Roland Freudl

List of Publications by Year
in descending order

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70	3,061	136740	168136
papers	citations	32 h-index	53 g-index

75	75	75	2030
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Systematic Screening of All Signal Peptides from Bacillus subtilis: A Powerful Strategy in Optimizing Heterologous Protein Secretion in Gram-positive Bacteria. Journal of Molecular Biology, 2006, 362, 393-402.	2.0	228
2	Signal peptides for recombinant protein secretion in bacterial expression systems. Microbial Cell Factories, 2018, 17, 52.	1.9	180
3	Translocation of proteins across the cell envelope of Gram-positive bacteria. FEMS Microbiology Reviews, 2001, 25, 437-454.	3.9	145
4	Cell surface exposure of the outer membrane protein OmpA of Escherichia coli K-12. Journal of Molecular Biology, 1986, 188, 491-494.	2.0	137
5	The nature of information, required for export and sorting, present within the outer membrane protein OmpA of Escherichia coli K-12.. EMBO Journal, 1985, 4, 3593-3598.	3.5	112
6	Translocation of proteins across the cell envelope of Gram-positive bacteria. FEMS Microbiology Reviews, 2001, 25, 437-454.	3.9	106
7	An automated workflow for enhancing microbial bioprocess optimization on a novel microbioreactor platform. Microbial Cell Factories, 2012, 11, 144.	1.9	96
8	The efficient export of NADP-containing glucose-fructose oxidoreductase to the periplasm of Zymomonas mobilis depends both on an intact twin-arginine motif in the signal peptide and on the generation of a structural export signal induced by cofactor binding. FEBS Journal, 1999, 263, 543-551.	0.2	95
9	Isolation and Characterization of Bifunctional Escherichia coli TatA Mutant Proteins That Allow Efficient Tat-dependent Protein Translocation in the Absence of TatB. Journal of Biological Chemistry, 2005, 280, 3426-3432.	1.6	81
10	Comparative analysis of twin-arginine (Tat)-dependent protein secretion of a heterologous model protein (GFP) in three different Gram-positive bacteria. Applied Microbiology and Biotechnology, 2007, 76, 633-642.	1.7	71
11	Cloning and Molecular Characterization of the ompA Gene from Salmonella typhimurium. FEBS Journal, 1983, 134, 497-502.	0.2	70
12	Genetic Analysis of Pathway Specificity during Posttranslational Protein Translocation across the Escherichia coli Plasma Membrane. Journal of Bacteriology, 2003, 185, 2811-2819.	1.0	70
13	Improvement of Sec-dependent secretion of a heterologous model protein in Bacillus subtilis by saturation mutagenesis of the N-domain of the AmyE signal peptide. Applied Microbiology and Biotechnology, 2010, 86, 1877-1885.	1.7	69
14	Signal Peptide Peptidase- and ClpP-like Proteins of Bacillus subtilis Required for Efficient Translocation and Processing of Secretory Proteins. Journal of Biological Chemistry, 1999, 274, 24585-24592.	1.6	68
15	Escherichia coli Twin Arginine (Tat) Mutant Translocases Possessing Relaxed Signal Peptide Recognition Specificities. Journal of Biological Chemistry, 2007, 282, 7903-7911.	1.6	65
16	Transmembrane insertion of twin-arginine signal peptides is driven by TatC and regulated by TatB. Nature Communications, 2012, 3, 1311.	5.8	65
17	Specificity of Signal Peptide Recognition in Tat-Dependent Bacterial Protein Translocation. Journal of Bacteriology, 2001, 183, 604-610.	1.0	61
18	Identification of a gene fragment which codes for the 364 amino-terminal amino acid residues of a SecA homologue from Bacillus subtilis: further evidence for the conservation of the protein export apparatus in gram-positive and gram-negative bacteria. Molecular Genetics and Genomics, 1991, 228, 417-423.	2.4	60

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19	Insertion of peptides into cell-surface-exposed areas of the Escherichia coli OmpA protein does not interfere with export and membrane assembly. Gene, 1989, 82, 229-236.	1.0	59
20	Beyond amino acids: Use of the Corynebacterium glutamicum cell factory for the secretion of heterologous proteins. Journal of Biotechnology, 2017, 258, 101-109.	1.9	56
21	Use of a Sec signal peptide library from Bacillus subtilis for the optimization of cutinase secretion in Corynebacterium glutamicum. Microbial Cell Factories, 2016, 15, 208.	1.9	49
22	Lethal mutations in the structural gene of an outer membrane protein (OmpA) of Escherichia coli K12. Molecular Genetics and Genomics, 1985, 201, 76-81.	2.4	45
23	The signal sequence suffices to direct export of outer membrane protein OmpA of Escherichia coli K-12. Journal of Bacteriology, 1987, 169, 66-71.	1.0	44
24	An outer membrane protein (OmpA) of Escherichia coli can be translocated across the cytoplasmic membrane of Bacillus subtllis. Molecular Microbiology, 1993, 9, 847-855.	1.2	43
25	Identification of the Magnesium-binding Domain of the High-affinity ATP-binding Site of the Bacillus subtilis and Escherichia coli SecA Protein. Journal of Biological Chemistry, 1995, 270, 18975-18982.	1.6	43
26	Leaving home ain't easy: protein export systems in Gram-positive bacteria. Research in Microbiology, 2013, 164, 664-674.	1.0	41
27	Bacterial proteins carrying twin-R signal peptides are specifically targeted by the Î”pH-dependent transport machinery of the thylakoid membrane system. FEBS Letters, 1999, 447, 95-98.	1.3	40
28	A periplasmic, pyridoxal-5â€²-phosphate-dependent amino acid racemase in Pseudomonas taetrolens. Applied Microbiology and Biotechnology, 2009, 83, 1045-1054.	1.7	40
29	Temporal Expression of the Bacillus subtilis secA Gene, Encoding a Central Component of the Preprotein Translocase. Journal of Bacteriology, 1999, 181, 493-500.	1.0	40
30	Genetic Evidence for a Tight Cooperation of TatB and TatC during Productive Recognition of Twin-Arginine (Tat) Signal Peptides in Escherichia coli. PLoS ONE, 2012, 7, e39867.	1.1	38
31	Heterologous expression and characterization of a novel branching enzyme from the thermoalkaliphilic anaerobic bacterium Anaerobranca gottschalkii. Applied Microbiology and Biotechnology, 2006, 72, 60-71.	1.7	36
32	Corynebacterium glutamicum possesses two secA homologous genes that are essential for viability. Archives of Microbiology, 2008, 189, 605-610.	1.0	35
33	Cotranslocation of Methyl Parathion Hydrolase to the Periplasm and of Organophosphorus Hydrolase to the Cell Surface of Escherichia coli by the Tat Pathway and Ice Nucleation Protein Display System. Applied and Environmental Microbiology, 2010, 76, 434-440.	1.4	34
34	Protein secretion in Gram-positive bacteria. Journal of Biotechnology, 1992, 23, 231-240.	1.9	32
35	Differential Dependence of Levansucrase and Î±-Amylase Secretion on SecA (Div) during the Exponential Phase of Growth of Bacillus subtilis. Journal of Bacteriology, 1999, 181, 1820-1826.	1.0	32
36	Evolution of the enterobacterial sulA gene: a component of the SOS system encoding an inhibitor of cell division. Gene, 1987, 52, 31-40.	1.0	29

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37	A tetracycline inducible expression vector for Corynebacterium glutamicum allowing tightly regulable gene expression. Plasmid, 2012, 68, 142-147.	0.4	29
38	A Disulfide Bond-Containing Alkaline Phosphatase Triggers a BdbC-Dependent Secretion Stress Response in Bacillus subtilis. Applied and Environmental Microbiology, 2006, 72, 6876-6885.	1.4	28
39	Export and sorting of theEscherichia coli outer membrane protein OmpA. Journal of Bioenergetics and Biomembranes, 1990, 22, 441-449.	1.0	27
40	Cloning and molecular characterization of the secY genes from Bacillus licheniformis and Staphylococcus carnosus: comparative analysis of nine members of the SecY family. Molecular Genetics and Genomics, 1992, 235, 147-152.	2.4	27
41	Functional Implementation of the Posttranslational SecB-SecA Protein-Targeting Pathway in Bacillus subtilis. Applied and Environmental Microbiology, 2012, 78, 651-659.	1.4	25
42	Secretory production of an <scp>FAD</scp> cofactorâ€containing cytosolic enzyme (sorbitolâ€“xylitol) Tj ETQq0 0 0 rgBT /Overlock 10 (<scp>Tat</scp>) pathway of <scp>C</scp>orynebacterium glutamicum. Microbial Biotechnology, 2013, 6, 202-206.	2.0	25
43	A lower size limit exists for export of fragments of an outer membrane protein (OmpA) of Escherichia coli K-12. Journal of Molecular Biology, 1989, 205, 771-775.	2.0	24
44	Isolation and characterization of aBacillus subtilis secAmutant allele conferring resistance to sodium azide. FEMS Microbiology Letters, 1994, 124, 393-397.	0.7	22
45	Modulation of Thiol-Disulfide Oxidoreductases for Increased Production of Disulfide-Bond-Containing Proteins in Bacillus subtilis. Applied and Environmental Microbiology, 2008, 74, 7536-7545.	1.4	22
46	Combinatorial impact of Sec signal peptides from Bacillus subtilis and bioprocess conditions on heterologous cutinase secretion by Corynebacterium glutamicum. Biotechnology and Bioengineering, 2019, 116, 644-655.	1.7	22
47	Fed-batch production of recombinant human calcitonin precursor fusion protein using Staphylococcus carnosus as an expression-secretion system. Applied Microbiology and Biotechnology, 2000, 54, 361-369.	1.7	21
48	Improved pEKEx2-derived expression vectors for tightly controlled production of recombinant proteins in Corynebacterium glutamicum. Plasmid, 2020, 112, 102540.	0.4	21
49	Twin Arginine Translocation (Tat)-dependent Export in the Apparent Absence of TatABC or TatA Complexes Using Modified Escherichia coli TatA Subunits That Substitute for TatB. Journal of Biological Chemistry, 2007, 282, 36206-36213.	1.6	20
50	The carboxyl terminus of the Bacillus subtilis SecA is dispensable for protein secretion and viability. Microbiology (United Kingdom), 2000, 146, 2573-2581.	0.7	19
51	Evaluation of parallel operated small-scale bubble columns for microbial process development using Staphylococcus carnosus. Journal of Biotechnology, 2001, 88, 77-84.	1.9	17
52	Twin-Arginine Translocation of Methyl Parathion Hydrolase in Bacillus subtilis. Environmental Science & Technology, 2010, 44, 7607-7612.	4.6	17
53	Export of Methyl Parathion Hydrolase to the Periplasm by the Twin-Arginine Translocation Pathway inEscherichia coli. Journal of Agricultural and Food Chemistry, 2009, 57, 8901-8905.	2.4	16
54	A secretion biosensor for monitoring Sec-dependent protein export in Corynebacterium glutamicum. Microbial Cell Factories, 2020, 19, 11.	1.9	16

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55	Functional characterization of theStaphylococcus carnosusSecA protein inEscherichia coliandBacillus subtilissecAmutant strains. FEMS Microbiology Letters, 1995, 131, 271-277.	0.7	15
56	The threeâ€component system EsrISR regulates a cell envelope stress response in Corynebacterium glutamicum. Molecular Microbiology, 2017, 106, 719-741.	1.2	15
57	The h-region of twin-arginine signal peptides supports productive binding of bacterial Tat precursor proteins to the TatBC receptor complex. Journal of Biological Chemistry, 2017, 292, 10865-10882.	1.6	15
58	TheStaphylococcus carnosus secEgene: Cloning, nucleotide sequence, and functional characterization inEscherichia coli secEmutant strains. FEMS Microbiology Letters, 1994, 117, 113-119.	0.7	12
59	A TatABC-Type Tat Translocase Is Required for Unimpaired Aerobic Growth of Corynebacterium glutamicum ATCC13032. PLoS ONE, 2015, 10, e0123413.	1.1	12
60	Functional characterization of the Staphylococcus carnosus SecA protein in Escherichia coli and Bacillus subtilis secA mutant strains. FEMS Microbiology Letters, 1995, 131, 271-7.	0.7	11
61	Production of a human calcitonin precursor with Staphylococcus carnosus: secretory expression and single-step recovery by expanded bed adsorption. Process Biochemistry, 2003, 38, 1351-1363.	1.8	10
62	Contributions of the Pre- and Pro-Regions of a Staphylococcus hyicus Lipase to Secretion of a Heterologous Protein by Bacillus subtilis. Applied and Environmental Microbiology, 2010, 76, 659-669.	1.4	9
63	On the role of the mature part of an Escherichia coli outer membrane protein (OmpA) in translocation across the plasma membrane. Journal of Molecular Biology, 1988, 203, 517-519.	2.0	8
64	How to achieve Tat transport with alien TatA. Scientific Reports, 2017, 7, 8808.	1.6	8
65	Biosensor-Based Optimization of Cutinase Secretion by Corynebacterium glutamicum. Frontiers in Microbiology, 2021, 12, 750150.	1.5	7
66	Suppression of anEscherichia coli secAtsmutant by a gene cloned fromStaphylococcus carnosus. FEMS Microbiology Letters, 1991, 84, 143-149.	0.7	6
67	Cloning, nucleotide sequence, and functional expression of theEscherichia colienolase (eno) gene in a temperature-sensitiveenomutant strain. DNA Sequence, 1996, 6, 351-355.	0.7	6
68	The early mature part of bacterial twin-arginine translocation (Tat) precursor proteins contributes to TatBC receptor binding. Journal of Biological Chemistry, 2018, 293, 7281-7299.	1.6	6
69	Staphylococcus carnosus and other Gram-Positive Bacteria. , 2005, , 67-87.		2
70	Corynebacterium glutamicum as a Platform Organism for the Secretory Production of Heterologous Proteins. , 2015, , 161-178.		0