

Thomas Bley

List of Publications by Year in descending order

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100
papers

3,210
citations

172207

29
h-index

168136

53
g-index

105
all docs

105
docs citations

105
times ranked

3714
citing authors

#	ARTICLE	IF	CITATIONS
1	Hairy root type plant in vitro systems as sources of bioactive substances. <i>Applied Microbiology and Biotechnology</i> , 2007, 74, 1175-1185.	1.7	316
2	Antioxidant Activity and Phenolic Content of Betalain Extracts from Intact Plants and Hairy Root Cultures of the Red Beetroot <i>Beta vulgaris</i> cv. Detroit Dark Red. <i>Plant Foods for Human Nutrition</i> , 2010, 65, 105-111.	1.4	292
3	Biotransformation of triterpenes. <i>Process Biochemistry</i> , 2011, 46, 1-15.	1.8	141
4	Origin and analysis of microbial population heterogeneity in bioprocesses. <i>Current Opinion in Biotechnology</i> , 2010, 21, 100-113.	3.3	123
5	Temporary immersion systems in plant biotechnology. <i>Engineering in Life Sciences</i> , 2014, 14, 607-621.	2.0	121
6	Bioprocessing of differentiated plant in vitro systems. <i>Engineering in Life Sciences</i> , 2013, 13, 26-38.	2.0	112
7	Green bioprinting: Fabrication of photosynthetic algae-laden hydrogel scaffolds for biotechnological and medical applications. <i>Engineering in Life Sciences</i> , 2015, 15, 177-183.	2.0	104
8	Anti-inflammatory activity of Devil's claw in vitro systems and their active constituents. <i>Food Chemistry</i> , 2011, 125, 171-178.	4.2	86
9	Rapid monitoring of the biodegradation of phenol-like compounds by the yeast <i>Candida maltosa</i> using BOD measurements. <i>International Biodeterioration and Biodegradation</i> , 2004, 54, 69-76.	1.9	73
10	Betalain production in plant in vitro systems. <i>Acta Physiologiae Plantarum</i> , 2008, 30, 581-593.	1.0	73
11	Perspectives for the biotechnological production of ethyl acetate by yeasts. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 5397-5415.	1.7	73
12	Betalains biosynthesis by <i>Beta vulgaris</i> L. hairy root culture in a temporary immersion cultivation system. <i>Process Biochemistry</i> , 2006, 41, 848-852.	1.8	65
13	Green bioprinting: extrusion-based fabrication of plant cell-laden biopolymer hydrogel scaffolds. <i>Biofabrication</i> , 2017, 9, 045011.	3.7	63
14	<i>Methylobacterium rhodesianum</i> cells tend to double the DNA content under growth limitations and accumulate PHB. <i>Journal of Biotechnology</i> , 1995, 39, 9-20.	1.9	61
15	Correlation of Community Dynamics and Process Parameters As a Tool for the Prediction of the Stability of Wastewater Treatment. <i>Environmental Science & Technology</i> , 2012, 46, 84-92.	4.6	57
16	Adaptive responses of <i>Ralstonia eutropha</i> to feast and famine conditions analysed by flow cytometry. <i>Journal of Biotechnology</i> , 1999, 75, 81-97.	1.9	52
17	Metabolite and hormonal status of hairy root cultures of Devil's claw (<i>Harpagophytum procumbens</i>) in flasks and in a bubble column bioreactor. <i>Process Biochemistry</i> , 2008, 43, 15-23.	1.8	51
18	Formation of ethyl acetate from whey by <i>Kluyveromyces marxianus</i> on a pilot scale. <i>Journal of Biotechnology</i> , 2013, 163, 17-23.	1.9	49

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19	Green bioprinting: Viability and growth analysis of microalgae immobilized in 3D-plotted hydrogels versus suspension cultures. <i>Engineering in Life Sciences</i> , 2015, 15, 678-688.	2.0	46
20	Radical Scavenging Activity and Stability of Betalains from <i>Beta vulgaris</i> Hairy Root Culture in Simulated Conditions of Human Gastrointestinal Tract. <i>Plant Foods for Human Nutrition</i> , 2005, 60, 43-47.	1.4	43
21	Studies on the mechanism of synthesis of ethyl acetate in <i>Kluyveromyces marxianus</i> DSM 5422. <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 1131-1144.	1.7	41
22	Sage in vitro cultures: a promising tool for the production of bioactive terpenes and phenolic substances. <i>Biotechnology Letters</i> , 2014, 36, 211-221.	1.1	40
23	Additive Biotech—Chances, challenges, and recent applications of additive manufacturing technologies in biotechnology. <i>New Biotechnology</i> , 2017, 39, 222-231.	2.4	40
24	Formation of ethyl acetate by <i>Kluyveromyces marxianus</i> on whey: studies of the ester stripping. <i>Bioprocess and Biosystems Engineering</i> , 2011, 34, 547-559.	1.7	36
25	Hydrophobin signal sequence mediates efficient secretion of recombinant proteins in <i>Pichia pastoris</i> . <i>Applied Microbiology and Biotechnology</i> , 2011, 91, 133-141.	1.7	36
26	Repeated fed-batch fermentation using biosensor online control for citric acid production by <i>Yarrowia lipolytica</i> . <i>Journal of Biotechnology</i> , 2011, 153, 133-137.	1.9	33
27	Growth of <i>Kluyveromyces marxianus</i> and formation of ethyl acetate depending on temperature. <i>Applied Microbiology and Biotechnology</i> , 2013, 97, 10359-10371.	1.7	31
28	Formation of ethyl acetate by <i>Kluyveromyces marxianus</i> on whey during aerobic batch cultivation at specific trace element limitation. <i>Applied Microbiology and Biotechnology</i> , 2012, 96, 1313-1323.	1.7	30
29	Antioxidant activity of <i>Devil's claw</i> cell biomass and its active constituents. <i>Food Chemistry</i> , 2010, 121, 967-972.	4.2	29
30	Bioactive metabolite production and stress-related hormones in <i>Devil's claw</i> cell suspension cultures grown in bioreactors. <i>Applied Microbiology and Biotechnology</i> , 2011, 89, 1683-1691.	1.7	29
31	Induction of a photomixotrophic plant cell culture of <i>Helianthus annuus</i> and optimization of culture conditions for improved α -tocopherol production. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 2029-2040.	1.7	29
32	Flow cytometric investigations of diploid and tetraploid plants and in vitro cultures of <i>Datura stramonium</i> and <i>Hyoscyamus niger</i> . <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2008, 73A, 931-939.	1.1	28
33	Growth kinetics of a <i>Helianthus annuus</i> and a <i>Sclerotinia sclerotiorum</i> suspension cell line: Shake flask cultivations with online monitoring system. <i>Engineering in Life Sciences</i> , 2013, 13, 593-602.	2.0	27
34	Light-field characterization in a continuous hydrogen-producing photobioreactor by optical simulation and computational fluid dynamics. <i>Biotechnology and Bioengineering</i> , 2015, 112, 2439-2449.	1.7	27
35	Hydrogen production by <i>Rhodobacter sphaeroides</i> DSM 158 under intense irradiation. <i>Bioresource Technology</i> , 2015, 175, 82-90.	4.8	27
36	Biosensor online control of citric acid production from glucose by <i>Yarrowia lipolytica</i> using semicontinuous fermentation. <i>Engineering in Life Sciences</i> , 2010, 10, 311-320.	2.0	26

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37	Formation of ethyl acetate by <i>Kluyveromyces marxianus</i> on whey during aerobic batch and chemostat cultivation at iron limitation. <i>Applied Microbiology and Biotechnology</i> , 2012, 96, 685-696.	1.7	26
38	Asymmetric division of <i>Hansenula polymorpha</i> reflected by a drop of light scatter intensity measured in batch microtiter plate cultivations at phosphate limitation. <i>Biotechnology and Bioengineering</i> , 2009, 104, 554-561.	1.7	25
39	Formation of ethyl acetate by <i>Kluyveromyces marxianus</i> on whey: Influence of aeration and inhibition of yeast growth by ethyl acetate. <i>Engineering in Life Sciences</i> , 2013, 13, 247-260.	2.0	25
40	Biotechnological hydrogen production by photosynthesis. <i>Engineering in Life Sciences</i> , 2014, 14, 592-606.	2.0	25
41	Screening of <i>Kluyveromyces</i> strains for the production of ethyl acetate: Design and evaluation of a cultivation system. <i>Engineering in Life Sciences</i> , 2011, 11, 369-381.	2.0	24
42	Flavour compounds in backslop fermented uji (an East African sour porridge). <i>European Food Research and Technology</i> , 2004, 218, 579-583.	1.6	23
43	Batch and Fed-Batch Production of Betalains by Red Beet (<i>Beta vulgaris</i>) Hairy Roots in a Bubble Column Reactor. <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 2007, 62, 439-446.	0.6	22
44	Flow Cytometry and Phytochemical Analysis of a Sunflower Cell Suspension Culture in a 5-L Bioreactor. <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 2008, 63, 699-705.	0.6	21
45	Fungal elicitors combined with a sucrose feed significantly enhance triterpene production of a <i>Salvia fruticosa</i> cell suspension. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 7071-7082.	1.7	21
46	Combining Chemical and Biological Catalysis for the Conversion of Hemicelluloses: Hydrolytic Hydrogenation of Xylan to Xylitol. <i>Catalysis Letters</i> , 2019, 149, 69-76.	1.4	21
47	A compact and rapid aptasensor platform based on surface plasmon resonance. <i>Engineering in Life Sciences</i> , 2011, 11, 573-579.	2.0	20
48	Phytochemical and flow cytometric analyses of <i>Devil's claw</i> cell cultures. <i>Plant Cell, Tissue and Organ Culture</i> , 2011, 105, 79-84.	1.2	20
49	Efficient growth of <i>Kluyveromyces marxianus</i> biomass used as a biocatalyst in the sustainable production of ethyl acetate. <i>Energy, Sustainability and Society</i> , 2015, 5, .	1.7	20
50	Solid-state fermentation of lignocellulosic materials for the production of enzymes by the white rot fungus <i>Trametes hirsuta</i> in a modular bioreactor. <i>Engineering in Life Sciences</i> , 2011, 11, 395-401.	2.0	19
51	<i>Devil's Claw</i> Hairy Root Culture in Flasks and in a 3-L Bioreactor: Bioactive Metabolite Accumulation and Flow Cytometry. <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 2010, 65, 472-478.	0.6	18
52	Modeling of plant in vitro cultures: Overview and estimation of biotechnological processes. <i>Biotechnology and Bioengineering</i> , 2015, 112, 1-12.	1.7	18
53	Biomass estimation during macro-scale solid-state fermentation of basidiomycetes using established and novel approaches. <i>Bioprocess and Biosystems Engineering</i> , 2015, 38, 1313-1323.	1.7	18
54	Membrane-potential-related fluorescence intensity indicates bacterial injury. <i>Microbiological Research</i> , 1996, 151, 127-131.	2.5	17

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55	Production of Oleanolic and Ursolic Acids by Callus Cultures of <i>Salvia Tomentosa</i> Mill.. <i>Biotechnology and Biotechnological Equipment</i> , 2011, 25, 34-38.	0.5	17
56	MicrOLED-photobioreactor: Design and characterization of a milliliter-scale Flat-Panel-Airlift-photobioreactor with optical process monitoring. <i>Algal Research</i> , 2016, 18, 225-234.	2.4	17
57	White rot fungi combined with lignite granules and lignitic xylite to decolorize textile industry wastewater. <i>Engineering in Life Sciences</i> , 2010, 10, 26-34.	2.0	16
58	Constitutive expression of hydrophobin HFB1 from <i>Trichoderma reesei</i> in <i>Pichia pastoris</i> and its pre-purification by foam separation during cultivation. <i>Engineering in Life Sciences</i> , 2012, 12, 162-170.	2.0	16
59	Substrate utilization by recombinant <i>Yarrowia lipolytica</i> growing on sucrose. <i>Applied Microbiology and Biotechnology</i> , 2012, 93, 1695-1702.	1.7	16
60	Biomass measurement by flow cytometry during solid-state fermentation of basidiomycetes. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2015, 87, 176-188.	1.1	16
61	<i>Salvia</i> suspension cultures as production systems for oleanolic and ursolic acid. <i>Acta Physiologiae Plantarum</i> , 2014, 36, 2137-2147.	1.0	14
62	Ploidy levels in <i>Beta vulgaris</i> (red beet) plant organs and <i>in vitro</i> systems. <i>Engineering in Life Sciences</i> , 2010, 10, 139-147.	2.0	13
63	Phototrophic growth of <i>Arthrospira platensis</i> in a respiration activity monitoring system for shake flasks (RAMOS®). <i>Engineering in Life Sciences</i> , 2014, 14, 658-666.	2.0	12
64	Mass propagation of <i>Helianthus annuus</i> suspension cells in orbitally shaken bioreactors: Improved growth rate in single-use bag bioreactors. <i>Engineering in Life Sciences</i> , 2014, 14, 676-684.	2.0	12
65	Effects of caffeine on stereoselectivities of high cell density biotransformations of cyclic β -keto esters with <i>Saccharomyces cerevisiae</i> . <i>Organic and Biomolecular Chemistry</i> , 2007, 5, 3456.	1.5	11
66	Citric acid production from sucrose by recombinant <i>Yarrowia lipolytica</i> using semicontinuous fermentation. <i>Engineering in Life Sciences</i> , 2013, 13, 163-171.	2.0	11
67	Automatic image recognition to determine morphological development and secondary metabolite accumulation in hairy root networks. <i>Engineering in Life Sciences</i> , 2012, 12, 588-594.	2.0	10
68	Whole-cell biotransformation of oleanolic acid by free and immobilized cells of <i>Nocardia iowensis</i> : Characterization of new metabolites. <i>Engineering in Life Sciences</i> , 2015, 15, 108-115.	2.0	10
69	The challenge of scaling up photobioreactors: Modeling and approaches in small scale. <i>Engineering in Life Sciences</i> , 2016, 16, 598-609.	2.0	10
70	The use of respirometric measurements to determine the toxicity of textile dyes in aqueous solution and after oxidative decolourisation processes. <i>Chemosphere</i> , 2007, 67, 2163-2168.	4.2	9
71	Modeling synchronous growth of bacterial populations in phased cultivation. <i>Bioprocess and Biosystems Engineering</i> , 2008, 31, 435-443.	1.7	8
72	Modeling hairy root tissue growth in <i>in vitro</i> environments using an agent-based, structured growth model. <i>Bioprocess and Biosystems Engineering</i> , 2014, 37, 1173-1184.	1.7	8

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73	PetriJet Platform Technology: An Automated Platform for Culture Dish Handling and Monitoring of the Contents. <i>Journal of the Association for Laboratory Automation</i> , 2015, 20, 447-456.	2.8	7
74	A new method for non-invasive biomass determination based on stereo photogrammetry. <i>Bioprocess and Biosystems Engineering</i> , 2018, 41, 369-380.	1.7	7
75	Improved procedure for nucleus extraction for DNA measurements by flow cytometry of red beet (<i>Beta vulgaris</i> L.) hairy roots. <i>Journal of Bioscience and Bioengineering</i> , 2009, 107, 439-441.	1.1	6
76	Bioreactors for the Cultivation of Red Beet Hairy Roots. , 2013, , 251-281.		6
77	A novel protocol to prepare cell probes for the quantification of microbial adhesion and biofilm initiation on structured bioinspired surfaces using AFM for single-cell force spectroscopy. <i>Engineering in Life Sciences</i> , 2017, 17, 833-840.	2.0	6
78	Determination of triterpenic acids and screening for valuable secondary metabolites in <i>Salvia</i> sp. suspension cultures. <i>Natural Product Communications</i> , 2014, 9, 17-20.	0.2	6
79	Initial phases of microbial biofilm formation on opaque, innovative anti-adhesive surfaces using a modular microfluidic system. <i>Engineering in Life Sciences</i> , 2014, 14, 76-84.	2.0	5
80	Monitoring bioactive and total antibody concentrations for continuous process control by surface plasmon resonance spectroscopy. <i>Engineering in Life Sciences</i> , 2019, 19, 681-690.	2.0	5
81	From Single Cells to Microbial Population Dynamics: Modelling in Biotechnology Based on Measurements of Individual Cells. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2010, 124, 211-227.	0.6	4
82	Uptake of iron by <i>Kluyveromyces marxianus</i> DSM 5422 cultivated in a whey-based medium. <i>Engineering in Life Sciences</i> , 2018, 18, 459-474.	2.0	4
83	Determination of Triterpenic Acids and Screening for Valuable Secondary Metabolites in <i>Salvia</i> sp. Suspension Cultures. <i>Natural Product Communications</i> , 2014, 9, 1934578X1400900.	0.2	3
84	Two parametric cell cycle analyses of plant cell suspension cultures with fragile, isolated nuclei to investigate heterogeneity in growth of batch cultivations. <i>Biotechnology and Bioengineering</i> , 2016, 113, 1244-1250.	1.7	3
85	Monitoring of Plant Cells and Tissues in Bioprocesses. <i>Reference Series in Phytochemistry</i> , 2018, , 433-481.	0.2	3
86	Editorial: Bioprocess-oriented plant design – turning basic research into practical applications. <i>Engineering in Life Sciences</i> , 2011, 11, 333-334.	2.0	2
87	Surface plasmon resonance based detection of human serum albumin as a marker for hepatocytes activity. , 2014, , .		2
88	Kinetic Analyses of Data from a Human Serum Albumin Assay Using the liSPR System. <i>Biosensors</i> , 2015, 5, 27-36.	2.3	2
89	Zone line formation on artificial media and in hardwoods by basidiomycetes for production of spalted wood. <i>Holzforschung</i> , 2017, 71, 833-841.	0.9	2
90	Biospeckle characterization of hairy root cultures using laser speckle photometry. <i>Engineering in Life Sciences</i> , 2020, 20, 287-295.	2.0	2

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91	Immobilization of xylanases on metallic hollow spheres for biochemical catalysis. <i>Catalysis Today</i> , 2021, 367, 189-198.	2.2	2
92	FLOW CYTOMETRIC MONITORING OF BACTERIAL CELL STATES UNDER GROWTH LIMITING CONDITIONS. , 1995, , 213-216.		2
93	Monitoring the apical growth characteristics of hairy roots using noninvasive laser speckle contrast imaging. <i>Engineering in Life Sciences</i> , 2022, 22, 288-298.	2.0	2
94	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
95	In situ hybridization of microcolonies using catalyzed reporter deposition with tetramethylbenzidine: a method for detecting low numbers of bacterial cells in drinking water. <i>European Food Research and Technology</i> , 2008, 227, 995-999.	1.6	1
96	A new generation of bioproduction systems. <i>Engineering in Life Sciences</i> , 2013, 13, 1-2.	2.0	1
97	Robust multi-parametric sensor system for the online detection of microbial biofilms in industrial applications — Preliminary examinations. , 2014, , .		1
98	Ramified Challenges: Monitoring and Modeling of Hairy Root Growth in Bioprocessesâ€”A Review. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2015, 149, 253-273.	0.6	1
99	A Modular Flow Cell System for Studying Biomimetic and Bioinspired Anti-Adhesive and Antimicrobial Surfaces. <i>Heat Transfer Engineering</i> , 2017, 38, 805-817.	1.2	1
100	Monitoring of Plant Cells and Tissues in Bioprocesses. <i>Reference Series in Phytochemistry</i> , 2016, , 1-49.	0.2	0