Susann MÃ¼ller

List of Publications by Year
in descending order

118 papers	5,433 citations	101496 36 h-index	95218 68 g-index
129 all docs	129 docs citations	129 times ranked	8800 citing authors

#	Article	IF	Citations
1	Guidelines for the use of flow cytometry and cell sorting in immunological studies (second edition). European Journal of Immunology, 2019, 49, 1457-1973.	1.6	766
2	Guidelines for the use of flow cytometry and cell sorting in immunological studies[*]. European Journal of Immunology, 2017, 47, 1584-1797.	1.6	505
3	Functional single-cell analyses: flow cytometry and cell sorting of microbial populations and communities. FEMS Microbiology Reviews, 2010, 34, 554-587.	3.9	303
4	Limits of propidium iodide as a cell viability indicator for environmental bacteria. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2007, 71A, 592-598.	1.1	231
5	Electroactive mixed culture derived biofilms in microbial bioelectrochemical systems: The role of pH on biofilm formation, performance and composition. Bioresource Technology, 2011, 102, 9683-9690.	4.8	203
6	Viability states of bacteriaâ€"Specific mechanisms of selected probes. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2010, 77A, 623-634.	1.1	154
7	Population Dynamics within a Microbial Consortium during Growth on Diesel Fuel in Saline Environments. Applied and Environmental Microbiology, 2006, 72, 3531-3542.	1.4	133
8	Origin and analysis of microbial population heterogeneity in bioprocesses. Current Opinion in Biotechnology, 2010, 21, 100-113.	3.3	123
9	Cytometric fingerprinting for analyzing microbial intracommunity structure variation and identifying subcommunity function. Nature Protocols, 2013, 8, 190-202.	5.5	114
10	Copy number variability of expression plasmids determined by cell sorting and Droplet Digital PCR. Microbial Cell Factories, 2016, 15, 211.	1.9	111
11	Dynamics of Polyphosphate-Accumulating Bacteria in Wastewater Treatment Plant Microbial Communities Detected via DAPI (4â€²,6â€²-Diamidino-2-Phenylindole) and Tetracycline Labeling. Applied and Environmental Microbiology, 2009, 75, 2111-2121.	1.4	101
12	Revealing the electrochemically driven selection in natural community derived microbial biofilms using flow-cytometry. Energy and Environmental Science, 2011, 4, 1265.	15.6	74
13	From multi-omics to basic structures of biological systems. Current Opinion in Biotechnology, 2013, 24, 1-3.	3.3	74
14	Overview of recent advances in phosphorus recovery for fertilizer production. Engineering in Life Sciences, 2018, 18, 434-439.	2.0	73
15	Phenotypic heterogeneity in metabolic traits among single cells of a rare bacterial species in its natural environment quantified with a combination of flow cell sorting and NanoSIMS. Frontiers in Microbiology, 2015, 06, 243.	1.5	72
16	Cytometric fingerprints: evaluation of new tools for analyzing microbial community dynamics. Frontiers in Microbiology, 2014, 5, 273.	1.5	67
17	Modes of cytometric bacterial DNA pattern: a tool for pursuing growth. Cell Proliferation, 2007, 40, 621-639.	2.4	62
18	Methylobacterium rhodesianum cells tend to double the DNA content under growth limitations and accumulate PHB. Journal of Biotechnology, 1995, 39, 9-20.	1.9	61

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19	Microbiomes in bioenergy production: From analysis to management. Current Opinion in Biotechnology, 2014, 27, 65-72.	3.3	60
20	Correlation of Community Dynamics and Process Parameters As a Tool for the Prediction of the Stability of Wastewater Treatment. Environmental Science & Technology, 2012, 46, 84-92.	4.6	57
21	Highâ€resolution microbiota flow cytometry reveals dynamic colitisâ€associated changes in fecal bacterial composition. European Journal of Immunology, 2016, 46, 1300-1303.	1.6	57
22	Key sub-community dynamics of medium-chain carboxylate production. Microbial Cell Factories, 2019, 18, 92.	1.9	56
23	CHICâ€”an automated approach for the detection of dynamic variations in complex microbial communities. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2013, 83A, 561-567.	1.1	55
24	Adaptive responses of Ralstonia eutropha to feast and famine conditions analysed by flow cytometry. Journal of Biotechnology, 1999, 75, 81-97.	1.9	52
25	Long-Term Behavior of Defined Mixed Cultures of Geobacter sulfurreducens and Shewanella oneidensis in Bioelectrochemical Systems. Frontiers in Bioengineering and Biotechnology, 2019, 7, 60.	2.0	51
26	Effect of electrokinetic transport on the vulnerability of PAH-degrading bacteria in a model aquifer. Environmental Geochemistry and Health, 2008, 30, 177-182.	1.8	48
27	Ecological Stability Properties of Microbial Communities Assessed by Flow Cytometry. MSphere, 2018, 3, .	1.3	46
28	Neutral mechanisms and niche differentiation in steadyâ€state insular microbial communities revealed by single cell analysis. Environmental Microbiology, 2019, 21, 164-181.	1.8	46
29	Accurate Determination of Plasmid Copy Number of Flow-Sorted Cells using Droplet Digital PCR. Analytical Chemistry, 2014, 86, 5969-5976.	3.2	45
30	A cytomic approach reveals population heterogeneity ofCupriavidus necator in response to harmful phenol concentrations. Proteomics, 2006, 6, 5983-5994.	1.3	44
31	Advanced tool for characterization of microbial cultures by combining cytomics and proteomics. Applied Microbiology and Biotechnology, 2010, 88, 575-584.	1.7	44
32	Coupling electric energy and biogas production in anaerobic digesters â€“ impacts on the microbiome. RSC Advances, 2015, 5, 31329-31340.	1.7	44
33	Immuno- and flow cytometric analytical methods for biotechnological research and process monitoring. Journal of Biotechnology, 1992, 25, 115-144.	1.9	42
34	Monitoring of population dynamics of <scp>C</scp>orynebacterium glutamicum by multiparameter flow cytometry. Microbial Biotechnology, 2013, 6, 157-167.	2.0	41
35	Gastric bypass surgery in a rat model alters the community structure and functional composition of the intestinal microbiota independently of weight loss. Microbiome, 2020, 8, 13.	4.9	40
36	Monitoring and engineering reactor microbiomes of denitrifying bioelectrochemical systems. RSC Advances, 2015, 5, 68326-68333.	1.7	39

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37	Flow cytometric quantification, sorting and sequencing of methanogenic archaea based on F420 autofluorescence. Microbial Cell Factories, 2017, 16, 180.	1.9	39
38	Analysis of livingS. cerevisiae cell statesâ€"A three color approach. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2006, 69A, 173-177.	1.1	38
39	Dynamics in the microbial cytomeâ€"single cell analytics in natural systems. Current Opinion in Biotechnology, 2014, 27, 134-141.	3.3	38
40	Fixation procedures for flow cytometric analysis of environmental bacteria. Journal of Microbiological Methods, 2008, 75, 127-134.	0.7	37
41	Community dynamics within a bacterial consortium during growth on toluene under sulfate-reducing conditions. FEMS Microbiology Ecology, 2009, 70, 586-596.	1.3	37
42	Subpopulation-proteomics in prokaryotic populations. Current Opinion in Biotechnology, 2013, 24, 79-87.	3.3	35
43	The Simplified Human Intestinal Microbiota (SIHUMIx) Shows High Structural and Functional Resistance against Changing Transit Times in In Vitro Bioreactors. Microorganisms, 2019, 7, 641.	1.6	35
44	Flow cytometric techniques to characterise physiological states of Acinetobacter calcoaceticus. Journal of Microbiological Methods, 2000, 40, 67-77.	0.7	34
45	Isolation of intact RNA from cytometrically sorted Saccharomyces cerevisiae for the analysis of intrapopulation diversity of gene expression. Nature Protocols, 2007, 2, 2203-2211.	5.5	32
46	Following the community development of SIHUMIx â€“ a new intestinal in vitro model for bioreactor use. Gut Microbes, 2020, 11, 1116-1129.	4.3	32
47	Speciesâ€sorting and massâ€transfer paradigms control managed natural metacommunities. Environmental Microbiology, 2016, 18, 4862-4877.	1.8	31
48	Population profiles of a commercial yeast strain in the course of brewing. Journal of Food Engineering, 2004, 63, 375-381.	2.7	29
49	Factors influencing the electrokinetic dispersion of PAH-degrading bacteria in a laboratory model aquifer. Applied Microbiology and Biotechnology, 2008, 80, 507-515.	1.7	29
50	Monitoring Functions in Managed Microbial Systems by Cytometric Bar Coding. Environmental Science & Technology, 2013, 47, 130108105239000.	4.6	29
51	Mass Cytometry for Detection of Silver at the Bacterial Single Cell Level. Frontiers in Microbiology, 2017, 8, 1326.	1.5	28
52	Personalized microbiome dynamics â€“ Cytometric fingerprints for routine diagnostics. Molecular Aspects of Medicine, 2018, 59, 123-134.	2.7	28
53	Population profiles of a stable, commensalistic bacterial culture grown with toluene under sulphate-reducing conditions. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2005, 66A, 91-102.	1.1	26
54	Activity and viability of polycyclic aromatic hydrocarbonâ€degrading Sphingomonas sp. LB126 in a DCâ€electrical field typical for electrobioremediation measures. Microbial Biotechnology, 2008, 1, 53-61.	2.0	26

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55	Bacterial mock communities as standards for reproducible cytometric microbiome analysis. Nature Protocols, 2020, 15, 2788-2812.	5.5	26
56	Prediction of flocculation ability of brewing yeast inoculates by flow cytometry, proteome analysis, and mRNA profiling. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2009, 75A, 140-147.	1.1	23
57	Recent advances in the analysis of individual microbial cells. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2009, 75A, 83-85.	1.1	23
58	Control of continuous polyhydroxybutyrate synthesis using calorimetry and flow cytometry. Biotechnology and Bioengineering, 2006, 93, 541-552.	1.7	22
59	Dynamics of yeast cell states during proliferation and non proliferation periods in a brewing reactor monitored by multidimensional flow cytometry. Bioprocess and Biosystems Engineering, 1997, 17, 287.	0.5	21
60	A cytometric approach to follow variation and dynamics of the salivary microbiota. Methods, 2018, 134-135, 67-79.	1.9	21
61	Affinity of singleS. cerevisiaecells to 2-NBDglucose under changing substrate concentrations. , 2004, 61A, 88-98.		20
62	High resolution single cell analytics to follow microbial community dynamics in anaerobic ecosystems. Methods, 2012, 57, 338-349.	1.9	20
63	Population analysis of a binary bacterial culture by multi-parametric flow cytometry. Journal of Biotechnology, 2002, 97, 163-176.	1.9	19
64	Sustainability of industrial yeast serial repitching practice studied by gene expression and correlation analysis. Journal of Biotechnology, 2013, 168, 718-728.	1.9	18
65	Non-random distribution of macromolecules as driving forces for phenotypic variation. Current Opinion in Microbiology, 2015, 25, 49-55.	2.3	18
66	Membrane-potential-related fluorescence intensity indicates bacterial injury. Microbiological Research, 1996, 151, 127-131.	2.5	17
67	Community-based degradation of 4-chorosalicylate tracked on the single cell level. Journal of Microbiological Methods, 2008, 75, 117-126.	0.7	17
68	Quantitation and Comparison of Phenotypic Heterogeneity Among Single Cells of Monoclonal Microbial Populations. Frontiers in Microbiology, 2019, 10, 2814.	1.5	17
69	Recovery of soil unicellular eukaryotes: An efficiency and activity analysis on the single cell level. Journal of Microbiological Methods, 2013, 95, 463-469.	0.7	16
70	Biodiversity of Polyphosphate Accumulating Bacteria in Eight WWTPs with Different Modes of Operation. Journal of Environmental Engineering, ASCE, 2013, 139, 1089-1098.	0.7	16
71	Analysis of aging in lager brewing yeast during serial repitching. Journal of Biotechnology, 2014, 187, 60-70.	1.9	16
72	Subpopulation-proteomics reveal growth rate, but not cell cycling, as a major impact on protein composition in Pseudomonas putida KT2440. AMB Express, 2014, 4, 71.	1.4	16

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73	Variability in subpopulation formation propagates into biocatalytic variability of engineered Pseudomonas putida strains. Frontiers in Microbiology, 2015, 6, 1042.	1.5	16
74	Environmental stress speeds up DNA replication in Pseudomonas putida in chemostat cultivations. Biotechnology Journal, 2016, 11, 155-163.	1.8	16
75	flowEMMi: an automated model-based clustering tool for microbial cytometric data. BMC Bioinformatics, 2019, 20, 643.	1.2	16
76	Staining procedures for flow cytometric monitoring of bacterial populations. Acta Biotechnologica, 1993, 13, 289-297.	1.0	15
77	Cell cycle synchronization ofCupriavidus necator by continuous phasing measured via flow cytometry. Biotechnology and Bioengineering, 2005, 92, 635-642.	1.7	15
78	Bacterial Community Diversity Dynamics Highlight Degrees of Nestedness and Turnover Patterns. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2020, 97, 742-748.	1.1	15
79	A framework for P-cycle assessment in wastewater treatment plants. Science of the Total Environment, 2021, 760, 143392.	3.9	15
80	AgNPs Change Microbial Community Structures of Wastewater. Frontiers in Microbiology, 2018, 9, 3211.	1.5	14
81	The Activation of Mucosal-Associated Invariant T (MAIT) Cells Is Affected by Microbial Diversity and Riboflavin Utilization in vitro. Frontiers in Microbiology, 2020, 11, 755.	1.5	14
82	Community and single cell analyses reveal complex predatory interactions between bacteria in high diversity systems. Nature Communications, 2021, 12, 5481.	5.8	14
83	Flow-cytometric investigation of sterol content and profliferation activity of yeast. Acta Biotechnologica, 1992, 12, 365-375.	1.0	13
84	Resolution of Natural Microbial Community Dynamics by Community Fingerprinting, Flow Cytometry, and Trend Interpretation Analysis. Advances in Biochemical Engineering/Biotechnology, 2010, 124, 151-181.	0.6	13
85	Flow cytometric determination of yeast sterol content. Acta Biotechnologica, 1989, 9, 89-93.	1.0	12
86	Optimisation of High Gravity and Diet Beer Production in a German Brewery by Flow Cytometry. Journal of the Institute of Brewing, 2001, 107, 373-382.	0.8	12
87	Cultivation of Aquincola tertiaricarbonis L108 on the fuel oxygenate intermediate tert-butyl alcohol induces aerobic anoxygenic photosynthesis at extremely low feeding rates. Microbiology (United) Tj ETQq1 1 0.784314 rgBT /Overlock	2.3	12
88	Heterogenic response of prokaryotes toward silver nanoparticles and ions is facilitated by phenotypes and attachment of silver aggregates to cell surfaces. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2017, 91, 775-784.	1.1	12
89	Long-Term Biogas Production from Glycolate by Diverse and Highly Dynamic Communities. Microorganisms, 2018, 6, 103.	1.6	12
90	Characterizing Microbiome Dynamics – Flow Cytometry Based Workflows from Pure Cultures to Natural Communities. Journal of Visualized Experiments, 2018, , .	0.2	12

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91	The intestinal microbiota determines the colitisâ€inducing potential of Tâ€betâ€deficient Th cells in mice. European Journal of Immunology, 2018, 48, 161-167.	1.6	11
92	New developments in biological phosphorus accessibility and recovery approaches from soil and waste streams. Engineering in Life Sciences, 2021, 21, 77-86.	2.0	11
93	Flow cytometric discrimination betweenAcinetobacter calcoaceticus69-V andAlcaligenes eutrophusJMP134 by fluorescently labelled rRNA-targeted oligonucleotide probes and DNA staining. Acta Biotechnologica, 1997, 17, 19-38.	1.0	10
94	Detection of Sulfur Microparticles in Bacterial Cultures by Flow Cytometry. Engineering in Life Sciences, 2007, 7, 403-407.	2.0	10
95	Predicting the Presence and Abundance of Bacterial Taxa in Environmental Communities through Flow Cytometric Fingerprinting. MSystems, 2021, 6, e0055121.	1.7	9
96	Investigating Community Dynamics and Performance During Microbial Electrochemical Degradation of Whey. ChemElectroChem, 2020, 7, 989-997.	1.7	8
97	Determination of elemental distribution and evaluation of elemental concentration in single Saccharomyces cerevisiae cells using single cell-inductively coupled plasma mass spectrometry. Metallomics, 2021, 13, .	1.0	8
98	Muricauda ruestringensis Has an Asymmetric Cell Cycle. Acta Biotechnologica, 2001, 21, 343-357.	1.0	7
99	Fluorogenic surrogate substrates for toluene-degrading bacteriaâ€"Are they useful for activity analysis?. Journal of Microbiological Methods, 2007, 70, 272-283.	0.7	7
100	NBDT (3â€(Nâ€(7â€nitrobenzâ€2â€oxaâ€1,3â€diazolâ€4â€yl)amino)â€3â€toluene)â€"A novel fluorescent dye for studying mechanisms of toluene uptake into vital bacteria. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2010, 77A, 113-120.	1.1	7
101	Cytometric patterns reveal growth states of S hewanella putrefaciens. Microbial Biotechnology, 2015, 8, 379-391.	2.0	7
102	Cytomics reaches microbiologyâ€"Population heterogeneity on the protein level caused by chemical stress. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2008, 73A, 3-4.	1.1	6
103	Facilitated gate setting by sequential dot plot scanning. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2015, 87, 661-664.	1.1	6
104	Comparison of preservation methods for bacterial cells in cytomics and proteomics. Journal of Integrated OMICS, 2013, 3, .	0.5	5
105	Monitoring stratification of anode biofilms in bioelectrochemical laminar flow reactors using flow cytometry. Environmental Science and Ecotechnology, 2020, 4, 100062.	6.7	5
106	The Impact of the Antibiotic Fosfomycin on Wastewater Communities Measured by Flow Cytometry. Frontiers in Microbiology, 2021, 12, 737831.	1.5	5
107	Using a carbon-based ASM3 EAWAG Bio-P for modelling the enhanced biological phosphorus removal in anaerobic/aerobic activated sludge systems. Bioprocess and Biosystems Engineering, 2011, 34, 287-295.	1.7	4
108	Stabilizing microbial communities by looped mass transfer. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2117814119.	3.3	4

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109	Exploring the Extent of Phosphorus and Heavy Metal Uptake by Single Cells of Saccharomyces cerevisiae and Their Effects on Intrinsic Elements by SC-ICP-TOF-MS. Frontiers in Microbiology, 2022, 13, 870931.	1.5	3
110	How Should Microbial Life be Quantified to Optimise Bioprocesses?. Acta Biotechnologica, 2002, 22, 401-409.	1.0	2
111	Cytometry Score: 23 to 4. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2019, 95, 259-260.	1.1	2
112	FLOW CYTOMETRIC MONITORING OF BACTERIAL CELL STATES UNDER GROWTH LIMITING CONDITIONS. , 1995, , 213-216.		2
113	Flow Cytometric Monitoring of Bacterial Cell States Under Growth Limiting Conditions. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1995, 28, 213-216.	0.4	1
114	Microbes' heterogeneousness â€“ a focus issue on cytometric technologies in microbial single cell analytics. Biotechnology Journal, 2009, 4, 591-592.	1.8	1
115	Editorial overview: Environmental microbiology: Revisiting the physiology of microorganisms on the single cell scale. Current Opinion in Microbiology, 2015, 25, v-vi.	2.3	1
116	20 years of the German Society for Cytometry: Past and future concepts. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2011, 79A, 891-893.	1.1	0
117	Isolation of Intact RNA from Sorted S. cerevisiae Cells for Differential Gene Expression Analysis. , 2013, , 265-277.		0
118	Microorganisms and Their Activities Within Microbial Communities. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2020, 97, 681-682.	1.1	0