Johannes Buchner

List of Publications by Year
in descending order

264 papers	27,150 citations	3919 88 h-index	6979 154 g-index
272 all docs	272 docs citations	272 times ranked	20810 citing authors

#	Article	IF	Citations
1	The Heat Shock Response: Life on the Verge of Death. Molecular Cell, 2010, 40, 253-266.	4.5	1,603
2	The HSP90 chaperone machinery. Nature Reviews Molecular Cell Biology, 2017, 18, 345-360.	16.1	1,077
3	Some like it hot: the structure and function of small heat-shock proteins. Nature Structural and Molecular Biology, 2005, 12, 842-846.	3.6	736
4	Regulation of Hsp27 Oligomerization, Chaperone Function, and Protective Activity against Oxidative Stress/Tumor Necrosis Factor Î± by Phosphorylation. Journal of Biological Chemistry, 1999, 274, 18947-18956.	1.6	661
5	Hsp90 & Co. â€“ a holding for folding. Trends in Biochemical Sciences, 1999, 24, 136-141.	3.7	622
6	Hsp90: Chaperoning signal transduction. Journal of Cellular Physiology, 2001, 188, 281-290.	2.0	533
7	GroE facilitates refolding of citrate synthase by suppressing aggregation. Biochemistry, 1991, 30, 1586-1591.	1.2	520
8	Hsp90 chaperones protein folding in vitro. Nature, 1992, 358, 169-170.	13.7	511
9	The Hsp90 Chaperone Machinery. Journal of Biological Chemistry, 2008, 283, 18473-18477.	1.6	479
10	Reduction of disulphide bonds unmasks potent antimicrobial activity of human Î²-defensin 1. Nature, 2011, 469, 419-423.	13.7	428
11	The Hsp90 chaperone machinery: Conformational dynamics and regulation by co-chaperones. Biochimica Et Biophysica Acta - Molecular Cell Research, 2012, 1823, 624-635.	1.9	424
12	Supervising the fold: functional principles of molecular chaperones. FASEB Journal, 1996, 10, 10-19.	0.2	388
13	Assisting spontaneity: the role of Hsp90 and small Hsps as molecular chaperones. Trends in Biochemical Sciences, 1994, 19, 205-211.	3.7	373
14	Molecular Chaperonesâ€"Cellular Machines for Protein Folding. Angewandte Chemie - International Edition, 2002, 41, 1098-1113.	7.2	372
15	A method for increasing the yield of properly folded recombinant fusion proteins: Single-chain immunotoxins from renaturation of bacterial inclusion bodies. Analytical Biochemistry, 1992, 205, 263-270.	1.1	365
16	Structure, Function and Regulation of the Hsp90 Machinery. Biomedical Journal, 2013, 36, 106.	1.4	346
17	Protein Aggregation in vitro and in vivo: A Quantitative Model of the Kinetic Competition between Folding and Aggregation. Nature Biotechnology, 1991, 9, 825-829.	9.4	338
18	Transient Interaction of Hsp90 with Early Unfolding Intermediates of Citrate Synthase. Journal of Biological Chemistry, 1995, 270, 7288-7294.	1.6	324

#	Article	IF	Citations
19	The Small Heat-shock Protein IbpB from Escherichia coli Stabilizes Stress-denatured Proteins for Subsequent Refolding by a Multichaperone Network. Journal of Biological Chemistry, 1998, 273, 11032-11037.	1.6	321
20	Renaturation, Purification and Characterization of Recombinant Fab-Fragments Produced in Escherichia coli. Nature Biotechnology, 1991, 9, 157-162.	9.4	314
21	Dissection of the ATP-induced conformational cycle of the molecular chaperone Hsp90. Nature Structural and Molecular Biology, 2009, 16, 287-293.	3.6	307
22	ThT 101: a primer on the use of thioflavin T to investigate amyloid formation. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2017, 24, 1-16.	1.4	257
23	The chaperone Hsp90: changing partners for demanding clients. Trends in Biochemical Sciences, 2013, 38, 253-262.	3.7	248
24	p53 Contains Large Unstructured Regions in its Native State. Journal of Molecular Biology, 2002, 322, 917-927.	2.0	242
25	The large conformational changes of Hsp90 are only weakly coupled to ATP hydrolysis. Nature Structural and Molecular Biology, 2009, 16, 281-286.	3.6	236
26	The N-terminal Domain of p53 is Natively Unfolded. Journal of Molecular Biology, 2003, 332, 1131-1141.	2.0	225
27	Asymmetric Activation of the Hsp90 Dimer by Its Cochaperone Aha1. Molecular Cell, 2010, 37, 344-354.	4.5	225
28	Independent evolution of the core domain and its flanking sequences in small heat shock proteins. FASEB Journal, 2010, 24, 3633-3642.	0.2	219
29	An Unfolded CH1 Domain Controls the Assembly and Secretion of IgG Antibodies. Molecular Cell, 2009, 34, 569-579.	4.5	209
30	Small heat shock proteins: Simplicity meets complexity. Journal of Biological Chemistry, 2019, 294, 2121-2132.	1.6	205
31	[27] Analysis of chaperone function using citrate synthase as nonnative substrate protein. Methods in Enzymology, 1998, 290, 323-338.	0.4	200
32	Disassembling Protein Aggregates in the Yeast Cytosol. Journal of Biological Chemistry, 2005, 280, 23861-23868.	1.6	191
33	The architecture of functional modules in the Hsp90 co-chaperone Sti1/Hop. EMBO Journal, 2012, 31, 1506-1517.	3.5	190
34	The Hsp90 Cochaperone, FKBP51, Increases Tau Stability and Polymerizes Microtubules. Journal of Neuroscience, 2010, 30, 591-599.	1.7	184
35	Hsp42 is the general small heat shock protein in the cytosol of Saccharomyces cerevisiae. EMBO Journal, 2004, 23, 638-649.	3.5	180
36	Structure, Function, and Regulation of the Hsp90 Machinery. Cold Spring Harbor Perspectives in Biology, 2019, 11, a034017.	2.3	179

#	Article	IF	Citations
37	Functional analysis of the hsp90-associated human peptidyl prolyl Cis/Trans isomerases FKBP51, FKBP52 and cyp40 1 1Edited by R. Huber. Journal of Molecular Biology, 2001, 308, 795-806.	2.0	177
38	How antibodies fold. Trends in Biochemical Sciences, 2010, 35, 189-198.	3.7	174
39	Coordinated ATP Hydrolysis by the Hsp90 Dimer. Journal of Biological Chemistry, 2001, 276, 33689-33696.	1.6	173
40	Sti1 Is a Non-competitive Inhibitor of the Hsp90 ATPase. Journal of Biological Chemistry, 2003, 278, 10328-10333.	1.6	169
41	The Hsp90 complexâ€"a super-chaperone machine as a novel drug target. Biochemical Pharmacology, 1998, 56, 675-682.	2.0	164
42	Hsp12 Is an Intrinsically Unstructured Stress Protein that Folds upon Membrane Association and Modulates Membrane Function. Molecular Cell, 2010, 39, 507-520.	4.5	163
43	Alternatively folded states of an immunoglobulin. Biochemistry, 1991, 30, 6922-6929.	1.2	162
44	The growing world of small heat shock proteins: from structure to functions. Cell Stress and Chaperones, 2017, 22, 601-611.	1.2	158
45	Analysis of the Interaction of Small Heat Shock Proteins with Unfolding Proteins. Journal of Biological Chemistry, 2003, 278, 18015-18021.	1.6	154
46	Substrate discrimination of the chaperone BiP by autonomous and cochaperone-regulated conformational transitions. Nature Structural and Molecular Biology, 2011, 18, 150-158.	3.6	154
47	The phosphatase Ppt1 is a dedicated regulator of the molecular chaperone Hsp90. EMBO Journal, 2006, 25, 367-376.	3.5	153
48	The Dynamics of Hsp25 Quaternary Structure. Journal of Biological Chemistry, 1999, 274, 14867-14874.	1.6	151
49	Regulated structural transitions unleash the chaperone activity of Î±B-crystallin. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E3780-9.	3.3	151
50	Hsp90 is regulated by a switch point in the Câ€terminal domain. EMBO Reports, 2009, 10, 1147-1153.	2.0	146
51	Multiple molecular architectures of the eye lens chaperone Î±B-crystallin elucidated by a triple hybrid approach. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20491-20496.	3.3	143
52	The Co-chaperone Sba1 Connects the ATPase Reaction of Hsp90 to the Progression of the Chaperone Cycle. Journal of Molecular Biology, 2004, 342, 1403-1413.	2.0	142
53	Substrate Transfer from the Chaperone Hsp70 to Hsp90. Journal of Molecular Biology, 2006, 356, 802-811.	2.0	141
54	Noncatalytic Role of the FKBP52 Peptidyl-Prolyl Isomerase Domain in the Regulation of Steroid Hormone Signaling. Molecular and Cellular Biology, 2007, 27, 8658-8669.	1.1	139

#	Article	IF	Citations
55	The Charged Linker Region Is an Important Regulator of Hsp90 Function. Journal of Biological Chemistry, 2009, 284, 22559-22567.	1.6	138
56	Hsp90 Regulates the Activity of Wild Type p53 under Physiological and Elevated Temperatures. Journal of Biological Chemistry, 2004, 279, 48846-48854.	1.6	135
57	Mixed Hsp90â€"cochaperone complexes are important for the progression of the reaction cycle. Nature Structural and Molecular Biology, 2011, 18, 61-66.	3.6	133
58	The chaperone Î±B-crystallin uses different interfaces to capture an amorphous and an amyloid client. Nature Structural and Molecular Biology, 2015, 22, 898-905.	3.6	130
59	Modulation of the Hsp90 Chaperone Cycle by a Stringent Client Protein. Molecular Cell, 2014, 53, 941-953.	4.5	129
60	The Prion Curing Agent Guanidinium Chloride Specifically Inhibits ATP Hydrolysis by Hsp104. Journal of Biological Chemistry, 2004, 279, 7378-7383.	1.6	124
61	Evolution of Escherichia coli for Growth at High Temperatures. Journal of Biological Chemistry, 2010, 285, 19029-19034.	1.6	124
62	The eye lens chaperone Î±-crystallin forms defined globular assemblies. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13272-13277.	3.3	123
63	The Chaperone Activity and Substrate Spectrum of Human Small Heat Shock Proteins. Journal of Biological Chemistry, 2017, 292, 672-684.	1.6	121
64	Reconstitution of a heat shock effect in vitro: influence of GroE on the thermal aggregation of .alpha.-glucosidase from yeast. Biochemistry, 1991, 30, 11609-11614.	1.2	120
65	Sti1 Is a Novel Activator of the Ssa Proteins. Journal of Biological Chemistry, 2003, 278, 25970-25976.	1.6	120
66	Conserved Conformational Changes in the ATPase Cycle of Human Hsp90. Journal of Biological Chemistry, 2008, 283, 17757-17765.	1.6	120
67	Alternative bacterial two-component small heat shock protein systems. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20407-20412.	3.3	119
68	Analysis of the Regulation of the Molecular Chaperone Hsp26 by Temperature-induced Dissociation. Journal of Biological Chemistry, 2004, 279, 11222-11228.	1.6	118
69	IspH Protein ofEscherichiacoli:Â Studies on Ironâ^'Sulfur Cluster Implementation and Catalysis. Journal of the American Chemical Society, 2004, 126, 12847-12855.	6.6	116
70	Structural analysis of the interaction between Hsp90 and the tumor suppressor protein p53. Nature Structural and Molecular Biology, 2011, 18, 1086-1093.	3.6	116
71	C-terminal regions of Hsp90 are important for trapping the nucleotide during the ATPase cycle 1 1Edited by R. Huber. Journal of Molecular Biology, 2000, 303, 583-592.	2.0	115
72	Conformational Switching of the Molecular Chaperone Hsp90 via Regulated Phosphorylation. Molecular Cell, 2012, 45, 517-528.	4.5	114

#	Article	IF	Citations
73	Human Heat Shock Protein 70 Enhances Tumor Antigen Presentation through Complex Formation and Intracellular Antigen Delivery without Innate Immune Signaling. Journal of Biological Chemistry, 2007, 282, 31688-31702.	1.6	111
74	BiP Binding Sequences in Antibodies. Journal of Biological Chemistry, 1995, 270, 27589-27594.	1.6	107
75	Mouse Hsp25, a small heat shock protein. FEBS Journal, 2000, 267, 1923-1932.	0.2	107
76	Cpr6 and Cpr7, Two Closely Related Hsp90-associated Immunophilins from Saccharomyces cerevisiae, Differ in Their Functional Properties. Journal of Biological Chemistry, 2000, 275, 34140-34146.	1.6	107
77	The Plasticity of the Hsp90 Co-chaperone System. Molecular Cell, 2017, 67, 947-961.e5.	4.5	107
78	Integration of the accelerator Aha1 in the Hsp90 co-chaperone cycle. Nature Structural and Molecular Biology, 2013, 20, 326-331.	3.6	106
79	Structural characterization of the substrate transfer mechanism in Hsp70/Hsp90 folding machinery mediated by Hop. Nature Communications, 2014, 5, 5484.	5.8	104
80	The charged linker of the molecular chaperone Hsp90 modulates domain contacts and biological function. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17881-17886.	3.3	100
81	BiP and PDI Cooperate in the Oxidative Folding of Antibodiesin Vitro. Journal of Biological Chemistry, 2000, 275, 29421-29425.	1.6	99
82	p53â€"A Natural Cancer Killer: Structural Insights and Therapeutic Concepts. Angewandte Chemie - International Edition, 2006, 45, 6440-6460.	7.2	98
83	An unstructured C-terminal region of the hsp90 co-chaperone p23 is important for its chaperone function 1 1Edited by R. Huber. Journal of Molecular Biology, 1999, 293, 685-691.	2.0	97
84	Functional Characterization of the Higher Plant Chloroplast Chaperonins. Journal of Biological Chemistry, 1995, 270, 18158-18164.	1.6	96
85	ATP-binding Properties of Human Hsp90. Journal of Biological Chemistry, 1997, 272, 18608-18613.	1.6	95
86	The ATPase Cycle of the Endoplasmic Chaperone Grp94. Journal of Biological Chemistry, 2007, 282, 35612-35620.	1.6	94
87	Structure of the Murine Unglycosylated IgG1 Fc Fragment. Journal of Molecular Biology, 2009, 391, 599-608.	2.0	94
88	A Domain in the N-terminal Part of Hsp26 is Essential for Chaperone Function and Oligomerization. Journal of Molecular Biology, 2004, 343, 445-455.	2.0	93
89	Assessment of the ATP Binding Properties of Hsp90. Journal of Biological Chemistry, 1996, 271, 10035-10041.	1.6	91
90	The ATPase Cycle of the Mitochondrial Hsp90 Analog Trap1. Journal of Biological Chemistry, 2008, 283, 11677-11688.	1.6	91

#	Article	IF	Citations
91	Activation of the Chaperone Hsp26 Is Controlled by the Rearrangement of Its Thermosensor Domain. Molecular Cell, 2008, 29, 207-216.	4.5	90
92	Membrane Translocation of Binary Actin-ADP-Ribosylating Toxins from Clostridium difficile and Clostridium perfringens Is Facilitated by Cyclophilin A and Hsp90. Infection and Immunity, 2011, 79, 3913-3921.	1.0	90
93	Multiple Distinct Assemblies Reveal Conformational Flexibility in the Small Heat Shock Protein Hsp26. Structure, 2006, 14, 1197-1204.	1.6	87
94	The Yeast Hsp110 Sse1 Functionally Interacts with the Hsp70 Chaperones Ssa and Ssb. Journal of Biological Chemistry, 2005, 280, 41262-41269.	1.6	86
95	Multi-Angle Effector Function Analysis of Human Monoclonal IgG Glycovariants. PLoS ONE, 2015, 10, e0143520.	1.1	86
96	Structure and function of Î±-crystallins: Traversing from in vitro to in vivo. Biochimica Et Biophysica Acta - General Subjects, 2016, 1860, 149-166.	1.1	82
97	The Activation Mechanism of Hsp26 does not Require Dissociation of the Oligomer. Journal of Molecular Biology, 2005, 350, 1083-1093.	2.0	81
98	Prolyl isomerases catalyze antibody folding in vitro. Protein Science, 1993, 2, 1490-1496.	3.1	80
99	Folding and association of the antibody domain CH3: prolyl isomerization preceeds dimerization. Journal of Molecular Biology, 1999, 293, 67-79.	2.0	80
100	Structural Organization of Procaryotic and Eucaryotic Hsp90. INFLUENCE OF DIVALENT CATIONS ON STRUCTURE AND FUNCTION. Journal of Biological Chemistry, 1995, 270, 14412-14419.	1.6	79
101	Review: A Structural View of the GroE Chaperone Cycle. Journal of Structural Biology, 2001, 135, 95-103.	1.3	79
102	Hsp90 charged-linker truncation reverses the functional consequences of weakened hydrophobic contacts in the N domain. Nature Structural and Molecular Biology, 2009, 16, 1141-1147.	3.6	78
103	Importance of cycle timing for the function of the molecular chaperone Hsp90. Nature Structural and Molecular Biology, 2016, 23, 1020-1028.	3.6	78
104	Hsp90 regulates the dynamics of its cochaperone Sti1 and the transfer of Hsp70 between modules. Nature Communications, 2015, 6, 6655.	5.8	76
105	High-resolution structures of the IgM Fc domains reveal principles of its hexamer formation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10183-10188.	3.3	73
106	Conformational processing of oncogenic v-Src kinase by the molecular chaperone Hsp90. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E3189-98.	3.3	73
107	Cytosolic Hsp70 and Hsp40 chaperones enable the biogenesis of mitochondrial Î²-barrel proteins. Journal of Cell Biology, 2018, 217, 3091-3108.	2.3	72
108	NMR Chemical Shift Perturbation Study of the N-Terminal Domain of Hsp90 upon Binding of ADP, AMP-PNP, Geldanamycin, and Radicicol. ChemBioChem, 2003, 4, 870-877.	1.3	71

#	Article	IF	Citations
109	Folding Mechanism of the CH2 Antibody Domain. Journal of Molecular Biology, 2004, 344, 107-118.	2.0	69
110	Association of Antibody Chains at Different Stages of Folding: Prolyl Isomerization Occurs after Formation of Quaternary Structure. Journal of Molecular Biology, 1995, 248, 190-201.	2.0	67
111	Dynamics of the GroEL â€“ Protein Complex: Effects of Nucleotides and Folding Mutants. Journal of Molecular Biology, 1996, 258, 74-87.	2.0	67
112	The structural analysis of shark IgNAR antibodies reveals evolutionary principles of immunoglobulins. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8155-8160.	3.3	67
113	The Heat Shock Response in Yeast Maintains Protein Homeostasis by Chaperoning and Replenishing Proteins. Cell Reports, 2019, 29, 4593-4607.e8.	2.9	67
114	Renaturation of a Singleâ€"Chain Immunotoxin Facilitated by Chaperones and Protein Disulfide Isomerase. Nature Biotechnology, 1992, 10, 682-685.	9.4	65
115	Chaperone Function of sHsps. Progress in Molecular and Subcellular Biology, 2002, 28, 37-59.	0.9	64
116	Intrinsic Inhibition of the Hsp90 ATPase Activity. Journal of Biological Chemistry, 2006, 281, 11301-11311.	1.6	64
117	N-terminal Residues Regulate the Catalytic Efficiency of the Hsp90 ATPase Cycle. Journal of Biological Chemistry, 2002, 277, 44905-44910.	1.6	62
118	Role of CypA and Hsp90 in membrane translocation mediated by anthrax protective antigen. Cellular Microbiology, 2011, 13, 359-373.	1.1	62
119	Folding and assembly of the large molecular machine Hsp90 studied in single-molecule experiments. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1232-1237.	3.3	62
120	Coordinated Conformational Processing of the Tumor Suppressor Protein p53 by the Hsp70 and Hsp90 Chaperone Machineries. Molecular Cell, 2019, 74, 816-830.e7.	4.5	61
121	Folding and association of Î²-galactosidase. Journal of Molecular Biology, 1998, 282, 1083-1091.	2.0	60
122	The cytosolic cochaperone Sti1 is relevant for mitochondrial biogenesis and morphology. FEBS Journal, 2016, 283, 3338-3352.	2.2	60
123	Allosteric Regulation Points Control the Conformational Dynamics of the Molecular Chaperone Hsp90. Journal of Molecular Biology, 2016, 428, 4559-4571.	2.0	59
124	Post-translational modification and conformational state of Heat Shock Protein 90 differentially affect binding of chemically diverse small molecule inhibitors. Oncotarget, 2013, 4, 1065-1074.	0.8	58
125	FK506-Binding Protein 52 Phosphorylation: A Potential Mechanism for Regulating Steroid Hormone Receptor Activity. Molecular Endocrinology, 2007, 21, 2956-2967.	3.7	57
126	The effect of the intersubunit disulfide bond on the structural and functional properties of the small heat shock protein Hsp25. International Journal of Biological Macromolecules, 1998, 22, 163-173.	3.6	55

#	Article	IF	Citations
127	Dissection of the Contribution of Individual Domains to the ATPase Mechanism of Hsp90. Journal of Biological Chemistry, 2003, 278, 39303-39310.	1.6	55
128	Folding and Oxidation of the Antibody Domain CH3. Journal of Molecular Biology, 2002, 319, 1267-1277.	2.0	53
129	Structural Dynamics of Archaeal Small Heat Shock Proteins. Journal of Molecular Biology, 2008, 378, 362-374.	2.0	53
130	Localization of the Chaperone Domain of FKBP52. Journal of Biological Chemistry, 2001, 276, 37034-37041.	1.6	51
131	hsp90: Twist and Fold. Cell, 2006, 127, 251-253.	13.5	51
132	Functional principles and regulation of molecular chaperones. Advances in Protein Chemistry and Structural Biology, 2019, 114, 1-60.	1.0	50
133	Conformational dynamics modulate the catalytic activity of the molecular chaperone Hsp90. Nature Communications, 2020, 11, 1410.	5.8	50
134	BiP-binding Sequences in HIV gp160. Journal of Biological Chemistry, 1999, 274, 29850-29857.	1.6	49
135	The Chaperone Activity of the Developmental Small Heat Shock Protein Sip1 Is Regulated by pH-Dependent Conformational Changes. Molecular Cell, 2015, 58, 1067-1078.	4.5	48
136	The Small Heat Shock Protein Hsp27 Affects Assembly Dynamics andÂStructure of Keratin Intermediate Filament Networks. Biophysical Journal, 2013, 105, 1778-1785.	0.2	47
137	The alternatively folded state of the antibody CH3 domain. Journal of Molecular Biology, 2001, 309, 1077-1085.	2.0	46
138	Oncogenic Mutations Reduce the Stability of Src Kinase. Journal of Molecular Biology, 2004, 344, 281-291.	2.0	46
139	BiPPred: Combined sequenceâ€•and structureâ€based prediction of peptide binding to the Hsp70 chaperone BiP. Proteins: Structure, Function and Bioinformatics, 2016, 84, 1390-1407.	1.5	46
140	Stabilization of Proteins and Peptides in Diagnostic Immunological Assays by the Molecular Chaperone Hsp25. Analytical Biochemistry, 1998, 259, 218-225.	1.1	45
141	Cns1 Is an Activator of the Ssa1 ATPase Activity. Journal of Biological Chemistry, 2004, 279, 23267-23273.	1.6	45
142	Cooperative Binding of p53 to DNA: Regulation by Protein-Protein Interactions through a Double Salt Bridge. Angewandte Chemie - International Edition, 2005, 44, 5247-5251.	7.2	45
143	Modulation of the ATPase Cycle of BiP by Peptides and Proteins. Journal of Molecular Biology, 2003, 330, 137-144.	2.0	43
144	Oxidation in the complementarity-determining regions differentially influences the properties of therapeutic antibodies. MAbs, 2016, 8, 1525-1535.	2.6	43

#	Article	IF	Citations
145	Refolding and structural characterization of the human p53 tumor suppressor protein. Biophysical Chemistry, 2002, 96, 243-257.	1.5	42
146	Single-molecule force spectroscopy reveals folding steps associated with hormone binding and activation of the glucocorticoid receptor. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11688-11693.	3.3	42
147	The structure and oxidation of the eye lens chaperone Î±A-crystallin. Nature Structural and Molecular Biology, 2019, 26, 1141-1150.	3.6	42
148	The structure of a folding intermediate provides insight into differences in immunoglobulin amyloidogenicity. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 13373-13378.	3.3	41
149	The State of the Art of Chemical Biology. ChemBioChem, 2009, 10, 16-29.	1.3	41
150	Hsp90â€mediated regulation of DYRK3 couples stress granule disassembly and growth via mTORC1 signaling. EMBO Reports, 2021, 22, e51740.	2.0	41
151	Bap (Sil1) regulates the molecular chaperone BiP by coupling release of nucleotide and substrate. Nature Structural and Molecular Biology, 2018, 25, 90-100.	3.6	39
152	Breakdown of supersaturation barrier links protein folding to amyloid formation. Communications Biology, 2021, 4, 120.	2.0	39
153	The IMiD target CRBN determines HSP90 activity toward transmembrane proteins essential in multiple myeloma. Molecular Cell, 2021, 81, 1170-1186.e10.	4.5	39
154	Refolding of Inclusion Body Proteins. , 2004, 94, 239-254.		38
155	Bacterial Hsp90 - desperately seeking clients. Molecular Microbiology, 2010, 76, 540-544.	1.2	38
156	Conformational Selection in Substrate Recognition by Hsp70 Chaperones. Journal of Molecular Biology, 2013, 425, 466-474.	2.0	38
157	Scalable Production in Human Cells and Biochemical Characterization of Full-Length Normal and Mutant Huntingtin. PLoS ONE, 2015, 10, e0121055.	1.1	38
158	Formation of She2p tetramers is required for mRNA binding, mRNP assembly, and localization. Rna, 2009, 15, 2002-2012.	1.6	37
159	A chemical compound inhibiting the Aha1â€"Hsp90 chaperone complex. Journal of Biological Chemistry, 2017, 292, 17073-17083.	1.6	37
160	Analysis of Chaperone Properties of Small Hsp's. , 2000, 99, 421-429.		36
161	Influence of the Internal Disulfide Bridge on the Folding Pathway of the CL Antibody Domain. Journal of Molecular Biology, 2007, 365, 1232-1244.	2.0	36
162	The Hsp90 machinery facilitates the transport of diphtheria toxin into human cells. Scientific Reports, 2017, 7, 613.	1.6	36

#	Article	IF	Citations
163	Folding and Domain Interactions of Three Orthologs of Hsp90 Studied by Single-Molecule Force Spectroscopy. Structure, 2018, 26, 96-105.e4.	1.6	36
164	The Hsp90 isoforms from S. cerevisiae differ in structure, function and client range. Nature Communications, 2019, 10, 3626.	5.8	36
165	Structural elements in the flexible tail of the co-chaperone p23 coordinate client binding and progression of the Hsp90 chaperone cycle. Nature Communications, 2021, 12, 828.	5.8	36
166	Routes to active proteins from transformed microorganisms. Current Opinion in Biotechnology, 1991, 2, 532-538.	3.3	35
167	How GroES Regulates Binding of Nonnative Protein to GroEL. Journal of Biological Chemistry, 1997, 272, 14080-14086.	1.6	35
168	[28] Purification and characterization of small heat shock proteins. Methods in Enzymology, 1998, 290, 339-349.	0.4	35
169	Regulation of small heat-shock proteins by hetero-oligomer formation. Journal of Biological Chemistry, 2020, 295, 158-169.	1.6	34
170	Fatal amyloid formation in a patientâ€™s antibody light chain is caused by a single point mutation. ELife, 2020, 9, .	2.8	33
171	The Hsp90 co-chaperone p23 of Toxoplasma gondii: Identification, functional analysis and dynamic interactome determination. Molecular and Biochemical Parasitology, 2010, 172, 129-140.	0.5	32
172	Regions Outside the Î±-Crystallin Domain of the Small Heat Shock Protein Hsp26 Are Required for Its Dimerization. Journal of Molecular Biology, 2010, 398, 122-131.	2.0	32
173	The Cochaperone SGTA (Small Glutamine-rich Tetratricopeptide Repeat-containing Protein Alpha) Demonstrates Regulatory Specificity for the Androgen, Glucocorticoid, and Progesterone Receptors. Journal of Biological Chemistry, 2014, 289, 15297-15308.	1.6	31
174	Monomeric myosin V uses two binding regions for the assembly of stable translocation complexes. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 19778-19783.	3.3	30
175	Hop/Sti1 phosphorylation inhibits its coâ€chaperone function. EMBO Reports, 2015, 16, 240-249.	2.0	30
176	A switch point in the molecular chaperone Hsp90 responding to client interaction. Nature Communications, 2018, 9, 1472.	5.8	30
177	Clusterin Associates with Altered Elastic Fibers in Human Photoaged Skin and Prevents Elastin from Ultraviolet-Induced Aggregation in Vitro. American Journal of Pathology, 2007, 171, 1474-1482.	1.9	29
178	Synthesis and characterization of a functional intact IgG in a prokaryotic cell-free expression system. Biological Chemistry, 2008, 389, 37-45.	1.2	29
179	Targeting the FKBP51/GR/Hsp90 Complex to Identify Functionally Relevant Treatments for Depression and PTSD. ACS Chemical Biology, 2018, 13, 2288-2299.	1.6	29
180	Molecular chaperones and protein quality control: an introduction to the JBC Reviews thematic series. Journal of Biological Chemistry, 2019, 294, 2074-2075.	1.6	29

#	Article	IF	Citations
181	Hsp90 Co-chaperones Form Plastic Genetic Networks Adapted to Client Maturation. Cell Reports, 2020, 32, 108063.	2.9	29
182	MAK33 antibody light chain amyloid fibrils are similar to oligomeric precursors. PLoS ONE, 2017, 12, e0181799.	1.1	29
183	Catalysis, Commitment and Encapsulation during GroE-mediated Folding. Journal of Molecular Biology, 1999, 289, 1075-1092.	2.0	28
184	The Crystal Structure of the Fab Fragment of the Monoclonal Antibody MAK33. Journal of Biological Chemistry, 2001, 276, 3287-3294.	1.6	28
185	Principles and engineering of antibody folding and assembly. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 2024-2031.	1.1	28
186	Wheat FKBP73 functions in vitro as a molecular chaperone independently of its peptidyl prolyl cis - trans isomerase activity. Planta, 2002, 215, 119-126.	1.6	27
187	The Antibody Light-Chain Linker Regulates Domain Orientation and Amyloidogenicity. Journal of Molecular Biology, 2018, 430, 4925-4940.	2.0	27
188	Domain interactions stabilize the alternatively folded state of an antibody Fab fragment. FEBS Letters, 1995, 362, 43-46.	1.3	26
189	Imbalances in the eye lens proteome are linked to cataract formation. Nature Structural and Molecular Biology, 2021, 28, 143-151.	3.6	26
190	GroEL Traps Dimeric and Monomeric Unfolding Intermediates of Citrate Synthase. Journal of Biological Chemistry, 1998, 273, 33305-33310.	1.6	25
191	Structural and functional diversity in the family of small heat shock proteins from the parasite Toxoplasma gondii. Biochimica Et Biophysica Acta - Molecular Cell Research, 2009, 1793, 1738-1748.	1.9	25
192	p23 and Aha1. Sub-Cellular Biochemistry, 2015, 78, 113-131.	1.0	25
193	Client binding shifts the populations of dynamic Hsp90 conformations through an allosteric network. Science Advances, 2021, 7, eabl7295.	4.7	25
194	A methylated lysine is a switch point for conformational communication in the chaperone Hsp90. Nature Communications, 2020, 11, 1219.	5.8	24
195	Structural and Mechanical Hierarchies in the Î±-Crystallin Domain Dimer of the Hyperthermophilic Small Heat Shock Protein Hsp16.5. Journal of Molecular Biology, 2010, 400, 1046-1056.	2.0	23
196	Epigallocatechin-3-gallate preferentially induces aggregation of amyloidogenic immunoglobulin light chains. Scientific Reports, 2017, 7, 41515.	1.6	23
197	Hsp90 dependence of a kinase is determined by its conformational landscape. Scientific Reports, 2017, 7, 43996.	1.6	23
198	Dissection of the amyloid formation pathway in AL amyloidosis. Nature Communications, 2021, 12, 6516.	5.8	23

#	Article	IF	Citations
199	[33] Purification of Hsp90 partner proteins Hop/p60, p23, and FKBP52. Methods in Enzymology, 1998, 290, 418-429.	0.4	22
200	Global Analysis of Phosphoproteome Regulation by the Ser/Thr Phosphatase Ppt1 in <i>Saccharomyces cerevisiae</i>. Journal of Proteome Research, 2012, 11, 2397-2408.	1.8	22
201	Regulation of the Chaperone Function of Small Hsps. Heat Shock Proteins, 2015, , 155-178.	0.2	22
202	The Co-chaperone Cns1 and the Recruiter Protein Hgh1 Link Hsp90 to Translation Elongation via Chaperoning Elongation Factor 2. Molecular Cell, 2019, 74, 73-87.e8.	4.5	22
203	Molecular mechanism of amyloidogenic mutations in hypervariable regions of antibody light chains. Journal of Biological Chemistry, 2021, 296, 100334.	1.6	22
204	[32] Purification and characterization of prokaryotic and eukaryotic Hsp90. Methods in Enzymology, 1998, 290, 409-418.	0.4	21
205	Characterization of a quaternaryâ€structured folding intermediate of an antibody Fabâ€fragment. Protein Science, 1995, 4, 917-924.	3.1	21
206	The Antibody Light-Chain Linker Is Important for Domain Stability and Amyloid Formation. Journal of Molecular Biology, 2015, 427, 3572-3586.	2.0	21
207	Glycosylation inhibits the interaction of invertase with the chaperone GroEL. FEBS Letters, 1992, 305, 203-205.	1.3	20
208	A Grp on the Hsp90 Mechanism. Molecular Cell, 2007, 28, 177-179.	4.5	20
209	The Folding Pathway of the Antibody VL Domain. Journal of Molecular Biology, 2009, 392, 1326-1338.	2.0	20
210	The Regulatory Domain Stabilizes the p53 Tetramer by Intersubunit Contacts with the DNA Binding Domain. Journal of Molecular Biology, 2013, 425, 144-155.	2.0	20
211	Unique Proline-Rich Domain Regulates the Chaperone Function of AIPL1. Biochemistry, 2013, 52, 2089-2096.	1.2	20
212	A Stable Mutant Predisposes Antibody Domains to Amyloid Formation through Specific Non-Native Interactions. Journal of Molecular Biology, 2016, 428, 1315-1332.	2.0	20
213	Determinants of the assembly and function of antibody variable domains. Scientific Reports, 2017, 7, 12276.	1.6	20
214	Structural and Functional Analysis of the DEAF-1 and BS69 MYND Domains. PLoS ONE, 2013, 8, e54715.	1.1	20
215	NudC guides client transfer between the Hsp40/70 and Hsp90 chaperone systems. Molecular Cell, 2022, 82, 555-569.e7.	4.5	20
216	Limits of Protein Folding Inside GroE Complexes. Journal of Biological Chemistry, 2000, 275, 20424-20430.	1.6	19

#	Article	IF	Citations
217	Rapid Matrixâ€Assisted Refolding of Histidineâ€Tagged Proteins. ChemBioChem, 2009, 10, 869-876.	1.3	19
218	Dissecting the Alternatively Folded State of the Antibody Fab Fragment. Journal of Molecular Biology, 2010, 399, 719-730.	2.0	19
219	A peptide extension dictates IgM assembly. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E8575-E8584.	3.3	19
220	Artificial Accelerators of the Molecular Chaperone Hsp90 Facilitate Rateâ€Limiting Conformational Transitions. Angewandte Chemie - International Edition, 2014, 53, 12257-12262.	7.2	18
221	Autophosphorylation activates c-Src kinase through global structural rearrangements. Journal of Biological Chemistry, 2019, 294, 13186-13197.	1.6	18
222	Analysis of GroE-assisted Folding under Nonpermissive Conditions. Journal of Biological Chemistry, 1999, 274, 20171-20177.	1.6	17
223	Recombinant expression and purification of Ssa1p (Hsp70) from Saccharomyces cerevisiae using Pichia pastoris. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2003, 786, 109-115.	1.2	17
224	Mechanical Stability of the Antibody Domain C_H3 Homodimer in Different Oxidation States. Journal of the American Chemical Society, 2013, 135, 15085-15091.	6.6	17
225	GET Two for One. Molecular Cell, 2014, 56, 1-2.	4.5	16
226	Assays to Characterize Molecular Chaperone Function In Vitro. Methods in Molecular Biology, 2015, 1292, 39-51.	0.4	16
227	Contribution of N- and C-terminal domains to the function of Hsp90 in Saccharomyces cerevisiae. Molecular Microbiology, 1999, 34, 701-713.	1.2	15
228	A Residue-specific Shift in Stability and Amyloidogenicity of Antibody Variable Domains. Journal of Biological Chemistry, 2014, 289, 26829-26846.	1.6	15
229	Picomolar inhibition of SARS-CoV-2 variants of concern by an engineered ACE2-IgG4-Fc fusion protein. Antiviral Research, 2021, 196, 105197.	1.9	15
230	Interaction of the Chaperone BiP with an Antibody Domain: Implications for the Chaperone Cycle. Journal of Molecular Biology, 2002, 318, 611-620.	2.0	14
231	<i>Induction of Heat Shock Proteins and the Proteasome System by Caseinâ€</i>N<i>^{É›}â€(Carboxymethyl)lysine and</i> N<i>^{É›}â€(Carboxymethyl)lysine in Cacoâ€2 Cells</i>. Annals of the New York Academy of Sciences, 2008, 1126, 257-261.	1.8	14
232	Domain Interactions Determine the Amyloidogenicity of Antibody Light Chain Mutants. Journal of Molecular Biology, 2020, 432, 6187-6199.	2.0	14
233	Intradomain Disulfide Bonds Impede Formation of the Alternatively Folded State of Antibody Chains. Journal of Molecular Biology, 2002, 318, 829-836.	2.0	13
234	Cross-Linking GPVI-Fc by Anti-Fc Antibodies Potentiates Its Inhibition ofÂAtherosclerotic Plaque- and Collagen-Induced Platelet Activation. JACC Basic To Translational Science, 2016, 1, 131-142.	1.9	13

#	Article	IF	Citations
235	Closing In on the Hsp90 Chaperone-Client Relationship. Structure, 2011, 19, 445-446.	1.6	12
236	Nucleotide-Dependent Dimer Association and Dissociation of the Chaperone Hsp90. Journal of Physical Chemistry B, 2018, 122, 11373-11380.	1.2	12
237	Phosphorylation activates the yeast small heat shock protein Hsp26 by weakening domain contacts in the oligomer ensemble. Nature Communications, 2021, 12, 6697.	5.8	12
238	The switch from client holding to folding in the Hsp70/Hsp90 chaperone machineries is regulated by a direct interplay between co-chaperones. Molecular Cell, 2022, 82, 1543-1556.e6.	4.5	12
239	Active unfolding of the glucocorticoid receptor by the Hsp70/Hsp40 chaperone system in single-molecule mechanical experiments. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119076119.	3.3	12
240	Influence of the Oxidoreductase ERp57 on the Folding of an Antibody Fab Fragment. Journal of Molecular Biology, 2004, 341, 1077-1084.	2.0	11
241	Collagenâ€™s primary structure determines collagen:HSP47 complex stoichiometry. Journal of Biological Chemistry, 2021, 297, 101169.	1.6	11
242	Hierarchical Formation of Disulfide Bonds in the Immunoglobulin Fc Fragment Is Assisted by Protein-disulfide Isomerase. Journal of Biological Chemistry, 2004, 279, 15059-15066.	1.6	10
243	Interaction of human heat shock protein 70 with tumor-associated peptides. Biological Chemistry, 2009, 390, 305-312.	1.2	10
244	Biogenesis of secretory immunoglobulin M requires intermediate nonâ€native disulfide bonds and engagement of the protein disulfide isomerase ERp44. EMBO Journal, 2022, 41, e108518.	3.5	10
245	Folding pathway enigma. Nature, 1990, 343, 601-602.	13.7	9
246	Experimental optimization of protein refolding with a genetic algorithm. Protein Science, 2010, 19, 2085-2095.	3.1	9
247	Mechanistic principles of an ultra-long bovine CDR reveal strategies for antibody design. Nature Communications, 2021, 12, 6737.	5.8	9
248	A single residue switch reveals principles of antibody domain integrity. Journal of Biological Chemistry, 2018, 293, 17107-17118.	1.6	8
249	Antibodies gone bad â€“ the molecular mechanism of light chain amyloidosis. FEBS Journal, 2023, 290, 1398-1419.	2.2	8
250	The network of molecular chaperones: insights in the cellular proteostasis machinery. Journal of Molecular Biology, 2015, 427, 2899-2903.	2.0	7
251	Mechanistic aspects of the Hsp90 phosphoregulation. Cell Cycle, 2012, 11, 1870-1871.	1.3	6
252	An alternative splice variant of human Î±A-crystallin modulates the oligomer ensemble and the chaperone activity of Î±-crystallins. Cell Stress and Chaperones, 2017, 22, 541-552.	1.2	6

#	Article	IF	Citations
253	Peptides in proteins. Journal of Peptide Science, 2020, 26, e3235.	0.8	4
254	The <i>in vitro</i> catalysis of protein folding by endoplasmic reticulum luminal peptidyl prolyl <i>cis-trans</i> isomerase. Biochemical Society Transactions, 1995, 23, 63S-63S.	1.6	2
255	Acidification Activates ERp44â€”A Molecular Litmus Test for Protein Assembly. Molecular Cell, 2013, 50, 779-781.	4.5	1
256	Protein Folding by Interaction. Structure, 2014, 22, 936-937.	1.6	1
257	<i>FEBS Open Bio</i>: past, present and future. FEBS Open Bio, 2021, 11, 3183-3188.	1.0	1
258	Response to Corcos: exceptions to the rules. Trends in Biochemical Sciences, 2010, 35, 594.	3.7	0
259	In memoriamâ€”Rainer Jaenicke. Protein Science, 2017, 26, 394-395.	3.1	0
260	Solid- and solution-state nuclear magnetic resonance spectroscopic studies on antibody light chain amyloid formation and interactions with epigallocatechin gallate. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2017, 24, 10-10.	1.4	0
261	Wir brauchen eine next generation protein science in Deutschland!. BioSpektrum, 2017, 23, 793-793.	0.0	0
262	Unravelling the Mechanics of a Molecular Chaperone. Biophysical Journal, 2018, 114, 552a.	0.2	0
263	The IMiD-Target Cereblon Determines Transmembrane Protein Quality Control Promoting Tumor Metabolism. Blood, 2019, 134, 314-314.	0.6	0
264	Combining Electron Microscopy (EM) and Cross-Linking Mass Spectrometry (XL-MS) for Structural Characterization of Protein Complexes. Methods in Molecular Biology, 2022, 2420, 217-232.	0.4	0