Robbert Kleerebezem

List of Publications by Year
in descending order

109	8,229	46918	48187
papers	citations	47 h-index	88 g-index

112	112	112	6190
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nitrous oxide emission during wastewater treatment. Water Research, 2009, 43, 4093-4103.	5.3	1,032
2	Mixed culture biotechnology for bioenergy production. Current Opinion in Biotechnology, 2007, 18, 207-212.	3.3	517
3	Enrichment of a Mixed Bacterial Culture with a High Polyhydroxyalkanoate Storage Capacity. Biomacromolecules, 2009, 10, 670-676.	2.6	342
4	Anaerobic digestion without biogas?. Reviews in Environmental Science and Biotechnology, 2015, 14, 787-801.	3.9	265
5	Nitrogen Removal by a Nitritation-Anammox Bioreactor at Low Temperature. Applied and Environmental Microbiology, 2013, 79, 2807-2812.	1.4	258
6	Effect of Dynamic Process Conditions on Nitrogen Oxides Emission from a Nitrifying Culture. Environmental Science & Technology, 2008, 42, 429-435.	4.6	250
7	Modeling product formation in anaerobic mixed culture fermentations. Biotechnology and Bioengineering, 2006, 93, 592-606.	1.7	196
8	Influence of the pH on (open) mixed culture fermentation of glucose: A chemostat study. Biotechnology and Bioengineering, 2007, 98, 69-79.	1.7	193
9	Waste to resource: Converting paper mill wastewater to bioplastic. Water Research, 2012, 46, 5517-5530.	5.3	176
10	Outcompeting nitrite-oxidizing bacteria in single-stage nitrogen removal in sewage treatment plants: A model-based study. Water Research, 2014, 66, 208-218.	5.3	167
11	A Generalized Method for Thermodynamic State Analysis of Environmental Systems. Critical Reviews in Environmental Science and Technology, 2010, 40, 1-54.	6.6	164
12	Segregation of Biomass in Cyclic Anaerobic/Aerobic Granular Sludge Allows the Enrichment of Anaerobic Ammonium Oxidizing Bacteria at Low Temperatures. Environmental Science & Technology, 2011, 45, 7330-7337.	4.6	159
13	Influence of the C/N ratio on the performance of polyhydroxybutyrate (PHB) producing sequencing batch reactors at short SRTs. Water Research, 2010, 44, 2141-2152.	5.3	157
14	Unravelling the reasons for disproportion in the ratio of AOB and NOB in aerobic granular sludge. Applied Microbiology and Biotechnology, 2012, 94, 1657-1666.	1.7	142
15	Microbial community-based polyhydroxyalkanoates (PHAs) production from wastewater: Techno-economic analysis and ex-ante environmental assessment. Bioresource Technology, 2015, 185, 368-377.	4.8	138
16	Reduced iron induced nitric oxide and nitrous oxide emission. Water Research, 2011, 45, 5945-5952.	5.3	137
17	Polyhydroxybutyrate production from lactate using a mixed microbial culture. Biotechnology and Bioengineering, 2011, 108, 2022-2035.	1.7	132
18	Enrichment of Plasticicumulans acidivorans at pilot-scale for PHA production on industrial wastewater. Journal of Biotechnology, 2014, 192, 161-169.	1.9	119

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19	Glycerol fermentation by (open) mixed cultures: A chemostat study. Biotechnology and Bioengineering, 2008, 100, 1088-1098.	1.7	107
20	Metabolic modeling of mixed substrate uptake for polyhydroxyalkanoate (PHA) production. Water Research, 2011, 45, 1309-1321.	5.3	105
21	Diversity of microbial communities in open mixed culture fermentations: impact of the pH and carbon source. Applied Microbiology and Biotechnology, 2008, 80, 1121-1130.	1.7	104
22	Linking thermodynamics and kinetics to assess pathway reversibility in anaerobic bioprocesses. Energy and Environmental Science, 2013, 6, 3780.	15.6	104
23	Purple phototrophic bacteria for resource recovery: Challenges and opportunities. Biotechnology Advances, 2020, 43, 107567.	6.0	103
24	Denitrification as an N2O sink. Water Research, 2019, 151, 381-387.	5.3	101
25	DNRA and Denitrification Coexist over a Broad Range of Acetate/N-NO3â˜' Ratios, in a Chemostat Enrichment Culture. Frontiers in Microbiology, 2016, 7, 1842.	1.5	97
26	Anaerobic Degradation of Phthalate Isomers by Methanogenic Consortia. Applied and Environmental Microbiology, 1999, 65, 1152-1160.	1.4	96
27	Effects of Nickel and Cobalt on Kinetics of Methanol Conversion by Methanogenic Sludge as Assessed by On-Line CH ₄ Monitoring. Applied and Environmental Microbiology, 1999, 65, 1789-1793.	1.4	90
28	Butyrate as preferred substrate for polyhydroxybutyrate production. Bioresource Technology, 2013, 142, 232-239.	4.8	87
29	Effect of temperature and cycle length on microbial competition in PHB-producing sequencing batch reactor. ISME Journal, 2011, 5, 896-907.	4.4	82
30	PHA production from the organic fraction of municipal solid waste (OFMSW): Overcoming the inhibitory matrix. Water Research, 2016, 96, 74-83.	5.3	82
31	Anaerobic biodegradability of phthalic acid isomers and related compounds. Biodegradation, 1999, 10, 63-73.	1.5	79
32	Influence of ammonium on the accumulation of polyhydroxybutyrate (PHB) in aerobic open mixed cultures. Journal of Biotechnology, 2010, 147, 73-79.	1.9	77
33	Microbial community engineering for biopolymer production from glycerol. Applied Microbiology and Biotechnology, 2011, 92, 631-639.	1.7	72
34	Life on N2O: deciphering the ecophysiology of N2O respiring bacterial communities in a continuous culture. ISME Journal, 2018, 12, 1142-1153.	4.4	72
35	Xylose anaerobic conversion by open-mixed cultures. Applied Microbiology and Biotechnology, 2009, 82, 231-239.	1.7	68
36	Anaerobic pre-treatment of petrochemical effluents: terephthalic acid wastewater. Water Science and Technology, 1997, 36, 237-248.	1.2	65

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37	High rate treatment of terephthalic acid production wastewater in a two-stage anaerobic bioreactor. Biotechnology and Bioengineering, 2005, 91, 169-179.	1.7	65
38	Unraveling the Source of Nitric Oxide Emission During Nitrification. Water Environment Research, 2007, 79, 2499-2509.	1.3	65
39	Towards mainstream anammox: lessons learned from pilot-scale research at WWTP Dokhaven. Environmental Technology (United Kingdom), 2019, 40, 1721-1733.	1.2	64
40	Fermentative Bacteria Influence the Competition between Denitrifiers and DNRA Bacteria. Frontiers in Microbiology, 2017, 8, 1684.	1.5	63
41	The Role of Benzoate in Anaerobic Degradation of Terephthalate. Applied and Environmental Microbiology, 1999, 65, 1161-1167.	1.4	62
42	Syntrophic associations from hypersaline soda lakes converting organic acids and alcohols to methane at extremely haloalkaline conditions. Environmental Microbiology, 2016, 18, 3189-3202.	1.8	61
43	Kinetics of syntrophic cultures: A theoretical treatise on butyrate fermentation. , 2000, 67, 529-543.		60
44	Scaling-up microbial community-based polyhydroxyalkanoate production: status and challenges. Bioresource Technology, 2021, 327, 124790.	4.8	60
45	Energy-based models for environmental biotechnology. Trends in Biotechnology, 2008, 26, 366-374.	4.9	58
46	Modelâ€based data evaluation of polyhydroxybutyrate producing mixed microbial cultures in aerobic sequencing batch and fedâ€batch reactors. Biotechnology and Bioengineering, 2009, 104, 50-67.	1.7	57
47	Respirometric characterization of aerobic sulfide, thiosulfate and elemental sulfur oxidation by S-oxidizing biomass. Water Research, 2016, 89, 282-292.	5.3	52
48	Ecology-based selective environments as solution to contamination in microalgal cultivation. Current Opinion in Biotechnology, 2015, 33, 46-51.	3.3	51
49	Survival of the fattest. Energy and Environmental Science, 2013, 6, 3404.	15.6	50
50	Impact of oxygen limitation on glycerol-based biopolymer production by bacterial enrichments. Water Research, 2013, 47, 1209-1217.	5.3	48
51	Metabolism and Occurrence of Methanogenic and Sulfate-Reducing Syntrophic Acetate Oxidizing Communities in Haloalkaline Environments. Frontiers in Microbiology, 2018, 9, 3039.	1.5	48
52	Impact of dissolved hydrogen partial pressure on mixed culture fermentations. Applied Microbiology and Biotechnology, 2013, 97, 2617-2625.	1.7	46
53	Feasibility study of an alkaline-based chemical treatment for the purification of polyhydroxybutyrate produced by a mixed enriched culture. AMB Express, 2015, 5, 5.	1.4	46
54	Deterioration of the anammox process at decreasing temperatures and long SRTs. Environmental Technology (United Kingdom), 2018, 39, 658-668.	1.2	46

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55	Short- and long-term temperature effects on aerobic polyhydroxybutyrate producing mixed cultures. Water Research, 2010, 44, 1689-1700.	5.3	45
56	Selecting for lactic acid producing and utilising bacteria in anaerobic enrichment cultures. Biotechnology and Bioengineering, 2020, 117, 1281-1293.	1.7	45
57	Modeling PHA-producing microbial enrichment culturesâ€"towards a generalized model with predictive power. New Biotechnology, 2014, 31, 324-334.	2.4	44
58	Role of nitrite in the competition between denitrification and DNRA in a chemostat enrichment culture. AMB Express, 2017, 7, 91.	1.4	43
59	Plasticicumulans acidivorans gen. nov., sp. nov., a polyhydroxyalkanoate-accumulating gammaproteobacterium from a sequencing-batch bioreactor. International Journal of Systematic and Evolutionary Microbiology, 2011, 61, 2314-2319.	0.8	42
60	Pilot-Scale Polyhydroxyalkanoate Production from Paper Mill Wastewater: Process Characteristics and Identification of Bottlenecks for Full-Scale Implementation. Journal of Environmental Engineering, ASCE, 2018, 144, .	0.7	41
61	Impact of phosphate limitation on PHA production in a feast-famine process. Water Research, 2017, 126, 472-480.	5.3	40
62	Impact of non-storing biomass on PHA production: An enrichment culture on acetate and methanol. International Journal of Biological Macromolecules, 2014, 71, 74-80.	3.6	36
63	From waste to self-healing concrete: A proof-of-concept of a new application for polyhydroxyalkanoate. Resources, Conservation and Recycling, 2021, 164, 105206.	5.3	35
64	Enrichment of PHA-producing bacteria under continuous substrate supply. New Biotechnology, 2018, 41, 55-61.	2.4	34
65	Survival of the fastest: Selective removal of the side population for enhanced PHA production in a mixed substrate enrichment. Bioresource Technology, 2016, 216, 1022-1029.	4.8	33
66	Direct and Indirect Effects of Increased CO₂ Partial Pressure on the Bioenergetics of Syntrophic Propionate and Butyrate Conversion. Environmental Science & Technology, 2020, 54, 12583-12592.	4.6	33
67	Substrate versatility of polyhydroxyalkanoate producing glycerol grown bacterial enrichment culture. Water Research, 2014, 66, 190-198.	5.3	30
68	Stratification of nitrifier guilds in granular sludge in relation to nitritation. Water Research, 2019, 148, 479-491.	5.3	28
69	Growth yield and selection of nosZ clade II types in a continuous enrichment culture of N₂O respiring bacteria. Environmental Microbiology Reports, 2018, 10, 239-244.	1.0	27
70	Influence of the cycle length on the production of PHA and polyglucose from glycerol by bacterial enrichments in sequencing batch reactors. Biotechnology and Bioengineering, 2013, 110, 3148-3155.	1.7	26
71	Modeling the competition between PHAâ€producing and nonâ€PHAâ€producing bacteria in feastâ€famine SBR and staged CSTR systems. Biotechnology and Bioengineering, 2015, 112, 2475-2484.	1.7	25
72	High-Rate Treatment of Terephthalate in Anaerobic Hybrid Reactors. Biotechnology Progress, 1999, 15, 347-357.	1.3	24

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73	Energetics of product formation during anaerobic degradation of phthalate isomers and benzoate. FEMS Microbiology Ecology, 1999, 29, 273-282.	1.3	24
74	Diversity and metabolism of xylose and glucose fermenting microbial communities in sequencing batch or continuous culturing. FEMS Microbiology Ecology, 2019, 95, .	1.3	23
75	Cultivation of high-rate sulfate reducing sludge by pH-based electron donor dosage. Journal of Biotechnology, 2005, 118, 107-116.	1.9	21
76	O2 versus N2O respiration in a continuous microbial enrichment. Applied Microbiology and Biotechnology, 2018, 102, 8943-8950.	1.7	21
77	Combining the enrichment and accumulation step in non-axenic PHA production: Cultivation of Plasticicumulans acidivorans at high volume exchange ratios. Journal of Biotechnology, 2016, 231, 260-267.	1.9	20
78	Pilot-Scale Polyhydroxyalkanoate Production from Organic Waste: Process Characteristics at High pH and High Ammonium Concentration. Journal of Environmental Engineering, ASCE, 2020, 146, .	0.7	20
79	Plasticicumulans lactativorans sp. nov., a polyhydroxybutyrate-accumulating gammaproteobacterium from a sequencing-batch bioreactor fed with lactate. International Journal of Systematic and Evolutionary Microbiology, 2014, 64, 33-38.	0.8	19
80	Effective role of medium supplementation in microalgal lipid accumulation. Biotechnology and Bioengineering, 2018, 115, 1152-1160.	1.7	19
81	Absolute Quantification of Individual Biomass Concentrations in a Methanogenic Coculture. AMB Express, 2014, 4, 35.	1.4	17
82	Theoretical analysis of municipal solid waste treatment by leachate recirculation under anaerobic and aerobic conditions. Waste Management, 2018, 71, 246-254.	3.7	17
83	Temperature as competitive strategy determining factor in pulse-fed aerobic bioreactors. ISME Journal, 2019, 13, 3112-3125.	4.4	17
84	Open microbiome dominated by Clostridium and Eubacterium converts methanol into i-butyrate and n-butyrate. Applied Microbiology and Biotechnology, 2020, 104, 5119-5131.	1.7	17
85	Limitation of syntrophic coculture growth by the acetogen. Biotechnology and Bioengineering, 2016, 113, 560-567.	1.7	16
86	Lipid recovery from a vegetable oil emulsion using microbial enrichment cultures. Biotechnology for Biofuels, 2015, 8, 39.	6.2	14
87	Quantification of polyhydroxyalkanoate accumulated in waste activated sludge. Water Research, 2022, 221, 118795.	5.3	14
88	Resource allocation explains lactic acid production in mixedâ€culture anaerobic fermentations. Biotechnology and Bioengineering, 2021, 118, 745-758.	1.7	13
89	Directing carbohydrates toward ethanol using mesophilic microbial communities. Current Opinion in Biotechnology, 2021, 67, 175-183.	3.3	13
90	Thermodynamic and kinetic characterization using process dynamics: Acidophilic ferrous iron oxidation by Leptospirillum ferrooxidans. Biotechnology and Bioengineering, 2008, 100, 49-60.	1.7	11

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91	Starch productivity in cyclically operated photobioreactors with marine microalgaeâ€"effect of ammonium addition regime and volume exchange ratio. Journal of Applied Phycology, 2015, 27, 1121-1126.	1.5	11
92	Exploring microbial N₂O reduction: a continuous enrichment in nitrogen free medium. Environmental Microbiology Reports, 2018, 10, 102-107.	1.0	11
93	Flux analysis of the human proximal colon using anaerobic digestion model 1. Anaerobe, 2014, 28, 137-148.	1.0	10
94	Influence of silicate on enrichment of highly productive microalgae from a mixed culture. Journal of Applied Phycology, 2016, 28, 1453-1457.	1.5	9
95	Product Inhibition and pH Affect Stoichiometry and Kinetics of Chain Elongating Microbial Communities in Sequencing Batch Bioreactors. Frontiers in Bioengineering and Biotechnology, 2021, 9, 693030.	2.0	9
96	Highâ€rate ethanol production at low pH using the anaerobic granular sludge process. Biotechnology and Bioengineering, 2021, 118, 1943-1950.	1.7	8
97	Simultaneous nitrification and denitrification in microbial community-based polyhydroxyalkanoate production. Bioresource Technology, 2021, 337, 125420.	4.8	8
98	Production of a newly discovered PHA family member with an isobutyrate-fed enrichment culture. Applied Microbiology and Biotechnology, 2022, 106, 605-618.	1.7	8
99	A toolbox to find the best mechanistic model to predict the behavior of environmental systems. Environmental Modelling and Software, 2016, 83, 344-355.	1.9	7
100	Experimental infrastructure requirements for quantitative research on microbial communities. Current Opinion in Biotechnology, 2021, 67, 158-165.	3.3	6
101	Cyclic Conversions in the Nitrogen Cycle. Frontiers in Microbiology, 2021, 12, 622504.	1.5	6
102	The impact of mixtures of xylose and glucose on the microbial diversity and fermentative metabolism of sequencing-batch or continuous enrichment cultures. FEMS Microbiology Ecology, 2019, 95, .	1.3	5
103	Simultaneous growth and poly(3-hydroxybutyrate) (PHB) accumulation in a Plasticicumulans acidivorans dominated enrichment culture. Journal of Biotechnology, 2020, 324, 100027.	1.9	5
104	Volatile Fatty Acid Product Spectrum as a Function of the Solids Retention Time in an Anaerobic Granular Sludge Process. Journal of Environmental Engineering, ASCE, 2020, 146, 04020091.	0.7	4
105	Bowel movement frequency and cardiovascular mortality, a matter of fibers and oxidative stress?. Atherosclerosis, 2016, 253, 278-280.	0.4	2
106	Combining Mixing Regimes for Optimized Anaerobic Wastewater Treatment. Applied Biochemistry and Biotechnology, 2003, 109, 3-14.	1.4	1
107	Nitrous and Nitric Oxides and the Effect of Oxygen Level and Nitrite Concentration on its Emission from Nitritation and Nitrification-Denitrification Reactors. , 2008, , .		1
108	Seemingly trivial secondary factors may determine microbial competition: a cautionary tale on the impact of iron supplementation through corrosion. FEMS Microbiology Ecology, 2021, 97, .	1.3	1

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109	Editorial overview: Microbial community engineering. Current Opinion in Biotechnology, 2021, 67, vi-ix.	3.3	0