Axel Mogk

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8940285/publications.pdf

Version: 2024-02-01

75 papers	9,660 citations	34105 52 h-index	69250 77 g-index
82 all docs	82 docs citations	82 times ranked	7850 citing authors

#	Article	IF	Citations
1	Cellular strategies for controlling protein aggregation. Nature Reviews Molecular Cell Biology, 2010, 11, 777-788.	37.0	785
2	Thermotolerance Requires Refolding of Aggregated Proteins by Substrate Translocation through the Central Pore of ClpB. Cell, 2004, 119, 653-665.	28.9	433
3	Small heat shock proteins, ClpB and the DnaK system form a functional triade in reversing protein aggregation. Molecular Microbiology, 2003, 50, 585-595.	2.5	342
4	Human Hsp70 Disaggregase Reverses Parkinsonâ€™s-Linked Î±-Synuclein Amyloid Fibrils. Molecular Cell, 2015, 59, 781-793.	9.7	336
5	Genetic dissection of the roles of chaperones and proteases in protein folding and degradation in the Escherichia coli cytosol. Molecular Microbiology, 2001, 40, 397-413.	2.5	302
6	Remodelling of VipA/VipB tubules by ClpV-mediated threading is crucial for type VI protein secretion. EMBO Journal, 2009, 28, 315-325.	7.8	288
7	Cellular Handling of Protein Aggregates by Disaggregation Machines. Molecular Cell, 2018, 69, 214-226.	9.7	280
8	Refolding of Substrates Bound to Small Hsps Relies on a Disaggregation Reaction Mediated Most Efficiently by ClpB/DnaK. Journal of Biological Chemistry, 2003, 278, 31033-31042.	3.4	243
9	Compartmentâ€specific aggregases direct distinct nuclear and cytoplasmic aggregate deposition. EMBO Journal, 2015, 34, 778-797.	7.8	243
10	Quantitative and spatio-temporal features of protein aggregation in Escherichia coli and consequences on protein quality control and cellular ageing. EMBO Journal, 2010, 29, 910-923.	7.8	241
11	Hsp42 is required for sequestration of protein aggregates into deposition sites in Saccharomyces cerevisiae. Journal of Cell Biology, 2011, 195, 617-629.	5.2	233
12	Chaperone-based procedure to increase yields of soluble recombinant proteins produced in E. coli. BMC Biotechnology, 2007, 7, 32.	3.3	231
13	Roles of Individual Domains and Conserved Motifs of the AAA+ Chaperone ClpB in Oligomerization, ATP Hydrolysis, and Chaperone Activity. Journal of Biological Chemistry, 2003, 278, 17615-17624.	3.4	222
14	Substrate recognition by the AAA+ chaperone ClpB. Nature Structural and Molecular Biology, 2004, 11, 607-615.	8.2	219
15	The antibiotic ADEP reprogrammes ClpP, switching it from a regulated to an uncontrolled protease. EMBO Molecular Medicine, 2009, 1, 37-49.	6.9	196
16	Hsp70 targets Hsp100 chaperones to substrates for protein disaggregation and prion fragmentation. Journal of Cell Biology, 2012, 198, 387-404.	5.2	196
17	AAA+ proteins and substrate recognition, it all depends on their partner in crime. FEBS Letters, 2002, 529, 6-10.	2.8	193
18	Coordination of Translational Control and Protein Homeostasis during Severe Heat Stress. Current Biology, 2013, 23, 2452-2462.	3.9	191

#	Article	IF	Citations
19	Substrate threading through the central pore of the Hsp104 chaperone as a common mechanism for protein disaggregation and prion propagation. Molecular Microbiology, 2008, 68, 87-97.	2.5	171
20	Spatially Organized Aggregation of Misfolded Proteins as Cellular Stress Defense Strategy. Journal of Molecular Biology, 2015, 427, 1564-1574.	4.2	164
21	M Domains Couple the ClpB Threading Motor with the DnaK Chaperone Activity. Molecular Cell, 2007, 25, 247-260.	9.7	153
22	Hsp70 proteins bind Hsp100 regulatory M domains to activate AAA+ disaggregase at aggregate surfaces. Nature Structural and Molecular Biology, 2012, 19, 1347-1355.	8.2	152
23	Small heat shock proteins sequester misfolding proteins in near-native conformation for cellular protection and efficient refolding. Nature Communications, 2016, 7, 13673.	12.8	147
24	Tubules and donuts: a type VI secretion story. Molecular Microbiology, 2010, 76, 815-821.	2.5	141
25	Characterization of a Trap Mutant of the AAA+ Chaperone ClpB. Journal of Biological Chemistry, 2003, 278, 32608-32617.	3.4	140
26	Cooperation of Hsp70 and Hsp100 chaperone machines in protein disaggregation. Frontiers in Molecular Biosciences, 2015, 2, 22.	3.5	140
27	MecA, an adaptor protein necessary for ClpC chaperone activity. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 2306-2311.	7.1	139
28	Protein disaggregation by the AAA+ chaperone ClpB involves partial threading of looped polypeptide segments. Nature Structural and Molecular Biology, 2008, 15, 641-650.	8.2	139
29	<scp><scp>ClpV</scp></scp> recycles <scp><scp>VipA</scp></scp>/<scp><scp>VipB</scp></scp> tubules and prevents nonâ€productive tubule formation to ensure efficient type <scp>VI</scp> protein secretion. Molecular Microbiology, 2013, 87, 1013-1028.	2.5	132
30	Adaptor protein controlled oligomerization activates the AAA+ protein ClpC. EMBO Journal, 2006, 25, 1481-1491.	7.8	127
31	Cellular Functions and Mechanisms of Action of Small Heat Shock Proteins. Annual Review of Microbiology, 2019, 73, 89-110.	7.3	127
32	A tightly regulated molecular toggle controls AAA+ disaggregase. Nature Structural and Molecular Biology, 2012, 19, 1338-1346.	8.2	124
33	Chaperone networks in protein disaggregation and prion propagation. Journal of Structural Biology, 2012, 179, 152-160.	2.8	121
34	Hsp70 displaces small heat shock proteins from aggregates to initiate protein refolding. EMBO Journal, 2017, 36, 783-796.	7.8	120
35	Structural pathway of regulated substrate transfer and threading through an Hsp100 disaggregase. Science Advances, 2017, 3, e1701726.	10.3	112
36	Head-to-tail interactions of the coiled-coil domains regulate ClpB activity and cooperation with Hsp70 in protein disaggregation. ELife, 2014, 3, e02481.	6.0	111

#	Article	IF	Citations
37	Disassembly of Tau fibrils by the human Hsp70 disaggregation machinery generates small seeding-competent species. Journal of Biological Chemistry, 2020, 295, 9676-9690.	3.4	103
38	Molecular Basis for the Unique Role of the AAA+ Chaperone ClpV in Type VI Protein Secretion. Journal of Biological Chemistry, 2011, 286, 30010-30021.	3.4	95
39	Novel insights into the mechanism of chaperone-assisted protein disaggregation. Biological Chemistry, 2005, 386, 739-44.	2.5	92
40	Deadly syringes: type VI secretion system activities in pathogenicity and interbacterial competition. Current Opinion in Microbiology, 2013, 16, 52-58.	5.1	92
41	Role of sHsps in organizing cytosolic protein aggregation and disaggregation. Cell Stress and Chaperones, 2017, 22, 493-502.	2.9	92
42	Processive extrusion of polypeptide loops by a Hsp100 disaggregase. Nature, 2020, 578, 317-320.	27.8	92
43	Integrating Protein Homeostasis Strategies in Prokaryotes. Cold Spring Harbor Perspectives in Biology, 2011, 3, a004366-a004366.	5.5	82
44	Unscrambling an egg: protein disaggregation by AAA+ proteins. Microbial Cell Factories, 2004, 3, 1.	4.0	80
45	ClpV, a unique Hsp100/Clp member of pathogenic proteobacteria. Biological Chemistry, 2005, 386, 1115-27.	2.5	78
46	Solubilization of aggregated proteins by ClpB/DnaK relies on the continuous extraction of unfolded polypeptides. FEBS Letters, 2004, 578, 351-356.	2.8	76
47	Structure of the VipA/B Type VI Secretion Complex Suggests a Contraction-State-Specific Recycling Mechanism. Cell Reports, 2014, 8, 20-30.	6.4	74
48	Common and specific mechanisms of AAA+ proteins involved in protein quality control. Biochemical Society Transactions, 2008, 36, 120-125.	3.4	70
49	The Yeast AAA⁺ Chaperone Hsp104 Is Part of a Network That Links the Actin Cytoskeleton with the Inheritance of Damaged Proteins. Molecular and Cellular Biology, 2009, 29, 3738-3745.	2.3	66
50	Molecular Chaperones: Structure of a Protein Disaggregase. Current Biology, 2004, 14, R78-R80.	3.9	64
51	Prolonged starvation drives reversible sequestration of lipid biosynthetic enzymes and organelle reorganization inSaccharomyces cerevisiae. Molecular Biology of the Cell, 2015, 26, 1601-1615.	2.1	59
52	A prion-like domain in Hsp42 drives chaperone-facilitated aggregation of misfolded proteins. Journal of Cell Biology, 2018, 217, 1269-1285.	5.2	57
53	Towards a unifying mechanism for ClpB/Hsp104-mediated protein disaggregation and prion propagationThis paper is one of a selection of papers published in this special issue entitled 8th International Conference on AAA Proteins and has undergone the Journal's usual peer review process.. Biochemistry and Cell Biology, 2010, 88, 63-75.	2.0	56
54	Systemic control of protein synthesis through sequestration of translation and ribosome biogenesis factors during severe heat stress. FEBS Letters, 2015, 589, 3654-3664.	2.8	55

#	Article	IF	Citations
55	The HSP110/HSP70 disaggregation system generates spreadingâ€competent toxic Î±â€synuclein species. EMBO Journal, 2020, 39, e103954.	7.8	53
56	The Diverse Functions of Small Heat Shock Proteins in the Proteostasis Network. Journal of Molecular Biology, 2022, 434, 167157.	4.2	53
57	Cellular sequestrases maintain basal Hsp70 capacity ensuring balanced proteostasis. Nature Communications, 2019, 10, 4851.	12.8	49
58	Two-Step Activation Mechanism of the ClpB Disaggregase for Sequential Substrate Threading by the Main ATPase Motor. Cell Reports, 2019, 27, 3433-3446.e4.	6.4	46
59	Broad yet high substrate specificity: the challenge of AAA+ proteins. Journal of Structural Biology, 2004, 146, 90-98.	2.8	45
60	Role of Region C in Regulation of the Heat Shock Gene-Specific Sigma Factor of Escherichia coli , Ï, ³². Journal of Bacteriology, 1999, 181, 3552-3561.	2.2	45
61	Chaperone-Mediated Protein Disaggregation Triggers Proteolytic Clearance of Intra-nuclear Protein Inclusions. Cell Reports, 2020, 31, 107680.	6.4	43
62	Stand-alone ClpG disaggregase confers superior heat tolerance to bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E273-E282.	7.1	37
63	Toxic Activation of an AAA+ Protease by the Antibacterial Drug Cyclomarin A. Cell Chemical Biology, 2019, 26, 1169-1179.e4.	5.2	36
64	Regulatory coiled-coil domains promote head-to-head assemblies of AAA+ chaperones essential for tunable activity control. ELife, 2017, 6, .	6.0	32
65	Cooperative and independent activities of Sgt2 and Get5 in the targeting of tail-anchored proteins. Biological Chemistry, 2011, 392, 601-8.	2.5	28
66	Type VI Secretion System Helps Find a Niche. Cell Host and Microbe, 2014, 16, 5-6.	11.0	22
67	Bacterial and Yeast AAA + Disaggregases ClpB and Hsp104 Operate through Conserved Mechanism Involving Cooperation with Hsp70. Journal of Molecular Biology, 2016, 428, 4378-4391.	4.2	22
68	A recently isolated human commensal Escherichia coli ST10 clone member mediates enhanced thermotolerance and tetrathionate respiration on a P1 phageâ€derived IncY plasmid. Molecular Microbiology, 2021, 115, 255-271.	2.5	21
69	Mechanism of Hsp104/ClpB inhibition by prion curing Guanidinium hydrochloride. FEBS Letters, 2013, 587, 810-817.	2.8	20
70	Antibacterial peptide CyclomarinA creates toxicity by deregulating the Mycobacterium tuberculosis ClpC1â€“ClpP1P2 protease. Journal of Biological Chemistry, 2022, 298, 102202.	3.4	18
71	Poly-L-lysine enhances the protein disaggregation activity of ClpB. FEBS Letters, 2003, 553, 125-130.	2.8	14
72	ClpG Provides Increased Heat Resistance by Acting as Superior Disaggregase. Biomolecules, 2019, 9, 815.	4.0	14

#	Article	IF	Citations
73	Basic mechanism of the autonomous ClpG disaggregase. Journal of Biological Chemistry, 2021, 296, 100460.	3.4	9
74	Mutant Analysis Reveals Allosteric Regulation of ClpB Disaggregase. Frontiers in Molecular Biosciences, 2017, 4, 6.	3.5	8
75	Resisting the Heat: Bacterial Disaggregases Rescue Cells From Devastating Protein Aggregation. Frontiers in Molecular Biosciences, 2021, 8, 681439.	3.5	7