Hans-Georg Koch

List of Publications by Year
in descending order

87 papers	3,583 citations	117453 34 h-index	149479 56 g-index
90 all docs	90 docs citations	90 times ranked	2566 citing authors

#	Article	IF	Citations
1	Differential Interactions between a Twin-Arginine Signal Peptide and Its Translocase in Escherichia coli. Molecular Cell, 2003, 12, 937-946.	4.5	290
2	Transitional changes in the CRP structure lead to the exposure of proinflammatory binding sites. Nature Communications, 2017, 8, 14188.	5.8	158
3	In Vitro Studies with Purified Components Reveal Signal Recognition Particle (SRP) and SecA/SecB as Constituents of Two Independent Protein-targeting Pathways ofEscherichia coli. Molecular Biology of the Cell, 1999, 10, 2163-2173.	0.9	149
4	Protein translocation across the inner membrane of Gram-negative bacteria: the Sec and Tat dependent protein transport pathways. Research in Microbiology, 2013, 164, 505-534.	1.0	148
5	The Sec translocon mediated protein transport in prokaryotes and eukaryotes. Molecular Membrane Biology, 2014, 31, 58-84.	2.0	142
6	FtsY, the bacterial signalâ€recognition particle receptor, interacts functionally and physically with the SecYEG translocon. EMBO Reports, 2005, 6, 476-481.	2.0	129
7	Protein traffic in bacteria: Multiple routes from the ribosome to and across the membrane. Progress in Molecular Biology and Translational Science, 2000, 66, 107-157.	1.9	112
8	The RegB/RegA two-component regulatory system controls synthesis of photosynthesis and respiratory electron transfer components in Rhodobacter capsulatus. Journal of Molecular Biology, 2001, 309, 121-138.	2.0	99
9	Roles of the ccoGHIS gene products in the biogenesis of the cbb3-type cytochrome c oxidase. Journal of Molecular Biology, 2000, 297, 49-65.	2.0	88
10	YidC Occupies the Lateral Gate of the SecYEG Translocon and Is Sequentially Displaced by a Nascent Membrane Protein. Journal of Biological Chemistry, 2013, 288, 16295-16307.	1.6	88
11	Multi-step Assembly Pathway of the cbb3-type Cytochrome c Oxidase Complex. Journal of Molecular Biology, 2006, 355, 989-1004.	2.0	85
12	Biogenesis of cbb3-type cytochrome c oxidase in Rhodobacter capsulatus. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 898-910.	0.5	85
13	Promiscuous targeting of polytopic membrane proteins to SecYEG or YidC by theEscherichia colisignal recognition particle. Molecular Biology of the Cell, 2012, 23, 464-479.	0.9	79
14	Novel Transporter Required for Biogenesis of cbb ₃ -Type Cytochrome c Oxidase in Rhodobacter capsulatus. MBio, 2012, 3, .	1.8	75
15	Co-translational protein targeting in bacteria. FEMS Microbiology Letters, 2018, 365, .	0.7	74
16	Isolation and Characterization of Rhodobacter capsulatus Mutants Affected in Cytochrome cbb ₃ Oxidase Activity. Journal of Bacteriology, 1998, 180, 969-978.	1.0	72
17	Dissecting the Translocase and Integrase Functions of the Escherichia coli Secyeg Translocon. Journal of Cell Biology, 2000, 150, 689-694.	2.3	69
18	The Bacterial SRP Receptor, SecA and the Ribosome Use Overlapping Binding Sites on the SecY Translocon. Traffic, 2011, 12, 563-578.	1.3	64

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19	Membrane binding of the bacterial signal recognition particle receptor involves two distinct binding sites. Journal of Cell Biology, 2006, 174, 715-724.	2.3	63
20	Targeting and Insertion of Membrane Proteins. EcoSal Plus, 2017, 7, .	2.1	63
21	Cu Homeostasis in Bacteria: The Ins and Outs. Membranes, 2020, 10, 242.	1.4	60
22	Ligand crowding at a nascent signal sequence. Journal of Cell Biology, 2003, 163, 35-44.	2.3	58
23	The interaction network of the YidC insertase with the SecYEG translocon, SRP and the SRP receptor FtsY. Scientific Reports, 2018, 8, 578.	1.6	55
24	A Cleavable N-Terminal Membrane Anchor is Involved in Membrane Binding of the Escherichia coli SRP Receptor. Journal of Molecular Biology, 2008, 377, 761-773.	2.0	52
25	Stability of the cbb ₃ -Type Cytochrome Oxidase Requires Specific CcoQ-CcoP Interactions. Journal of Bacteriology, 2008, 190, 5576-5586.	1.0	51
26	Two Cooperating Helices Constitute the Lipid-binding Domain of the Bacterial SRP Receptor. Journal of Molecular Biology, 2009, 390, 401-413.	2.0	48
27	A Dual Function for SecA in the Assembly of Single Spanning Membrane Proteins in Escherichia coli. Journal of Biological Chemistry, 2005, 280, 39077-39085.	1.6	46
28	Intracytoplasmic Copper Homeostasis Controls Cytochrome c Oxidase Production. MBio, 2014, 5, e01055-13.	1.8	46
29	YidC and SecYEG form a heterotetrameric protein translocation channel. Scientific Reports, 2017, 7, 101.	1.6	45
30	Visualization of Distinct Entities of the SecYEG Translocon during Translocation and Integration of Bacterial Proteins. Molecular Biology of the Cell, 2009, 20, 1804-1815.	0.9	43
31	Ribosome binding induces repositioning of the signal recognition particle receptor on the translocon. Journal of Cell Biology, 2015, 211, 91-104.	2.3	43
32	Export of Î²-Lactamase Is Independent of the Signal Recognition Particle. Journal of Biological Chemistry, 2003, 278, 22161-22167.	1.6	40
33	The ScoI homologue SenC is a copper binding protein that interacts directly with the cbb3-type cytochrome oxidase in Rhodobacter capsulatus. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 2005-2015.	0.5	40
34	The Integration of YidC into the Cytoplasmic Membrane ofEscherichia coli Requires the Signal Recognition Particle, SecA and SecYEG. Journal of Biological Chemistry, 2002, 277, 5715-5718.	1.6	39
35	Cooperation between two periplasmic copper chaperones is required for full activity of the cbb₃â€type cytochrome c oxidase and copper homeostasis in Rhodobacter capsulatus. Molecular Microbiology, 2016, 100, 345-361.	1.2	39
36	The Dynamic SecYEG Translocon. Frontiers in Molecular Biosciences, 2021, 8, 664241.	1.6	39

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37	Signal sequenceâ€“independent SRP-SR complex formation at the membrane suggests an alternative targeting pathway within the SRP cycle. Molecular Biology of the Cell, 2011, 22, 2309-2323.	0.9	38
38	A conformational change of C-reactive protein in burn wounds unmasks its proinflammatory properties. International Immunology, 2014, 26, 467-478.	1.8	37
39	The signal recognition particle contacts uL23 and scans substrate translation inside the ribosomal tunnel. Nature Microbiology, 2017, 2, 16265.	5.9	37
40	The largely unexplored biology of small proteins in proâ€•and eukaryotes. FEBS Journal, 2021, 288, 7002-7024.	2.2	37
41	Predominant membrane localization is an essential feature of the bacterial signal recognition particle receptor. BMC Biology, 2009, 7, 76.	1.7	33
42	Noncompetitive binding of PpiD and YidC to the SecYEG translocon expands the global view on the SecYEG interactome in Escherichia coli. Journal of Biological Chemistry, 2019, 294, 19167-19183.	1.6	33
43	Dynamic Interaction of the Sec Translocon with the Chaperone PpiD. Journal of Biological Chemistry, 2014, 289, 21706-21715.	1.6	31
44	A Universally Conserved ATPase Regulates the Oxidative Stress Response in Escherichia coli. Journal of Biological Chemistry, 2012, 287, 43585-43598.	1.6	30
45	The Putative Assembly Factor CcoH Is Stably Associated with the cbb ₃ -Type Cytochrome Oxidase. Journal of Bacteriology, 2010, 192, 6378-6389.	1.0	29
46	Widespread Distribution and Functional Specificity of the Copper Importer CcoA: Distinct Cu Uptake Routes for Bacterial Cytochrome c Oxidases. MBio, 2018, 9, .	1.8	25
47	Depletion of the Signal Recognition Particle Receptor Inactivates Ribosomes in Escherichia coli. Journal of Bacteriology, 2009, 191, 7017-7026.	1.0	24
48	Redox Activation of the Universally Conserved ATPase YchF by Thioredoxin 1. Antioxidants and Redox Signaling, 2016, 24, 141-156.	2.5	23
49	A Copper Relay System Involving Two Periplasmic Chaperones Drives cbb₃-Type Cytochrome c Oxidase Biogenesis in Rhodobacter capsulatus. ACS Chemical Biology, 2018, 13, 1388-1397.	1.6	22
50	The Cu chaperone CopZ is required for Cu homeostasis in Rhodobacter capsulatus and influences cytochrome cbb 3 oxidase assembly. Molecular Microbiology, 2019, 111, 764-783.	1.2	22
51	Molecular Mimicry of SecA and Signal Recognition Particle Binding to the Bacterial Ribosome. MBio, 2019, 10, .	1.8	20
52	Posttranslational insertion of small membrane proteins by the bacterial signal recognition particle. PLoS Biology, 2020, 18, e3000874.	2.6	19
53	The cbb ₃ -type cytochrome oxidase assembly factor CcoG is a widely distributed cupric reductase. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21166-21175.	3.3	17
54	Folding, Assembly, and Stability of Transmembrane Cytochromes. Current Chemical Biology, 2007, 1, 59-74.	0.2	17

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55	Uncovering the Transmembrane Metal Binding Site of the Novel Bacterial Major Facilitator Superfamily-Type Copper Importer CcoA. MBio, 2016, 7, e01981-15.	1.8	16
56	The Sec61/SecY complex is inherently deficient in translocating intrinsically disordered proteins. Journal of Biological Chemistry, 2017, 292, 21383-21396.	1.6	16
57	Inhibition of SRP-dependent protein secretion by the bacterial alarmone (p)ppGpp. Nature Communications, 2022, 13, 1069.	5.8	16
58	Four Phosphates at One Blow: Access to Pentaphosphorylated Magic Spot Nucleotides and Their Analysis by Capillary Electrophoresis. Journal of Organic Chemistry, 2020, 85, 14496-14506.	1.7	15
59	[6] Using Genetics to Explore Cytochrome Function and Structure in Rhodobacter. Methods in Enzymology, 1998, 297, 81-94.	0.4	14
60	The Universally Conserved ATPase YchF Regulates Translation of Leaderless mRNA in Response to Stress Conditions. Frontiers in Molecular Biosciences, 2021, 8, 643696.	1.6	14
61	Comparative differential cuproproteomes of Rhodobacter capsulatus reveal novel copper homeostasis related proteins. Metallomics, 2020, 12, 572-591.	1.0	12
62	Pyridinium Modified Anthracenes and Their Endoperoxides Provide a Tunable Scaffold with Activity against Gram-Positive and Gram-Negative Bacteria. ACS Infectious Diseases, 2021, 7, 2073-2080.	1.8	12
63	Missense Mutations in Cytochrome c Maturation Genes Provide New Insights into Rhodobacter capsulatus cbb ₃ -Type Cytochrome c Oxidase Biogenesis. Journal of Bacteriology, 2013, 195, 261-269.	1.0	11
64	Cu Transport by the Extended Family of CcoA-like Transporters (CalT) in Proteobacteria. Scientific Reports, 2019, 9, 1208.	1.6	10
65	Absence of Thiol-Disulfide Oxidoreductase DsbA Impairs cbb3-Type Cytochrome c Oxidase Biogenesis in Rhodobacter capsulatus. Frontiers in Microbiology, 2017, 8, 2576.	1.5	8
66	Maturation of Rhodobacter capsulatus Multicopper Oxidase CutO Depends on the CopA Copper Efflux Pathway and Requires the cutF Product. Frontiers in Microbiology, 2021, 12, 720644.	1.5	8
67	Eeyarestatin 24 impairs SecYEGâ€dependent protein trafficking and inhibits growth of clinically relevant pathogens. Molecular Microbiology, 2021, 115, 28-40.	1.2	7
68	The missing enzymatic link in syntrophic methane formation from fatty acids. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	7
69	Quantitative proteomics identifies the universally conserved ATPase Ola1p as a positive regulator of heat shock response in Saccharomyces cerevisiae. Journal of Biological Chemistry, 2021, 297, 101050.	1.6	6
70	Biogenesis of Cytochrome c Complexes: From Insertion of Redox Cofactors to Assembly of Different Subunits. Advances in Photosynthesis and Respiration, 2016, , 527-554.	1.0	6
71	A common evolutionary origin reveals fundamental principles of protein insertases. PLoS Biology, 2022, 20, e3001558.	2.6	6
72	Regulatory Control of Rishirilide(s) Biosynthesis in Streptomyces bottropensis. Microorganisms, 2021, 9, 374.	1.6	5

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73	Yet another job for the bacterial ribosome. Microbial Cell, 2019, 6, 524-526.	1.4	4
74	The Role of the Universally Conserved ATPase YchF/Ola1 in Translation Regulation during Cellular Stress. Microorganisms, 2022, 10, 14.	1.6	4
75	Measurement of Cellular Copper in Rhodobacter capsulatus by Atomic Absorption Spectroscopy. Bio-protocol, 2016, 6, .	0.2	3
76	SecY-mediated quality control prevents the translocation of non-gated porins. Scientific Reports, 2020, 10, 16347.	1.6	2
77	The CopA2-Type P1B-Type ATPase CcoI Serves as Central Hub for cbb3-Type Cytochrome Oxidase Biogenesis. Frontiers in Microbiology, 2021, 12, 712465.	1.5	2
78	Assembly of Transmembrane b-Type Cytochromes and Cytochrome Complexes. Advances in Photosynthesis and Respiration, 2016, , 555-584.	1.0	2
79	Cysteine Mutants of the Major Facilitator Superfamily-Type Transporter CcoA Provide Insight into Copper Import. MBio, 2021, 12, e0156721.	1.8	0
80	Posttranslational insertion of small membrane proteins by the bacterial signal recognition particle. , 2020, 18, e3000874.		0
81	Posttranslational insertion of small membrane proteins by the bacterial signal recognition particle. , 2020, 18, e3000874.		0
82	Posttranslational insertion of small membrane proteins by the bacterial signal recognition particle. , 2020, 18, e3000874.		0
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84	Posttranslational insertion of small membrane proteins by the bacterial signal recognition particle. , 2020, 18, e3000874.		0
85	Posttranslational insertion of small membrane proteins by the bacterial signal recognition particle. , 2020, 18, e3000874.		0
86	Posttranslational insertion of small membrane proteins by the bacterial signal recognition particle. , 2020, 18, e3000874.		0
87	Posttranslational insertion of small membrane proteins by the bacterial signal recognition particle. , 2020, 18, e3000874.		0