Alan J Guwy

List of Publications by Year
in descending order

134 papers	9,395 citations	50276 46 h-index	38395 95 g-index
138 all docs	138 docs citations	138 times ranked	9613 citing authors

#	Article	IF	Citations
1	Intensification of Acidogenic Fermentation for the Production of Biohydrogen and Volatile Fatty Acidsâ€"A Perspective. Fermentation, 2022, 8, 325.	3.0	17
2	Utilizing grass for the biological production of polyhydroxyalkanoates (PHAs) via green biorefining: Material and energy flows. Journal of Industrial Ecology, 2021, 25, 802-815.	5.5	9
3	The effects of fuel variability on the electrical performance and durability of a solid oxide fuel cell operating on biohythane. International Journal of Hydrogen Energy, 2021, 46, 2630-2645.	7.1	5
4	Optimization of VPSA-EHP/C process for high-pressure hydrogen recovery from Coke Oven Gas using CO selective adsorbent. International Journal of Hydrogen Energy, 2021, 46, 709-725.	7.1	13
5	Accurate measurement of internal resistance in microbial fuel cells by improved scanning electrochemical impedance spectroscopy. Electrochimica Acta, 2021, 366, 137388.	5.2	35
6	Simplified Reactor Design for Mixed Culture-Based Electrofermentation toward Butyric Acid Production. Processes, 2021, 9, 417.	2.8	6
7	Continuous recovery and enhanced yields of volatile fatty acids from a continually-fed 100ÂL food waste bioreactor by filtration and electrodialysis. Waste Management, 2021, 122, 81-88.	7.4	29
8	Challenges in scaleâ€up of electrochemical <scp>CO₂</scp> reduction to formate integrated with product extraction using electrodialysis. Journal of Chemical Technology and Biotechnology, 2021, 96, 2461-2471.	3.2	3
9	Increasing 2 -Bio- (H2 and CH4) production from food waste by combining two-stage anaerobic digestion and electrodialysis for continuous volatile fatty acids removal. Waste Management, 2021, 129, 20-25.	7.4	23
10	Clean Conversion of Aqueous Ammonia Using a Solid Oxide Cell. ECS Transactions, 2021, 103, 2173-2184.	0.5	0
11	Co-Electrolysis of Simulated Coke Oven Gas with Carbon Dioxide Using a Solid Oxide Electrolysis Cell. ECS Transactions, 2021, 103, 629-641.	0.5	0
12	Overcoming nutrient loss during volatile fatty acid recovery from fermentation media by addition of electrodialysis to a polytetrafluoroethylene membrane stack. Bioresource Technology, 2020, 301, 122543.	9.6	20
13	Electrogenic Biofilm Development Determines Charge Accumulation and Resistance to pH Perturbation. Energies, 2020, 13, 3521.	3.1	5
14	Co-electrolysis of simulated coke oven gas using solid oxide electrolysis technology. Energy Conversion and Management, 2020, 225, 113455.	9.2	8
15	Simulation of integrated novel PSA/EHP/C process for high-pressure hydrogen recovery from Coke Oven Gas. International Journal of Hydrogen Energy, 2020, 45, 15196-15212.	7.1	29
16	Transformation of a Norbornadiene Unit to Ethylenylcyclopentene Requiring Cooperation between Boron and Rhodium Centers. Organometallics, 2020, 39, 1976-1988.	2.3	7
17	Fate of antibiotic resistant E. coli and antibiotic resistance genes during full scale conventional and advanced anaerobic digestion of sewage sludge. PLoS ONE, 2020, 15, e0237283.	2.5	18
18	Title is missing!. , 2020, 15, e0237283.		0

#	Article	IF	Citations
19	Title is missing!. , 2020, 15, e0237283.		0
20	Title is missing!. , 2020, 15, e0237283.		0
21	Title is missing!. , 2020, 15, e0237283.		0
22	Biohythane as an energy feedstock for solid oxide fuel cells. International Journal of Hydrogen Energy, 2019, 44, 27896-27906.	7.1	22
23	Highly efficient coproduction of electrical power and synthesis gas from biohythane using solid oxide fuel cell technology. Applied Energy, 2019, 255, 113854.	10.1	15
24	Co-Electrolysis of Biohythane Using Solid Oxide Fuel Cell Technology. ECS Transactions, 2019, 91, 2333-2342.	0.5	0
25	A novel method for increasing biohydrogen production from food waste using electrodialysis. International Journal of Hydrogen Energy, 2019, 44, 14715-14720.	7.1	40
26	Bioelectrochemical treatment and recovery of copper from distillery waste effluents using power and voltage control strategies. Journal of Hazardous Materials, 2019, 371, 18-26.	12.4	14
27	Analysis of organic and inorganic anions by a novel capillary electrophoresis-PEDOT based amperometric detection method. , 2019, , .		0
28	Stopping Hydrogen Migration in Its Tracks: The First Successful Synthesis of Group Ten Scorpionate Complexes Based on Azaindole Scaffolds. Inorganic Chemistry, 2019, 58, 359-367.	4.0	10
29	The importance of fuel variability on the performance of solid oxide cells operating on H2/CO2 mixtures from biohydrogen processes. International Journal of Hydrogen Energy, 2018, 43, 8972-8982.	7.1	10
30	A new sequential injection analysisâ€capillary electrophoresis system with amperometric detection. Electrophoresis, 2018, 39, 1754-1762.	2.4	4
31	Applicability of a PEDOT coated electrode for amperometric quantification of short chain carboxylic acids. Sensors and Actuators B: Chemical, 2018, 255, 712-719.	7.8	5
32	Increased biohydrogen yields, volatile fatty acid production and substrate utilisation rates via the electrodialysis of a continually fed sucrose fermenter. Bioresource Technology, 2017, 229, 46-52.	9.6	61
33	Sampled-time control of a microbial fuel cell stack. Journal of Power Sources, 2017, 356, 338-347.	7.8	23
34	Reducing the burden of food processing washdown wastewaters using microbial fuel cells. Biochemical Engineering Journal, 2017, 117, 210-217.	3.6	16
35	Control of microbial fuel cell voltage using a gain scheduling control strategy. Journal of Power Sources, 2016, 322, 106-115.	7.8	31
36	Maximising biohydrogen yields via continuous electrochemical hydrogen removal and carbon dioxide scrubbing. Bioresource Technology, 2016, 218, 512-517.	9.6	18

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37	Enrichment strategy for enhanced bioelectrochemical hydrogen production and the prevention of methanogenesis. International Journal of Hydrogen Energy, 2016, 41, 4120-4131.	7.1	16
38	The impact of inocula carryover and inoculum dilution on the methane yields in batch methane potential tests. Bioresource Technology, 2016, 208, 134-139.	9.6	10
39	Critical analysis of methods for the measurement of volatile fatty acids. Critical Reviews in Environmental Science and Technology, 2016, 46, 209-234.	12.8	29
40	Novel current sensing photovoltaic maximum power point tracking based on sliding mode control strategy. Solar Energy, 2015, 118, 80-86.	6.1	54
41	Utilising biohydrogen to increase methane production, energy yields and process efficiency via two stage anaerobic digestion of grass. Bioresource Technology, 2015, 189, 379-383.	9.6	60
42	Enhanced biomethane potential from wheat straw by low temperature alkaline calcium hydroxide pre-treatment. Bioresource Technology, 2015, 189, 258-265.	9.6	38
43	Removal and recovery of inhibitory volatile fatty acids from mixed acid fermentations by conventional electrodialysis. Bioresource Technology, 2015, 189, 279-284.	9.6	94
44	Instrumentation and control of anaerobic digestion processes: a review and some research challenges. Reviews in Environmental Science and Biotechnology, 2015, 14, 615-648.	8.1	118
45	Improved Dynamic Response and Range in Microbial Fuel Cell-Based Volatile Fatty Acid Sensor by Using Poised Potential. , 2015, , 183-192.		1
46	Evaluation of feeding regimes to enhance PHA production using acetic and butyric acids by a pure culture of Cupriavidus necator. Biotechnology and Bioprocess Engineering, 2014, 19, 989-995.	2.6	24
47	The influence of anodic helical design on fluid flow and bioelectrochemical performance. Bioresource Technology, 2014, 165, 13-20.	9.6	22
48	The effect of internal capacitance on power quality and energy efficiency in a tubular microbial fuel cell. Process Biochemistry, 2014, 49, 973-980.	3.7	40
49	Life cycle assessment of the electrolytic production and utilization of low carbon hydrogen vehicle fuel. International Journal of Hydrogen Energy, 2014, 39, 7190-7201.	7.1	16
50	Energy storage for active network management on electricity distribution networks with wind power. IET Renewable Power Generation, 2014, 8, 249-259.	3.1	44
51	An evaluation of washing and extraction techniques in the analysis of ethyl glucuronide and fatty acid ethyl esters from hair samples. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2014, 953-954, 115-119.	2.3	13
52	The use of NaCl addition for the improvement of polyhydroxyalkanoate production by Cupriavidus necator. Bioresource Technology, 2014, 163, 287-294.	9.6	41
53	Inhibition of methane production in microbial fuel cells: Operating strategies which select electrogens over methanogens. Bioresource Technology, 2014, 173, 75-81.	9.6	85
54	Mesophilic biohydrogen production from calcium hydroxide treated wheat straw. International Journal of Hydrogen Energy, 2014, 39, 16891-16901.	7.1	46

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55	Controlling for peak power extraction from microbial fuel cells can increase stack voltage and avoid cell reversal. Journal of Power Sources, 2014, 269, 363-369.	7.8	56
56	Augmenting Microbial Fuel Cell power by coupling with Supported Liquid Membrane permeation for zinc recovery. Water Research, 2014, 55, 115-125.	11.3	53
57	Anode modification to improve the performance of a microbial fuel cell volatile fatty acid biosensor. Sensors and Actuators B: Chemical, 2014, 201, 266-273.	7.8	56
58	Operation of a bioelectrochemical system as a polishing stage for the effluent from a two-stage biohydrogen and biomethane production process. Biochemical Engineering Journal, 2014, 85, 125-131.	3.6	44
59	An improved titration model reducing over estimation of total volatile fatty acids in anaerobic digestion of energy crop, animal slurry and food waste. Water Research, 2014, 61, 162-170.	11.3	53
60	Hydrogen storage and demand to increase wind power onto electricity distribution networks. International Journal of Hydrogen Energy, 2014, 39, 10195-10207.	7.1	56
61	Integration of NIRS and PCA techniques for the process monitoring of a sewage sludge anaerobic digester. Bioresource Technology, 2013, 133, 398-404.	9.6	27
62	Control of power sourced from a microbial fuel cell reduces its start-up time and increases bioelectrochemical activity. Bioresource Technology, 2013, 140, 277-285.	9.6	55
63	Use of real time gas production data for more accurate comparison of continuous single-stage and two-stage fermentation. Bioresource Technology, 2013, 129, 561-567.	9.6	44
64	Monitoring methanogenic population dynamics in a full-scale anaerobic digester to facilitate operational management. Bioresource Technology, 2013, 140, 234-242.	9.6	70
65	Increasing polyhydroxyalkanoate (PHA) yields from Cupriavidus necator by using filtered digestate liquors. Bioresource Technology, 2013, 147, 345-352.	9.6	51
66	Integration of biohydrogen, biomethane and bioelectrochemical systems. Renewable Energy, 2013, 49, 188-192.	8.9	64
67	Addressing the challenge of optimum polyhydroxyalkanoate harvesting: Monitoring real time process kinetics and biopolymer accumulation using dielectric spectroscopy. Bioresource Technology, 2013, 134, 143-150.	9.6	15
68	Microbial fuel cell type biosensor for specific volatile fatty acids using acclimated bacterial communities. Biosensors and Bioelectronics, 2013, 47, 50-55.	10.1	140
69	Life cycle assessment of biohydrogen and biomethane production and utilisation as a vehicle fuel. Bioresource Technology, 2013, 131, 235-245.	9.6	63
70	Analysis of the dynamic performance of a microbial fuel cell using a system identification approach. Journal of Power Sources, 2013, 238, 218-226.	7.8	9
71	Factors affecting microbial fuel cell acclimation and operation in temperate climates. Water Science and Technology, 2013, 67, 2568-2575.	2.5	8
72	Integration of Wind Power and Hydrogen Hybrid Electric Vehicles into Electric Grids. Smart Innovation, Systems and Technologies, 2013, , 261-270.	0.6	2

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73	Energy management effects of integrating regenerative braking into a Renewable Hydrogen Vehicle. , 2012, , .		3
74	Fuzzy logic control for solar powered hydrogen production, storage and utilisation system. , 2012, , .		1
75	Renewable hydrogen hybrid electric vehicles and optimal energy recovery systems. , 2012, , .		4
76	The effect of physico-chemically immobilized methylene blue and neutral red on the anode of microbial fuel cell. Biotechnology and Bioprocess Engineering, 2012, 17, 361-370.	2.6	43
77	Porous anodes with helical flow pathways in bioelectrochemical systems: The effects of fluid dynamics and operating regimes. Journal of Power Sources, 2012, 213, 382-390.	7.8	49
78	Increasing power recovery and organic removal efficiency using extended longitudinal tubular microbial fuel cell (MFC) reactors. Energy and Environmental Science, 2011, 4, 459-465.	30.8	59
79	Control-oriented PEM fuel cell system modeling and repetitive controller design. , 2011, , .		8
80	The influence of psychrophilic and mesophilic start-up temperature on microbial fuel cell system performance. Energy and Environmental Science, 2011, 4, 1011.	30.8	68
81	Performance parameter prediction for sewage sludge digesters using reflectance FT-NIR spectroscopy. Water Research, 2011, 45, 2463-2472.	11.3	25
82	Fermentative biohydrogen production systems integration. Bioresource Technology, 2011, 102, 8534-8542.	9.6	134
83	Simultaneous determination of GHB and EtG in hair using GCMS/MS. Drug Testing and Analysis, 2011, 3, 201-205.	2.6	26
84	Spatiotemporal development of the bacterial community in a tubular longitudinal microbial fuel cell. Applied Microbiology and Biotechnology, 2011, 90, 1179-1191.	3.6	39
85	Operational temperature regulates anodic biofilm growth and the development of electrogenic activity. Applied Microbiology and Biotechnology, 2011, 92, 419-430.	3.6	32
86	Automatic control of load increases power and efficiency in a microbial fuel cell. Journal of Power Sources, 2011, 196, 2013-2019.	7.8	57
87	An evaluation of the policy and techno-economic factors affecting the potential for biogas upgrading for transport fuel use in the UK. Energy Policy, 2011, 39, 1806-1816.	8.8	233
88	The effect of acid pretreatment on the anaerobic digestion and dewatering of waste activated sludge. Bioresource Technology, 2011, 102, 4076-4082.	9.6	219
89	Life cycle assessment of biogas infrastructure options on a regional scale. Bioresource Technology, 2011, 102, 7313-7323.	9.6	123
90	Design and implementation of on-board hydrogen production and storage system for hydrogen fuel cell vehicles. , 2011, , .		2

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91	Production of hydrogen from sewage biosolids in a continuously fed bioreactor: Effect of hydraulic retention time and sparging. International Journal of Hydrogen Energy, 2010, 35, 469-478.	7.1	49
92	Influence of catholyte pH and temperature on hydrogen production from acetate using a two chamber concentric tubular microbial electrolysis cell. International Journal of Hydrogen Energy, 2010, 35, 7716-7722.	7.1	101
93	Modular tubular microbial fuel cells for energy recovery during sucrose wastewater treatment at low organic loading rate. Bioresource Technology, 2010, 101, 1190-1198.	9.6	133
94	Response to Randhir P. Deo and Rolf U. Halden's comments regarding â€˜The removal of pharmaceuticals, personal care products, endocrine disruptors and illicit drugs during wastewater treatment and its impact on the quality of receiving watersâ€™ by Kasprzyk-Hordern et al.. Water Research, 2010, 44, 2688-2690.	11.3	7
95	Metabolic models to investigate energy limited anaerobic ecosystems. Water Science and Technology, 2009, 60, 1669-1675.	2.5	11
96	Illicit drugs and pharmaceuticals in the environment â€“ Forensic applications of environmental data. Part 1: Estimation of the usage of drugs in local communities. Environmental Pollution, 2009, 157, 1773-1777.	7.5	129
97	Development of a tubular microbial fuel cell (MFC) employing a membrane electrode assembly cathode. Journal of Power Sources, 2009, 187, 393-399.	7.8	158
98	An implementation framework for wastewater treatment models requiring a minimum programming expertise. Water Science and Technology, 2009, 59, 367-380.	2.5	14
99	Illicit drugs and pharmaceuticals in the environment â€“ Forensic applications of environmental data, Part 2: Pharmaceuticals as chemical markers of faecal water contamination. Environmental Pollution, 2009, 157, 1778-1786.	7.5	86
100	The removal of pharmaceuticals, personal care products, endocrine disruptors and illicit drugs during wastewater treatment and its impact on the quality of receiving waters. Water Research, 2009, 43, 363-380.	11.3	1,343
101	Defining the biomethane potential (BMP) of solid organic wastes and energy crops: a proposed protocol for batch assays. Water Science and Technology, 2009, 59, 927-934.	2.5	1,417
102	Do drug users use less alcohol than non-drug users? A comparison of ethyl glucuronide concentrations in hair between the two groups in medico-legal cases. Forensic Science International, 2008, 176, 82-86.	2.2	43
103	Multiresidue methods for the analysis of pharmaceuticals, personal care products and illicit drugs in surface water and wastewater by solid-phase extraction and ultra performance liquid chromatographyâ€“electrospray tandem mass spectrometry. Analytical and Bioanalytical Chemistry, 2008, 391, 1293-1308.	3.7	277
104	Hydrogen production from sewage sludge using mixed microflora inoculum: Effect of pH and enzymatic pretreatment. Bioresource Technology, 2008, 99, 6325-6331.	9.6	91
105	Direct fermentation of fodder maize, chicory fructans and perennial ryegrass to hydrogen using mixed microflora. Bioresource Technology, 2008, 99, 8833-8839.	9.6	46
106	Fermentative production of hydrogen from a wheat flour industry co-product. Bioresource Technology, 2008, 99, 5020-5029.	9.6	59
107	The occurrence of pharmaceuticals, personal care products, endocrine disruptors and illicit drugs in surface water in South Wales, UK. Water Research, 2008, 42, 3498-3518.	11.3	921
108	ADM1 can be applied to continuous bio-hydrogen production using a variable stoichiometry approach. Water Research, 2008, 42, 4379-4385.	11.3	52

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109	The effect of signal suppression and mobile phase composition on the simultaneous analysis of multiple classes of acidic/neutral pharmaceuticals and personal care products in surface water by solid-phase extraction and ultra performance liquid chromatographyâ€“negative electrospray tandem mass spectrometry. Talanta, 2008, 74, 1299-1312.	5.5	124
110	Measurement of hydrogen peroxide in an advanced oxidation process using an automated biosensor. Water Research, 2007, 41, 260-268.	11.3	13
111	Performance characteristics of a two-stage dark fermentative system producing hydrogen and methane continuously. Biotechnology and Bioengineering, 2007, 97, 759-770.	3.3	78
112	Multi-residue method for the determination of basic/neutral pharmaceuticals and illicit drugs in surface water by solid-phase extraction and ultra performance liquid chromatographyâ€“positive electrospray ionisation tandem mass spectrometry. Journal of Chromatography A, 2007, 1161, 132-145.	3.7	343
113	The potential for hydrogen-enriched biogas production from crops: Scenarios in the UK. Biomass and Bioenergy, 2007, 31, 95-104.	5.7	66
114	Bifurcation and stability analysis of an anaerobic digestion model. Nonlinear Dynamics, 2007, 48, 391-408.	5.2	37
115	Influence of substrate concentration on the stability and yield of continuous biohydrogen production. Biotechnology and Bioengineering, 2006, 93, 971-979.	3.3	110
116	GC-MS-MS Determination of Gamma-Hydroxybutyrate in Blood and Urine. Journal of Analytical Toxicology, 2006, 30, 375-379.	2.8	28
117	A Novel Method for Measuring Biomass Activity Applied to Soils Contaminated with Oil Refinery Tar. Environmental Technology (United Kingdom), 2000, 21, 1019-1027.	2.2	2
118	A technique for monitoring hydrogen peroxide concentration off-line and on-line. Water Research, 2000, 34, 2191-2198.	11.3	14
119	Catalase activity measurements in suspended aerobic biomass and soil samples. Enzyme and Microbial Technology, 1999, 25, 669-676.	3.2	56
120	A comparison of the ability of black box and neural network models of ARX structure to represent a fluidized bed anaerobic digestion process. Water Research, 1999, 33, 1027-1037.	11.3	16
121	An automated instrument for monitoring oxygen demand in polluted waters. Water Research, 1999, 33, 3142-3148.	11.3	15
122	Active biomass in activated sludge: Comparison of respirometry with catalase activity measured using an on-line monitor. Water Research, 1998, 32, 3705-3709.	11.3	36
123	Hydrogen production in a high rate fluidised bed anaerobic digester. Water Research, 1997, 31, 1291-1298.	11.3	40
124	Neural network and on-off control of bicarbonate alkalinity in a fluidised-bed anaerobic digester. Water Research, 1997, 31, 2019-2025.	11.3	56
125	Simple black box models predicting potential control parameters during disturbances to a fluidised bed anaerobic reactor. Water Science and Technology, 1997, 36, 229.	2.5	3
126	On-line low flow high-precision gas metering systems. Water Research, 1995, 29, 977-979.	11.3	24

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127	A neural network, based on bicarbonate monitoring, to control anaerobic digestion. Water Research, 1995, 29, 1465-1470.	11.3	47
128	On-line monitoring of anaerobic digestion: application of a device for continuous measurement of bicarbonate alkalinity. Water Science and Technology, 1994, 30, 1-10.	2.5	32
129	Characterization of a prototype industrial on-line analyzer for bicarbonate/carbonate monitoring. Biotechnology and Bioengineering, 1994, 44, 1325-1330.	3.3	20
130	A new instrument for on-line measurement of bicarbonate alkalinity. Water Research, 1993, 27, 167-170.	11.3	34
131	Design and implementation of renewable hydrogen fuel cell vehicles. Renewable Energy and Power Quality Journal, 0, , 272-277.	0.2	10
132	Energy Storage for Active Network Management on Electricity Distribution Networks with Wind Power. Renewable Energy and Power Quality Journal, 0, , 621-626.	0.2	2
133	Optimal Hydrogen Storage and Demand on Electricity Distribution Networks with Excess Wind Power. Renewable Energy and Power Quality Journal, 0, , 627-632.	0.2	0
134	An overview of renewable energy technologies and hydrogen economy. Renewable Energy and Power Quality Journal, 0, , 393-397.	0.2	5