Panagiotis G Kougias

List of Publications by Year
in descending order

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81 papers	5,492 citations	76294 40 h-index	85498 71 g-index
84 all docs	84 docs citations	84 times ranked	4201 citing authors

#	Article	IF	Citations
1	Thermophilic anaerobic digestion of olive mill wastewater in an upflow packed bed reactor: Evaluation of 16S rRNA amplicon sequencing for microbial analysis. Journal of Environmental Management, 2022, 301, 113853.	3.8	13
2	From renewable energy to sustainable protein sources: Advancement, challenges, and future roadmaps. Renewable and Sustainable Energy Reviews, 2022, 157, 112041.	8.2	24
3	In-situ biogas upgrading assisted by bioaugmentation with hydrogenotrophic methanogens during mesophilic and thermophilic co-digestion. Bioresource Technology, 2022, 348, 126754.	4.8	22
4	Valorization of household food wastes to lactic acid production: A response surface methodology approach to optimize fermentation process. Chemosphere, 2022, 296, 133871.	4.2	18
5	Optimization of supercritical carbon dioxide explosion for sewage sludge pre-treatment using response surface methodology. Chemosphere, 2022, 297, 133989.	4.2	11
6	Ex-situ biogas upgrading in thermophilic trickle bed reactors packed with micro-porous packing materials. Chemosphere, 2022, 296, 133987.	4.2	18
7	Valorization of palm oil mill wastewater for integrated production of microbial oil and biogas in a biorefinery approach. Journal of Cleaner Production, 2021, 296, 126606.	4.6	11
8	Evolution of the microbial community structure in biogas reactors inoculated with seeds from different origin. Science of the Total Environment, 2021, 773, 144981.	3.9	12
9	Microbial dynamics in biogas digesters treating lipid-rich substrates via genome-centric metagenomics. Science of the Total Environment, 2021, 778, 146296.	3.9	17
10	Anaerobic co-digestion of macroalgal biomass with cattle manure under high salinity conditions. Journal of Environmental Chemical Engineering, 2021, 9, 105406.	3.3	13
11	Pilot-scale biomethanation in a trickle bed reactor: Process performance and microbiome functional reconstruction. Energy Conversion and Management, 2021, 244, 114491.	4.4	39
12	Ex-situ biogas upgrading in thermophilic up-flow reactors: The effect of different gas diffusers and gas retention times. Bioresource Technology, 2021, 340, 125694.	4.8	22
13	Exploitation of Liquid Digestate as the Sole Nutrient Source for Floating Hydroponic Cultivation of Baby Lettuce (Lactuca sativa) in Greenhouses. Energies, 2021, 14, 7199.	1.6	9
14	Metagenomic insights into bioaugmentation and biovalorization of oily industrial wastes by lipolytic oleaginous yeast Yarrowia lipolytica during successive batch fermentation. Biotechnology and Applied Biochemistry, 2020, 67, 1020-1029.	1.4	7
15	Biological CO2 fixation in up-flow reactors via exogenous H2 addition. Journal of Biotechnology, 2020, 319, 1-7.	1.9	22
16	New insights from the biogas microbiome by comprehensive genome-resolved metagenomics of nearly 1600 species originating from multiple anaerobic digesters. Biotechnology for Biofuels, 2020, 13, 25.	6.2	136
17	Metabolic dependencies govern microbial syntrophies during methanogenesis in an anaerobic digestion ecosystem. Microbiome, 2020, 8, 22.	4.9	91
18	Human waste anaerobic digestion as a promising low-carbon strategy: Operating performance, microbial dynamics and environmental footprint. Journal of Cleaner Production, 2020, 256, 120414.	4.6	26

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19	Biogas Upgrading: Current and Emerging Technologies. , 2019, , 817-843.		24
20	Environmental impacts of biogas production from grass: Role of co-digestion and pretreatment at harvesting time. Applied Energy, 2019, 252, 113467.	5.1	40
21	Enhancing anaerobic digestion of agricultural residues by microaerobic conditions. Biomass Conversion and Biorefinery, 2019, , 1.	2.9	6
22	Microbial profiling during anaerobic digestion of cheese whey in reactors operated at different conditions. Bioresource Technology, 2019, 275, 375-385.	4.8	59
23	Novel ecological insights and functional roles during anaerobic digestion of saccharides unveiled by genome-centric metagenomics. Water Research, 2019, 151, 271-279.	5.3	83
24	Process performance and microbial community structure in thermophilic trickling biofilter reactors for biogas upgrading. Science of the Total Environment, 2019, 655, 529-538.	3.9	85
25	Co-digestion of Laminaria digitata with cattle manure: A unimodel simulation study of both batch and continuous experiments. Bioresource Technology, 2019, 276, 361-368.	4.8	19
26	Co-digestion of municipal waste biopulp with marine macroalgae focusing on sodium inhibition. Energy Conversion and Management, 2019, 180, 931-937.	4.4	25
27	Metagenomic binning reveals the functional roles of core abundant microorganisms in twelve full-scale biogas plants. Water Research, 2018, 140, 123-134.	5.3	122
28	Co-digestion and model simulations of source separated municipal organic waste with cattle manure under batch and continuously stirred tank reactors. Energy Conversion and Management, 2018, 159, 1-6.	4.4	46
29	Taxonomy of anaerobic digestion microbiome reveals biases associated with the applied high throughput sequencing strategies. Scientific Reports, 2018, 8, 1926.	1.6	70
30	Biogas upgrading and utilization: Current status and perspectives. Biotechnology Advances, 2018, 36, 452-466.	6.0	885
31	Performance and genome-centric metagenomics of thermophilic single and two-stage anaerobic digesters treating cheese wastes. Water Research, 2018, 134, 181-191.	5.3	56
32	Biogas and its opportunitiesâ€"A review. Frontiers of Environmental Science and Engineering, 2018, 12, 1.	3.3	201
33	Hybrid biogas upgrading in a two-stage thermophilic reactor. Energy Conversion and Management, 2018, 168, 1-10.	4.4	71
34	Converting mesophilic upflow sludge blanket (UASB) reactors to thermophilic by applying axenic methanogenic culture bioaugmentation. Chemical Engineering Journal, 2018, 332, 508-516.	6.6	30
35	Microbial activity response to hydrogen injection in thermophilic anaerobic digesters revealed by genome-centric metatranscriptomics. Microbiome, 2018, 6, 194.	4.9	39
36	Simultaneous biogas upgrading and biochemicals production using anaerobic bacterial mixed cultures. Water Research, 2018, 142, 86-95.	5.3	58

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37	Two-year microbial adaptation during hydrogen-mediated biogas upgrading process in a serial reactor configuration. Bioresource Technology, 2018, 264, 140-147.	4.8	72
38	Hydrogen-Fueled Microbial Pathways in Biogas Upgrading Systems Revealed by Genome-Centric Metagenomics. Frontiers in Microbiology, 2018, 9, 1079.	1.5	66
39	Spatial Distribution and Diverse Metabolic Functions of Lignocellulose-Degrading Uncultured Bacteria as Revealed by Genome-Centric Metagenomics. Applied and Environmental Microbiology, 2018, 84, .	1.4	72
40	Mechanical pretreatment for increased biogas production from lignocellulosic biomass; predicting the methane yield from structural plant components. Waste Management, 2018, 78, 903-910.	3.7	71
41	Energy recovery from wastewater microalgae through anaerobic digestion process: Methane potential, continuous reactor operation and modelling aspects. Biochemical Engineering Journal, 2018, 139, 1-7.	1.8	34
42	Performance Evaluation of Mesophilic Anaerobic Digestion of Chicken Manure with Algal Digestate. Energies, 2018, 11, 1829.	1.6	22
43	Improving the energy balance of grass-based anaerobic digestion through combined harvesting and pretreatment. Anaerobe, 2017, 46, 131-137.	1.0	17
44	Characterization of the planktonic microbiome in upflow anaerobic sludge blanket reactors during adaptation of mesophilic methanogenic granules to thermophilic operational conditions. Anaerobe, 2017, 46, 69-77.	1.0	14
45	In vitro fermentation of key dietary compounds with rumen fluid: A genome-centric perspective. Science of the Total Environment, 2017, 584-585, 683-691.	3.9	12
46	A novel archaeal species belonging to Methanoculleus genus identified via de-novo assembly and metagenomic binning process in biogas reactors. Anaerobe, 2017, 46, 23-32.	1.0	63
47	Mechanical pretreatment at harvesting increases the bioenergy output from marginal land grasses. Renewable Energy, 2017, 111, 914-921.	4.3	44
48	Bioaugmentation with hydrolytic microbes to improve the anaerobic biodegradability of lignocellulosic agricultural residues. Bioresource Technology, 2017, 234, 350-359.	4.8	91
49	Optimization of hydrogen dispersion in thermophilic up-flow reactors for ex situ biogas upgrading. Bioresource Technology, 2017, 234, 310-319.	4.8	110
50	Ex-situ biogas upgrading and enhancement in different reactor systems. Bioresource Technology, 2017, 225, 429-437.	4.8	249
51	Microbial community changes in methanogenic granules during the transition from mesophilic to thermophilic conditions. Applied Microbiology and Biotechnology, 2017, 101, 1313-1322.	1.7	51
52	Anaerobic granular sludge for simultaneous biomethanation of synthetic wastewater and CO with focus on the identification of CO-converting microorganisms. Water Research, 2017, 126, 19-28.	5.3	41
53	In-situ biogas upgrading process: Modeling and simulations aspects. Bioresource Technology, 2017, 245, 332-341.	4.8	39
54	Process performance and comparative metagenomic analysis during co-digestion of manure and lignocellulosic biomass for biogas production. Applied Energy, 2017, 185, 126-135.	5.1	132

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55	Effect of micro-aeration and inoculum type on the biodegradation of lignocellulosic substrate. Bioresource Technology, 2017, 225, 246-253.	4.8	47
56	Deeper insight into the structure of the anaerobic digestion microbial community; the biogas microbiome database is expanded with 157 new genomes. Bioresource Technology, 2016, 216, 260-266.	4.8	132
57	Untangling the Effect of Fatty Acid Addition at Species Level Revealed Different Transcriptional Responses of the Biogas Microbial Community Members. Environmental Science & Technology, 2016, 50, 6079-6090.	4.6	79
58	In-situ biogas upgrading in thermophilic granular UASB reactor: key factors affecting the hydrogen mass transfer rate. Bioresource Technology, 2016, 221, 485-491.	4.8	140
59	Metagenomic analysis and functional characterization of the biogas microbiome using high throughput shotgun sequencing and a novel binning strategy. Biotechnology for Biofuels, 2016, 9, 26.	6.2	248
60	Dynamic functional characterization and phylogenetic changes due to Long Chain Fatty Acids pulses in biogas reactors. Scientific Reports, 2016, 6, 28810.	1.6	58
61	Improving methane production from digested manure biofibers by mechanical and thermal alkaline pretreatment. Bioresource Technology, 2016, 216, 545-552.	4.8	65
62	Anaerobic Mono- and Co-digestion of Mechanically Pretreated Meadow Grass for Biogas Production. Energy & Fuels, 2015, 29, 4005-4010.	2.5	40
63	Solutions for Foaming Problems in Biogas Reactors Using Natural Oils or Fatty Acids as Defoamers. Energy & Fuels, 2015, 29, 4046-4051.	2.5	17
64	Biogas production from ensiled meadow grass; effect of mechanical pretreatments and rapid determination of substrate biodegradability via physicochemical methods. Bioresource Technology, 2015, 182, 329-335.	4.8	65
65	Counteracting foaming caused by lipids or proteins in biogas reactors using rapeseed oil or oleic acid as antifoaming agents. Water Research, 2015, 79, 119-127.	5.3	52
66	New steady-state microbial community compositions and process performances in biogas reactors induced by temperature disturbances. Biotechnology for Biofuels, 2015, 8, 3.	6.2	68
67	Biogas Upgrading via Hydrogenotrophic Methanogenesis in Two-Stage Continuous Stirred Tank Reactors at Mesophilic and Thermophilic Conditions. Environmental Science & Technology, 2015, 49, 12585-12593.	4.6	287
68	Microbial diversity and dynamicity of biogas reactors due to radical changes of feedstock composition. Bioresource Technology, 2015, 176, 56-64.	4.8	101
69	Anaerobic digestion foaming in full-scale biogas plants: a survey on causes and solutions. Water Science and Technology, 2014, 69, 889-895.	1.2	58
70	Effect of feedstock composition and organic loading rate during the mesophilic co-digestion of olive mill wastewater and swine manure. Renewable Energy, 2014, 69, 202-207.	4.3	60
71	Foam suppression in overloaded manure-based biogas reactors using antifoaming agents. Bioresource Technology, 2014, 153, 198-205.	4.8	64
72	Inoculum and zeolite synergistic effect on anaerobic digestion of poultry manure. Environmental Technology (United Kingdom), 2014, 35, 1219-1225.	1.2	33

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73	Microbial analysis in biogas reactors suffering by foaming incidents. Bioresource Technology, 2014, 167, 24-32.	4.8	38
74	Antifoaming effect of chemical compounds in manure biogas reactors. Water Research, 2013, 47, 6280-6288.	5.3	28
75	Modeling anesthetic times. Predictors and implications for short-term outcomes. Journal of Surgical Research, 2013, 180, 1-7.	0.8	16
76	Zeolite and swine inoculum effect on poultry manure biomethanation. International Agrophysics, 2013, 27, 169-173.	0.7	25
77	Effect of organic loading rate and feedstock composition on foaming in manure-based biogas reactors. Bioresource Technology, 2013, 144, 1-7.	4.8	66
78	Effect of substrates and intermediate compounds on foaming in manure digestion systems. Water Science and Technology, 2012, 66, 2146-2154.	1.2	32
79	IMPROVEMENT OF A HEAT PUMP COEFFICIENT OF PERFORMANCE USED IN GREENHOUSES. Acta Horticulturae, 2012, , 441-447.	0.1	0
80	PERFORMANCE OF A COVERED CLOSED LOOP SHALLOW GEOTHERMAL GREENHOUSE HEATING SYSTEM. Acta Horticulturae, 2012, , 457-462.	0.1	2
81	Traumatic carotid artery dissection caused by bungee jumping. Journal of Vascular Surgery, 2007, 46, 1044-1046.	0.6	14