

Gottfried Unden

List of Publications by Year in descending order

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71
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4,427
citations

117625

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docs citations

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times ranked

3769
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#	ARTICLE	IF	CITATIONS
1	Alternative respiratory pathways of <i>Escherichia coli</i> : energetics and transcriptional regulation in response to electron acceptors. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1997, 1320, 217-234.	1.0	612
2	Stimulus Perception in Bacterial Signal-Transducing Histidine Kinases. <i>Microbiology and Molecular Biology Reviews</i> , 2006, 70, 910-938.	6.6	592
3	C4-dicarboxylate carriers and sensors in bacteria. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2002, 1553, 39-56.	1.0	216
4	LrhA as a new transcriptional key regulator of flagella, motility and chemotaxis genes in <i>Escherichia coli</i> . <i>Molecular Microbiology</i> , 2002, 45, 521-532.	2.5	210
5	Fumarate respiration of <i>Wolinella succinogenes</i> : enzymology, energetics and coupling mechanism. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2002, 1553, 23-38.	1.0	134
6	Transcriptional regulation of the proton translocating NADH dehydrogenase (nuoA-N) of <i>Escherichia coli</i> by electron acceptors, electron donors and gene regulators. <i>Molecular Microbiology</i> , 1995, 16, 521-534.	2.5	126
7	<i>Escherichia coli</i> possesses two homologous anaerobic C4-dicarboxylate membrane transporters (DcuA and DcuB) distinct from the aerobic dicarboxylate transport system (Dct). <i>Journal of Bacteriology</i> , 1994, 176, 6470-6478.	2.2	117
8	Fumarate Regulation of Gene Expression in <i>Escherichia coli</i> by the DcuSR (<i>dcuSR</i> Genes) Two-Component Regulatory System. <i>Journal of Bacteriology</i> , 1998, 180, 5421-5425.	2.2	115
9	Menaquinone-dependent succinate dehydrogenase of bacteria catalyzes reversed electron transport driven by the proton potential. <i>FEBS Journal</i> , 1998, 257, 210-215.	0.2	110
10	O ₂ as the regulatory signal for FNR-dependent gene regulation in <i>Escherichia coli</i> . <i>Journal of Bacteriology</i> , 1996, 178, 4515-4521.	2.2	107
11	Isolation and functional aspects of the fumarate reductase involved in the phosphorylative electron transport of <i>Vibrio succinogenes</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1980, 591, 275-288.	1.0	102
12	The NMR Structure of the Sensory Domain of the Membranous Two-component Fumarate Sensor (Histidine Protein Kinase) DcuS of <i>Escherichia coli</i> . <i>Journal of Biological Chemistry</i> , 2003, 278, 39185-39188.	3.4	92
13	Isolation and characterization of the Fnr protein, the transcriptional regulator of anaerobic electron transport in <i>Escherichia coli</i> . <i>FEBS Journal</i> , 1985, 146, 193-199.	0.2	88
14	Plasticity of the PAS domain and a potential role for signal transduction in the histidine kinase DcuS. <i>Nature Structural and Molecular Biology</i> , 2008, 15, 1031-1039.	8.2	82
15	Identification of a third secondary carrier (DcuC) for anaerobic C4-dicarboxylate transport in <i>Escherichia coli</i> : roles of the three Dcu carriers in uptake and exchange. <i>Journal of Bacteriology</i> , 1996, 178, 7241-7247.	2.2	78
16	Transport of C4-dicarboxylates by anaerobically grown <i>Escherichia coli</i> . Energetics and mechanism of exchange, uptake and efflux. <i>FEBS Journal</i> , 1994, 222, 605-614.	0.2	75
17	Anaerobic fumarate transport in <i>Escherichia coli</i> by an fnr-dependent dicarboxylate uptake system which is different from the aerobic dicarboxylate uptake system. <i>Journal of Bacteriology</i> , 1992, 174, 5533-5539.	2.2	70
18	Staphylococcal NreB: an O ₂ -sensing histidine protein kinase with an O ₂ -labile iron-sulphur cluster of the FNR type. <i>Molecular Microbiology</i> , 2004, 52, 713-723.	2.5	62

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19	Function of DcuS from <i>Escherichia coli</i> as a Fumarate-stimulated Histidine Protein Kinase in Vitro. <i>Journal of Biological Chemistry</i> , 2002, 277, 39809-39814.	3.4	61
20	The Fumarate/Succinate Antiporter DcuB of <i>Escherichia coli</i> Is a Bifunctional Protein with Sites for Regulation of DcuS-dependent Gene Expression. <i>Journal of Biological Chemistry</i> , 2009, 284, 265-275.	3.4	59
21	The Aerobic and Anaerobic Respiratory Chain of <i>Escherichia coli</i> and <i>Salmonella enterica</i> : Enzymes and Energetics. <i>EcoSal Plus</i> , 2014, 6, .	5.4	57
22	C ₄ -Dicarboxylate Utilization in Aerobic and Anaerobic Growth. <i>EcoSal Plus</i> , 2016, 7, .	5.4	54
23	The Nature of the Stimulus and of the Fumarate Binding Site of the Fumarate Sensor DcuS of <i>Escherichia coli</i> *. <i>Journal of Biological Chemistry</i> , 2005, 280, 20596-20603.	3.4	53
24	A PAS Domain with an Oxygen Labile [4Fe-4S] ²⁺ Cluster in the Oxygen Sensor Kinase NreB of <i>Staphylococcus carnosus</i> . <i>Biochemistry</i> , 2008, 47, 13921-13932.	2.5	52
25	Experimental Evidence for Proton Motive Force-Dependent Catalysis by the Diheme-Containing Succinate:Menaquinone Oxidoreductase from the Gram-Positive Bacterium <i>Bacillus licheniformis</i> . <i>Biochemistry</i> , 2006, 45, 15049-15055.	2.5	49
26	Functioning of DcuC as the C ₄ -Dicarboxylate Carrier during Glucose Fermentation by <i>Escherichia coli</i> . <i>Journal of Bacteriology</i> , 1999, 181, 3716-3720.	2.2	49
27	Regulatory O ₂ tensions for the synthesis of fermentation products in <i>Escherichia coli</i> and relation to aerobic respiration. <i>Archives of Microbiology</i> , 1997, 168, 290-296.	2.2	46
28	CitA/CitB Two-Component System Regulating Citrate Fermentation in <i>Escherichia coli</i> and Its Relation to the DcuS/DcuR System <i>In Vivo</i> . <i>Journal of Bacteriology</i> , 2012, 194, 636-645.	2.2	44
29	The Function fo the Subunits of the Fumarate Reductase Complex of <i>Vibrio succinogenes</i> . <i>FEBS Journal</i> , 1981, 120, 577-584.	0.2	43
30	The l-Tartrate/Succinate Antiporter TdtT (YgjE) of l-Tartrate Fermentation in <i>Escherichia coli</i> . <i>Journal of Bacteriology</i> , 2007, 189, 1597-1603.	2.2	40
31	The NreA Protein Functions as a Nitrate Receptor in the Staphylococcal Nitrate Regulation System. <i>Journal of Molecular Biology</i> , 2014, 426, 1539-1553.	4.2	40
32	Availability of O ₂ as a Substrate in the Cytoplasm of Bacteria under Aerobic and Microaerobic Conditions. <i>Journal of Bacteriology</i> , 1998, 180, 2133-2136.	2.2	40
33	Interaction of the <i>Escherichia coli</i> transporter DctA with the sensor kinase DcuS: presence of functional DctA/DcuS sensor units. <i>Molecular Microbiology</i> , 2012, 85, 846-861.	2.5	39
34	Phosphorylation and DNA binding of the regulator DcuR of the fumarate-responsive two-component system DcuSR of <i>Escherichia coli</i> . <i>Microbiology (United Kingdom)</i> , 2004, 150, 877-883.	1.8	38
35	Citrate Sensing by the C ₄ -Dicarboxylate/Citrate Sensor Kinase DcuS of <i>Escherichia coli</i> : Binding Site and Conversion of DcuS to a C ₄ -Dicarboxylate- or Citrate-Specific Sensor. <i>Journal of Bacteriology</i> , 2007, 189, 4290-4298.	2.2	38
36	Oligomeric Sensor Kinase DcuS in the Membrane of <i>Escherichia coli</i> and in Proteoliposomes: Chemical Cross-linking and FRET Spectroscopy. <i>Journal of Bacteriology</i> , 2010, 192, 3474-3483.	2.2	35

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37	Anaerobic growth of <i>Escherichia coli</i> on d-tartrate depends on the fumarate carrier DcuB and fumarase, rather than the l-tartrate carrier TtdT and l-tartrate dehydratase. <i>Archives of Microbiology</i> , 2007, 188, 583-589.	2.2	31
38	The cytoplasmic PAS _C domain of the sensor kinase DcuS of <i>Escherichia coli</i> : role in signal transduction, dimer formation, and DctA interaction. <i>MicrobiologyOpen</i> , 2013, 2, 912-927.	3.0	28
39	Transmembrane signaling in the sensor kinase DcuS of <i>Escherichia coli</i> : A long-range piston-type displacement of transmembrane helix 2. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 11042-11047.	7.1	28
40	Nitrate/oxygen co-sensing by an NreA/NreB sensor complex of <i>Staphylococcus carnosus</i> . <i>Molecular Microbiology</i> , 2014, 91, 381-393.	2.5	27
41	Sensory domain contraction in histidine kinase CitA triggers transmembrane signaling in the membrane-bound sensor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 3115-3120.	7.1	26
42	The <i>Rhizobium leguminosarum</i> FnrN protein is functionally similar to <i>Escherichia coli</i> Fnr and promotes heterologous oxygen-dependent activation of transcription. <i>Molecular Microbiology</i> , 1992, 6, 3395-3404.	2.5	25
43	Sensing by the membrane-bound sensor kinase DcuS: exogenous versus endogenous sensing of C ₄ -dicarboxylates in bacteria. <i>Future Microbiology</i> , 2010, 5, 1383-1402.	2.0	25
44	Differentiation of DctA and DcuS function in the DctA/DcuS sensor complex of <i>Escherichia coli</i> : function of DctA as an activity switch and of DcuS as the C ₄ -dicarboxylate sensor. <i>Molecular Microbiology</i> , 2014, 94, 218-229.	2.5	24
45	Bacterial sensor kinases using Fe-S cluster binding PAS or GAF domains for O ₂ sensing. <i>Dalton Transactions</i> , 2013, 42, 3082-3087.	3.3	22
46	The Sensor Kinase DctS Forms a Tripartite Sensor Unit with DctB and DctA for Sensing C ₄ -Dicarboxylates in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2014, 196, 1084-1093.	2.2	22
47	L-aspartate as a high-quality nitrogen source in <i>Escherichia coli</i> : Regulation of L-aspartase by the nitrogen regulatory system and interaction of L-aspartase with GlnB. <i>Molecular Microbiology</i> , 2021, 115, 526-538.	2.5	22
48	Polar accumulation of the metabolic sensory histidine kinases DcuS and CitA in <i>Escherichia coli</i> . <i>Microbiology (United Kingdom)</i> , 2008, 154, 2463-2472.	1.8	20
49	Regulation of Aerobic and Anaerobic d-Malate Metabolism of <i>Escherichia coli</i> by the LysR-Type Regulator DmlR (YeaT). <i>Journal of Bacteriology</i> , 2010, 192, 2503-2511.	2.2	20
50	Oxygen-dependent regulation of c-di-GMP synthesis by SadC controls alginate production in <i>Pseudomonas aeruginosa</i> . <i>Environmental Microbiology</i> , 2016, 18, 3390-3402.	3.8	19
51	DcuA of aerobically grown <i>Escherichia coli</i> serves as a nitrogen shuttle (L-aspartate/fumarate) for nitrogen uptake. <i>Molecular Microbiology</i> , 2018, 109, 801-811.	2.5	19
52	Cooperation of Secondary Transporters and Sensor Kinases in Transmembrane Signalling. <i>Advances in Microbial Physiology</i> , 2016, 68, 139-167.	2.4	18
53	Sensing of O ₂ and nitrate by bacteria: alternative strategies for transcriptional regulation of nitrate respiration by O ₂ and nitrate. <i>Environmental Microbiology</i> , 2021, 23, 5-14.	3.8	17
54	C ₄ -dicarboxylates and l-aspartate utilization by <i>Escherichia coli</i> K12 in the mouse intestine: l-aspartate as a major substrate for fumarate respiration and as a nitrogen source. <i>Environmental Microbiology</i> , 2021, 23, 2564-2577.	3.8	17

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55	The sensor kinase DcuS of <i>Escherichia coli</i> : two stimulus input sites and a merged signal pathway in the DctA/DcuS sensor unit. <i>Biological Chemistry</i> , 2012, 393, 1291-1297.	2.5	15
56	C ₄ -Dicarboxylates as Growth Substrates and Signaling Molecules for Commensal and Pathogenic Enteric Bacteria in Mammalian Intestine. <i>Journal of Bacteriology</i> , 2022, 204, JB0054521.	2.2	15
57	Conversion of the sensor kinase DcuS of <i>Escherichia coli</i> of the DcuB/DcuS sensor complex to the C ₄ -dicarboxylate responsive form by the transporter DcuB. <i>Environmental Microbiology</i> , 2016, 18, 4920-4930.	3.8	14
58	The <i>fnr</i> Gene of <i>Bacillus licheniformis</i> and the Cysteine Ligands of the C-Terminal FeS Cluster. <i>Journal of Bacteriology</i> , 1998, 180, 3483-3485.	2.2	14
59	Origin and phylogenetic relationships of [4Fe-4S]-containing O ₂ sensors of bacteria. <i>Environmental Microbiology</i> , 2018, 20, 4567-4586.	3.8	13
60	Fumarate dependent protein composition under aerobic and anaerobic growth conditions in <i>Escherichia coli</i> . <i>Journal of Proteomics</i> , 2020, 212, 103583.	2.4	13
61	Polar Localization of a Tripartite Complex of the Two-Component System DcuS/DcuR and the Transporter DctA in <i>Escherichia coli</i> Depends on the Sensor Kinase DcuS. <i>PLoS ONE</i> , 2014, 9, e115534.	2.5	12
62	A Na ⁺ -coupled C ₄ -dicarboxylate transporter (Asuc_0304) and aerobic growth of <i>Actinobacillus succinogenes</i> on C ₄ -dicarboxylates. <i>Microbiology (United Kingdom)</i> , 2014, 160, 1533-1544.	1.8	11
63	Transmembrane signaling and cytoplasmic signal conversion by dimeric transmembrane helix 2 and a linker domain of the DcuS sensor kinase. <i>Journal of Biological Chemistry</i> , 2021, 296, 100148.	3.4	11
64	Topology and Accessibility of the Transmembrane Helices and the Sensory Site in the Bifunctional Transporter DcuB of <i>Escherichia coli</i> . <i>Biochemistry</i> , 2011, 50, 5925-5938.	2.5	9
65	Control of the bifunctional O ₂ -sensor kinase NreB of <i>Staphylococcus carnosus</i> by the nitrate sensor NreA: Switching from kinase to phosphatase state. <i>Molecular Microbiology</i> , 2020, 113, 369-380.	2.5	9
66	CyaC, a redox-regulated adenylate cyclase of <i>Sinorhizobium meliloti</i> with a quinone responsive di-heme membrane anchor domain. <i>Molecular Microbiology</i> , 2019, 112, 16-28.	2.5	8
67	CitA (citrate) and DcuS (C ₄ -dicarboxylate) sensor kinases in thermophilic <i>Geobacillus kaustophilus</i> and <i>Geobacillus thermodenitrificans</i> . <i>Microbiology (United Kingdom)</i> , 2016, 162, 127-137.	1.8	8
68	Cellular Concentrations of the Transporters DctA and DcuB and the Sensor DcuS of <i>Escherichia coli</i> and the Contributions of Free and Complexed DcuS to Transcriptional Regulation by DcuR. <i>Journal of Bacteriology</i> , 2018, 200, .	2.2	7
69	Conversion of the Sensor Kinase DcuS to the Fumarate Sensitive State by Interaction of the Bifunctional Transporter DctA at the TM2/PASC-Linker Region. <i>Microorganisms</i> , 2021, 9, 1397.	3.6	4
70	Tight Complex Formation of the Fumarate Sensing DcuS-DcuR Two-Component System at the Membrane and Target Promoter Search by Free DcuR Diffusion. <i>MSphere</i> , 2022, 7, .	2.9	2
71	Properties of transmembrane helix TM1 of the DcuS sensor kinase of <i>Escherichia coli</i> , the stator for TM2 piston signaling. <i>Biological Chemistry</i> , 2021, 402, 1239-1246.	2.5	1