Michael Ehrmann

List of Publications by Year
in descending order

113 papers	7,870 citations	53751 45 h-index	51562 86 g-index
120 all docs	120 docs citations	120 times ranked	7917 citing authors

#	Article	IF	Citations
1	A Temperature-Dependent Switch from Chaperone to Protease in a Widely Conserved Heat Shock Protein. Cell, 1999, 97, 339-347.	13.5	692
2	The HtrA Family of Proteases. Molecular Cell, 2002, 10, 443-455.	4.5	597
3	HTRA proteases: regulated proteolysis in protein quality control. Nature Reviews Molecular Cell Biology, 2011, 12, 152-162.	16.1	416
4	Crystal structure of DegP (HtrA) reveals a new protease-chaperone machine. Nature, 2002, 416, 455-459.	13.7	374
5	Structural basis for the regulated protease and chaperone function of DegP. Nature, 2008, 453, 885-890.	13.7	327
6	Crystal Structure of the DegS Stress Sensor. Cell, 2004, 117, 483-494.	13.5	269
7	Lysine-Specific Molecular Tweezers Are Broad-Spectrum Inhibitors of Assembly and Toxicity of Amyloid Proteins. Journal of the American Chemical Society, 2011, 133, 16958-16969.	6.6	263
8	<scp>VCP</scp> /p97 cooperates with <scp>YOD</scp> 1, <scp>UBXD</scp> 1 and <scp>PLAA</scp> to drive clearance of ruptured lysosomes by autophagy. EMBO Journal, 2017, 36, 135-150.	3.5	259
9	The Role of Human HtrA1 in Arthritic Disease. Journal of Biological Chemistry, 2006, 281, 6124-6129.	1.6	237
10	Implications of the serine protease HtrA1 in amyloid precursor protein processing. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 6021-6026.	3.3	188
11	Proteolysis as a Regulatory Mechanism. Annual Review of Genetics, 2004, 38, 709-724.	3.2	183
12	Peptide Functionalized Polydiacetylene Liposomes Act as a Fluorescent Turn-On Sensor for Bacterial Lipopolysaccharide. Journal of the American Chemical Society, 2011, 133, 9720-9723.	6.6	175
13	Genetic analysis of membrane protein topology by a sandwich gene fusion approach.. Proceedings of the National Academy of Sciences of the United States of America, 1990, 87, 7574-7578.	3.3	142
14	Protein Quality Control in the Bacterial Periplasm. Annual Review of Microbiology, 2011, 65, 149-168.	2.9	141
15	Serine protease HtrA1 modulates chemotherapy-induced cytotoxicity. Journal of Clinical Investigation, 2006, 116, 1994-2004.	3.9	130
16	HtrA1-dependent proteolysis of TGF-Î² controls both neuronal maturation and developmental survival. Cell Death and Differentiation, 2008, 15, 1408-1416.	5.0	123
17	Interplay of PDZ and protease domain of DegP ensures efficient elimination of misfolded proteins. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7702-7707.	3.3	118
18	Substrate-induced remodeling of the active site regulates human HTRA1 activity. Nature Structural and Molecular Biology, 2011, 18, 386-388.	3.6	116

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19	The ABC maltose transporter. Molecular Microbiology, 1998, 29, 685-694.	1.2	114
20	Cerebral small vessel disease-related protease HtrA1 processes latent TGF-Î² binding protein 1 and facilitates TGF-Î² signaling. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16496-16501.	3.3	114
21	Human High Temperature Requirement Serine Protease A1 (HTRA1) Degrades Tau Protein Aggregates. Journal of Biological Chemistry, 2012, 287, 20931-20941.	1.6	103
22	Identification of Protein Disulfide Isomerase as a Cardiomyocyte Survival Factor in Ischemic Cardiomyopathy. Journal of the American College of Cardiology, 2007, 50, 1029-1037.	1.2	96
23	Functional characterization of a soluble gp130 isoform and its therapeutic capacity in an experimental model of inflammatory arthritis. Arthritis and Rheumatism, 2006, 54, 1662-1672.	6.7	89
24	Determinants of amyloid fibril degradation by the PDZ protease HTRA1. Nature Chemical Biology, 2015, 11, 862-869.	3.9	88
25	Structural adaptation of the plant protease Deg1 to repair photosystem II during light exposure. Nature Structural and Molecular Biology, 2011, 18, 728-731.	3.6	85
26	Regulation of the ÏƒE stress response by DegS: how the PDZ domain keeps the protease inactive in the resting state and allows integration of different OMP-derived stress signals upon folding stress. Genes and Development, 2007, 21, 2659-2670.	2.7	81
27	Tailored protein encapsulation into a DNA host using geometrically organized supramolecular interactions. Nature Communications, 2017, 8, 14472.	5.8	73
28	MalI, a novel protein involved in regulation of the maltose system of Escherichia coli, is highly homologous to the repressor proteins GalR, CytR, and LacI. Journal of Bacteriology, 1989, 171, 4888-4899.	1.0	72
29	Allosteric Regulation of Proteases. ChemBioChem, 2008, 9, 2920-2928.	1.3	72
30	The ubiquitinâ€conjugating enzyme <scp>UBE</scp> 2 <scp>QL</scp> 1 coordinates lysophagy in response to endolysosomal damage. EMBO Reports, 2019, 20, e48014.	2.0	71
31	Decoding signals for membrane protein assembly using alkaline phosphatase fusions.. EMBO Journal, 1991, 10, 2773-2782.	3.5	69
32	Characterization of a cytoplasmic trehalase of Escherichia coli. Journal of Bacteriology, 1996, 178, 6250-6257.	1.0	67
33	Osmoregulation of the maltose regulon in Escherichia coli. Journal of Bacteriology, 1986, 166, 884-891.	1.0	62
34	Sec-independent translocation of a 100-residue periplasmic N-terminal tail in the E. coli inner membrane protein proW.. EMBO Journal, 1994, 13, 4653-4661.	3.5	62
35	Identification of endogenous inducers of the mal regulon in Escherichia coli. Journal of Bacteriology, 1987, 169, 3539-3545.	1.0	60
36	Detrimental Role for Human High Temperature Requirement Serine Protease A1 (HTRA1) in the Pathogenesis of Intervertebral Disc (IVD) Degeneration. Journal of Biological Chemistry, 2012, 287, 21335-21345.	1.6	57

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37	Structure, function and regulation of the conserved serine proteases DegP and DegS of Escherichia coli. Research in Microbiology, 2009, 160, 660-666.	1.0	56
38	Human Serine Protease HTRA1 Positively Regulates Osteogenesis of Human Bone Marrow-derived Mesenchymal Stem Cells and Mineralization of Differentiating Bone-forming Cells Through the Modulation of Extracellular Matrix Protein. Stem Cells, 2012, 30, 2271-2282.	1.4	56
39	Molecular Adaptation of the DegQ Protease to Exert Protein Quality Control in the Bacterial Cell Envelope. Journal of Biological Chemistry, 2011, 286, 30680-30690.	1.6	55
40	Identification of a serine protease inhibitor which causes inclusion vacuole reduction and is lethal to <i><scp>C</scp>hlamydia trachomatis</i>. Molecular Microbiology, 2013, 89, 676-689.	1.2	55
41	Allosteric Activation of HtrA Protease DegP by Stress Signals during Bacterial Protein Quality Control. Angewandte Chemie - International Edition, 2008, 47, 1332-1334.	7.2	54
42	Newly folded substrates inside the molecular cage of the HtrA chaperone DegQ. Nature Structural and Molecular Biology, 2012, 19, 152-157.	3.6	53
43	Membrane Topology of the Xenobiotic-exporting Subunit, MexB, of the MexA,B-OprM Extrusion Pump in Pseudomonas aeruginosa. Journal of Biological Chemistry, 1999, 274, 10517-10522.	1.6	52
44	The serine protease HtrA1 is a novel prognostic factor for human mesothelioma. Pharmacogenomics, 2008, 9, 1069-1077.	0.6	51
45	TnTIN and TnTAP: Mini-transposons for site-specific proteolysis in vivo. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 13111-13115.	3.3	46
46	Diversity of Allosteric Regulation in Proteases. ACS Chemical Biology, 2013, 8, 19-26.	1.6	45
47	MiR-30e and miR-181d control Radial Glia cell proliferation via HtrA1 modulation. Cell Death and Disease, 2012, 3, e360-e360.	2.7	44
48	Divergent transcription of the sn-glycerol-3-phosphate active transport (glpT) and anaerobic sn-glycerol-3-phosphate dehydrogenase (glpA glpC glpB) genes of Escherichia coli K-12. Journal of Bacteriology, 1987, 169, 526-532.	1.0	42
49	Evidence for coupling of membrane targeting and function of the signal recognition particle (SRP) receptor FtsY. EMBO Reports, 2001, 2, 1040-1046.	2.0	42
50	Determinants of structural and functional plasticity of a widely conserved protease chaperone complex. Nature Structural and Molecular Biology, 2010, 17, 837-843.	3.6	42
51	The Serine Protease HtrA1 Specifically Interacts and Degrades the Tuberous Sclerosis Complex 2 Protein. Molecular Cancer Research, 2010, 8, 1248-1260.	1.5	41
52	Native Top-Down Mass Spectrometry and Ion Mobility Spectrometry of the Interaction of Tau Protein with a Molecular Tweezer Assembly Modulator. Journal of the American Society for Mass Spectrometry, 2019, 30, 16-23.	1.2	39
53	Characterization of transmembrane domains 6, 7, and 8 of MalF by mutational analysis. Journal of Bacteriology, 1996, 178, 2255-2262.	1.0	38
54	Biochemical Characterization and Mass Spectrometric Disulfide Bond Mapping of Periplasmic Î±-Amylase MalS of Escherichia coli. Journal of Biological Chemistry, 1997, 272, 22125-22133.	1.6	37

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55	Polypeptide binding of Escherichia coli FtsH (HflB). Molecular Microbiology, 2002, 28, 803-812.	1.2	36
56	Selectivity profiling of DegP substrates and inhibitors. Bioorganic and Medicinal Chemistry, 2009, 17, 2920-2924.	1.4	34
57	SecA-dependent quality control of intracellular protein localization. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13231-13234.	3.3	33
58	CtpB Assembles a Gated Protease Tunnel Regulating Cell-Cell Signaling during Spore Formation in Bacillus subtilis. Cell, 2013, 155, 647-658.	13.5	31
59	Supramolecular Mechanism of Viral Envelope Disruption by Molecular Tweezers. Journal of the American Chemical Society, 2020, 142, 17024-17038.	6.6	31
60	Solid phase total synthesis of the 3-amino-6-hydroxy-2-piperidone (Ahp) cyclodepsipeptide and protease inhibitor Symplocamide A. Chemical Communications, 2010, 46, 8857.	2.2	27
61	Inactivation of the serine protease HTRA1 inhibits tumor growth by deregulating angiogenesis. Oncogene, 2018, 37, 4260-4272.	2.6	27
62	A Novel Method to Determine the Topology of Peroxisomal Membrane Proteins in Vivo Using the Tobacco Etch Virus Protease. Journal of Biological Chemistry, 2001, 276, 36501-36507.	1.6	26
63	Target-directed proteolysis at the ribosome. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 4246-4251.	3.3	25
64	Genetic Analysis of 15 Protein Folding Factors and Proteases of the Escherichia coli Cell Envelope. Journal of Bacteriology, 2012, 194, 3225-3233.	1.0	25
65	Determinants of Translocation and Folding of TreF, a Trehalase of Escherichia coli. Journal of Biological Chemistry, 2000, 275, 23439-23445.	1.6	24
66	From dolastatin 13 to cyanopeptolins, micropeptins, and lyngbyastatins: the chemical biology of Ahp-cyclodepsipeptides. Natural Product Reports, 2020, 37, 163-174.	5.2	24
67	PPI-Affinity: A Web Tool for the Prediction and Optimization of Proteinâ€“Peptide and Proteinâ€“Protein Binding Affinity. Journal of Proteome Research, 2022, 21, 1829-1841.	1.8	24
68	Membrane topology of CadA homologous P-type ATPase of Helicobacter pylori as determined by expression of phoA fusions in Escherichia coli and the positive inside rule. Research in Microbiology, 1999, 150, 507-520.	1.0	23
69	Molecular transformers in the cell: lessons learned from the DegP proteaseâ€“chaperone. Current Opinion in Structural Biology, 2010, 20, 253-258.	2.6	23
70	Whole-exome sequencing reveals a role of HTRA1 and EGFL8 in brain white matter hyperintensities. Brain, 2021, 144, 2670-2682.	3.7	21
71	Epigenetic silencing of serine protease HTRA1 drives polyploidy. BMC Cancer, 2016, 16, 399.	1.1	20
72	Persister state-directed transitioning and vulnerability in melanoma. Nature Communications, 2022, 13, .	5.8	20

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73	The Protein Translocation Apparatus Contributes to Determining the Topology of an Integral Membrane Protein in Escherichia coli. Journal of Biological Chemistry, 1998, 273, 8419-8424.	1.6	19
74	Substrate Occupancy at the Onset of Oligomeric Transitions of DegP. Structure, 2014, 22, 281-290.	1.6	18
75	Activation by substoichiometric inhibition. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1414-1418.	3.3	18
76	Site-specific proteolysis of the Escherichia coli SecA protein in vivo. Journal of Bacteriology, 1996, 178, 2986-2988.	1.0	17
77	Identification and Structural Characterisation of Carboxy-Terminal Polypeptides and Antibody Epitopes of Alzheimer's Amyloid Precursor Protein Using High-Resolution Mass Spectrometry. European Journal of Mass Spectrometry, 2005, 11, 547-555.	0.5	17
78	E. coli LoiP (YggG), a metalloprotease hydrolyzing Pheâ€"Phe bonds. Molecular BioSystems, 2012, 8, 1775.	2.9	17
79	Tailored Ahpâ€cyclodepsipeptides as Potent Nonâ€covalent Serine Protease Inhibitors. Angewandte Chemie - International Edition, 2017, 56, 8555-8558.	7.2	17
80	Uptake of the proteins HTRA1 and HTRA2 by cells mediated by calcium phosphate nanoparticles. Beilstein Journal of Nanotechnology, 2017, 8, 381-393.	1.5	17
81	Requirements for translocation of periplasmic domains in polytopic membrane proteins. Journal of Bacteriology, 1994, 176, 4565-4571.	1.0	14
82	TheSaccharomyces cerevisiae genePPH3 encodes a protein phosphatase with properties different fromppx,PP1 andPP2A. Yeast, 1994, 10, 567-578.	0.8	14
83	Characterization of Transmembrane Segments 3, 4, and 5 of MalF by Mutational Analysis. Journal of Bacteriology, 2001, 183, 375-381.	1.0	13
84	Determinants of regulated proteolysis in signal transduction. Genes and Development, 2007, 21, 6-10.	2.7	13
85	Conversion of a Regulatory into a Degradative Protease. Journal of Molecular Biology, 2010, 397, 957-966.	2.0	13
86	Peptidic small molecule activators of the stress sensor DegS. Molecular BioSystems, 2009, 5, 980.	2.9	12
87	Development of a Solidâ€Phase Approach to the Natural Product Class of Ahpâ€Containing Cyclodepsipeptides. European Journal of Organic Chemistry, 2012, 2012, 1616-1625.	1.2	12
88	Chemical Biology Approaches Reveal Conserved Features of a Câ€Terminal Processing PDZ Protease. ChemBioChem, 2012, 13, 402-408.	1.3	11
89	HTRA1-Dependent Cell Cycle Proteomics. Journal of Proteome Research, 2018, 17, 2679-2694.	1.8	11
90	Chemical Validation of DegS As a Target for the Development of Antibiotics with a Novel Mode of Action. ChemMedChem, 2019, 14, 1074-1078.	1.6	11

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91	Identification of Noncatalytic Lysine Residues from Allosteric Circuits via Covalent Probes. ACS Chemical Biology, 2018, 13, 1307-1312.	1.6	10
92	Adoption of a Turn Conformation Drives the Binding Affinity of p53 C-Terminal Domain Peptides to 14-3-3Ïƒ. ACS Chemical Biology, 2020, 15, 262-271.	1.6	10
93	Synthesis of acyclic 6,7-dihaloquinolone nucleoside analogues as potential antibacterial and antiviral agents. Bioorganic and Medicinal Chemistry, 2000, 8, 1407-1413.	1.4	9
94	Quinolone Nucleosides: 6,7-Dihalo-N-Î²- and Î±-Glycosyl-l 4-dihydro-4-oxo-quinoline-3-carboxylic Acids and Derivatives. Synthesis, Antimicrobial and Antiviral Activity. Nucleosides & Nucleotides, 1998, 17, 2255-2266.	0.5	7
95	Characterization of presenilin-amyloid precursor interaction using bacterial expression and two-hybrid systems for human membrane proteins. Molecular Membrane Biology, 2004, 21, 373-383.	2.0	6
96	Synthetic competition between cytoplasmic folding and translocation of a soluble membrane protein domain. Research in Microbiology, 1995, 146, 121-128.	1.0	5
97	Ahp Cyclodepsipeptides: The Impact of the Ahp Residue on the â€œCanonical Inhibitionâ€•of S1 Serine Proteases. ChemBioChem, 2013, 14, 1301-1308.	1.3	5
98	Identification of the Natural Product Rotihibinâ€…A as a TOR Kinase Signaling Inhibitor by Unbiased Transcriptional Profiling. Chemistry - A European Journal, 2018, 24, 12500-12504.	1.7	5
99	Disulfide Bond Formation in the Periplasm. , 0, , 122-140.		4
100	Convenient transfer of lacZ-gene fusions to phage M13 by in vivo recombination and their use for nucleotide sequencing. Gene, 1988, 71, 187-191.	1.0	3
101	Targetâ€Directed Proteolysis In Vivo. Methods in Enzymology, 2007, 421, 68-83.	0.4	3
102	Chemical Proteomics versus Leishmaniasis. Chemistry and Biology, 2015, 22, 309-310.	6.2	3
103	MaÃŸgeschneiderte Ahpâ€Cyclodepsipeptide als potente, nichtâ€kovalente Serinproteaseâ€Inhibitoren. Angewandte Chemie, 2017, 129, 8675-8679.	1.6	3
104	Context-dependent effects of charged residues in transmembrane segments of MalFâ€“PhoA fusions. Research in Microbiology, 2003, 154, 654-657.	1.0	2
105	Utilities for Mass Spectrometry Analysis of Proteins (UMSAP): Fast postâ€processing of mass spectrometry data. Rapid Communications in Mass Spectrometry, 2018, 32, 1659-1667.	0.7	2
106	Practical Applications for Periplasmic Protein Accumulation. , 0, , 343-360.		2
107	Periplasmic Expression of Antibody Fragments. , 0, , 361-388.		2
108	Assembly of Integral Membrane Proteins from the Periplasm into the Outer Membrane. , 0, , 30-66.		2

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109	An allosteric HTRA1-calpain 2 complex with restricted activation profile. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2113520119.	3.3	2
110	Periplasmic Proteases and Protease Inhibitors. , 0, , 150-170.		1
111	Reply to Liu et al.: Loss of TGF-Î² signaling in CARASIL pathogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1694-E1694.	3.3	0
112	Small Molecules from Deep within the Gut. ChemBioChem, 2017, 18, 967-968.	1.3	0
113	Co-and Posttranslational Protein Targeting to the SecYEG Translocon in<i>Escherichia coli</i>. , 0, , 1-15.		0