Jozsef Baranyi

List of Publications by Year
in descending order

#	Article	IF	Citations
1	A dynamic approach to predicting bacterial growth in food. International Journal of Food Microbiology, 1994, 23, 277-294.	2.1	2,135
2	Lag Phase Is a Distinct Growth Phase That Prepares Bacteria for Exponential Growth and Involves Transient Metal Accumulation. Journal of Bacteriology, 2012, 194, 686-701.	1.0	462
3	A non-autonomous differential equation to modelbacterial growth. Food Microbiology, 1993, 10, 43-59.	2.1	460
4	Mathematics of predictive food microbiology. International Journal of Food Microbiology, 1995, 26, 199-218.	2.1	382
5	Validating and comparing predictive models. International Journal of Food Microbiology, 1999, 48, 159-166.	2.1	297
6	Predicting growth of Brochothrix thermosphacta at changing temperature. International Journal of Food Microbiology, 1995, 27, 61-75.	2.1	209
7	ComBase: A Common Database on Microbial Responses to Food Environments. Journal of Food Protection, 2004, 67, 1967-1971.	0.8	202
8	Predicting fungal growth: the effect of water activity on Aspergillus flavus and related species. International Journal of Food Microbiology, 1994, 23, 419-431.	2.1	190
9	Information systems in food safety management. International Journal of Food Microbiology, 2006, 112, 181-194.	2.1	175
10	Comparison of Stochastic and Deterministic Concepts of Bacterial Lag. Journal of Theoretical Biology, 1998, 192, 403-408.	0.8	159
11	The effect of inoculum size on the lag phase of Listeria monocytogenes. International Journal of Food Microbiology, 2001, 70, 163-173.	2.1	150
12	Observing Growth and Division of Large Numbers of Individual Bacteria by Image Analysis. Applied and Environmental Microbiology, 2004, 70, 675-678.	1.4	127
13	Effects of parameterization on the performance of empirical models used in `predictive microbiology'. Food Microbiology, 1996, 13, 83-91.	2.1	126
14	Complexity of the International Agro-Food Trade Network and Its Impact on Food Safety. PLoS ONE, 2012, 7, e37810.	1.1	125
15	A predictive model for the combined effect of pH, sodium chloride and storage temperature on the growth of Brochothrix thermosphacta. International Journal of Food Microbiology, 1993, 19, 161-178.	2.1	124
16	Estimating Bacterial Growth Parameters by Means of Detection Times. Applied and Environmental Microbiology, 1999, 65, 732-736.	1.4	122
17	Stochastic modelling of bacterial lag phase. International Journal of Food Microbiology, 2002, 73, 203-206.	2.1	107
18	Predictive models as means to quantify the interactions of spoilage organisms. International Journal of Food Microbiology, 1998, 41, 59-72.	2.1	94

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19	Kinetics of Single Cells: Observation and Modeling of a Stochastic Process. Applied and Environmental Microbiology, 2006, 72, 2163-2169.	1.4	88
20	Validating predictive models of food spoilage organisms. Journal of Applied Microbiology, 1999, 87, 491-499.	1.4	79
21	Predictions of growth for Listeria monocytogenes and Salmonella during fluctuating temperature. International Journal of Food Microbiology, 2000, 59, 157-165.	2.1	78
22	Modelling the variability of lag times and the first generation times of single cells of. International Journal of Food Microbiology, 2005, 100, 13-19.	2.1	73
23	Distribution of turbidity detection times produced by single cell-generated bacterial populations. Journal of Microbiological Methods, 2003, 55, 821-827.	0.7	71
24	A Parallel Study on Bacterial Growth and Inactivation. Journal of Theoretical Biology, 2001, 210, 327-336.	0.8	65
25	A Combined Model for Growth and Subsequent Thermal Inactivation of Brochothrix thermosphacta. Applied and Environmental Microbiology, 1996, 62, 1029-1035.	1.4	64
26	Growth/no growth interface of Brochothrix thermosphacta as a function of pH and water activity. Food Microbiology, 2000, 17, 485-493.	2.1	61
27	Connection between stochastic and deterministic modelling of microbial growth. Journal of Theoretical Biology, 2005, 232, 285-299.	0.8	56
28	Single-Cell and Population Lag Times as a Function of Cell Age. Applied and Environmental Microbiology, 2008, 74, 2534-2536.	1.4	56
29	Methods to determine the growth domain in a multidimensional environmental space. International Journal of Food Microbiology, 2005, 100, 3-12.	2.1	55
30	In vivo and in silico determination of essential genes of Campylobacter jejuni. BMC Genomics, 2011, 12, 535.	1.2	54
31	Modeling bacterial growth responses. Journal of Industrial Microbiology, 1993, 12, 190-194.	0.9	53
32	Measurements and predictions of growth for Listeria monocytogenes and Salmonella during fluctuating temperature. International Journal of Food Microbiology, 2001, 67, 131-137.	2.1	53
33	Metabolic Shift of Escherichia coli under Salt Stress in the Presence of Glycine Betaine. Applied and Environmental Microbiology, 2014, 80, 4745-4756.	1.4	50
34	Predicting fungal growth: the effect of water activity on Penicillium roqueforti. International Journal of Food Microbiology, 1999, 47, 141-146.	2.1	49
35	Use of Optical Density Detection Times To Assess the Effect of Acetic Acid on Single-Cell Kinetics. Applied and Environmental Microbiology, 2006, 72, 6674-6679.	1.4	46
36	Modeling the Variability of Single-Cell Lag Times for <i>Listeria innocua</i> Populations after Sublethal and Lethal Heat Treatments. Applied and Environmental Microbiology, 2008, 74, 6949-6955.	1.4	43

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37	Modelling the growth of Clostridium perfringens during the cooling of bulk meat. International Journal of Food Microbiology, 2008, 128, 41-50.	2.1	42
38	Stochastic modelling of individual cell growth using flow chamber microscopy images. International Journal of Food Microbiology, 2005, 105, 177-190.	2.1	41
39	Parameter estimation for the distribution of single cell lag times. Journal of Theoretical Biology, 2009, 259, 24-30.	0.8	41
40	Recovery of heat-injured Listeria monocytogenes. International Journal of Food Microbiology, 1994, 22, 227-237.	2.1	40
41	A response surface study on the role of some environmental factors affecting the growth of Saccharomyces cerevisiae. International Journal of Food Microbiology, 1995, 25, 63-74.	2.1	37
42	The effect of reuterin on the lag time of single cells of Listeria innocua grown on a solid agar surface at different pH and NaCl concentrations. International Journal of Food Microbiology, 2007, 113, 35-40.	2.1	34
43	Predictive model for the growth of Yersinia enterocolitica under modified atmospheres. Journal of Applied Microbiology, 2000, 88, 521-530.	1.4	33
44	Analysing the lagâ€“growth rate relationship of Yersinia enterocolitica. International Journal of Food Microbiology, 2002, 73, 197-201.	2.1	31
45	Modelling the photosensitization-based inactivation of<i>Bacillus cereus</i>. Journal of Applied Microbiology, 2009, 107, 1006-1011.	1.4	30
46	Simple is good as long as it is enough. Food Microbiology, 1997, 14, 189-192.	2.1	28
47	A predictive model of growth from spores of non-proteolytic Clostridium botulinum in the presence of different CO2concentrations as influenced by chill temperature, pH and NaCl. Food Microbiology, 2001, 18, 453-461.	2.1	28
48	Network analysis of the transcriptional pattern of young and old cells of Escherichia coli during lag phase. BMC Systems Biology, 2009, 3, 108.	3.0	28
49	Lag Phase of <i>Salmonella enterica</i> under Osmotic Stress Conditions. Applied and Environmental Microbiology, 2011, 77, 1758-1762.	1.4	28
50	SalmoNet, an integrated network of ten Salmonella enterica strains reveals common and distinct pathways to host adaptation. Npj Systems Biology and Applications, 2017, 3, 31.	1.4	28
51	Some properties of a nonautonomous deterministic growth model describing the adjustment of the bacterial population to a new environment. Mathematical Medicine and Biology, 1993, 10, 293-299.	0.8	26
52	Adding new factors to predictive models: the effect on the risk of extrapolation. Food Microbiology, 2000, 17, 367-374.	2.1	24
53	Effect of capric, lauric and Î±-linolenic acids on the division time distributions of single cells of Staphylococcus aureus. International Journal of Food Microbiology, 2008, 128, 122-128.	2.1	24
54	Interstrain Interactions between Bacteria Isolated from Vacuum-Packaged Refrigerated Beef. Applied and Environmental Microbiology, 2015, 81, 2753-2761.	1.4	24

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55	Effect of microbial cell-free meat extract on the growth of spoilage bacteria. Journal of Applied Microbiology, 2009, 107, 1819-1829.	1.4	23
56	Simple is good as long as it is enough. Food Microbiology, 1997, 14, 391-394.	2.1	21
57	Rethinking Tertiary Models: Relationships between Growth Parameters of Bacillus cereus Strains. Frontiers in Microbiology, 2017, 8, 1890.	1.5	16
58	Modeling Bacillus cereus Growth and Cereulide Formation in Cereal-, Dairy-, Meat-, Vegetable-Based Food and Culture Medium. Frontiers in Microbiology, 2021, 12, 639546.	1.5	15
59	Applying a generalized z -value concept to quantify and compare the effect of environmental factors on the growth of Listeria monocytogenes. Food Microbiology, 2001, 18, 539-545.	2.1	14
60	Predictive modelling of Salmonella: From cell cycle measurements to e-models. Food Research International, 2012, 45, 852-862.	2.9	14
61	Error analysis in predictive modelling demonstrated on mould data. International Journal of Food Microbiology, 2014, 170, 78-82.	2.1	14
62	Predictive Microbiology and Food Safety. , 2014, , 59-68.		13
63	Predictive models as means of measuring the relatedness of someAspergillusspecies. Food Microbiology, 1997, 14, 347-351.	2.1	12
64	Comparison of different approaches for comparative genetic analysis using microarray hybridization. Applied Microbiology and Biotechnology, 2006, 72, 852-859.	1.7	12
65	Modeling the Effect of Abrupt Acid and Osmotic Shifts within the Growth Region and across Growth Boundaries on Adaptation and Growth of <i>Listeria monocytogenes</i>. Applied and Environmental Microbiology, 2010, 76, 6555-6563.	1.4	12
66	Modelling osmotic stress by Flux Balance Analysis at the genomic scale. International Journal of Food Microbiology, 2012, 152, 123-128.	2.1	12
67	Microbiological Testing for the Proper Assessment of the Hygiene Status of Beef Carcasses. Microorganisms, 2019, 7, 86.	1.6	12
68	Notes on reparameterization of bacterial growth curves. Food Microbiology, 1992, 9, 169-171.	2.1	11
69	A terminology for models in predictive microbiologyâ€”a reply to K.R. Davey. Food Microbiology, 1992, 9, 355-356.	2.1	11
70	Analysis and Validation of a Predictive Model for Growth and Death of Aeromonas hydrophila under Modified Atmospheres at Refrigeration Temperatures. Applied and Environmental Microbiology, 2004, 70, 3925-3932.	1.4	11
71	Predicting the kinetics of Listeria monocytogenes and Yersinia enterocolitica under dynamic growth/death-inducing conditions, in Italian style fresh sausage. International Journal of Food Microbiology, 2017, 240, 108-114.	2.1	11
72	The use of predictive models to optimize risk of decisions. International Journal of Food Microbiology, 2017, 240, 19-23.	2.1	11

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73	Does proximity to neighbours affect germination of spores of non-proteolytic Clostridium botulinum?. Food Microbiology, 2012, 32, 104-109.	2.1	10
74	A stochastic approach for modelling the effects of temperature on the growth rate of Bacillus cereus sensu lato. International Journal of Food Microbiology, 2021, 349, 109241.	2.1	10
75	PREDICTIVE MICROBIOLOGY AND FOOD SAFETY. , 1999, , 1699-1710.		9
76	Incorporating prior knowledge improves detection of differences in bacterial growth rate. BMC Systems Biology, 2015, 9, 60.	3.0	9
77	Interactions of Salmonella enterica subspecies enterica serovar Typhimurium with gut bacteria. Anaerobe, 2015, 33, 90-97.	1.0	9
78	The effect of pH on the growth rate of Bacillus cereus sensu lato: Quantifying strain variability and modelling the combined effects of temperature and pH. International Journal of Food Microbiology, 2021, 360, 109420.	2.1	9
79	Bacterial economics: Adaptation to stress conditions via stage-wise changes in the response mechanism. Food Microbiology, 2015, 45, 162-166.	2.1	8
80	From Culture-Medium-Based Models to Applications to Food: Predicting the Growth of B. cereus in Reconstituted Infant Formulae. Frontiers in Microbiology, 2017, 8, 1799.	1.5	8
81	Modelling microbiological safety. , 2001, , 383-401.		8
82	Effect of periodic fluctuation in the osmotic environment on the adaptation of Salmonella. Food Microbiology, 2012, 30, 298-302.	2.1	6
83	Quantitative Microbial Ecology of Food. Acta Alimentaria, 2005, 34, 335-337.	0.3	5
84	Integrated Kinetic and Probabilistic Modeling of the Growth Potential of Bacterial Populations. Applied and Environmental Microbiology, 2015, 81, 3228-3234.	1.4	5
85	Notes on reparameterization of bacterial growth curves II. Food Microbiology, 1992, 9, 265-267.	2.1	4
86	Optimization of turbidity experiments to estimate the probability of growth for individual bacterial cells. Food Microbiology, 2019, 83, 109-112.	2.1	4
87	Next generation of predictive models. , 2013, , 498-515.		3
88	Determining optimum carvacrol treatment as a cardinal value of a secondary model. International Journal of Food Microbiology, 2021, 354, 109311.	2.1	2
89	Using the ComBase database and associated software tools to predict microbial responses to food environments. Food Manufacturing Efficiency, 2006, 1, 9-13.	0.3	2
90	A Dynamic Network Analysis of the Physiological State of Foodborne Pathogens: Application to Escherichia Coli During Osmotic Stress and Comparison with Salmonella Typhimurium. Procedia Food Science, 2016, 7, 21-24.	0.6	1

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91	Predicting the Behaviour of Yersinia Enterocolitica and Listeria Monocytogenes in Italian Style Fresh Sausages under Drying Period. Procedia Food Science, 2016, 7, 71-75.	0.6	1
92	Roles of Alternative Sigma Factors in Invasion and Growth Characteristics of Listeria monocytogenes 10403S Into Human Epithelial Colorectal Adenocarcinoma Caco-2 Cell. Frontiers in Microbiology, 0, 13, .	1.5	1
93	A back-step algorithm for simulation of Monod-type models. Bioinformatics, 1991, 7, 399-401.	1.8	0
94	RESPONSE TO THE LETTER BY DRS DAVEY, THOMAS AND CERF. Journal of Applied Microbiology, 2001, 90, 149-150.	1.4	0
95	Computational Tools in Predictive Microbiology. ACS Symposium Series, 2006, , 252-257.	0.5	0
96	Predictions under Isothermal and Dynamically Changing Conditions. Applied and Environmental Microbiology, 2007, 73, 2402-2403.	1.4	0
97	Mechanistic modelling of pathogen stress response. , 2005, , 53-77.		0
98	La microbiologia predittiva tra passato e futuro. Food, 2013, , 1-14.	0.0	0
99	A STOCHASTIC APPROACH TO MODELLING BACTERIAL LAG. Acta Horticulturae, 1998, , 167-170.	0.1	0
100	Big data and food science. Acta Alimentaria, 2020, 49, 1-3.	0.3	0
101	Distribution of bacterial single cell parameters and their estimation from turbidity detection times. Food Microbiology, 2022, 104, 103972.	2.1	0