Gottfried Unden

List of Publications by Year
in descending order

71 papers	4,427 citations	117625 34 h-index	110387 64 g-index
87 all docs	87 docs citations	87 times ranked	3769 citing authors

#	Article	IF	Citations
1	C ₄ -Dicarboxylates as Growth Substrates and Signaling Molecules for Commensal and Pathogenic Enteric Bacteria in Mammalian Intestine. Journal of Bacteriology, 2022, 204, JB0054521.	2.2	15
2	Tight Complex Formation of the Fumarate Sensing DcuS-DcuR Two-Component System at the Membrane and Target Promoter Search by Free DcuR Diffusion. MSphere, 2022, 7, .	2.9	2
3	Lâ€Aspartate as a highâ€quality nitrogen source in <i>Escherichia coli</i>: Regulation of Lâ€aspartase by the nitrogen regulatory system and interaction of Lâ€aspartase with GlnB. Molecular Microbiology, 2021, 115, 526-538.	2.5	22
4	Sensing of <scp>O₂</scp> and nitrate by bacteria: alternative strategies for transcriptional regulation of nitrate respiration by <scp>O₂</scp> and nitrate. Environmental Microbiology, 2021, 23, 5-14.	3.8	17
5	Transmembrane signaling and cytoplasmic signal conversion by dimeric transmembrane helix 2 and a linker domain of the DcuS sensor kinase. Journal of Biological Chemistry, 2021, 296, 100148.	3.4	11
6	<scp>C4</scp>â€dicarboxylates and <scp>l</scp>â€aspartate utilization by <scp><i>Escherichia coli</i></scp> Kâ€12 in the mouse intestine: <scp>l</scp>â€aspartate as a major substrate for fumarate respiration and as a nitrogen source. Environmental Microbiology, 2021, 23, 2564-2577.	3.8	17
7	Conversion of the Sensor Kinase DcuS to the Fumarate Sensitive State by Interaction of the Bifunctional Transporter DctA at the TM2/PASC-Linker Region. Microorganisms, 2021, 9, 1397.	3.6	4
8	Properties of transmembrane helix TM1 of the DcuS sensor kinase of <i>Escherichia coli</i>, the stator for TM2 piston signaling. Biological Chemistry, 2021, 402, 1239-1246.	2.5	1
9	Fumarate dependent protein composition under aerobic and anaerobic growth conditions in Escherichia coli. Journal of Proteomics, 2020, 212, 103583.	2.4	13
10	Control of the bifunctional O₂â€sensor kinase NreB of <i>Staphylococcus carnosus</i> by the nitrate sensor NreA: Switching from kinase to phosphatase state. Molecular Microbiology, 2020, 113, 369-380.	2.5	9
11	CyaC, a redoxâ€regulated adenylate cyclase of <i>Sinorhizobium meliloti</i> with a quinone responsive dihemeâ€B membrane anchor domain. Molecular Microbiology, 2019, 112, 16-28.	2.5	8
12	Cellular Concentrations of the Transporters DctA and DcuB and the Sensor DcuS of Escherichia coli and the Contributions of Free and Complexed DcuS to Transcriptional Regulation by DcuR. Journal of Bacteriology, 2018, 200, .	2.2	7
13	Origin and phylogenetic relationships of [4Feâ€"4S]â€containing O2sensors of bacteria. Environmental Microbiology, 2018, 20, 4567-4586.	3.8	13
14	DcuA of aerobically grown <i>Escherichia coli </i>serves as a nitrogen shuttle (Lâ€aspartate/fumarate) for nitrogen uptake. Molecular Microbiology, 2018, 109, 801-811.	2.5	19
15	Sensory domain contraction in histidine kinase CitA triggers transmembrane signaling in the membrane-bound sensor. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3115-3120.	7.1	26
16	Conversion of the sensor kinase DcuS of <i>Escherichia coli</i> of the DcuB/DcuS sensor complex to the C₄â€dicarboxylate responsive form by the transporter DcuB. Environmental Microbiology, 2016, 18, 4920-4930.	3.8	14
17	Oxygenâ€dependent regulation of câ€diâ€<scp>GMP</scp> synthesis by <scp>SadC</scp> controls alginate production in <scp><i>P</i></scp><i>seudomonas aeruginosa</i>. Environmental Microbiology, 2016, 18, 3390-3402.	3.8	19
18	C ₄ -Dicarboxylate Utilization in Aerobic and Anaerobic Growth. EcoSal Plus, 2016, 7, .	5.4	54

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19	Cooperation of Secondary Transporters and Sensor Kinases in Transmembrane Signalling. Advances in Microbial Physiology, 2016, 68, 139-167.	2.4	18
20	CitA (citrate) and DcuS (C4-dicarboxylate) sensor kinases in thermophilic Geobacillus kaustophilus and Geobacillus thermodenitrificans. Microbiology (United Kingdom), 2016, 162, 127-137.	1.8	8
21	Transmembrane signaling in the sensor kinase DcuS of <i>Escherichia coli</i> : A long-range piston-type displacement of transmembrane helix 2. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11042-11047.	7.1	28
22	Polar Localization of a Tripartite Complex of the Two-Component System DcuS/DcuR and the Transporter DctA in Escherichia coli Depends on the Sensor Kinase DcuS. PLoS ONE, 2014, 9, e115534.	2.5	12
23	A Na+-coupled C4-dicarboxylate transporter (Asuc_0304) and aerobic growth of Actinobacillus succinogenes on C4-dicarboxylates. Microbiology (United Kingdom), 2014, 160, 1533-1544.	1.8	11
24	Nitrate/oxygen coâ€sensing by an <scp>NreA</scp>/<scp>NreB</scp> sensor complex of <i><scp>S</scp>taphylococcus carnosus</i>. Molecular Microbiology, 2014, 91, 381-393.	2.5	27
25	The Sensor Kinase DctS Forms a Tripartite Sensor Unit with DctB and DctA for Sensing C4-Dicarboxylates in Bacillus subtilis. Journal of Bacteriology, 2014, 196, 1084-1093.	2.2	22
26	Differentiation of <scp>DctA</scp> and <scp>DcuS</scp> function in the <scp>DctA</scp>/<scp>DcuS</scp> sensor complex of <scp><i>E</i></scp><i>scherichia coli</i>: function of <scp>DctA</scp> as an activity switch and of <scp>DcuS</scp> as the <scp>C</scp>₄â€dicarboxylate sensor. Molecular Microbiology, 2014, 94, 218-229.	2.5	24
27	The NreA Protein Functions as a Nitrate Receptor in the Staphylococcal Nitrate Regulation System. Journal of Molecular Biology, 2014, 426, 1539-1553.	4.2	40
28	The Aerobic and Anaerobic Respiratory Chain of <i>Escherichia coli</i> and <i>Salmonella enterica</i> : Enzymes and Energetics. EcoSal Plus, 2014, 6, .	5.4	57
29	Bacterial sensor kinases using Feâ€“S cluster binding PAS or GAF domains for O₂sensing. Dalton Transactions, 2013, 42, 3082-3087.	3.3	22
30	The cytoplasmic PAS_C domain of the sensor kinase DcuS of <i><scp>E</scp>scherichia coli</i>: role in signal transduction, dimer formation, and DctA interaction. MicrobiologyOpen, 2013, 2, 912-927.	3.0	28
31	CitA/CitB Two-Component System Regulating Citrate Fermentation in Escherichia coli and Its Relation to the DcuS/DcuR System <i>In Vivo</i>. Journal of Bacteriology, 2012, 194, 636-645.	2.2	44
32	The sensor kinase DcuS of <i>Escherichia coli</i>: two stimulus input sites and a merged signal pathway in the DctA/DcuS sensor unit. Biological Chemistry, 2012, 393, 1291-1297.	2.5	15
33	Interaction of the <i>Escherichia coli</i> transporter DctA with the sensor kinase DcuS: presence of functional DctA/DcuS sensor units. Molecular Microbiology, 2012, 85, 846-861.	2.5	39
34	Topology and Accessibility of the Transmembrane Helices and the Sensory Site in the Bifunctional Transporter DcuB of <i>Escherichia coli</i>. Biochemistry, 2011, 50, 5925-5938.	2.5	9
35	Sensing by the membrane-bound sensor kinase DcuS: exogenous versus endogenous sensing of C₄-dicarboxylates in bacteria. Future Microbiology, 2010, 5, 1383-1402.	2.0	25
36	Regulation of Aerobic and Anaerobic<scp>d</scp>-Malate Metabolism of<i>Escherichia coli</i>by the LysR-Type Regulator DmlR (YeaT). Journal of Bacteriology, 2010, 192, 2503-2511.	2.2	20

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37	Oligomeric Sensor Kinase DcuS in the Membrane of <i>Escherichia coli</i> and in Proteoliposomes: Chemical Cross-linking and FRET Spectroscopy. Journal of Bacteriology, 2010, 192, 3474-3483.	2.2	35
38	The Fumarate/Succinate Antiporter DcuB of Escherichia coli Is a Bifunctional Protein with Sites for Regulation of DcuS-dependent Gene Expression. Journal of Biological Chemistry, 2009, 284, 265-275.	3.4	59
39	Plasticity of the PAS domain and a potential role for signal transduction in the histidine kinase DcuS. Nature Structural and Molecular Biology, 2008, 15, 1031-1039.	8.2	82
40	A PAS Domain with an Oxygen Labile [4Fe-4S]²⁺ Cluster in the Oxygen Sensor Kinase NreB of <i>Staphylococcus carnosus</i>. Biochemistry, 2008, 47, 13921-13932.	2.5	52
41	Polar accumulation of the metabolic sensory histidine kinases DcuS and CitA in Escherichia coli. Microbiology (United Kingdom), 2008, 154, 2463-2472.	1.8	20
42	Citrate Sensing by the C 4 -Dicarboxylate/Citrate Sensor Kinase DcuS of Escherichia coli : Binding Site and Conversion of DcuS to a C 4 -Dicarboxylate- or Citrate-Specific Sensor. Journal of Bacteriology, 2007, 189, 4290-4298.	2.2	38
43	The l -Tartrate/Succinate Antiporter TtdT (YgjE) of l -Tartrate Fermentation in Escherichia coli. Journal of Bacteriology, 2007, 189, 1597-1603.	2.2	40
44	Anaerobic growth of Escherichia coli on d-tartrate depends on the fumarate carrier DcuB and fumarase, rather than the l-tartrate carrier TtdT and l-tartrate dehydratase. Archives of Microbiology, 2007, 188, 583-589.	2.2	31
45	Stimulus Perception in Bacterial Signal-Transducing Histidine Kinases. Microbiology and Molecular Biology Reviews, 2006, 70, 910-938.	6.6	592
46	Experimental Evidence for Proton Motive Force-Dependent Catalysis by the Diheme-Containing Succinate:Menaquinone Oxidoreductase from the Gram-Positive Bacterium Bacillus licheniformis. Biochemistry, 2006, 45, 15049-15055.	2.5	49
47	The Nature of the Stimulus and of the Fumarate Binding Site of the Fumarate Sensor DcuS of Escherichia coli*. Journal of Biological Chemistry, 2005, 280, 20596-20603.	3.4	53
48	Phosphorylation and DNA binding of the regulator DcuR of the fumarate-responsive two-component system DcuSR of Escherichia coli. Microbiology (United Kingdom), 2004, 150, 877-883.	1.8	38
49	Staphylococcal NreB: an O2-sensing histidine protein kinase with an O2-labile iron-sulphur cluster of the FNR type. Molecular Microbiology, 2004, 52, 713-723.	2.5	62
50	The NMR Structure of the Sensory Domain of the Membranous Two-component Fumarate Sensor (Histidine Protein Kinase) DcuS of Escherichia coli. Journal of Biological Chemistry, 2003, 278, 39185-39188.	3.4	92
51	Function of DcuS from Escherichia coli as a Fumarate-stimulated Histidine Protein Kinase in Vitro. Journal of Biological Chemistry, 2002, 277, 39809-39814.	3.4	61
52	C4-dicarboxylate carriers and sensors in bacteria. Biochimica Et Biophysica Acta - Bioenergetics, 2002, 1553, 39-56.	1.0	216
53	Fumarate respiration of Wolinella succinogenes: enzymology, energetics and coupling mechanism. Biochimica Et Biophysica Acta - Bioenergetics, 2002, 1553, 23-38.	1.0	134
54	LrhA as a new transcriptional key regulator of flagella, motility and chemotaxis genes in Escherichia coli. Molecular Microbiology, 2002, 45, 521-532.	2.5	210

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55	Functioning of DcuC as the C ₄ -Dicarboxylate Carrier during Glucose Fermentation by <i>Escherichia coli</i>. Journal of Bacteriology, 1999, 181, 3716-3720.	2.2	49
56	Menaquinone-dependent succinate dehydrogenase of bacteria catalyzes reversed electron transport driven by the proton potential. FEBS Journal, 1998, 257, 210-215.	0.2	110
57	The fnr Gene of Bacillus licheniformis and the Cysteine Ligands of the C-Terminal FeS Cluster. Journal of Bacteriology, 1998, 180, 3483-3485.	2.2	14
58	Fumarate Regulation of Gene Expression in <i>Escherichia coli</i> by the DcuSR (<i>dcuSR</i> Genes) Two-Component Regulatory System. Journal of Bacteriology, 1998, 180, 5421-5425.	2.2	115
59	Availability of O ₂ as a Substrate in the Cytoplasm of Bacteria under Aerobic and Microaerobic Conditions. Journal of Bacteriology, 1998, 180, 2133-2136.	2.2	40
60	Alternative respiratory pathways of Escherichia coli: energetics and transcriptional regulation in response to electron acceptors. Biochimica Et Biophysica Acta - Bioenergetics, 1997, 1320, 217-234.	1.0	612
61	Regulatory O 2 tensions for the synthesis of fermentation products in Escherichia coli and relation to aerobic respiration. Archives of Microbiology, 1997, 168, 290-296.	2.2	46
62	Identification of a third secondary carrier (DcuC) for anaerobic C4-dicarboxylate transport in Escherichia coli: roles of the three Dcu carriers in uptake and exchange. Journal of Bacteriology, 1996, 178, 7241-7247.	2.2	78
63	O2 as the regulatory signal for FNR-dependent gene regulation in Escherichia coli. Journal of Bacteriology, 1996, 178, 4515-4521.	2.2	107
64	Transcriptional regulation of the proton translocating NADH dehydrogenase (nuoA-N) of Escherichia coli by electron acceptors, electron donors and gene regulators. Molecular Microbiology, 1995, 16, 521-534.	2.5	126
65	Escherichia coli possesses two homologous anaerobic C4-dicarboxylate membrane transporters (DcuA and DcuB) distinct from the aerobic dicarboxylate transport system (Dct). Journal of Bacteriology, 1994, 176, 6470-6478.	2.2	117
66	Transport of C4-dicarboxylates by anaerobically grown Escherichia coli. Energetics and mechanism of exchange, uptake and efflux. FEBS Journal, 1994, 222, 605-614.	0.2	75
67	Anaerobic fumarate transport in Escherichia coli by an fnr-dependent dicarboxylate uptake system which is different from the aerobic dicarboxylate uptake system. Journal of Bacteriology, 1992, 174, 5533-5539.	2.2	70
68	The Rhizobium leguminosarum FnrN protein is functionally similar to Escherichia coli Fnr and promotes heterologous oxygen-dependent activation of transcription. Molecular Microbiology, 1992, 6, 3395-3404.	2.5	25
69	Isolation and characterization of the Fnr protein, the transcriptional regulator of anaerobic electron transport in Escherichia coli. FEBS Journal, 1985, 146, 193-199.	0.2	88
70	The Function fo the Subunits of the Fumarate Reductase Complex of Vibrio succinogenes. FEBS Journal, 1981, 120, 577-584.	0.2	43
71	Isolation and functional aspects of the fumarate reductase involved in the phosphorylative electron transport of Vibrio succinogenes. Biochimica Et Biophysica Acta - Bioenergetics, 1980, 591, 275-288.	1.0	102