

Nobutaka Shimizu

List of Publications by Year in descending order

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77
papers

1,635
citations

331538

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docs citations

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times ranked

2230
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#	ARTICLE	IF	CITATIONS
1	<i>K</i> -edge anomalous SAXS for protein solution structure modeling. <i>Acta Crystallographica Section D: Structural Biology</i> , 2022, 78, 204-211.	1.1	2
2	Impact of Strain-Induced Crystallization on Fast Crack Growth in Stretched <i>cis</i> -1,4-Polyisoprene Rubber. <i>ACS Macro Letters</i> , 2022, 11, 747-752.	2.3	8
3	Ca ²⁺ -induced structural changes and intramolecular interactions in N-terminal region of diacylglycerol kinase alpha. <i>Protein Science</i> , 2022, 31, .	3.1	1
4	Relationship Between Formation of Kink Structure and Necking of a Specimen Comprising Hard and Soft Lamellar Microdomains Under Uniaxial Stretching. <i>Zairyo</i> /Journal of the Society of Materials Science, Japan, 2021, 70, 17-24.	0.1	1
5	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. <i>Progress in Organic Coatings</i> , 2021, 152, 106115.	1.9	3
6	Diarylethene-Powered Light-Induced Folding of Supramolecular Polymers. <i>Journal of the American Chemical Society</i> , 2021, 143, 5845-5854.	6.6	41
7	Stress-Strain and Stress-Relaxation Behaviors of Solution-Coated Layers Composed of Block Copolymers Mixed with Tackifiers. <i>ACS Omega</i> , 2021, 6, 17299-17313.	1.6	3
8	Enhanced formation of stereocomplex crystallites in Poly(L-lactic acid)/Poly(D-lactic acid) blends by silk fibroin nanodisc. <i>Polymer</i> , 2021, 229, 124001.	1.8	17
9	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. <i>Polymer</i> , 2021, 229, 123971.	1.8	11
10	Non-uniform Photoinduced Unfolding of Supramolecular Polymers Leading to Topological Block Nanofibers. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 26986-26993.	7.2	8
11	Effects of drying temperature in solution coating process on the structural changes upon uniaxial stretching of sphere-forming block copolymer films. <i>Polymer Journal</i> , 2020, 52, 421-433.	1.3	7
12	Effect of Solvent on the Thermodynamic Stability of Toroidal Supramolecular Polymers. <i>Chemistry Letters</i> , 2020, 49, 178-181.	0.7	5
13	Supramolecular double-stranded Archimedean spirals and concentric toroids. <i>Nature Communications</i> , 2020, 11, 3578.	5.8	67
14	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. <i>ACS Applied Polymer Materials</i> , 2020, 2, 4973-4984.	2.0	10
15	Crystal structure of GCN5 PCAF N-terminal domain reveals atypical ubiquitin ligase structure. <i>Journal of Biological Chemistry</i> , 2020, 295, 14630-14639.	1.6	8
16	Short-Distance Intermolecular Correlations of Mono- and Disaccharides in Condensed Solutions: Bulky Character of Trehalose. <i>ACS Omega</i> , 2020, 5, 10815-10825.	1.6	1
17	The Measles Virus V Protein Binding Site to STAT2 Overlaps That of IRF9. <i>Journal of Virology</i> , 2020, 94, .	1.5	13
18	Optimal Mutant Model of Human S100A3 Protein Citrullinated at Arg51 by Peptidylarginine Deiminase Type III and Its Solution Structural Properties. <i>ACS Omega</i> , 2020, 5, 4032-4042.	1.6	6

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19	Supramolecular copolymerization driven by integrative self-sorting of hydrogen-bonded rosettes. <i>Nature Communications</i> , 2020, 11, 1623.	5.8	82
20	Topological Impact on the Kinetic Stability of Supramolecular Polymers. <i>Journal of the American Chemical Society</i> , 2019, 141, 13196-13202.	6.6	45
21	One-shot preparation of topologically chimeric nanofibers via a gradient supramolecular copolymerization. <i>Nature Communications</i> , 2019, 10, 4578.	5.8	35
22	Effects of Loading Amount of Plasticizers on Improved Crystallization of Poly (L-lactic acid). <i>Journal of Fiber Science and Technology</i> , 2019, 75, 99-111.	0.2	6
23	Structure of tRNA methyltransferase complex of Trm7 and Trm734 reveals a novel binding interface for tRNA recognition. <i>Nucleic Acids Research</i> , 2019, 47, 10942-10955.	6.5	18
24	Structural Evolution in Isothermal Crystallization Process of Poly(L-lactic acid) Enhanced by Silk Fibroin Nano-Disc. <i>Materials</i> , 2019, 12, 1872.	1.3	13
25	Structure of Ultrafine Bubbles and Their Effects on Protein and Lipid Membrane Structures Studied by Small- and Wide-Angle X-ray Scattering. <i>Journal of Physical Chemistry B</i> , 2019, 123, 3421-3429.	1.2	5
26	Construction of a Quadrangular Tetramer and a Cage-Like Hexamer from Three-Helix Bundle-Linked Fusion Proteins. <i>ACS Synthetic Biology</i> , 2019, 8, 1112-1120.	1.9	7
27	Software for serial data analysis measured by SEC-SAXS/UV-Vis spectroscopy. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	10
28	Further developments of the tender x-ray diffractometer at BL-15A2 of the photon factory. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	3
29	New high-brilliance small angle x-ray scattering beamline, BL-15A2 at the photon factory. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	18
30	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. <i>Polymer</i> , 2019, 170, 211-221.	1.8	10
31	Effects of a special diluent as an agent of improving the crystallizability of poly(L-lactic acid). <i>Polymer Journal</i> , 2019, 51, 283-294.	1.3	17
32	Purification and functional characterization of tomato mosaic virus 130K protein expressed in silkworm pupae using a baculovirus vector. <i>Protein Expression and Purification</i> , 2019, 154, 85-90.	0.6	1
33	Protective action of trehalose and glucose on protein hydration shell clarified by using X-ray and neutron scattering. <i>Physica B: Condensed Matter</i> , 2018, 551, 249-255.	1.3	26
34	Macromolecular crowding effect on protein structure and hydration clarified by using X-ray and neutron scattering. <i>Physica B: Condensed Matter</i> , 2018, 551, 212-217.	1.3	4
35	Solution scattering approaches to dynamical ordering in biomolecular systems. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2018, 1862, 253-274.	1.1	39
36	Restoration of Myoglobin Native Fold from Its Initial State of Amyloid Formation by Trehalose. <i>Journal of Physical Chemistry B</i> , 2018, 122, 11962-11968.	1.2	4

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37	Preferential Intercalation of Human Amyloid- β Peptide into Interbilayer Region of Lipid-Raft Membrane in Macromolecular Crowding Environment. <i>Journal of Physical Chemistry B</i> , 2018, 122, 9482-9489.	1.2	8
38	Structure of MHC class I-like MILL2 reveals heparan-sulfate binding and interdomain flexibility. <i>Nature Communications</i> , 2018, 9, 4330.	5.8	3
39	Self-folding of supramolecular polymers into bioinspired topology. <i>Science Advances</i> , 2018, 4, eaat8466.	4.7	78
40	Compact Seahorse- ϵ Shaped T-Cell- ϵ Activating Antibody for Cancer Therapy. <i>Advanced Therapeutics</i> , 2018, 1, 1700031.	1.6	4
41	Direct Evidence for the Effect of Glycerol on Protein Hydration and Thermal Structural Transition. <i>Biophysical Journal</i> , 2018, 115, 313-327.	0.2	39
42	Grain coarsening on the free surface and in the thickness direction of a sphere-forming triblock copolymer film. <i>Polymer Journal</i> , 2018, 50, 1029-1042.	1.3	7
43	Structural analyses of sphere- and cylinder-forming triblock copolymer thin films near the free surface by atomic force microscopy, X-ray photoelectron spectroscopy, and grazing-incidence small-angle X-ray scattering. <i>Polymer</i> , 2018, 147, 202-212.	1.8	10
44	Supramolecular Polymerization of Supermacrocycles: Effect of Molecular Conformations on Kinetics and Morphology. <i>Chemistry - A European Journal</i> , 2017, 23, 5270-5280.	1.7	21
45	Improved method for soluble expression and rapid purification of yeast TFIIA. <i>Protein Expression and Purification</i> , 2017, 133, 50-56.	0.6	5
46	Strain-Induced Deformation of Glassy Spherical Microdomains in Elastomeric Triblock Copolymer Films: Time-Resolved 2d-SAXS Measurements under Stretched State. <i>Macromolecules</i> , 2017, 50, 3404-3410.	2.2	22
47	Light-induced unfolding and refolding of supramolecular polymer nanofibres. <i>Nature Communications</i> , 2017, 8, 15254.	5.8	105
48	Protein- ϵ phospholipid interplay revealed with crystals of a calcium pump. <i>Nature</i> , 2017, 545, 193-198.	13.7	126
49	Microscopic analyses of complexes formed in adsorbent for Mo and Zr separation chromatography. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2017, 404, 173-178.	0.6	8
50	Coalescence of non-equilibrium spheres through thermal annealing in a polystyrene-block-poly(ethylene-co-butylene)-block-polystyrene triblock copolymer film under a uniaxially stretched state. <i>Polymer Journal</i> , 2017, 49, 519-526.	1.3	9
51	Crystal structure of the flexible tandem repeat domain of bacterial cellulose synthesis subunit C. <i>Scientific Reports</i> , 2017, 7, 13018.	1.6	28
52	Mechanism of Catalytic Microtubule Depolymerization via KIF2-Tubulin Transitional Conformation. <i>Cell Reports</i> , 2017, 20, 2626-2638.	2.9	34
53	Neutron crystallography of photoactive yellow protein reveals unusual protonation state of Arg52 in the crystal. <i>Scientific Reports</i> , 2017, 7, 9361.	1.6	19
54	Structure-based analysis of the guanine nucleotide exchange factor SmgGDS reveals armadillo-repeat motifs and key regions for activity and GTPase binding. <i>Journal of Biological Chemistry</i> , 2017, 292, 13441-13448.	1.6	17

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55	Structural basis for tRNA-dependent cysteine biosynthesis. <i>Nature Communications</i> , 2017, 8, 1521.	5.8	6
56	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. <i>European Polymer Journal</i> , 2017, 93, 382-389.	2.6	3
57	Orienting cylindrical microdomains in polystyrene-b-poly(ethylene-co-butylene)-b-polystyrene triblock copolymer/diluent sheet by application of temperature gradient. <i>Polimery</i> , 2017, 62, 812-820.	0.4	1
58	Crystallization Behavior of Poly(Ethylene Glycol) Under a Temperature Gradient. <i>Zairyo/Journal of the Society of Materials Science, Japan</i> , 2017, 66, 7-12.	0.1	1
59	Newly designed double surface bimorph mirror for BL-15A of the photon factory. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	6
60	Trisaccharide containing $\hat{I}\pm 2,3$ -linked sialic acid is a receptor for mumps virus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 11579-11584.	3.3	79
61	Apo- and Antagonist-Binding Structures of Vitamin D Receptor Ligand-Binding Domain Revealed by Hybrid Approach Combining Small-Angle X-ray Scattering and Molecular Dynamics. <i>Journal of Medicinal Chemistry</i> , 2016, 59, 7888-7900.	2.9	25
62	Monomeric Form of Peptidylarginine Deiminase Type I Revealed by X-ray Crystallography and Small-Angle X-ray Scattering. <i>Journal of Molecular Biology</i> , 2016, 428, 3058-3073.	2.0	35
63	Novel helical assembly in arginine methyltransferase 8. <i>Journal of Molecular Biology</i> , 2016, 428, 1197-1208.	2.0	19
64	Effect of Cholesterol on the Interaction of Cytochrome P450 Substrate Drug Chlorzoxazone with the Phosphatidylcholine Bilayer. <i>Biochemistry</i> , 2016, 55, 3888-3898.	1.2	13
65	Effect of Protein-Encapsulation on Thermal Structural Stability of Liposome Composed of Glycosphingolipid/Cholesterol/Phospholipid. <i>Journal of Physical Chemistry B</i> , 2015, 119, 3398-3406.	1.2	18
66	Structure of the RsbX phosphatase involved in the general stress response of <i>Bacillus subtilis</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2015, 71, 1392-1399.	2.5	8
67	Small-angle X-ray scattering studies on melting and recrystallization behaviors of poly(oxyethylene) crystallites in poly(, -lactide)/poly(oxyethylene) blends. <i>Polymer</i> , 2014, 55, 2562-2569.	1.8	19
68	Low-barrier hydrogen bond in photoactive yellow protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 440-444.	3.3	191
69	Crystallization and preliminary X-ray analysis of the stress-response PPM phosphatase RsbX from <i>Bacillus subtilis</i> . <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2009, 65, 1128-1130.	0.7	1
70	Characterization of the Solution Structure of the M Intermediate of Photoactive Yellow Protein Using High-Angle Solution X-Ray Scattering. <i>Biophysical Journal</i> , 2007, 92, 3633-3642.	0.2	20
71	Preparation of Large Crystals of Photoactive Yellow Protein for Neutron Diffraction and High Resolution Crystal Structure Analysis. <i>Photochemistry and Photobiology</i> , 2007, 83, 336-338.	1.3	10
72	pH-dependent Equilibrium between Long Lived Near-UV Intermediates of Photoactive Yellow Protein. <i>Journal of Biological Chemistry</i> , 2006, 281, 4318-4325.	1.6	29

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73	Effect of Organic Anions on the Photoreaction of Photoactive Yellow Protein. Journal of Biochemistry, 2002, 132, 257-263.	0.9	15
74	The Progress and Problem of X-ray Crystallography of Photocycle Intermediate of Photoactive Yellow Protein.. Seibutsu Butsuri, 2002, 42, 162-167.	0.0	1
75	Light Induces Destabilization of Photoactive Yellow Protein. Biochemistry, 2001, 40, 2854-2859.	1.2	37
76	Non-uniform Photoinduced Unfolding of Supramolecular Polymers Leading to Topological Block Nanofibers. Angewandte Chemie, 0, , .	1.6	0
77	Shear-Strained Structures Induced during Hot-Melt Coating and Their Gradual Temporal Changes in Coated Layers Composed of Block Copolymer/Tackifier Blends. ACS Applied Polymer Materials, 0, , .	2.0	0