Hideki Taguchi

List of Publications by Year
in descending order

		101384	138251
124 papers	4,160 citations	36 h-index	58 g-index

131 all docs	131 docs citations	131 times ranked	3645 citing authors

#	Article	IF	Citations
1	Bimodal protein solubility distribution revealed by an aggregation analysis of the entire ensemble of <i>Escherichia coli</i> proteins. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4201-4206.	3.3	253
2	Biomolecular robotics for chemomechanically driven guest delivery fuelled by intracellular ATP. Nature Chemistry, 2013, 5, 613-620.	6.6	195
3	A systematic survey of in vivo obligate chaperonin-dependent substrates. EMBO Journal, 2010, 29, 1552-1564.	3.5	156
4	Global analysis of chaperone effects using a reconstituted cell-free translation system. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8937-8942.	3.3	143
5	Î²-Helix is a likely core structure of yeast prion Sup35 amyloid fibers. Biochemical and Biophysical Research Communications, 2004, 315, 739-745.	1.0	121
6	Single-molecule observation of proteinâ€“protein interactions in the chaperonin system. Nature Biotechnology, 2001, 19, 861-865.	9.4	111
7	Semibiological Molecular Machine with an Implemented â€œANDâ€•Logic Gate for Regulation of Protein Folding. Journal of the American Chemical Society, 2006, 128, 3764-3769.	6.6	107
8	On the Maximum Size of Proteins to Stay and Fold in the Cavity of GroEL underneath GroES. Journal of Biological Chemistry, 1999, 274, 21251-21256.	1.6	105
9	GroEL Mediates Protein Folding with a Two Successive Timer Mechanism. Molecular Cell, 2004, 14, 423-434.	4.5	97
10	A Tubular Biocontainer: Metal Ion-Induced 1D Assembly of a Molecularly Engineered Chaperonin. Journal of the American Chemical Society, 2009, 131, 7556-7557.	6.6	89
11	Hsp104 Binds to Yeast Sup35 Prion Fiber but Needs Other Factor(s) to Sever It. Journal of Biological Chemistry, 2004, 279, 52319-52323.	1.6	79
12	Structural and functional characterization of homo-oligomeric complexes of Î± and Î² chaperonin subunits from the hyperthermophilic archaeum Thermococcus strain KS-1 1 1Edited by W. Baumeister. Journal of Molecular Biology, 1997, 273, 635-645.	2.0	77
13	Highly stereocontrolled total synthesis of leukotriene B4, 20-hydroxyleukotriene B4, leukotriene B3, and their analogs. Journal of Organic Chemistry, 1990, 55, 5324-5335.	1.7	76
14	Chaperonin-mediated Folding of Green Fluorescent Protein. Journal of Biological Chemistry, 1997, 272, 12468-12474.	1.6	74
15	Structure of holo-chaperonin studied with electron microscopy Oligomeric cpn10 on top of two layers of cpn60 rings with two stripes each. FEBS Letters, 1992, 299, 169-174.	1.3	73
16	Intrinsic Ribosome Destabilization Underlies Translation and Provides an Organism with a Strategy of Environmental Sensing. Molecular Cell, 2017, 68, 528-539.e5.	4.5	68
17	In vivo evidence for the fibrillar structures of Sup35 prions in yeast cells. Journal of Cell Biology, 2010, 190, 223-231.	2.3	65
18	Strong Growth Polarity of Yeast Prion Fiber Revealed by Single Fiber Imaging. Journal of Biological Chemistry, 2001, 276, 35227-35230.	1.6	64

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19	Chaperone Properties of Mammalian Mitochondrial Translation Elongation Factor Tu. Journal of Biological Chemistry, 2007, 282, 4076-4084.	1.6	62
20	Proximity Histidine Labeling by Umpolung Strategy Using Singlet Oxygen. Journal of the American Chemical Society, 2021, 143, 7726-7731.	6.6	60
21	Co-translational Involvement of the Chaperonin GroEL in the Folding of Newly Translated Polypeptides. Journal of Biological Chemistry, 2005, 280, 12035-12040.	1.6	56
22	Crystal Structure of the Native Chaperonin Complex from Thermus thermophilus Revealed Unexpected Asymmetry at the cis-Cavity. Structure, 2004, 12, 1471-1480.	1.6	55
23	Tailoring Micrometer-Long High-Integrity 1D Array of Superparamagnetic Nanoparticles in a Nanotubular Protein Jacket and Its Lateral Magnetic Assembling Behavior. Journal of the American Chemical Society, 2015, 137, 4658-4661.	6.6	53
24	Protein Nanotube Selectively Cleavable with DNA: Supramolecular Polymerization of â€œDNA-Appended Molecular Chaperonesâ€. Journal of the American Chemical Society, 2018, 140, 26-29.	6.6	53
25	Calorimetric Observation of a GroEL-Protein Binding Reaction with Little Contribution of Hydrophobic Interaction. Journal of Biological Chemistry, 1997, 272, 32158-32162.	1.6	52
26	Crystal Structure of a Symmetric Football-Shaped GroEL:GroES2-ATP14 Complex Determined at 3.8 Ã… Reveals Rearrangement between Two GroEL Rings. Journal of Molecular Biology, 2014, 426, 3634-3641.	2.0	48
27	V-Type H+-ATPase/Synthase from a Thermophilic Eubacterium, Thermus Thermophilus. Journal of Biological Chemistry, 2000, 275, 13955-13961.	1.6	46
28	Archaeal group II chaperonin mediates protein folding in the cis-cavity without a detachable GroES-like co-chaperonin11Edited by W. Baumeister. Journal of Molecular Biology, 2002, 315, 73-85.	2.0	46
29	Dynamics of yeast prion aggregates in single living cells. Genes To Cells, 2006, 11, 1085-1096.	0.5	46
30	Folding Intermediate Binds to the Bottom of Bullet-shaped Holo-chaperonin and is Readily Accessible to Antibody. Journal of Molecular Biology, 1994, 236, 691-696.	2.0	45
31	Analysis of interaction between chaperonin GroEL and its substrate using fluorescence correlation spectroscopy. Cytometry, 1999, 36, 247-253.	1.8	45
32	BeF Stops the Chaperonin Cycle of GroEL-GroES and Generates a Complex with Double Folding Chambers. Journal of Biological Chemistry, 2004, 279, 45737-45743.	1.6	45
33	Revisiting the GroEL-GroES Reaction Cycle via the Symmetric Intermediate Implied by Novel Aspects of the GroEL(D398A) Mutant. Journal of Biological Chemistry, 2008, 283, 23774-23781.	1.6	44
34	Chaperone-assisted folding of a single-chain antibody in a reconstituted translation system. Biochemical and Biophysical Research Communications, 2004, 320, 1359-1364.	1.0	43
35	Kinetic Analysis of Interactions between GroEL and Reduced Î±-Lactalbumin. Journal of Biological Chemistry, 1995, 270, 19957-19963.	1.6	41
36	Single-molecule imaging of full protein synthesis by immobilized ribosomes. Nucleic Acids Research, 2008, 36, e70-e70.	6.5	41

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37	Assembly of the Yeast Prion Ure2p into Protein Fibrils. Journal of Biological Chemistry, 2003, 278, 30199-30205.	1.6	38
38	Integrated in vivo and in vitro nascent chain profiling reveals widespread translational pausing. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E829-38.	3.3	37
39	Effect of Electrostatic Interactions on the Binding of Charged Substrate to GroEL Studied by Highly Sensitive Fluorescence Correlation Spectroscopy. Biochemical and Biophysical Research Communications, 2000, 267, 300-304.	1.0	36
40	Reaction Cycle of Chaperonin GroEL via Symmetric â€œFootballâ€•Intermediate. Journal of Molecular Biology, 2015, 427, 2912-2918.	2.0	36
41	Dynamics of oligomer and amyloid fibril formation by yeast prion Sup35 observed by high-speed atomic force microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7831-7836.	3.3	36
42	Comprehensive study of liposome-assisted synthesis of membrane proteins using a reconstituted cell-free translation system. Scientific Reports, 2016, 5, 18025.	1.6	35
43	Truncated GroEL monomer has the ability to promote folding of rhodanese without GroES and ATP. FEBS Letters, 1993, 336, 363-367.	1.3	34
44	Chaperonin releases the substrate protein in a form with tendency to aggregate and ability to rebind to chaperonin. FEBS Letters, 1995, 359, 195-198.	1.3	34
45	Chaperonin GroEL Meets the Substrate Protein as a â€œLoadâ€•of the Rings. Journal of Biochemistry, 2005, 137, 543-549.	0.9	33
46	Co-translational Binding of GroEL to Nascent Polypeptides Is Followed by Post-translational Encapsulation by GroES to Mediate Protein Folding. Journal of Biological Chemistry, 2006, 281, 21813-21819.	1.6	32
47	Filamentous Morphology in GroE-Depleted Escherichia coli Induced by Impaired Folding of FtsE. Journal of Bacteriology, 2007, 189, 5860-5866.	1.0	32
48	Comparison of refolding activities between nanogel artificial chaperone and GroEL systems. International Journal of Biological Macromolecules, 2008, 42, 241-246.	3.6	32
49	Single motherâ€“daughter pair analysis to clarify the diffusion properties of yeast prion Sup35 in guanidineâ€HClâ€treated [<i>PSI</i>⁺] cells. Genes To Cells, 2009, 14, 1045-1054.	0.5	32
50	C9orf72-derived arginine-rich poly-dipeptides impede phase modifiers. Nature Communications, 2021, 12, 5301.	5.8	31
51	Amphiphilic Polysaccharide Nanogels as Artificial Chaperones in Cellâ€Free Protein Synthesis. Macromolecular Bioscience, 2011, 11, 814-820.	2.1	30
52	Specific Interaction between GroEL and Denatured Protein Measured by Compression-Free Force Spectroscopy. Biophysical Journal, 2003, 85, 484-490.	0.2	29
53	GroEL Binds Artificial Proteins with Random Sequences. Journal of Biological Chemistry, 2000, 275, 13755-13758.	1.6	28
54	Supramolecular Nanotube of Chaperonin GroEL: Length Control for Cellular Uptake Using Single-Ring GroEL Mutant as End-Capper. Journal of the American Chemical Society, 2016, 138, 11152-11155.	6.6	28

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55	Equatorial split of holo-chaperonin fromThermus thermophilusby ATP and K+. FEBS Letters, 1995, 362, 121-125.	1.3	27
56	Identification of novel <i>in vivo</i> obligate GroEL/ES substrates based on data from a cellâ€free proteomics approach. FEBS Letters, 2016, 590, 251-257.	1.3	27
57	Large-scale aggregation analysis of eukaryotic proteins reveals an involvement of intrinsically disordered regions in protein folding. Scientific Reports, 2018, 8, 678.	1.6	26
58	Yeast prion protein New1 can break Sup35 amyloid fibrils into fragments in an ATP-dependent manner. Genes To Cells, 2011, 16, 545-556.	0.5	24
59	Molecular Cloning, Expression, and Characterization of Chaperonin-60 and Chaperonin-10 from a Thermophilic Bacterium, Thermus thermophilus HB81. Journal of Biochemistry, 1995, 118, 347-354.	0.9	23
60	Amyloid oligomers: diffuse oligomerâ€based transmission of yeast prions. FEBS Journal, 2010, 277, 1359-1368.	2.2	23
61	Synchronized Domain-opening Motion of GroEL Is Essential for Communication between the Two Rings. Journal of Biological Chemistry, 2001, 276, 11335-11338.	1.6	22
62	Single molecule imaging of the trans-translation entry process via anchoring of the tagged ribosome. Journal of Biochemistry, 2011, 149, 609-618.	0.9	22
63	Cryo-EM Structure of the Native GroEL-GroES Complex from Thermus thermophilus Encapsulating Substrate Inside the Cavity. Structure, 2009, 17, 287-293.	1.6	20
64	<i>Escherichia coli</i> small heat shock protein IbpA is an aggregationâ€sensor that selfâ€regulates its own expression at posttranscriptional levels. Molecular Microbiology, 2021, 115, 142-156.	1.2	19
65	Structural and functional characterization of homo-oligomeric complexes of Î± and Î² chaperonin subunits from the hyperthermophilic archaeum Thermococcus strain KS-1. Journal of Molecular Biology, 2000, 299, 1399-1400.	2.0	18
66	Leu309 Plays a Critical Role in the Encapsulation of Substrate Protein into the Internal Cavity of GroEL. Journal of Biological Chemistry, 2006, 281, 962-967.	1.6	18
67	Single-particle tracking of quantum dot-conjugated prion proteins inside yeast cells. Biochemical and Biophysical Research Communications, 2011, 405, 638-643.	1.0	18
68	Amyloid conformation-dependent disaggregation in a reconstituted yeast prion system. Nature Chemical Biology, 2022, 18, 321-331.	3.9	18
69	Heat-inactivated Proteins Managed by DnaKJ-GrpE-ClpB Chaperones Are Released as a Chaperonin-recognizable Non-native Form. Journal of Biological Chemistry, 2000, 275, 12388-12392.	1.6	17
70	Crystal Structure of Chaperonin-60 from Paracoccus denitrificans. Journal of Molecular Biology, 2001, 312, 501-509.	2.0	16
71	Difference in the distribution pattern of substrate enzymes in the metabolic network of Escherichia coli, according to chaperonin requirement. BMC Systems Biology, 2011, 5, 98.	3.0	16
72	Conversion of a Chaperonin GroEL-independent Protein into an Obligate Substrate. Journal of Biological Chemistry, 2014, 289, 32073-32080.	1.6	16

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73	ATP-, K+-dependent Heptamer Exchange Reaction Produces Hybrids between GroEL and Chaperonin from Thermus thermophilus. Journal of Biological Chemistry, 1997, 272, 18155-18160.	1.6	14
74	Single-molecule Analyses of the Dynamics of Heat Shock Protein 104 (Hsp104) and Protein Aggregates. Journal of Biological Chemistry, 2015, 290, 7833-7840.	1.6	14
75	Purification and Molecular Cloning of the Group II Chaperonin from the Acidothermophilic Archaeon,SulfolobusSp. Strain 7. Biochemical and Biophysical Research Communications, 1997, 236, 727-732.	1.0	13
76	Effects of C-terminal Truncation of Chaperonin GroEL on the Yield of In-cage Folding of the Green Fluorescent Protein. Journal of Biological Chemistry, 2015, 290, 15042-15051.	1.6	13
77	In vitro transcriptionâ€"translation using bacterial genome as a template to reconstitute intracellular profile. Nucleic Acids Research, 2017, 45, 11449-11458.	6.5	13
78	Molecularly Engineered â€œJanus GroELâ€: Application to Supramolecular Copolymerization with a Higher Level of Sequence Control. Journal of the American Chemical Society, 2020, 142, 13310-13315.	6.6	13
79	Nascent polypeptide within the exit tunnel stabilizes the ribosome to counteract risky translation. EMBO Journal, 2021, 40, e108299.	3.5	13
80	Trigger Factor from Thermus thermophilus Is a Zn2+-dependent Chaperone. Journal of Biological Chemistry, 2004, 279, 6380-6384.	1.6	12
81	Flexibility of GroES Mobile Loop Is Required for Efficient Chaperonin Function. Journal of Molecular Biology, 2012, 422, 291-299.	2.0	12
82	Nano-Scale Alignment of Proteins on a Flexible DNA Backbone. PLoS ONE, 2012, 7, e52534.	1.1	12
83	Catalyst-proximity protein chemical labelling on affinity beads targeting endogenous lectins. Chemical Communications, 2019, 55, 13275-13278.	2.2	12
84	Conversion of a PROTAC Mutant Huntingtin Degrader into Small-Molecule Hydrophobic Tags Focusing on Drug-like Properties. ACS Medicinal Chemistry Letters, 2022, 13, 396-402.	1.3	12
85	Preparation ofThermus thermophilus holo-chaperonin-immobilized microspheres with high ability to facilitate protein refolding. , 2000, 68, 184-190.		11
86	D-loop of Actin Differently Regulates the Motor Function of Myosins II and V. Journal of Biological Chemistry, 2009, 284, 35251-35258.	1.6	11
87	Asp-52 in Combination with Asp-398 Plays a Critical Role in ATP Hydrolysis of Chaperonin GroEL. Journal of Biological Chemistry, 2014, 289, 30005-30011.	1.6	11
88	Large-scale analysis of macromolecular crowding effects on protein aggregation using a reconstituted cell-free translation system. Frontiers in Microbiology, 2015, 6, 1113.	1.5	11
89	Intracellular photocatalytic-proximity labeling for profiling proteinâ€"protein interactions in microenvironments. Chemical Communications, 2022, , .	2.2	11
90	Crystallization of the chaperonin GroELâ€"GroES complex fromThermus thermophilusHB8. Acta Crystallographica Section D: Biological Crystallography, 2003, 59, 1632-1634.	2.5	10

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91	Translationâ€coupled protein folding assay using a protease to monitor the folding status. Protein Science, 2019, 28, 1252-1261.	3.1	10
92	A LEA model peptide protects the function of a red fluorescent protein in the dry state. Biochemistry and Biophysics Reports, 2019, 17, 27-31.	0.7	10
93	Acetate overflow metabolism regulates a major metabolic shift after glucose depletion in <i>Escherichia</i>Â<i>coli</i>. FEBS Letters, 2021, 595, 2047-2056.	1.3	10
94	On-Chip Single-Cell Observation Assay for Propagation Dynamics of Yeast Sup35 Prionlike Proteins. Japanese Journal of Applied Physics, 2004, 43, L1429-L1432.	0.8	9
95	G-quadruplex-proximity protein labeling based on peroxidase activity. Chemical Communications, 2020, 56, 11641-11644.	2.2	9
96	BODIPY Catalyzes Proximityâ€Dependent Histidine Labelling. ChemCatChem, 2022, 14, .	1.8	9
97	Protein refolding system using holo-chaperonin from the thermophilic bacterium Thermus thermophilus. Journal of Bioscience and Bioengineering, 1998, 85, 564-570.	0.9	8
98	Mechanism of methionine synthase overexpression in chaperonin-depleted Escherichia coli. Microbiology (United Kingdom), 2012, 158, 917-924.	0.7	8
99	The landscape of translational stall sites in bacteria revealed by monosome and disome profiling. Rna, 2022, 28, 290-302.	1.6	8
100	The Absence of Thioredoxin m1 and Thioredoxin C in Anabaena sp. PCC 7120 Leads to Oxidative Stress. Plant and Cell Physiology, 2018, 59, 2432-2441.	1.5	7
101	Heterogeneous interaction network of yeast prions and remodeling factors detected in live cells. BMB Reports, 2017, 50, 478-483.	1.1	7
102	The interaction of Hsp104 with yeast prion Sup35 as analyzed by fluorescence cross-correlation spectroscopy. Biochemical and Biophysical Research Communications, 2013, 442, 28-32.	1.0	6
103	Electrostatic interactions between middle domain motif-1 and the AAA1 module of the bacterial ClpB chaperone are essential for protein disaggregation. Journal of Biological Chemistry, 2018, 293, 19228-19239.	1.6	6
104	[15] Chaperonin from thermophile Thermus thermophilus. Methods in Enzymology, 1998, 290, 169-180.	0.4	5
105	Disruption of the Gene trx-m1 Impedes the Growth of Anabaena sp. PCC 7120 under Nitrogen Starvation. Plant and Cell Physiology, 2019, 60, 1504-1513.	1.5	5
106	Nascent SecM chain interacts with outer ribosomal surface to stabilize translation arrest. Biochemical Journal, 2020, 477, 557-566.	1.7	4
107	Proteome Analysis of Phase-Separated Condensed Proteins with Ionic Surfactants Revealed Versatile Formation of Artificial Biomolecular Condensates. Biomacromolecules, 2019, 20, 539-545.	2.6	3
108	Thioredoxin pathway in <i>Anabaena</i> sp. PCC 7120: activity of NADPH-thioredoxin reductase C. Journal of Biochemistry, 2021, 169, 709-719.	0.9	3

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109	The evolutionary conserved iron-sulfur protein TCR controls P700 oxidation in photosystem I. IScience, 2021, 24, 102059.	1.9	3
110	Novel self-regulation strategy of a small heat shock protein for prodigious and rapid expression on demand. Current Genetics, 2021, 67, 723-727.	0.8	3
111	Large-scale analysis of diffusional dynamics of proteins in living yeast cells using fluorescence correlation spectroscopy. Biochemical and Biophysical Research Communications, 2019, 520, 237-242.	1.0	2
112	Shotgun Proteomics Revealed Preferential Degradation of Misfolded In Vivo Obligate GroE Substrates by Lon Protease in Escherichia coli. Molecules, 2022, 27, 3772.	1.7	2
113	Kinetic Analysis of Conformational Changes of GroEL Based on the Fluorescence of Tyrosine 506. Protein Journal, 2008, 27, 461-468.	0.7	1
114	Molecular Mechanism of Chaperonin GroEL: The Role of ATP and the Substrate Protein. Seibutsu Butsuri, 2006, 46, 130-136.	0.0	1
115	Comprehensive Analysis of Aggregation Propensity and Chaperone Effects for All <i>Escherichia coli</i> Proteins. Seibutsu Butsuri, 2013, 53, 309-312.	0.0	1
116	Nascent Chain Biology: Translation Dynamics and Cotranslational Protein Folding. Seibutsu Butsuri, 2019, 59, 137-140.	0.0	1
117	3P-079 Chaperone-like Activity of Polysaccharide Nanogels in Cell-free Protein Synthesis(The 46th) Tj ETQq1 1 0.784314 rgBT /Overlock	0.0	0
118	2SD1045 Direct Observation of Yeast Prion Dynamics In Single-Living Cells(2SD Bridging Single) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	0.0	0
119	1P173 Functional analysis of the C-terminus region of SmpB in trans-translation by single-molecule imaging(Molecular motor,The 48th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2010, 50, S49-S50.	0.0	0
120	2P086 The analysis of the interaction beetween Sup35 protein aggregate and molecular chaperon Hsp104 by FCCS(The 48th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2010, 50, S97.	0.0	0
121	1P303 Real-time observation of amyloid fibril formation of yeast prion Sup35 by high-speed atomic force microscopy(27. Bioimaging,Poster). Seibutsu Butsuri, 2013, 53, S156.	0.0	0
122	Fibrillar Structures of Yeast Prion Sup35 In Vivo. , 2014, , 271-280.		0
123	Peptide sequences converting polyglutamine into a prion in yeast. FEBS Journal, 2015, 282, 477-490.	2.2	0
124	The Interaction Networks of E. coli Chaperones. , 2014, , 395-418.		0