Bernd Hitzmann

List of Publications by Year in Descending Order

134 papers	1,795 citations	23 h-index	35 g-index
147 ext. papers	2,076 ext. citations	3.7 avg, IF	4.92 L-index

#	Paper	IF	Citations
134	Comparative Study of Chemical Composition, Pasting, Thermal and Functional properties of Teff (Eragrostis tef) Flours Grown in Ethiopia and South Africa. *International Journal of Food Properties*, **2022**, 25, 144-158	3	1
133	Comparison of various classification techniques for supervision of milk processing.. *Engineering in Life Sciences*, **2022**, 22, 279-287	3.4	1
132	Establishing a novel procedure to detect deviations from standard milk processing by using online Raman spectroscopy. *Food Control*, **2022**, 131, 108442	6.2	1
131	Avoiding misleading predictions in fluorescence-based soft sensors using autoencoders. *Chemometrics and Intelligent Laboratory Systems*, **2022**, 223, 104527	3.8	2
130	The Potential of Spectroscopic Techniques in Coffee Analysis—A Review. *Processes*, **2022**, 10, 71	2.9	2
129	Experimental investigation of CO uptake in CO hydrates formation with amino acids as kinetic promoters and its dissociation at high temperature.. *Scientific Reports*, **2022**, 12, 8359	4.9	3
128	Optimization of No-Wait Flowshop Scheduling Problem in Bakery Production with Modified PSO, NEH and SA. *Processes*, **2021**, 9, 2044	2.9	2
127	Drought Stress during Anthesis Alters Grain Protein Composition and Improves Bread Quality in Field-Grown Iranian and German Wheat Genotypes. *Applied Sciences (Switzerland)*, **2021**, 11, 9782	2.6	0
126	The Kalman Filter for the Supervision of Cultivation Processes. *Advances in Biochemical Engineering/Biotechnology*, **2021**, 177, 95-125	1.7	1
125	Spectroscopic analysis of chia seeds. *Scientific Reports*, **2021**, 11, 9253	4.9	
124	A Future Road Map for Carbon Dioxide (CO2) Gas Hydrate as an Emerging Technology in Food Research. *Food and Bioprocess Technology*, **2021**, 14, 1758-1762	5.1	7
123	Anomaly detection during milk processing by autoencoder neural network based on near-infrared spectroscopy. *Journal of Food Engineering*, **2021**, 299, 110510	6	11
122	Implementation of QbD strategies in the inoculum expansion of a mAb production process. *Engineering in Life Sciences*, **2021**, 21, 196-207	3.4	4
121	Parameter and state estimation of backers yeast cultivation with a gas sensor array and unscented Kalman filter. *Engineering in Life Sciences*, **2021**, 21, 170-180	3.4	2
120	Volume Fraction Measurement of Soft (Dairy) Microgels by Standard Addition and Static Light Scattering. *Food Biophysics*, **2021**, 16, 237-253	3.2	3
119	Fat-free fermented concentrated milk protein-based microgel dispersions manufactured at technical scale: Production parameters as drivers of textural properties. *International Dairy Journal*, **2021**, 105195	3.5	1
118	Teff-Based Probiotic Functional Beverage Fermented with and. *Foods*, **2021**, 10,	4.9	4

117	The Supervision of Dough Fermentation Using Image Analysis Complemented by a Continuous Discrete Extended Kalman Filter. *Processes*, **2020**, 8, 1669	2.9	1
116	Model-based calibration of a gas sensor array for on-line monitoring of ethanol concentration in Saccharomyces cerevisiae batch cultivation. *Biosystems Engineering*, **2020**, 198, 198-209	4.8	9
115	Wasserabsorption von Getreidek□nern □Vergleich verschiedener Modelle. *Chemie-Ingenieur-Technik*, **2020**, 92, 1083-1088	0.8	0
114	Application of urease inhibitor improves protein composition and bread-baking quality of urea fertilized winter wheat. *Journal of Plant Nutrition and Soil Science*, **2020**, 183, 260-270	2.3	5
113	A novel LED-based 2D-fluorescence spectroscopy system for in-line monitoring of Chinese hamster ovary cell cultivations - Part I. *Engineering in Life Sciences*, **2019**, 19, 352-362	3.4	10
112	Application of fuzzy logic control for the dough proofing process. *Food and Bioproducts Processing*, **2019**, 115, 36-46	4.9	8
111	Evaluation of the linear and non-linear prediction models optimized with metaheuristics: Application to anaerobic digestion processes. *Engineering in Agriculture, Environment and Food*, **2019**, 12, 397-403	1.7	5
110	Prediction of the biogas production using GA and ACO input features selection method for ANN model. *Information Processing in Agriculture*, **2019**, 6, 349-356	4.2	21
109	Closed loop control system for dough fermentation based on image processing. *Journal of Food Process Engineering*, **2018**, 41, e12801	2.4	6
108	Bioprozessanalytik und -steuerung **2018**, 261-297		
107	Herstellung und Bewertung glutenfreier Brotsorten. *Aktuelle Ernahrungsmedizin Klinik Und Praxis*, **2018**, 43, 467-470	0.3	
106	Feedback control based on NADH fluorescence intensity for Saccharomyces cerevisiae cultivations. *Bioresources and Bioprocessing*, **2018**, 5,	5.2	4
105	Fluorescence Spectroscopy for the Monitoring of Food Processes. *Advances in Biochemical Engineering/Biotechnology*, **2017**, 161, 121-151	1.7	9
104	On-line monitoring of relevant fluorophores of yeast cultivations due to glucose addition during the diauxic growth. *Process Biochemistry*, **2017**, 58, 51-59	4.8	7
103	Artificial neural network for bioprocess monitoring based on fluorescence measurements: Training without offline measurements. *Engineering in Life Sciences*, **2017**, 17, 874-880	3.4	9
102	Prediction of baking results from farinograph measurements by using stepwise linear regression and artificial neuronal networks. *Journal of Cereal Science*, **2017**, 76, 64-68	3.8	5
101	Between the Poles of Data-Driven and Mechanistic Modeling for Process Operation. *Chemie-Ingenieur-Technik*, **2017**, 89, 542-561	0.8	37
100	Comparison of methods for wavelength combination selection from multi-wavelength fluorescence spectra for on-line monitoring of yeast cultivations. *Analytical and Bioanalytical Chemistry*, **2017**, 409, 707-717	4.4	10

99	Potential of fluorescence spectroscopy in detection of low-levels of gluten in flour: A preliminary study. *Food Control*, **2017**, 73, 401-405	6.2	9
98	Optimale Versuchsplanung mittels Bootstrapping. *Chemie-Ingenieur-Technik*, **2017**, 89, 1752-1758	0.8	
97	Sonication induced particle formation in yogurt: Influence of the dry matter content on the physical properties. *Journal of Food Engineering*, **2016**, 191, 77-87	6	16
96	Supervision of Food Manufacturing Processes Using Optical Process Analyzers – An Overview. *ChemBioEng Reviews*, **2016**, 3, 219-228	5.2	12
95	Image analysis and mathematical modelling for the supervision of the dough fermentation process **2016**,		3
94	Chia (Salvia hispanica L.) as fat replacer in sweet pan breads. *International Journal of Food Science and Technology*, **2016**, 51, 1425-1432	3.8	9
93	Microgel particle formation in yogurt as influenced by sonication during fermentation. *Journal of Food Engineering*, **2016**, 180, 29-38	6	31
92	Artificial neural network prediction of the biogas flow rate optimised with an ant colony algorithm. *Biosystems Engineering*, **2016**, 143, 68-78	4.8	60
91	Characterization of farinographic kneading process for different types of wheat flours using fluorescence spectroscopy and chemometrics. *Food Control*, **2016**, 66, 44-52	6.2	19
90	Optische Prozessanalysatoren für die Lebensmittelindustrie. *Chemie-Ingenieur-Technik*, **2016**, 88, 735-745	0.8	3
89	Development of a model for the simulation of Farinograph measurements **2016**,		2
88	A fluorescence spectroscopic approach to predict analytical, rheological and baking parameters of wheat flours using chemometrics. *Journal of Food Engineering*, **2016**, 182, 65-71	6	10
87	Prediction of the pH as indicator of porcine meat quality using Raman spectroscopy and metaheuristics. *Chemometrics and Intelligent Laboratory Systems*, **2016**, 154, 45-51	3.8	14
86	Estimation of the nutritional parameters of various types of wheat flours using fluorescence spectroscopy and chemometrics. *International Journal of Food Science and Technology*, **2016**, 51, 1186-1194	3.8	9
85	Parallel online multi-wavelength (2D) fluorescence spectroscopy in each well of a continuously shaken microtiter plate. *Biotechnology Journal*, **2016**, 11, 1605-1616	5.6	12
84	Fluorescence spectroscopy and chemometric modeling for bioprocess monitoring. *Sensors*, **2015**, 15, 10271-91	3.8	78
83	Assessment of the energy and exergy efficiencies of farm to fork grain cultivation and bread making processes in Turkey and Germany. *Energy*, **2015**, 93, 421-434	7.9	29
82	Assessment of coating quality by use of dissolution kinetics. *Powder Technology*, **2015**, 286, 325-331	5.2	8

81	Influence of the heating rate and the potassium concentration of the feed solution on the hydrothermal liquefaction of used yeast and apple pomace under reducing conditions. *Biomass Conversion and Biorefinery*, **2015**, 5, 125-139	2.3	8
80	Process analytical technologies in food industry - challenges and benefits: A status report and recommendations. *Biotechnology Journal*, **2015**, 10, 1095-100	5.6	11
79	Non-invasive lactate- and pH-monitoring in porcine meat using Raman spectroscopy and chemometrics. *Chemometrics and Intelligent Laboratory Systems*, **2015**, 142, 197-205	3.8	24
78	NIR pre-selection data using modified changeable size moving window partial least squares and pure spectral chemometrical modeling with ant colony optimization for wheat flour characterization. *Chemometrics and Intelligent Laboratory Systems*, **2015**, 142, 78-86	3.8	8
77	Biosynthesis of 1,3-propanediol from glycerol with Lactobacillus reuteri: effect of operating variables. *Journal of Bioscience and Bioengineering*, **2014**, 118, 188-94	3.3	41
76	2D-fluorescence and multivariate data analysis for monitoring of sourdough fermentation process. *Food Control*, **2014**, 38, 8-18	6.2	24
75	Application of a modified GA, ACO and a random search procedure to solve the production scheduling of a case study bakery. *Expert Systems With Applications*, **2014**, 41, 5882-5891	7.8	22
74	Rheological properties of microgel suspensions: Viscoelastic modelling of microstructural elements from casein micelles to fermented dairy products. *International Dairy Journal*, **2014**, 39, 157-166	3.5	15
73	Wheat flour characterization using NIR and spectral filter based on Ant Colony Optimization. *Chemometrics and Intelligent Laboratory Systems*, **2014**, 132, 133-140	3.8	25
72	Downstream processing of high chain length polysialic acid using membrane adsorbers and clay minerals for application in tissue engineering. *Engineering in Life Sciences*, **2013**, 13, 140-148	3.4	10
71	Automatic control of bioprocesses. *Advances in Biochemical Engineering/Biotechnology*, **2013**, 132, 35-63	1.7	8
70	A new mathematical model for the enzymatic kinetic resolution of racemates. *Journal of Mathematical Chemistry*, **2013**, 51, 1532-1547	2.1	
69	Automated sonic velocity calculation based on ultrasonic resonator measurements for on-line process monitoring. *Sensors and Actuators A: Physical*, **2013**, 198, 69-74	3.9	1
68	Cytokine production using membrane adsorbers: Human basic fibroblast growth factor produced by Escherichia coli. *Engineering in Life Sciences*, **2012**, 12, 29-38	3.4	20
67	Chemometric modeling and two-dimensional fluorescence analysis of bioprocess with a new strain of Klebsiella pneumoniae to convert residual glycerol into 1,3-propanediol. *Journal of Industrial Microbiology and Biotechnology*, **2012**, 39, 701-8	4.2	11
66	Transcriptome analysis. *Advances in Biochemical Engineering/Biotechnology*, **2012**, 127, 1-25	1.7	4
65	Fluorescence Spectroscopy as a Tool for Ethanol Fermentation On-line Monitoring. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 940-945		2
64	Disposable Sensor Systems **2011**, 67-81		11

63	Catalytic conversion of waste biomass by hydrothermal treatment. *Fuel*, **2011**, 90, 555-562	7.1	75
62	Erschließen von Prozesswissen für das Monitoring und die Regelung von Fermentationsprozessen. *TM Technisches Messen*, **2011**, 78, 569-578	0.7	
61	Conversion of yeast by hydrothermal treatment under reducing conditions. *Fuel*, **2011**, 90, 3424-3432	7.1	23
60	On-line monitoring of recombinant bacterial cultures using multi-wavelength fluorescence spectroscopy. *Biochemical Engineering Journal*, **2011**, 58-59, 133-139	4.2	19
59	Comparison of polysialic acid production in Escherichia coli K1 during batch cultivation and fed-batch cultivation applying two different control strategies. *Journal of Biotechnology*, **2011**, 154, 222-9	3.7	21
58	Bioprozessanalytik und -steuerung **2011**, 263-294		
57	Fluorescence Techniques for Bioprocess Monitoring **2010**, 1		
56	Polyethyleneimine-protein interactions and implications on protein stability. *International Journal of Biological Macromolecules*, **2010**, 47, 15-20	7.9	44
55	In-situ imaging sensors for bioprocess monitoring: state of the art. *Analytical and Bioanalytical Chemistry*, **2010**, 398, 2429-38	4.4	54
54	On-line infrared spectroscopy for bioprocess monitoring. *Applied Microbiology and Biotechnology*, **2010**, 88, 11-22	5.7	110
53	Fluorescence spectroscopy as a novel method for on-line analysis of biocatalytic C–C bond formations. *Journal of Molecular Catalysis B: Enzymatic*, **2010**, 66, 124-129		6
52	Development of a flow-through microscopic multitesting system for parallel monitoring of cell samples in biotechnological cultivation processes. *Journal of Biotechnology*, **2010**, 150, 87-93	3.7	6
51	Optical inline measurement procedures for counting and sizing cells in bioprocess technology. *Advances in Biochemical Engineering/Biotechnology*, **2009**, 116, 125-42	1.7	5
50	When is optimal experimental design advantageous for the analysis of Michaelis–Menten kinetics?. *Chemometrics and Intelligent Laboratory Systems*, **2009**, 99, 9-18	3.8	7
49	Sensors in disposable bioreactors status and trends. *Advances in Biochemical Engineering/Biotechnology*, **2009**, 115, 145-69	1.7	29
48	Design and characterization of a rotating bed system bioreactor for tissue engineering applications. *Biotechnology Progress*, **2008**, 24, 140-7	2.8	17
47	A study of the effect of the interaction between site-specific conditions, residue cover and weed control on water storage during fallow. *Agricultural Water Management*, **2008**, 95, 1028-1040	5.9	23
46	In vivo regulation of glucose transporter genes at glucose concentrations between 0 and 500 mg/L in a wild type of Saccharomyces cerevisiae. *Journal of Biotechnology*, **2008**, 135, 161-7	3.7	9

45	Online monitoring of microcarrier based fibroblast cultivations with in situ microscopy. *Biotechnology and Bioengineering*, **2008**, 99, 136-45	4.9	35
44	Model based substrate set point control of yeast cultivation processes based on FIA measurements. *Analytica Chimica Acta*, **2008**, 623, 30-7	6.6	18
43	Multiple model approach to modelling of Escherichia coli fed-batch cultivation extracellular production of bacterial phytase. *Electronic Journal of Biotechnology*, **2007**, 10, 0-0	3.1	11
42	In situ multi-wavelength fluorescence spectroscopy as effective tool to simultaneously monitor spore germination, metabolic activity and quantitative protein production in recombinant Aspergillus niger fed-batch cultures. *Journal of Biotechnology*, **2007**, 132, 461-8	3.7	28
41	Future aspects of bioprocess monitoring. *Advances in Biochemical Engineering/Biotechnology*, **2007**, 105, 249-93	1.7	37
40	State variables monitoring by in situ multi-wavelength fluorescence spectroscopy in heterologous protein production by Pichia pastoris. *Journal of Biotechnology*, **2006**, 124, 412-9	3.7	47
39	Experimental design for optimal parameter estimation of an enzyme kinetic process based on the analysis of the Fisher information matrix. *Journal of Theoretical Biology*, **2006**, 238, 111-23	2.3	25
38	Kalman filter based glucose control at small set points during fed-batch cultivation of Saccharomyces cerevisiae. *Biotechnology Progress*, **2004**, 20, 377-83	2.8	26
37	Technische Chemie 2002. *Nachrichten Aus Der Chemie*, **2003**, 51, 352-357	0.1	2
36	Chemometric modelling with two-dimensional fluorescence data for Claviceps purpurea bioprocess characterization. *Journal of Biotechnology*, **2003**, 105, 179-88	3.7	57
35	Theoretical Model Based Evaluation of Superimposed Flow Injection Measurements. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2001**, 34, 167-170		
34	Feed Forward/Feedback Control of Glucose Concentration During Cultivation of Escherichia Coli. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2001**, 34, 403-407		4
33	Innovative Bioprozessanalytik Neue Wege zum besseren Verst dnis biotechnologischer Prozesse. *Chemie-Ingenieur-Technik*, **2001**, 73, 19-26	0.8	3
32	Optimierung der industriellen Tryptophanproduktion durch den Einsatz bioanalytischer Systeme. *Chemie-Ingenieur-Technik*, **2001**, 73, 524-526	0.8	1
31	Innovative Bioprozessanalytik Neue Wege zum besseren Verst dnis biotechnologischer Prozesse **2001**, 73, 19		1
30	Accuracy and Reliability of Measured Data **2000**, 125-144		
29	A knowledge-based system for real-time validation of calibrations and measurements. *Chemometrics and Intelligent Laboratory Systems*, **1999**, 46, 57-66	3.8	4
28	Simultaneous calibration in flow-injection analysis using multiple-injection signals evaluated by partial least squares. *Analytica Chimica Acta*, **1998**, 363, 183-189	6.6	6

27	On-line monitoring of galactoside conjugates and glycerol by flow injection analysis. *Analytica Chimica Acta*, **1998**, 373, 57-62	6.6	23
26	Gas sensitive field-effect transistors: applications to the monitoring of biotechnological processes. *Analytica Chimica Acta*, **1998**, 373, 253-259	6.6	2
25	Ein FIA-System zur schnellen Glucosemessung bei Bioprozessen. *Chemie-Ingenieur-Technik*, **1998**, 70, 297-299	0.8	1
24	Vorhersage von Bioprozessgrößen aus 2D-Fluoreszenzspektren. *Chemie-Ingenieur-Technik*, **1998**, 70, 1610-1613	0.8	5
23	Neural networks as a modeling tool for the evaluation and analysis of FIA signals. *Journal of Biotechnology*, **1998**, 65, 15-22	3.7	14
22	Ein Expertensystem zur Modellierung, Regelung und Überwachung bioverfahrenstechnischer Prozesse. *Automatisierungstechnik*, **1998**, 46, 368-374	0.8	1
21	Challenges in integrating biosensors and FIA for on-line monitoring and control. *Trends in Biotechnology*, **1996**, 14, 21-31	15.1	54
20	Methoden zur Auswertung von Meßsignalen der Fließinjektionsanalyse. *Chemie-Ingenieur-Technik*, **1996**, 68, 570-573	0.8	
19	Visualisierung von Prozeßdaten über das World Wide Web. *Chemie-Ingenieur-Technik*, **1996**, 68, 1311-1313	0.8	
18	Ein Realzeit-Expertensystem zur Überwachung von Bioprozessen. *Chemie-Ingenieur-Technik*, **1994**, 66, 539-541	0.8	1
17	Evaluation of pH field effect transistor measurement signals by neural networks. *Analytica Chimica Acta*, **1994**, 294, 243-249	6.6	22
16	Knowledge-based fault detection and diagnosis in flow-injection analysis. *Analytica Chimica Acta*, **1994**, 291, 29-40	6.6	32
15	Sensors as components of integrated analytical systems. *Trends in Biotechnology*, **1994**, 12, 42-6	15.1	10
14	Monitoring and control of recombinant protein production. *Analytica Chimica Acta*, **1993**, 279, 3-16	6.6	22
13	Expertensystemgestützte Überwachung komplexer Analysesysteme. *Chemie-Ingenieur-Technik*, **1993**, 65, 945-947	0.8	2
12	Neuronale Netze zur Auswertung von Meßsignalen der Fließinjektionsanalyse. *Chemie-Ingenieur-Technik*, **1993**, 65, 947-949	0.8	4
11	In-situ- und On-line-Überwachung und Regelung biotechnologischer Prozesse. *Chemie-Ingenieur-Technik*, **1993**, 65, 1447-1456	0.8	7
10	Monitoring and control of recombinant protein production **1993**, 3-16		

9	In-vivo-NMR-Spektroskopie zur Charakterisierung des Einflusses von Plasmiden auf den Glucose-Metabolismus von Escherichia coli. *Chemie-Ingenieur-Technik*, **1992**, 64, 574-575	0.8	1
8	Expertensysteme zur Automation von Bioprozessen. *Chemie-Ingenieur-Technik*, **1992**, 64, 708-714	0.8	1
7	An expert system approach for the control of a bioprocess. I: knowledge representation and processing. *Biotechnology and Bioengineering*, **1992**, 39, 33-43	4.9	18
6	In Vivo NMR Analysis of the Influence of Pyruvate Decarboxylase and Alcohol Dehydrogenase of Zymomonas mobilis on the Anaerobic Metabolism of Escherichia coli. *Biotechnology Progress*, **1991**, 7, 305-310	2.8	13
5	On-line determination of intracellular beta-galactosidase activity in recombinant Escherichia coli using flow injection analysis (FIA). *Journal of Biotechnology*, **1991**, 20, 95-104	3.7	22
4	Comparative Studies of Glucose Catabolism by Escherichia coli Grown in a Complex Medium under Aerobic and Anaerobic Conditions. *Biotechnology Progress*, **1990**, 6, 326-332	2.8	17
3	Supervisor Ein Realzeit-Expertensystem. *Chemie-Ingenieur-Technik*, **1989**, 61, 910-911	0.8	3
2	Bread and Other Baked Products1-58		
1	Spectroscopic-Based Prediction of Milk Foam Properties for Barista Applications. *Food and Bioprocess Technology*,1	5.1	