

Nobutaka Shimizu

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4136712/publications.pdf>

Version: 2024-02-01

77
papers

1,635
citations

331538

21
h-index

330025

37
g-index

77
all docs

77
docs citations

77
times ranked

2230
citing authors

#	ARTICLE	IF	CITATIONS
1	Low-barrier hydrogen bond in photoactive yellow protein. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 440-444.	3.3	191
2	Protein-phospholipid interplay revealed with crystals of a calcium pump. Nature, 2017, 545, 193-198.	13.7	126
3	Light-induced unfolding and refolding of supramolecular polymer nanofibres. Nature Communications, 2017, 8, 15254.	5.8	105
4	Supramolecular copolymerization driven by integrative self-sorting of hydrogen-bonded rosettes. Nature Communications, 2020, 11, 1623.	5.8	82
5	Trisaccharide containing α 2,3-linked sialic acid is a receptor for mumps virus. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11579-11584.	3.3	79
6	Self-folding of supramolecular polymers into bioinspired topology. Science Advances, 2018, 4, eaat8466.	4.7	78
7	Supramolecular double-stranded Archimedean spirals and concentric toroids. Nature Communications, 2020, 11, 3578.	5.8	67
8	Topological Impact on the Kinetic Stability of Supramolecular Polymers. Journal of the American Chemical Society, 2019, 141, 13196-13202.	6.6	45
9	Diarylethene-Powered Light-Induced Folding of Supramolecular Polymers. Journal of the American Chemical Society, 2021, 143, 5845-5854.	6.6	41
10	Solution scattering approaches to dynamical ordering in biomolecular systems. Biochimica Et Biophysica Acta - General Subjects, 2018, 1862, 253-274.	1.1	39
11	Direct Evidence for the Effect of Glycerol on Protein Hydration and Thermal Structural Transition. Biophysical Journal, 2018, 115, 313-327.	0.2	39
12	Light Induces Destabilization of Photoactive Yellow Protein. Biochemistry, 2001, 40, 2854-2859.	1.2	37
13	Monomeric Form of Peptidylarginine Deiminase Type I Revealed by X-ray Crystallography and Small-Angle X-ray Scattering. Journal of Molecular Biology, 2016, 428, 3058-3073.	2.0	35
14	One-shot preparation of topologically chimeric nanofibers via a gradient supramolecular copolymerization. Nature Communications, 2019, 10, 4578.	5.8	35
15	Mechanism of Catalytic Microtubule Depolymerization via KIF2-Tubulin Transitional Conformation. Cell Reports, 2017, 20, 2626-2638.	2.9	34
16	pH-dependent Equilibrium between Long Lived Near-UV Intermediates of Photoactive Yellow Protein. Journal of Biological Chemistry, 2006, 281, 4318-4325.	1.6	29
17	Crystal structure of the flexible tandem repeat domain of bacterial cellulose synthesis subunit C. Scientific Reports, 2017, 7, 13018.	1.6	28
18	Protective action of trehalose and glucose on protein hydration shell clarified by using X-ray and neutron scattering. Physica B: Condensed Matter, 2018, 551, 249-255.	1.3	26

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	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
22	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
23	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
24	Novel helical assembly in arginine methyltransferase 8. <i>Journal of Molecular Biology</i> , 2016, 428, 1197-1208.	2.0	19
25	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
26	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
27	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
28	New high-brilliance small angle x-ray scattering beamline, BL-15A2 at the photon factory. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	18
29	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
30	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
31	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
32	Effect of Organic Anions on the Photoreaction of Photoactive Yellow Protein. <i>Journal of Biochemistry</i> , 2002, 132, 257-263.	0.9	15
33	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
34	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
35	The Measles Virus V Protein Binding Site to STAT2 Overlaps That of IRF9. <i>Journal of Virology</i> , 2020, 94, .	1.5	13
36	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

#	ARTICLE	IF	CITATIONS
37	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
38	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
39	Software for serial data analysis measured by SEC-SAXS/UV-Vis spectroscopy. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	10
40	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
41	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
42	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
43	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
44	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
45	Preferential Intercalation of Human Amyloid- β 2 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
46	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
47	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
48	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
49	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
50	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
51	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
52	Newly designed double surface bimorph mirror for BL-15A of the photon factory. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	6
53	Structural basis for tRNA-dependent cysteine biosynthesis. <i>Nature Communications</i> , 2017, 8, 1521.	5.8	6
54	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

#	ARTICLE	IF	CITATIONS
55	Optimal Mutant Model of Human S100A3 Protein Citrullinated at Arg51 by Peptidylarginine Deiminase Type III and Its Solution Structural Properties. ACS Omega, 2020, 5, 4032-4042.	1.6	6
56	Improved method for soluble expression and rapid purification of yeast TFIIA. Protein Expression and Purification, 2017, 133, 50-56.	0.6	5
57	Structure of Ultrafine Bubbles and Their Effects on Protein and Lipid Membrane Structures Studied by Small- and Wide-Angle X-ray Scattering. Journal of Physical Chemistry B, 2019, 123, 3421-3429.	1.2	5
58	Effect of Solvent on the Thermodynamic Stability of Toroidal Supramolecular Polymers. Chemistry Letters, 2020, 49, 178-181.	0.7	5
59	Macromolecular crowding effect on protein structure and hydration clarified by using X-ray and neutron scattering. Physica B: Condensed Matter, 2018, 551, 212-217.	1.3	4
60	Restoration of Myoglobin Native Fold from Its Initial State of Amyloid Formation by Trehalose. Journal of Physical Chemistry B, 2018, 122, 11962-11968.	1.2	4
61	Compact Seahorse-shaped Cell-Activating Antibody for Cancer Therapy. Advanced Therapeutics, 2018, 1, 1700031.	1.6	4
62	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. European Polymer Journal, 2017, 93, 382-389.	2.6	3
63	Structure of MHC class I-like MILL2 reveals heparan-sulfate binding and interdomain flexibility. Nature Communications, 2018, 9, 4330.	5.8	3
64	Further developments of the tender x-ray diffractometer at BL-15A2 of the photon factory. AIP Conference Proceedings, 2019, , .	0.3	3
65	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, 2021, 152, 106115.	1.9	3
66	Stress-Strain and Stress-Relaxation Behaviors of Solution-Coated Layers Composed of Block Copolymers Mixed with Tackifiers. ACS Omega, 2021, 6, 17299-17313.	1.6	3
67	K-edge anomalous SAXS for protein solution structure modeling. Acta Crystallographica Section D: Structural Biology, 2022, 78, 204-211.	1.1	2
68	Crystallization and preliminary X-ray analysis of the stress-response PPM phosphatase RsbX from Bacillus subtilis. Acta Crystallographica Section F: Structural Biology Communications, 2009, 65, 1128-1130.	0.7	1
69	Purification and functional characterization of tomato mosaic virus 130K protein expressed in silkworm pupae using a baculovirus vector. Protein Expression and Purification, 2019, 154, 85-90.	0.6	1
70	Short-Distance Intermolecular Correlations of Mono- and Disaccharides in Condensed Solutions: Bulky Character of Trehalose. ACS Omega, 2020, 5, 10815-10825.	1.6	1
71	Relationship Between Formation of Kink Structure and Necking of a Specimen Comprising Hard and Soft Lamellar Microdomains Under Uniaxial Stretching. Zairyo/Journal of the Society of Materials Science, Japan, 2021, 70, 17-24.	0.1	1
72	Orienting cylindrical microdomains in polystyrene-b-poly(ethylene-co-butylene)-b-polystyrene triblock copolymer/diluent sheet by application of temperature gradient. Polimery, 2017, 62, 812-820.	0.4	1

#	ARTICLE	IF	CITATIONS
73	Crystallization Behavior of Poly(Ethylene Glycol) Under a Temperature Gradient. Zairyo/Journal of the Society of Materials Science, Japan, 2017, 66, 7-12.	0.1	1
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	Ca ²⁺ -induced structural changes and intramolecular interactions in N-terminal region of diacylglycerol kinase alpha. Protein Science, 2022, 31, .	3.1	1
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