Jan-Willem de Gier

List of Publications by Year
in descending order

83 papers	6,755 citations	53794 45 h-index	62596 80 g-index
86 all docs	86 docs citations	86 times ranked	4973 citing authors

#	Article	IF	Citations
1	Tuning <i>Escherichia coli</i> for membrane protein overexpression. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 14371-14376.	7.1	378
2	YidC, the Escherichia coli homologue of mitochondrial Oxa1p, is a component of the Sec translocase. EMBO Journal, 2000, 19, 542-549.	7.8	357
3	Consequences of Membrane Protein Overexpression in Escherichia coli. Molecular and Cellular Proteomics, 2007, 6, 1527-1550.	3.8	302
4	Optimization of membrane protein overexpression and purification using GFP fusions. Nature Methods, 2006, 3, 303-313.	19.0	297
5	The Escherichia coli SRP and SecB targeting pathways converge at the translocon. EMBO Journal, 1998, 17, 2504-2512.	7.8	271
6	Competition between Sec- and TAT-dependent protein translocation in Escherichia coli. EMBO Journal, 1999, 18, 2982-2990.	7.8	249
7	Rationalizing membrane protein overexpression. Trends in Biotechnology, 2006, 24, 364-371.	9.3	238
8	Green fluorescent protein as an indicator to monitor membrane protein overexpression in Escherichia coli. FEBS Letters, 2001, 507, 220-224.	2.8	210
9	Rapid topology mapping of <i>Escherichia coli</i> inner-membrane proteins by prediction and PhoA/GFP fusion analysis. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 2690-2695.	7.1	185
10	BIOGENESIS OF INNER MEMBRANE PROTEINS IN <i>ESCHERICHIA COLI</i>. Annual Review of Microbiology, 2005, 59, 329-355.	7.3	177
11	Nascent membrane and presecretory proteins synthesized in <i>Escherichia coli</i> associate with signal recognition particle and trigger factor. Molecular Microbiology, 1997, 25, 53-64.	2.5	168
12	Secâ€dependent membrane protein insertion: sequential interaction of nascent FtsQ with SecY and YidC. EMBO Reports, 2001, 2, 524-529.	4.5	164
13	Assembly of a cytoplasmic membrane protein inEscherichia coliis dependent on the signal recognition particle. FEBS Letters, 1996, 399, 307-309.	2.8	151
14	Optimizing Membrane Protein Overexpression in the Escherichia coli strain Lemo21(DE3). Journal of Molecular Biology, 2012, 423, 648-659.	4.2	132
15	YidC/Oxa1p/Alb3: evolutionarily conserved mediators of membrane protein assembly. FEBS Letters, 2001, 501, 1-5.	2.8	125
16	Function of YidC for the Insertion of M13 Procoat Protein inEscherichia coli. Journal of Biological Chemistry, 2001, 276, 34847-34852.	3.4	123
17	A scalable, GFP-based pipeline for membrane protein overexpression screening and purification. Protein Science, 2005, 14, 2011-2017.	7.6	121
18	The Bam (Omp85) complex is involved in secretion of the autotransporter haemoglobin protease. Microbiology (United Kingdom), 2009, 155, 3982-3991.	1.8	121

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19	Differential use of the signal recognition particle translocase targeting pathway for inner membrane protein assembly in <i>Escherichia coli</i>. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 14646-14651.	7.1	119
20	Optimizing heterologous protein production in the periplasm of E. coli by regulating gene expression levels. Microbial Cell Factories, 2013, 12, 24.	4.0	114
21	The terminal oxidases ofParacoccus denitrificans. Molecular Microbiology, 1994, 13, 183-196.	2.5	109
22	Limited tolerance towards folded elements during secretion of the autotransporter Hbp. Molecular Microbiology, 2007, 63, 1524-1536.	2.5	105
23	Structural and functional analysis of aa3-type and cbb3-type cytochrome c oxidases of Paracoccus denitrificans reveals significant differences in proton-pump design. Molecular Microbiology, 1996, 20, 1247-1260.	2.5	100
24	Decoration of Outer Membrane Vesicles with Multiple Antigens by Using an Autotransporter Approach. Applied and Environmental Microbiology, 2014, 80, 5854-5865.	3.1	95
25	Biogenesis of inner membrane proteins in <i>Escherichia coli</i>. Molecular Microbiology, 2001, 40, 314-322.	2.5	90
26	Experimentally based topology models for <i>E. coli</i> inner membrane proteins. Protein Science, 2004, 13, 937-945.	7.6	90
27	Membrane Topology of the 60-kDa Oxa1p Homologue fromEscherichia coli. Journal of Biological Chemistry, 1998, 273, 30415-30418.	3.4	86
28	Defining the Regions of Escherichia coli YidC That Contribute to Activity. Journal of Biological Chemistry, 2003, 278, 48965-48972.	3.4	84
29	F1F0ATP synthase subunit c is targeted by the SRP to YidC in theE. coliinner membrane. FEBS Letters, 2004, 576, 97-100.	2.8	78
30	Distinct Requirements for Translocation of the N-tail and C-tail of the Escherichia coli Inner Membrane Protein CyoA. Journal of Biological Chemistry, 2006, 281, 10002-10009.	3.4	72
31	A mycobacterial ABC transporter mediates the uptake of hydrophilic compounds. Nature, 2020, 580, 409-412.	27.8	72
32	Defining the Role of the Escherichia coli Chaperone SecB Using Comparative Proteomics*. Journal of Biological Chemistry, 2006, 281, 10024-10034.	3.4	70
33	Detection of crossâ€links between FtsH, YidC, HflK/C suggests a linked role for these proteins in quality control upon insertion of bacterial inner membrane proteins. FEBS Letters, 2008, 582, 1419-1424.	2.8	66
34	Biogenesis of inner membrane proteins in Escherichia coli. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 965-976.	1.0	64
35	Bacterial-based membrane protein production. Biochimica Et Biophysica Acta - Molecular Cell Research, 2014, 1843, 1739-1749.	4.1	63
36	TheE. coliSRP: preferences of a targeting factor. FEBS Letters, 1997, 408, 1-4.	2.8	60

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37	The structure of the efflux pump AcrB in complex with bile acid. Molecular Membrane Biology, 2008, 25, 677-682.	2.0	60
38	De-convoluting the Genetic Adaptations of E.Âcoli C41(DE3) in Real Time Reveals How Alleviating Protein Production Stress Improves Yields. Cell Reports, 2015, 10, 1758-1766.	6.4	60
39	Escherichia coli Peptide Binding Protein OppA Has a Preference for Positively Charged Peptides. Journal of Molecular Biology, 2011, 414, 75-85.	4.2	59
40	Biogenesis of MalF and the MalFGK2 Maltose Transport Complex in Escherichia coli Requires YidC. Journal of Biological Chemistry, 2008, 283, 17881-17890.	3.4	58
41	Functional and structural characterization of an ECF-type ABC transporter for vitamin B12. ELife, 2018, 7, .	6.0	57
42	Revolutionizing membrane protein overexpression in bacteria. Microbial Biotechnology, 2010, 3, 403-411.	4.2	55
43	High-level production of membrane proteins in E. coli BL21(DE3) by omitting the inducer IPTG. Microbial Cell Factories, 2015, 14, 142.	4.0	54
44	Effects of SecE Depletion on the Inner and Outer Membrane Proteomes of <i>Escherichia coli</i>. Journal of Bacteriology, 2008, 190, 3505-3525.	2.2	49
45	Application of an E. coli signal sequence as a versatile inclusion body tag. Microbial Cell Factories, 2017, 16, 50.	4.0	48
46	Consequences of the Overexpression of a Eukaryotic Membrane Protein, the Human KDEL Receptor, in Escherichia coli. Journal of Molecular Biology, 2011, 407, 532-542.	4.2	47
47	Targeting and Translocation of Two Lipoproteins in Escherichia coli via the SRP/Sec/YidC Pathway. Journal of Biological Chemistry, 2004, 279, 31026-31032.	3.4	45
48	New Escherichia coli outer membrane proteins identified through prediction and experimental verification. Protein Science, 2006, 15, 884-889.	7.6	43
49	A structurally informed autotransporter platform for efficient heterologous protein secretion and display. Microbial Cell Factories, 2012, 11, 85.	4.0	43
50	Regulation of oxidative phosphorylation: The flexible respiratory network ofParacoccus denitrificans. Journal of Bioenergetics and Biomembranes, 1995, 27, 499-512.	2.3	42
51	Optimizing Recombinant Protein Production in the Escherichia coli Periplasm Alleviates Stress. Applied and Environmental Microbiology, 2018, 84, .	3.1	41
52	Enhancing Recombinant Protein Yields in the E. coli Periplasm by Combining Signal Peptide and Production Rate Screening. Frontiers in Microbiology, 2019, 10, 1511.	3.5	39
53	The ribosome and YidC. EMBO Reports, 2003, 4, 939-943.	4.5	38
54	An autotransporter display platform for the development of multivalent recombinant bacterial vector vaccines. Microbial Cell Factories, 2014, 13, 162.	4.0	38

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55	Isolation and characterization of the E. coli membrane protein production strain Mutant56(DE3). Scientific Reports, 2017, 7, 45089.	3.3	38
56	The Signal Recognition Particle-targeting Pathway Does Not Necessarily Deliver Proteins to the Sec-translocase inEscherichia coli. Journal of Biological Chemistry, 1999, 274, 20068-20070.	3.4	37
57	Consequences of Depletion of the Signal Recognition Particle in Escherichia coli. Journal of Biological Chemistry, 2011, 286, 4598-4609.	3.4	36
58	Cysteine-mediated decyanation of vitamin B12 by the predicted membrane transporter BtuM. Nature Communications, 2018, 9, 3038.	12.8	31
59	Functioning of the stable signal peptide of the pCloDF13-encoded bacteriocin release protein. Molecular Microbiology, 1991, 5, 393-399.	2.5	28
60	Tailoring <i>Escherichia coli</i> for the <scp>l</scp>-Rhamnose P_{BAD} Promoter-Based Production of Membrane and Secretory Proteins. ACS Synthetic Biology, 2017, 6, 985-994.	3.8	28
61	SRP, FtsY, DnaK and YidC Are Required for the Biogenesis of the E. coli Tail-Anchored Membrane Proteins DjlC and Flk. Journal of Molecular Biology, 2018, 430, 389-403.	4.2	28
62	Revealing the mechanisms of membrane protein export by virulence-associated bacterial secretion systems. Nature Communications, 2018, 9, 3467.	12.8	28
63	MemStar: A oneâ€shot <i>Escherichia coli</i>â€based approach for highâ€level bacterial membrane protein production. FEBS Letters, 2014, 588, 3761-3769.	2.8	27
64	Isolating Escherichia coli strains for recombinant protein production. Cellular and Molecular Life Sciences, 2017, 74, 891-908.	5.4	25
65	Complementation of bacterial SecE by a chloroplastic homologue. FEBS Letters, 2001, 498, 52-56.	2.8	24
66	Bicistronic Design-Based Continuous and High-Level Membrane Protein Production in <i>Escherichia coli</i>. ACS Synthetic Biology, 2019, 8, 1685-1690.	3.8	23
67	YidC is required for the assembly of the MscL homopentameric pore. FEBS Journal, 2009, 276, 4891-4899.	4.7	22
68	Autotransporter-Based Antigen Display in Bacterial Ghosts. Applied and Environmental Microbiology, 2015, 81, 726-735.	3.1	22
69	Role for Escherichia coli YidD in Membrane Protein Insertion. Journal of Bacteriology, 2011, 193, 5242-5251.	2.2	20
70	Immobilization of the first dimension in 2D blue native/SDSâ€“PAGE allows the relative quantification of membrane proteomes. Methods, 2008, 46, 48-53.	3.8	17
71	The Oxidation of Methylamine in Paracoccus denitrificans. FEBS Journal, 1995, 229, 148-154.	0.2	16
72	Insertion of Leader Peptidase into the Thylakoid Membrane during Synthesis in a Chloroplast Translation System. Plant Cell, 1999, 11, 1553-1564.	6.6	15

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73	N-Linked Glycan Sites on the Influenza A Virus Neuraminidase Head Domain Are Required for Efficient Viral Incorporation and Replication. Journal of Virology, 2020, 94, .	3.4	15
74	Oxidation of methylamine by aParacoccus denitrificansmutant impaired in the synthesis of thebc1complex and theaa3-type oxidase Evidence for the existence of an alternative cytochromecoxidase in this bacterium. FEBS Letters, 1992, 306, 23-26.	2.8	14
75	Optimizing E. coli-Based Membrane Protein Production Using Lemo21(DE3) and GFP-Fusions. Methods in Molecular Biology, 2013, 1033, 381-400.	0.9	14
76	Strategies to Enhance Periplasmic Recombinant Protein Production Yields in Escherichia coli. Frontiers in Bioengineering and Biotechnology, 2021, 9, 797334.	4.1	11
77	The tunable pReX expression vector enables optimizing the T7-based production of membrane and secretory proteins in E. coli. Microbial Cell Factories, 2017, 16, 226.	4.0	10
78	Shaping Escherichia coli for recombinant membrane protein production. FEMS Microbiology Letters, 2018, 365, .	1.8	9
79	Cotranslational folding of alkaline phosphatase in the periplasm of <scp><i>Escherichia coli</i></scp>. Protein Science, 2020, 29, 2028-2037.	7.6	9
80	Reversed electron transfer through the bc1complex enables a cytochrome c oxidase mutant (Î”aa3/cbb3) ofParacoccus denitrificansto grow on methylamine. FEBS Letters, 1995, 371, 267-270.	2.8	8
81	Escherichia coli Can Adapt Its Protein Translocation Machinery for Enhanced Periplasmic Recombinant Protein Production. Frontiers in Bioengineering and Biotechnology, 2019, 7, 465.	4.1	8
82	Optimizing E. coli-Based Membrane Protein Production Using Lemo21(DE3) or pReX and GFP-Fusions. Methods in Molecular Biology, 2017, 1586, 109-126.	0.9	6
83	Mutagenesis-Based Characterization and Improvement of a Novel Inclusion Body Tag. Frontiers in Bioengineering and Biotechnology, 2020, 7, 442.	4.1	4