Abram Aertsen

List of Publications by Year
in descending order

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126 papers	5,002 citations	100601 38 h-index	124990 64 g-index
132 all docs	132 docs citations	132 times ranked	6673 citing authors

#	Article	IF	Citations
1	Transcriptional Organization of the Salmonella Typhimurium Phage P22 pid ORFan Locus. International Journal of Molecular Sciences, 2022, 23, 1253.	1.8	2
2	The potential of bacteriophages to control <i>Xanthomonas campestris</i> pv. <i>campestris</i> at different stages of disease development. Microbial Biotechnology, 2022, 15, 1762-1782.	2.0	16
3	Metabolic reprogramming of Pseudomonas aeruginosa by phage-based quorum sensing modulation. Cell Reports, 2022, 38, 110372.	2.9	20
4	High-Throughput Time-Lapse Fluorescence Microscopy Screening for Heterogeneously Expressed Genes in Bacillus subtilis. Microbiology Spectrum, 2022, 10, e0204521.	1.2	2
5	The expression of virulence genes increases membrane permeability and sensitivity to envelope stress in Salmonella Typhimurium. PLoS Biology, 2022, 20, e3001608.	2.6	13
6	Superinfection exclusion factors drive a history-dependent switch from vertical to horizontal phage transmission. Cell Reports, 2022, 39, 110804.	2.9	3
7	Bacteriophageâ€mediated interference of the câ€diâ€GMP signalling pathway in <i>Pseudomonas aeruginosa</i>. Microbial Biotechnology, 2021, 14, 967-978.	2.0	14
8	An oligomeric switch controls the Mrr-induced SOS response in E. coli. DNA Repair, 2021, 97, 103009.	1.3	1
9	Bacteriophages as drivers of bacterial virulence and their potential for biotechnological exploitation. FEMS Microbiology Reviews, 2021, 45, .	3.9	53
10	Adaptation of Cupriavidus metallidurans CH34 to Toxic Zinc Concentrations Involves an Uncharacterized ABC-Type Transporter. Microorganisms, 2021, 9, 309.	1.6	5
11	Bacillus weihenstephanensis can readily evolve for increased endospore heat resistance without compromising its thermotype. International Journal of Food Microbiology, 2021, 341, 109072.	2.1	7
12	Phenotypic and Genetic Characterization of Temperature-Induced Mutagenesis and Mortality in Cupriavidus metallidurans. Frontiers in Microbiology, 2021, 12, 698330.	1.5	1
13	Gene Erosion Can Lead to Gain-of-Function Alleles That Contribute to Bacterial Fitness. MBio, 2021, 12, e0112921.	1.8	5
14	Directed evolution by UV-C treatment of Bacillus cereus spores. International Journal of Food Microbiology, 2020, 317, 108424.	2.1	11
15	Combination of mild heat and plant essential oil constituents to inactivate resistant variants of Escherichia coli in buffer and in coconut water. Food Microbiology, 2020, 87, 103388.	2.1	13
16	Synthetic reconstruction of extreme high hydrostatic pressure resistance in Escherichia coli. Metabolic Engineering, 2020, 62, 287-297.	3.6	4
17	Bacterial Vivisection: How Fluorescence-Based Imaging Techniques Shed a Light on the Inner Workings of Bacteria. Microbiology and Molecular Biology Reviews, 2020, 84, .	2.9	17
18	Digital Microfluidics for Single Bacteria Capture and Selective Retrieval Using Optical Tweezers. Micromachines, 2020, 11, 308.	1.4	21

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19	Population heterogeneity tactics as driving force in Salmonella virulence and survival. Food Research International, 2019, 125, 108560.	2.9	12
20	Construction and validation of the Tn5-P -msfGFP transposon as a tool to probe protein expression and localization. Journal of Microbiological Methods, 2019, 161, 56-62.	0.7	0
21	Stress-induced protein aggregates shape population heterogeneity in bacteria. Current Genetics, 2019, 65, 865-869.	0.8	20
22	Screening for Growth-Inhibitory ORFans in Pseudomonas aeruginosa-Infecting Bacteriophages. Methods in Molecular Biology, 2019, 1898, 147-162.	0.4	6
23	Identification of novel genes involved in high hydrostatic pressure resistance of Escherichia coli. Food Microbiology, 2019, 78, 171-178.	2.1	18
24	Aggregating sequences that occur in many proteins constitute weak spots of bacterial proteostasis. Nature Communications, 2018, 9, 866.	5.8	53
25	Bimodal Expression of the<i>Salmonella</i>Typhimurium<i>spv</i>Operon. Genetics, 2018, 210, 621-635.	1.2	22
26	Protein aggregates encode epigenetic memory of stressful encounters in individual Escherichia coli cells. PLoS Biology, 2018, 16, e2003853.	2.6	85
27	Impact of high hydrostatic pressure on bacterial proteostasis. Biophysical Chemistry, 2017, 231, 3-9.	1.5	36
28	The impact of insertion sequences on bacterial genome plasticity and adaptability. Critical Reviews in Microbiology, 2017, 43, 709-730.	2.7	301
29	High pressure activation of the Mrr restriction endonuclease in Escherichia coli involves tetramer dissociation. Nucleic Acids Research, 2017, 45, 5323-5332.	6.5	15
30	Pressure Induced Sos Response in Escherichia Coli Involves Mrr Restriction Endonuclease. Biophysical Journal, 2017, 112, 572a-573a.	0.2	0
31	Inflammation boosts bacteriophage transfer between <i>Salmonella</i> spp.. Science, 2017, 355, 1211-1215.	6.0	160
32	Rapid phenotypic individualization of bacterial sister cells. Scientific Reports, 2017, 7, 8473.	1.6	18
33	RpoS-independent evolution reveals the importance of attenuated cAMP/CRP regulation in high hydrostatic pressure resistance acquisition in E. coli. Scientific Reports, 2017, 7, 8600.	1.6	14
34	Viral interference of the bacterial RNA metabolism machinery. RNA Biology, 2017, 14, 6-10.	1.5	12
35	Intracellular movement of protein aggregates reveals heterogeneous inactivation and resuscitation dynamics in stressed populations of <i>Escherichia coli</i>. Environmental Microbiology, 2017, 19, 511-523.	1.8	11
36	Characterization of the Prophage Repertoire of African Salmonella Typhimurium ST313 Reveals High Levels of Spontaneous Induction of Novel Phage BTP1. Frontiers in Microbiology, 2017, 8, 235.	1.5	73

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37	Editorial: Industrial and Host Associated Stress Responses in Food Microbes. Implications for Food Technology and Food Safety. Frontiers in Microbiology, 2017, 8, 1522.	1.5	6
38	Zinc-Induced Transposition of Insertion Sequence Elements Contributes to Increased Adaptability of Cupriavidus metallidurans. Frontiers in Microbiology, 2016, 7, 359.	1.5	34
39	Identification of Genes Required for Growth of Escherichia coli MG1655 at Moderately Low pH. Frontiers in Microbiology, 2016, 7, 1672.	1.5	31
40	Severely Heat Injured Survivors of E. coli O157:H7 ATCC 43888 Display Variable and Heterogeneous Stress Resistance Behavior. Frontiers in Microbiology, 2016, 7, 1845.	1.5	12
41	Efficacy of Artilysin Art-175 against Resistant and Persistent Acinetobacter baumannii. Antimicrobial Agents and Chemotherapy, 2016, 60, 3480-3488.	1.4	99
42	Stress-Induced Evolution of Heat Resistance and Resuscitation Speed in Escherichia coli O157:H7 ATCC 43888. Applied and Environmental Microbiology, 2016, 82, 6656-6663.	1.4	15
43	â€˜Artilysationâ€™ of endolysin Î»Sa2lys strongly improves its enzymatic and antibacterial activity against streptococci. Scientific Reports, 2016, 6, 35382.	1.6	52
44	High Pressure Induced DNA Damage in Escherichia Coli Involves Pressure-Mediated Dissociation of the Tetrameric Mrr Restriction Endonuclease. Biophysical Journal, 2016, 110, 316a.	0.2	1
45	Structural elucidation of a novel mechanism for the bacteriophage-based inhibition of the RNA degradosome. ELife, 2016, 5, .	2.8	47
46	Antibacterial phage ORFans of Pseudomonas aeruginosa phage LUZ24 reveal a novel MvaT inhibiting protein. Frontiers in Microbiology, 2015, 6, 1242.	1.5	31
47	Viral Transmission Dynamics at Single-Cell Resolution Reveal Transiently Immune Subpopulations Caused by a Carrier State Association. PLoS Genetics, 2015, 11, e1005770.	1.5	32
48	Impact of high hydrostatic pressure processing on individual cellular resuscitation times and protein aggregates in Escherichia coli. International Journal of Food Microbiology, 2015, 213, 17-23.	2.1	10
49	Carvacrol suppresses high pressure high temperature inactivation of Bacillus cereus spores. International Journal of Food Microbiology, 2015, 197, 45-52.	2.1	20
50	Role of 1-acyl-sn-glycerol-3-phosphate acyltransferase in psychrotrophy and stress tolerance of Serratia plymuthica RVH1. Research in Microbiology, 2015, 166, 28-37.	1.0	9
51	The Zeamine Antibiotics Affect the Integrity of Bacterial Membranes. Applied and Environmental Microbiology, 2015, 81, 1139-1146.	1.4	28
52	Formate hydrogen lyase mediates stationary-phase deacidification and increases survival during sugar fermentation in acetoin-producing enterobacteria. Frontiers in Microbiology, 2015, 6, 150.	1.5	22
53	A combination of polyunsaturated fatty acid, nonribosomal peptide and polyketide biosynthetic machinery is used to assemble the zeamine antibiotics. Chemical Science, 2015, 6, 923-929.	3.7	28
54	Metabolite profiling and peptidoglycan analysis of transient cell wallâ€deficient bacteria in a new <scp><i>E</i></scp><i>scherichia coli</i> model system. Environmental Microbiology, 2015, 17, 1586-1599.	1.8	17

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55	Cellular localization and dynamics of the Mrr type IV restriction endonuclease of Escherichia coli. Nucleic Acids Research, 2014, 42, 3908-3918.	6.5	8
56	Genome Sequence of Serratia plymuthica RVH1, Isolated from a Raw Vegetable-Processing Line. Genome Announcements, 2014, 2, .	0.8	7
57	Functional elucidation of antibacterial phage ORFans targeting<i>P</i><i>seudomonas aeruginosa</i>. Cellular Microbiology, 2014, 16, 1822-1835.	1.1	47
58	The role of variable DNA tandem repeats in bacterial adaptation. FEMS Microbiology Reviews, 2014, 38, 119-141.	3.9	142
59	Art-175 Is a Highly Efficient Antibacterial against Multidrug-Resistant Strains and Persisters of Pseudomonas aeruginosa. Antimicrobial Agents and Chemotherapy, 2014, 58, 3774-3784.	1.4	152
60	Engineered Endolysin-Based â€œArtilysinsâ€•To Combat Multidrug-Resistant Gram-Negative Pathogens. MBio, 2014, 5, e01379-14.	1.8	279
61	Systematic Identification of Hypothetical Bacteriophage Proteins Targeting Key Protein Complexes of <i>Pseudomonas aeruginosa</i>. Journal of Proteome Research, 2014, 13, 4446-4456.	1.8	54
62	P22 mediated recombination of frt-sites. Virology, 2014, 462-463, 340-342.	1.1	1
63	Acetoin Synthesis Acquisition Favors Escherichia coli Growth at Low pH. Applied and Environmental Microbiology, 2014, 80, 6054-6061.	1.4	19
64	2,3-Butanediol fermentation promotes growth of Serratia plymuthica at low pH but not survival of extreme acid challenge. International Journal of Food Microbiology, 2014, 175, 36-44.	2.1	22
65	Insights into the Function of YciM, a Heat Shock Membrane Protein Required To Maintain Envelope Integrity in Escherichia coli. Journal of Bacteriology, 2014, 196, 300-309.	1.0	35
66	<i>In Vivo</i> Disassembly and Reassembly of Protein Aggregates in Escherichia coli. Journal of Bacteriology, 2014, 196, 2325-2332.	1.0	36
67	An overview of the domestication and impact of the<i>Salmonella</i>mobilome. Critical Reviews in Microbiology, 2014, 40, 63-75.	2.7	14
68	Isolation and Validation of an Endogenous Fluorescent Nucleoid Reporter in Salmonella Typhimurium. PLoS ONE, 2014, 9, e93785.	1.1	5
69	Loss of cAMP/CRP regulation confers extreme high hydrostatic pressure resistance in Escherichia coli O157:H7. International Journal of Food Microbiology, 2013, 166, 65-71.	2.1	18
70	Exposure to high hydrostatic pressure rapidly selects for increased RpoS activity and general stress-resistance in Escherichia coli O157:H7. International Journal of Food Microbiology, 2013, 163, 28-33.	2.1	35
71	Cellular Filamentation After Sublethal High-Pressure Shock in Escherichia coli K12 is Mrr Dependent. Current Microbiology, 2013, 67, 522-524.	1.0	4
72	A Multifaceted Study of Pseudomonas aeruginosa Shutdown by Virulent Podovirus LUZ19. MBio, 2013, 4, e00061-13.	1.8	68

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73	Lysogenic Conversion and Phage Resistance Development in Phage Exposed Escherichia coli Biofilms. Viruses, 2013, 5, 150-161.	1.5	21
74	Expression of a Novel P22 ORFan Gene Reveals the Phage Carrier State in Salmonella Typhimurium. PLoS Genetics, 2013, 9, e1003269.	1.5	61
75	Phageâ€"host interactions during pseudolysogeny. Bacteriophage, 2013, 3, e25029.	1.9	49
76	SCCQL : A Constraint-Based Clustering System. Lecture Notes in Computer Science, 2013, , 681-684.	1.0	1
77	A PKS/NRPS/FAS Hybrid Gene Cluster from Serratia plymuthica RVH1 Encoding the Biosynthesis of Three Broad Spectrum, Zeamine-Related Antibiotics. PLoS ONE, 2013, 8, e54143.	1.1	75
78	Emergence and Stability of High-Pressure Resistance in Different Food-Borne Pathogens. Applied and Environmental Microbiology, 2012, 78, 3234-3241.	1.4	52
79	Differential proteomics and physiology of Pseudomonas putida KT2440 under filament-inducing conditions. BMC Microbiology, 2012, 12, 282.	1.3	19
80	Variability of the tandem repeat region of the Escherichia coli tolA gene. Research in Microbiology, 2012, 163, 316-322.	1.0	7
81	Variation of Intragenic Tandem Repeat Tract of tolA Modulates Escherichia coli Stress Tolerance. PLoS ONE, 2012, 7, e47766.	1.1	6
82	Piezophysiology of the Model Bacterium Escherichia coli. , 2011, , 671-686.		2
83	Integrated Regulation of Acetoin Fermentation by Quorum Sensing and pH in Serratia plymuthica RVH1. Applied and Environmental Microbiology, 2011, 77, 3422-3427.	1.4	55
84	Evidence for an evolutionary antagonism between Mrr and Type III modification systems. Nucleic Acids Research, 2011, 39, 5991-6001.	6.5	21
85	Rapid Acquisition of Gigapascal-High-Pressure Resistance by Escherichia coli. MBio, 2011, 2, e00130-10.	1.8	86
86	The Rcs Two-Component System Regulates Expression of Lysozyme Inhibitors and Is Induced by Exposure to Lysozyme. Journal of Bacteriology, 2009, 191, 1979-1981.	1.0	53
87	Biotechnology under high pressure: applications and implications. Trends in Biotechnology, 2009, 27, 434-441.	4.9	173
88	Quorum sensing and butanediol fermentation affect colonization and spoilage of carrot slices by Serratia plymuthica. International Journal of Food Microbiology, 2009, 134, 63-69.	2.1	23
89	Regulation and quality control by Lon-dependent proteolysis. Research in Microbiology, 2009, 160, 645-651.	1.0	110
90	Bacterial interactions in biofilms. Critical Reviews in Microbiology, 2009, 35, 157-168.	2.7	186

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91	Analysis of outer membrane permeability of<i>Pseudomonas aeruginosa</i>and bactericidal activity of endolysins KZ144 and EL188 under high hydrostatic pressure. FEMS Microbiology Letters, 2008, 280, 113-119.	0.7	42
92	Activation of the Salmonella Typhimurium Mrr protein. Biochemical and Biophysical Research Communications, 2008, 367, 435-439.	1.0	19
93	Mutational analysis and a structural model of methyl-directed restriction enzyme Mrr. Biochemical and Biophysical Research Communications, 2008, 377, 862-866.	1.0	12
94	Role of the Lysozyme Inhibitor Ivy in Growth or Survival of Escherichia coli and Pseudomonas aeruginosa Bacteria in Hen Egg White and in Human Saliva and Breast Milk. Applied and Environmental Microbiology, 2008, 74, 4434-4439.	1.4	48
95	A New Family of Lysozyme Inhibitors Contributing to Lysozyme Tolerance in Gram-Negative Bacteria. PLoS Pathogens, 2008, 4, e1000019.	2.1	101
96	Detection of a Lysozyme Inhibitor in <i>Proteus mirabilis</i> by a New Reverse Zymogram Method. Applied and Environmental Microbiology, 2008, 74, 4978-4981.	1.4	13
97	Using Mild High-pressure Shock to Generate Bacterial Ghosts of Escherichia coli. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2008, 63, 765-768.	0.3	6
98	Characterization of a luxI/luxR-type quorum sensing system and N-acyl-homoserine lactone-dependent regulation of exo-enzyme and antibacterial component production in Serratia plymuthica RVH1. Research in Microbiology, 2007, 158, 150-158.	1.0	59
99	Quorum-sensing-dependent switch to butanediol fermentation prevents lethal medium acidification in Aeromonas hydrophila AH-1N. Research in Microbiology, 2007, 158, 379-385.	1.0	51
100	Upstream of the SOS response: figure out the trigger. Trends in Microbiology, 2006, 14, 421-423.	3.5	33
101	N-acyl-l-homoserine lactone signal interception byEscherichia coli. FEMS Microbiology Letters, 2006, 256, 83-89.	0.7	115
102	Cell wall substrate specificity of six different lysozymes and lysozyme inhibitory activity of bacterial extracts. FEMS Microbiology Letters, 2006, 259, 41-46.	0.7	58
103	Role of Quorum Sensing and Antimicrobial Component Production by Serratia plymuthica in Formation of Biofilms, Including Mixed Biofilms with Escherichia coli. Applied and Environmental Microbiology, 2006, 72, 7294-7300.	1.4	60
104	Purification of Ivy, a lysozyme inhibitor from Escherichia coli, and characterisation of its specificity for various lysozymes. Enzyme and Microbial Technology, 2005, 37, 205-211.	1.6	29
105	Screening forBacillus subtilismutants deficient in pressure induced spore germination: identification ofykvUas a novel germination gene. FEMS Microbiology Letters, 2005, 243, 385-391.	0.7	14
106	Construction and use of anstx1transcriptional fusion togfp. FEMS Microbiology Letters, 2005, 245, 73-77.	0.7	7
107	Mrr instigates the SOS response after high pressure stress in Escherichia coli. Molecular Microbiology, 2005, 58, 1381-1391.	1.2	71
108	Investigation into the resistance of lactoperoxidase tolerantEscherichia colimutants to different forms of oxidative stress. FEMS Microbiology Letters, 2005, 252, 315-319.	0.7	8

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109	CorA Affects Tolerance of Escherichia coli and Salmonella enterica Serovar Typhimurium to the Lactoperoxidase Enzyme System but Not to Other Forms of Oxidative Stress. Applied and Environmental Microbiology, 2005, 71, 6515-6523.	1.4	17
110	Induction of Oxidative Stress by High Hydrostatic Pressure in Escherichia coli. Applied and Environmental Microbiology, 2005, 71, 2226-2231.	1.4	104
111	Role of Porins in Sensitivity of Escherichia coli to Antibacterial Activity of the Lactoperoxidase Enzyme System. Applied and Environmental Microbiology, 2005, 71, 3512-3518.	1.4	25
112	Induction of Shiga Toxin-Converting Prophage in Escherichia coli by High Hydrostatic Pressure. Applied and Environmental Microbiology, 2005, 71, 1155-1162.	1.4	55
113	Unique stress response to the lactoperoxidase-thiocyanate enzyme system in Escherichia coli. Research in Microbiology, 2005, 156, 225-232.	1.0	24
114	SulA-dependent hypersensitivity to high pressure and hyperfilamentation after high-pressure treatment of Escherichia coli lon mutants. Research in Microbiology, 2005, 156, 233-237.	1.0	25
115	Diversify or Die: Generation of Diversity in Response to Stress. Critical Reviews in Microbiology, 2005, 31, 69-78.	2.7	63
116	Heat Shock Protein-Mediated Resistance to High Hydrostatic Pressure in Escherichia coli. Applied and Environmental Microbiology, 2004, 70, 2660-2666.	1.4	130
117	An SOS Response Induced by High Pressure in Escherichia coli. Journal of Bacteriology, 2004, 186, 6133-6141.	1.0	112
118	Stress and How Bacteria Cope with Death and Survival. Critical Reviews in Microbiology, 2004, 30, 263-273.	2.7	146
119	Dissecting the bacterial stress response against novel challenges: high pressure. Communications in Agricultural and Applied Biological Sciences, 2004, 69, 35-8.	0.0	0
120	Na + -mediated piezoprotection in Rhodotorula rubra. Extremophiles, 2003, 7, 499-504.	0.9	3
121	Site-Directed Mutagenesis of Human Immunodeficiency Virus Type 1 Reverse Transcriptase at Amino Acid Position 138. Virology, 2001, 280, 97-106.	1.1	22
122	Effects of High Pressure on Bacterial Spores. , 0, , 35-52.		4
123	Inactivation of <i>Escherichia coli</i> by High Pressure. , 0, , 53-85.		13
124	Cellular Impact of Sublethal Pressures on <i>Escherichia coli</i>. , 0, , 87-100.		4
125	<i>Listeria monocytogenes</i>High Hydrostatic Pressure Resistance and Survival Strategies. , 0, , 101-115.		1
126	Effects of Pressure on Lactic Acid Bacteria. , 0, , 117-144.		1