphyrins”, Langmuir 36, 13583-13590 (2020).
22. Komal Prasad Malla, Sagar Regmi, Sitaram Bhattarai, Ram Jeewan Yadav, Shinichi Sakurai, Rameshwar Adhikari, “Extraction and Characterization of Novel Natural Hydroxyapatite Bioceramic Obtained by Thermal Decomposition of Waste Ostrich Bone”, International Journal of Biomaterials, 2020, 1690178 (2020). https://doi.org/10.1155/2020/1690178
23. “Effects of Miscibility of Adhesive on Mechanical and Adhesion Properties”, H. Nakajima, T. Doi, S. Sakurai, Nihon Setchaku Gakkaishi (Japanese Journal of The Adhesion Society Japan), 56(12), 463-471 (2020). 中島秀幸、土井隆広、櫻井伸一、”粘着剤の相溶性が力学特性および粘着特性に及ぼす影響”,日本接着学会誌、第５６巻、１２月号、４６３−４７１ページ（2020）
24. Surendra Singh Gaur, Prodyut Dhar, Soundararajan Narendren, Shinichi Sakurai, Amit Kumar, Vimal Katiyar,“Fabrication and characterization of clay nanoscrolls and stable zerovalent iron using montmorillonite”, Applied Clay Science, 193, 105670 (2020).
25. Atsushi Mahara, Marina Kitai, Hiroyasu Masunaga, Takaaki Hikima, Yuichi Ohya, Sono Sasaki, Shinichi Sakurai and Tetsuji Yamaoka, “Modification of decellularized vascular xenografts with 8-arm polyethylene glycol suppresses macrophage infiltration but maintains graft degradability”, Journal of Biomedical Materials Research: Part A, 108(10), pp. 2005-2014 (2020).
26. Doi, Takahiro; Takagi, Hideaki; Shimizu, Nobutaka; Igarashi, Noriyuki; Sakurai, Shinichi, “Effects of Solubility Difference of Tackifier to Respective Components of Block Copolymers on Microphase-Separated Structures in Coated Layers of Pressure-Sensitive Adhesive Prepared by Solution Coating Process”, ACS Applied Polymer Materials, 4973‑4984 (2020).
27. “Effects of drying temperature in solution coating process on the structural changes upon uniaxial stretching of sphere-forming block copolymer films”, Takahiro Doi, Hideaki Takagi, Nobutaka Shimizu, Noriyuki, Igarashi, Shinichi Sakurai, Polymer Journal, 52, pp.421-433

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28. “Cellulose Nanocrystal / Clay based Macroion Nanogels: A stable catalyst for Electrochemical Oxidation of Methanol in Alkaline Medium and Hydrogen Storage”, Surendra Singh Gaur, Prodyut Dhar, Shinichi Sakurai, Amit Kumar and Vimal Katiyar, Applied Clay Science, 182, 105277 (2019).
29. “Effect of Block Length and Stereocomplexation on the Thermally Processable Poly(ε-caprolactone) and Poly(Lactic acid) Block Copolymers for Biomedical Applications”, Neha Mulchandani, Arvind Gupta, Kazunari Masutani, Sachin Kumar, Shinichi Sakurai, Yoshiharu Kimura, Vimal Katiyar, Applied Polymer Materials, 2019, 1, 12, 3354-3365.
30. “Helical-ribbon and tape formation of lipid packaged $[Ru(bpy)_3]^{2+}$ complexes in organic media”, S. Toohara, M. Hatakeda, T. Nakashima, S. Sakurai, K. Kuroiwa, Int. J. Mol. Sci. 2019, 20(13), 3298 (page 1-15) (2019).
31. “Effects of a special diluent as an agent of improving the crystallizability of poly(L-lactic acid)”, Pham Thi Ngoc Diep, Masatsugu Mochizuki, Mikio Doi, Hideaki Takagi, Nobutaka Shimizu, Noriyuki Igarashi, Sono Sasaki, Shinichi Sakurai, Polymer Journal, 51, 283-294 (2019).
32. “Effects of Loading Amount of Plasticizers on Improved Crystallization of Poly(L-lactic acid)”, Pham Thi Ngoc Diep, Hideaki Takagi, Nobutaka Shimizu, Noriyuki, Sono Sasaki, Shinichi Sakurai, J. Fiber Sci. & Tech., 75, 99-111 (2019).
33. “Accelerated Crystallization of Poly (L-lactic acid) by Silk Fibroin Nano-disc”, Amit Pandey, Vimal Katiyar, Sono Sasaki, Shinichi Sakurai, Polymer Journal, 51, 1173–1180 (2019).
34. “Structural Evolution in Isothermal Crystallization Process of Poly (L-lactic acid) Enhanced by Silk Fibroin Nano-disc”, Amit Kumar Pandey, Vimal Katiyar, Hideaki Takagi, Nobutaka Shimizu, Noriyuki Igarashi, Sono Sasaki, Shinichi Sakurai, Materials 2019, 12(11), 1872.
35. “Effects of drying temperature in solution coating process on microphase-separated structures in coated layers of pressure-sensitive adhesive composed of di- and triblock copolymer blends as revealed by small-angle X-ray scattering”, Takahiro Doi, Hideaki Takagi, Nobutaka Shimizu, Noriyuki Igarashi, Shinichi Sakurai, Polymer, 170, 211-221 (2019).
36. “Simulation of Grain Coarsening of Block Copolymer Cylindrical Microdomains Which Are Perpendicularly Oriented by Using the Phase Field Crystal Model”, H. Ohnogi, S, Sakurai, Kobunshi Ronbunshu (Japanese Journal of Polymer Science and Technology), 76, 141-149 (2019). “Phase Field Crystal 法による垂直配向したシリンダー状ミクロ相分離構造のグレイン成長シミュレーション”, 大野木 博, 櫻井 伸一, 高分子論文集 76 巻 (2019) 2 号 p. 141-149
37. “Changes in Grain Structure Upon Blending of a Homopolymer to a Liquid-Crystalline Diblock Copolymer Which Forms Perpendicularly-Oriented Cylinders”, S. Suita, K. Nakao, S. Asaoka, S. Sasaki, S. Sakurai, Zairyo (J. Soc. Mat. Sci, Jpn.), 68, 26-33 (2019).
38. “Grain Coarsening on the Free Surface and in the Thickness Direction of a Sphere-Forming Triblock Copolymer Film”, R. A. H. Bayomi, K. Honda, H. Takagi, N. Shimizu, N. Igarashi, S. Sasaki, S. Sakurai, *Polym. J.*, 50, 1029-1042 (2018).
39. “Self-assembly of $[Au(CN)_2]^-$ complexes with Tomato (*Solanum lycopersicum*) steroidal alkaloid glycosides to form sheet or tubular structures”, Toohara, Souta; Tanaka, Yasuaki; Sakurai, Shinichi; Ikeda, Tsuyoshi; Tanaka, Kazuo; Gon, Masayuki; Chujo, Yoshiki; KUROIWA, Keita, *Chem. Lett.*, 47, 1010-1013 (2018). https://doi.org/10.1246/cl.180320
40. “Structural Analyses of Sphere- and Cylinder-Forming Triblock Copolymer Thin Films Near a Free Surface by Atomic Force Microscopy, X-ray Photoelectron Spectroscopy and Grazing-Incidence Small Angle X-ray Scattering”, R. A. H. Bayomi, T. Aoki, T. Shimojima, H. Takagi, N. Shimizu, N. Igarashi, S. Sasaki, S. Sakurai, *Polymer*, 147, 202-212 (2018).
41. "Fully Conjugated Porphyrin Glass: Collective Light-Harvesting Antenna for Near-Infrared Fluorescence beyond 1 μm", M. Morisue, S. Omagari, I. Ueno, T. Nakanishi, Y. Hasegawa, S. Yamamoto, J. Matsui, S. Sasaki, T. Hikima, S. Sakurai, *ACS Omega*, 3, 4466–4474 (2018).
42. “Drastic Change in Orientation of Cylindrical Microdomains Upon Thermal Annealing in a Thin Film of a Cylinder-Forming Block Copolymer Having a Liqued Crystalline Moiety”, Shigeo Suita, Norihiko Maruyama, Sadayuki Asaoka, Sono Sasaki, Shinichi Sakurai, *Macromol. Symp.*, 379, 1600184 (2018)
43. “Versatile Controls of Microdomain Morphologies and Temperature Dependencies in Lamellar Spacing by Blending Diblock Copolymers Bearing Anti-symmetric Compositions”, Junji Fukuhara, Akifumi Yasui, Katsuhiro Yamamoto, Shinichi Sakurai, *ACS Omega*, 2,

8580-8590 (2017).

44. “Morphology Re-entry with a Change in Degree of Chain Asymmetry in Neat Asymmetric Linear A_1BA_2 Triblock Copolymers”, Shinichi Sakurai, Kimiyuki Shirouchi, Shunsuke Munakata, Hiroyuki Kurimura, Shigeru Suzuki, Jun Watanabe, Takeshi Oda, Norihiro Shimizu, Kenichi Tanida, Katsuhiro Yamamoto, *Macromolecules*, 50, 8647-8657 (2017).
45. “A Metal-Lustrous Porphyrin Foil”, Mitsuhiko Morsue, Yuki Hoshino, Masaki Shimizu, Shogo Tomita, Mami Goda, Sono Sasaki, Shinichi Sakurai, Ayaka Kawamura, Michinari Kohri, and Jun Matsui, *Chem. Comm.*, 53, 10703-10706 (2017).
46. “Characterization of Surface Morphology and Grain Growth Near the Surface of a Block Copolymer Thin Film Having Cylindrical Microdomains Oriented Perpendicular to the Film Specimen”, Shinichi Sakurai, Toshimasa Harada, Hiroshi Ohnogi, Toshiyuki Isshiki, and Sono Sasaki, *Polymer Journal*, 49, 655-663 (2017)
47. “Development of hybrid diblock copolypeptide amphiphile/magnetic metal complexes and their spin crossover with lower-critical-solution-temperature (LCST)-type transition”, Arie Tsubasa, Soichi Otsuka, Takahiro Maekawa, Ryota Takano, Shinichi Sakurai, Timothy J. Deming, Keita Kuroiwa, *Polymer*, 128, 347-355 (2017).
48. “Strain-Induced Deformation of Glassy Spherical Microdomains in Elastomeric Triblock Copolymer Films: Simultaneous Measurements of a Stress-Strain Curve with 2d-SAXS Patterns”, Shogo Tomita, Li Lei, Yoshimasa Urushihara, Shigeo Kuwamoto, Tadashi Matsushita, Naoki Sakamoto, Sono Sasaki, Shinichi Sakurai; *Macromolecules*, 50, 677-686 (2017)
49. “Strain-Induced Deformation of Glassy Spherical Microdomains in Elastomeric Triblock Copolymer Films: Time-Resolved 2d-SAXS Measurements Under Stretched State”, Shogo Tomita, Isao Wataoka, Noriyuki Igarashi, Nobutaka Shimizu, Hideaki Takagi, Sono Sasaki, Shinichi Sakurai, *Macromolecules*, 50, 3404-3410 (2017)
50. “Coalescence of Non-equilibrium Spheres Through Thermal-Annealing in an SEBS Triblock Copolymer Film Under a Uniaxially Stretched State”, Shogo Tomita, Nobutaka Shimizu, Noriyuki Igarashi, Hideaki Takagi, Sono Sasaki, Shinichi Sakurai, *Polymer Journal*, 49, 519-526 (2017)
51. “Enhanced visible light response of a WO3 photoelectrode with an immobilized fibrous gold nanoparticle assembly using an amyloid-β peptide”, Akira Onoda, Hirofumi Harada, Taro Uematsu, Susumu Kuwabata, Ryo Yamanaka, Shinichi Sakurai and Takashi Hayashi, *RSC Adv.*, 7, 1089-1092 (2017)
52. “Time-Resolved 2d-SAXS Measurements to Reveal Mechanism of Cylinder Orientation Upon Sphere-to-Cylinder Transition Under a Planar Flow in an SEBS Triblock Copolymer Sheet”, Shogo Tomita, Nobutaka Shimizu, Noriyuki Igarashi, Hideaki Takagi, Sono Sasaki, Shinichi Sakurai, *Eur. Polym. J.*, 93, 382-389 (2017)
53. “Orienting Cylindrical Microdomains in an SEBS Triblock Copolymer / Diluent Sheet by Application of Temperature Gradient”, Ryo Yamanaka, Nobutaka Shimizu, Noriyuki Igarashi, Hideaki Takagi, Shinichi Sakurai, *Polimery*, 62, 828-836 (2017)
54. "Supramolecular Polymer of Near-infrared Luminescent Porphyrin Glass", Morisue Mitsuhiko; Hoshino Yuki; Shimizu Masaki; Nakanishi Takayuki; Hasegawa Yasuchika; Hossain Md.; Sakurai Shinichi; Sasaki Sono; Uemura Shinobu; Matsui Jun, *Macromolecules*, 50, 3186–3192 (2017)
55. “Peculiar extensibility of swollen statistical hydrogels with structural nanoheterogeneities”, Ryosuke Mishima, Ayuka Nakao, Shinichi Sakurai, Kenji Urayama, *Polymer*, 115, 28-36 (2017)
56. “Crystallization Behavior of Poly(Ethylene Glycol) Under a Temperature Gradient”, Masaki Deguchi, Go Kimura, Nobutaka Shimizu, Noriyuki Igarashi, Sono Sasaki, Shinichi Sakurai, Zairyo (J. Soc. Mat. Sci, Jpn.), 66, 7-12, 2017. (2017)
57. “Spontaneous Orientation of the Body-Centered-Cubic Lattice for Spherical Microdomains in a Block Copolymer Thin Film” (in Japanese), Konomi Honda, Sono Sasaki, and Shinichi Sakurai, Kobunshi Ronbunshu (Japanese Journal of Polymer Science and Technology), 74, 75 – 84 (2017).
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59. “Simultaneous Time-Resolved SAXS and WAXS Study on Guest Exchange Process of

Syndiotactic Polystyrene with Aromatic Compounds: Size and Shape Effects of Target Molecules", Fumitoshi Kaneko, Naoki Seto, Shuma Sato, Shinichi Sakurai, *Macromol. Symp.*, 359, 63–71 (2016)

60. "Morphological Control of Amphiphilic Poly(N-isopropylacrylamide)/Metal Cyanide Complexes Hybrids", K. Kuroiwa, Y. Koga, Y. Ishimaru, T. Nakashima, H. Hachisako, S. Sakurai, *Polymer J.*, 48, 729-739 (2016)
61. "Evaluation of Grain Size by Small-Angle X-Ray Scattering for a Block Copolymer Film in Which Cylindrical Microdomains Are Perpendicularly Oriented", H. Ohnogi , S. Sasaki, S. Sakurai, *Macromol. Symp.*, 366, 35–41 (2016)
62. "A Tightly Stretched Ultralong Supramolecular Multiporphyrin Array Propagated by Double-Strand Formation", Mitsuhiko Morisue, Yuki Hoshino, Masaki Shimizu, Shinobu Uemura, Shinichi Sakurai, *Chem. Eur. J.*, 22, 1-5 (2016)
63. "Complete and Comprehensive Orientation of Cylindrical Microdomains in a Block Copolymer Sheet", S. Tomita, H. Urakawa, I. Wataoka, S. Sasaki, S. Sakurai, *Polym. J.*, 48, 1123-1131 (2016)
64. "Design of low-crystalline and low-density isobutyl-substituted caged silsesquioxane derivatives by star-shaped architectures linked with short aliphatic chains", Yasumoto Yuta; Yamanaka, Takahiro; Sakurai, Shinichi; Imoto, Hiroaki; Naka, Kensuke, *Polym. J.*, 48, 281-287 (2016)
65. "Three-Dimensional Analyses on Morphology of Spherulites in Poly(oxyethylene) and Its Blends with Amorphous Poly(d,l-lactic acid) by X-ray Computerized Tomography", Nguyen-Dung Tien, Yukihiro Nishikawa, Masato Hashimoto, Masatoshi Tosaka, Sono Sasaki, Shinichi Sakurai, *Polymer Journal*, 47, 37-44 (2015)
66. "Supramolecular Elastomers: Self-Assembling Star–Blocks of Soft Polyisobutylene and Hard Oligo(β-alanine) Segments", Joseph Scavuzzo, Shogo Tomita, Shiwang Cheng, Hao Liu, Min Gao, Joseph P. Kennedy, Shinichi Sakurai, Stephen Z. D. Cheng, Li Jia, *Macromolecules*, 48, 1077–1086 (2015)
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68. "A study on the phase behavior of poly(ε -caprolactone)-poly(butadiene) diblock copolymers: The influence of relatively low-molecular-weight block copolymers on the order-disorder transition behavior", Hideaki Takagi, Katsuhiro Yamamoto, Shigeru Okamoto and Shinichi Sakurai, *Polymer*, 67, 20-27 (2015)
69. "Analyses of Higher-Order Structures in Poly(ethylene terephthalate) Fibers Prepared with High-Speed Melt Spinning by Conducting Small-Angle X-ray Scattering Measurements for Fibers Immersed in Non-Solvent of Which Electron Density was Matched to That of Fibers", Yoshihiro Tsuji, Junichi Kojima, Takeshi Kikutani, Shinichi Sakurai, Zairyo (J. Soc. Mat. Sci, Jpn.), 64, 11-17, 2015.
70. "Changes in Microphase-Separated Structures and Properties of an Elastomeric Block Copolymer Film Upon Uniaxial Stretching As Analyzed by Conducting Simultaneous Measurements of Two-Dimensional Small-Angle X-Ray Scattering with Stress-Strain Tests", M. Uozumi, T. Matsushita, N. Sakamoto, T. Yamazaki, K. Imaizumi, L. Li, Y. Urushihara, S. Kuwamoto, H. Masunaga, S. Sasaki and S. Sakurai, *J. Soc. Rheol., Jpn*, 43, 77-83 (2015)
71. "Intriguing transmission electron microscopy images observed for perpendicularly oriented cylindrical microdomains of block copolymers",Hiroshi Ohnogi, Toshiyuki Isshiki, Sono Sasaki, Shinichi Sakurai, *Nanoscale*, 6, 10817-10823 (2014)
72. "Nanomorphology Characterization of Sterically Stabilized Polypyrrole-Palladium Nanocomposite Particles", Hiroaki Takeoka, Nobuyuki Fukui, Shinichi Sakurai, Yoshinobu Nakamura, Syuji Fujii, *Polymer Journal*, 46, 704-709 (2014)
73. "Small-angle X-ray scattering studies on melting and recrystallization behaviors of poly(oxyethylene) crystallites in poly(D,L-lactide)/ poly(oxyethylene) blends", Nguyen-Dung Tien, Sono Sasaki, Hiroyasu Masunaga, Nobutaka Shimizu, Noriyuki Igarashi, Shinichi Sakurai, *Polymer*, 55, 2562-2569 (2014)
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Suwabun Chirachanchai, *Polymer*, 55, 2068-2076 (2014)

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