## Serge Guiot

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Physicochemical pretreatment selects microbial communities to produce alcohols through metabolism of volatile fatty acids. Biomass Conversion and Biorefinery, 2024, 14, 2661-2675.	2.9	3
2	A comparison of microbial and bioelectrochemical approaches for biogas upgrade through carbon dioxide conversion to methane. Sustainable Energy Technologies and Assessments, 2021, 45, 101158.	1.7	4
3	Acidic and thermal pre-treatments for anaerobic digestion inoculum to improve hydrogen and volatile fatty acid production using xylose as the substrate. Renewable Energy, 2020, 145, 1388-1398.	4.3	42
4	Characterization of the protein fraction of the extracellular polymeric substances of three anaerobic granular sludges. AMB Express, 2019, 9, 23.	1.4	25
5	Mesophilic, thermophilic and hyperthermophilic acidogenic fermentation of food waste in batch: Effect of inoculum source. Waste Management, 2019, 87, 279-287.	3.7	55
6	Hydrothermal post-treatment of digestate to maximize the methane yield from the anaerobic digestion of microalgae. Waste Management, 2018, 71, 683-688.	3.7	29
7	Strategy to identify the causes and to solve a sludge granulation problem in methanogenic reactors: application to a full-scale plant treating cheese wastewater. Environmental Science and Pollution Research, 2018, 25, 21318-21331.	2.7	7
8	Acidogenic digestion of food waste in a thermophilic leach bed reactor: Effect of pH and leachate recirculation rate on hydrolysis and volatile fatty acid production. Bioresource Technology, 2017, 245, 1-9.	4.8	98
9	Ethanol-to-methane activity of Geobacter-deprived anaerobic granules enhanced by conductive microparticles. Process Biochemistry, 2017, 63, 42-48.	1.8	18
10	Biomethanation of Syngas Using Anaerobic Sludge: Shift in the Catabolic Routes with the CO Partial Pressure Increase. Frontiers in Microbiology, 2016, 7, 1188.	1.5	40
11	Acidogenic fermentation of Scenedesmus spAMDD: Comparison of volatile fatty acids yields between mesophilic and thermophilic conditions. Bioresource Technology, 2016, 200, 624-630.	4.8	23
12	Direct Interspecies Electron Transfer in Anaerobic Digestion: A Review. Advances in Biochemical Engineering/Biotechnology, 2015, 151, 101-115.	0.6	46
13	High-rate biomethane production from microalgal biomass in a UASB reactor. Algal Research, 2015, 7, 86-91.	2.4	19
14	The Role of Carboxydothermus hydrogenoformans in the Conversion of Calcium Phosphate from Amorphous to Crystalline State. PLoS ONE, 2014, 9, e89480.	1.1	4
15	Specific inhibitors for identifying pathways for methane production from carbon monoxide by a nonadapted anaerobic mixed culture. Canadian Journal of Microbiology, 2014, 60, 407-415.	0.8	22
16	Electrolysisâ€enhanced coâ€digestion of switchgrass and cow manure. Journal of Chemical Technology and Biotechnology, 2014, 89, 1501-1506.	1.6	12
17	Electricity production from synthesis gas inÂaÂmultiâ€electrode microbial fuel cell. Journal of Chemical Technology and Biotechnology, 2014, 89, 499-507	1.6	5
18	Fate of palmitic, palmitoleic and eicosapentaenoic acids during anaerobic digestion of Phaeodactylum tricornutum at varying lipid concentration. Algal Research, 2014, 6, 46-51.	2.4	4

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19	Population Analysis of Mesophilic Microbial Fuel Cells Fed with Carbon Monoxide. Applied Biochemistry and Biotechnology, 2014, 172, 713-726.	1.4	19
20	Performance of Carboxydothermus hydrogenoformans in a gas-lift reactor for syngas upgrading into hydrogen. International Journal of Hydrogen Energy, 2014, 39, 2543-2548.	3.8	21
21	Electrochemical characterization of anodic biofilm development in a microbial fuel cell. Journal of Applied Electrochemistry, 2013, 43, 533-540.	1.5	43
22	Methane production from the microalga Scenedesmus sp. AMDD in a continuous anaerobic reactor. Algal Research, 2013, 2, 394-400.	2.4	20
23	Growth profile of Carboxydothermus hydrogenoformans on pyruvate. AMB Express, 2013, 3, 60.	1.4	2
24	Microbial electrolysis cell scale-up for combined wastewater treatment and hydrogen production. Bioresource Technology, 2013, 130, 584-591.	4.8	102
25	Screening microalgae strains for their productivity in methane following anaerobic digestion. Applied Energy, 2013, 108, 100-107.	5.1	111
26	Performance of a Carboxydothermus hydrogenoformans-immobilizing membrane reactor for syngas upgrading into hydrogen. International Journal of Hydrogen Energy, 2013, 38, 2167-2175.	3.8	28
27	In-storage psychrophilic anaerobic digestion: acclimated microbial kinetics. Environmental Technology (United Kingdom), 2012, 33, 1763-1772.	1.2	3
28	The performance of a thermophilic microbial fuel cell fed with synthesis gas. Enzyme and Microbial Technology, 2012, 51, 163-170.	1.6	16
29	Assessment of the bioenergy and bioremediation potentials of the microalga Scenedesmus sp. AMDD cultivated in municipal wastewater effluent in batch and continuous mode. Algal Research, 2012, 1, 155-165.	2.4	146
30	Anaerobic Digestion as an Effective Biofuel Production Technology. , 2012, , 143-161.		4
31	Impact of mechanical, chemical and enzymatic pre-treatments on the methane yield from the anaerobic digestion of switchgrass. Biomass and Bioenergy, 2012, 36, 1-11.	2.9	129
32	Anaerobic co-digestion of dairy manure with mulched switchgrass for improvement of the methane yield. Bioprocess and Biosystems Engineering, 2012, 35, 341-349.	1.7	25
33	Microbial Characteristics and Inflence Factors During Anaerobic Fermentation for Biohydrogen Production from CO. Ying Yong Yu Huan Jing Sheng Wu Xue Bao = Chinese Journal of Applied and Environmental Biology, 2012, 18, 656.	0.1	1
34	Potential of Wastewater-Treating Anaerobic Granules for Biomethanation of Synthesis Gas. Environmental Science & Technology, 2011, 45, 2006-2012.	4.6	136
35	The effect of real-time external resistance optimization on microbial fuel cell performance. Water Research, 2011, 45, 1571-1578.	5.3	124
36	Orthogonal optimization of Carboxydothermus hydrogenoformans culture medium for hydrogen production from carbon monoxide by biological water-gas shift reaction. International Journal of Hydrogen Energy, 2011, 36, 10655-10665.	3.8	13

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37	Optimizing the electrode size and arrangement in a microbial electrolysis cell. Bioresource Technology, 2011, 102, 9593-9598.	4.8	37
38	Use of silicone membranes to enhance gas transfer during microbial fuel cell operation on carbon monoxide. Bioresource Technology, 2011, 102, 10898-10906.	4.8	9
39	Integration of microalgae cultivation with industrial waste remediation for biofuel and bioenergy production: opportunities and limitations. Photosynthesis Research, 2011, 109, 231-247.	1.6	186
40	Animal digestive strategies versus anaerobic digestion bioprocesses for biogas production from lignocellulosic biomass. Reviews in Environmental Science and Biotechnology, 2011, 10, 43-62.	3.9	97
41	Electricity generation from carbon monoxide and syngas in a microbial fuel cell. Applied Microbiology and Biotechnology, 2011, 90, 827-836.	1.7	21
42	Kinetics of CO conversion into H2 by Carboxydothermus hydrogenoformans. Applied Microbiology and Biotechnology, 2011, 91, 1677-1684.	1.7	12
43	Application of iron-based cathode catalysts in a microbial fuel cell. Electrochimica Acta, 2011, 56, 1505-1511.	2.6	109
44	Electrolysis-enhanced anaerobic digestion of wastewater. Bioresource Technology, 2011, 102, 5685-5691.	4.8	111
45	In-storage psychrophilic anaerobic digestion of swine manure: Acclimation of the microbial community. Biomass and Bioenergy, 2011, 35, 3719-3726.	2.9	24
46	The influence of operational conditions on the performance of a microbial fuel cell seeded with mesophilic anaerobic sludge. Biochemical Engineering Journal, 2010, 51, 132-139.	1.8	125
47	Biomethane production from starch and lignocellulosic crops: a comparative review. Biofuels, Bioproducts and Biorefining, 2010, 4, 447-458.	1.9	190
48	Electricity generation from carbon monoxide in a single chamber microbial fuel cell. Enzyme and Microbial Technology, 2010, 46, 450-455.	1.6	28
49	Genomic Analysis of Carbon Monoxide Utilization and Butanol Production by Clostridium carboxidivorans Strain P7T. PLoS ONE, 2010, 5, e13033.	1.1	134
50	High rate membrane-less microbial electrolysis cell for continuous hydrogen production. International Journal of Hydrogen Energy, 2009, 34, 672-677.	3.8	204
51	The treatment of cheese whey wastewater by sequential anaerobic and aerobic steps in a single digester at pilot scale. Bioresource Technology, 2009, 100, 4156-4163.	4.8	39
52	Hydrogen Production from Glycerol in a Membraneless Microbial Electrolysis Cell. Energy & Fuels, 2009, 23, 4612-4618.	2.5	89
53	Methane production in an UASB reactor operated under periodic mesophilic–thermophilic conditions. Biotechnology and Bioengineering, 2008, 100, 1115-1121.	1.7	13
54	Biocatalyzed hydrogen production in a continuous flow microbial fuel cell with a gas phase cathode. Journal of Power Sources, 2008, 182, 291-297.	4.0	112

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55	Thermophilic adaptation of a mesophilic anaerobic sludge for food waste treatment. Journal of Environmental Management, 2008, 88, 517-525.	3.8	30
56	Anaerobic digestion model No. 1-based distributed parameter model of an anaerobic reactor: II. Model validation. Bioresource Technology, 2008, 99, 3676-3684.	4.8	40
57	Electrolytic Methanogenicâ^'Methanotrophic Coupling for Tetrachloroethylene Bioremediation: Proof of Concept. Environmental Science & Technology, 2008, 42, 3011-3017.	4.6	22
58	Use of <i> Mycobacterium austroafricanum</i> IFP 2012 in a MTBE-Degrading Bioreactor. Journal of Molecular Microbiology and Biotechnology, 2008, 15, 190-198.	1.0	13
59	Comparison of treatment efficacy and stability of microbial populations between raw and anaerobically treated liquid pig manure, using PCR–DGCE and 16S sequencing. Canadian Journal of Microbiology, 2008, 54, 83-90.	0.8	4
60	Evaluating limiting steps of anaerobic degradation of food waste based on methane production tests. Water Science and Technology, 2008, 57, 419-422.	1.2	25
61	Temperature-Based Control of an Anaerobic Reactor Using a Multi-Model Observer-Based Estimator. Environmental Science & Technology, 2007, 41, 978-983.	4.6	3
62	Coupled anaerobic–aerobic treatment of whey wastewater in a sequencing batch reactor: proof of concept. Water Science and Technology, 2007, 55, 201-208.	1.2	67
63	Ultrastructure of a bio-electrolytic methanogenic/methanotrophic granular biofilm for the complete degradation of tetrachloroethylene in contaminated groundwater. Water Science and Technology, 2007, 55, 465-471.	1.2	1
64	Comparison of different support materials for their capacity to immobilize Mycobacterium austroafricanum IFP 2012 and to adsorb MtBE. Enzyme and Microbial Technology, 2007, 40, 1524-1530.	1.6	18
65	Fluorescence-based monitoring of tracer and substrate distribution in an UASB reactor. Chemosphere, 2006, 65, 1212-1220.	4.2	14
66	Removal of Pyrene and Benzo(a)Pyrene from Contaminated Water by Sequential and Simultaneous Ozonation and Biotreatment. Water Environment Research, 2006, 78, 2286-2292.	1.3	6
67	On-line estimation of kinetic parameters in anaerobic digestion using observer-based estimators and multiwavelength fluorometry. Water Science and Technology, 2006, 53, 77-83.	1.2	7
68	ADM1 application for tuning and performance analysis of a multi-model observer-based estimator. Water Science and Technology, 2006, 54, 93-100.	1.2	19
69	A Comparison of Air and Hydrogen Peroxide Oxygenated Microbial Fuel Cell Reactors. Biotechnology Progress, 2006, 22, 241-246.	1.3	96
70	Encapsulation of Bacteria for Biodegradation of Gasoline Hydrocarbons. Methods in Biotechnology, 2006, , 415-426.	0.2	3
71	Degradation of trichloroethylene in a coupled anaerobic–aerobic bioreactor: Modeling and experiment. Biochemical Engineering Journal, 2005, 26, 72-81.	1.8	46
72	Application of a VSM-Based Process Control to a Bench-Scale Anaerobic Digestor. Industrial & Engineering Chemistry Research, 2005, 44, 106-113.	1.8	8

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73	Effects of surfactant and temperature on biotransformation kinetics of anthracene and pyrene. Chemosphere, 2005, 61, 1042-1050.	4.2	77
74	Activated sludge encapsulation in gellan gum microbeads for gasoline biodegradation. Bioprocess and Biosystems Engineering, 2004, 26, 197-204.	1.7	21
75	Application of multi-wavelength fluorometry for on-line monitoring of an anaerobic digestion process. Water Research, 2004, 38, 3287-3296.	5.3	40
76	Transport of Gellan Gum Microbeads in Soil Columns of Various Grain Size Distributions. Canadian Journal of Chemical Engineering, 2004, 82, 994-1003.	0.9	0
77	A Market Study on the Anaerobic Waste-water Treatment Systems. Water, Air, and Soil Pollution, 2003, 143, 179-192.	1.1	18
78	Transport of gellan gum microbeads through sand: an experimental evaluation for encapsulated cell bioaugmentation. Journal of Environmental Management, 2003, 69, 249-259.	3.8	24
79	Trichloroethylene Degradation in a Coupled Anaerobic/Aerobic Reactor Oxygenated Using Hydrogen Peroxide. Environmental Science & Technology, 2003, 37, 5823-5828.	4.6	21
80	Enhanced Biodegradation of Petroleum Hydrocarbons in Contaminated Soil. Bioremediation Journal, 2003, 7, 37-51.	1.0	54
81	Microstructure of Anaerobic Granules Bioaugmented with Desulfitobacterium frappieri PCP-1. Applied and Environmental Microbiology, 2002, 68, 4035-4043.	1.4	24
82	A microcosm test for potential mineralization of chlorinated compounds under coupled aerobic/anaerobic conditions. Chemosphere, 2002, 47, 695-699.	4.2	16
83	Kinetics of benzene biotransformation under microaerophilic and oxygen-limited conditions. Biotechnology and Bioengineering, 2002, 79, 347-355.	1.7	20
84	Biodegradation of gasoline by gellan gum-encapsulated bacterial cells. Biotechnology and Bioengineering, 2002, 80, 175-184.	1.7	80
85	Production of size-controlled gellan gum microbeads encapsulating gasoline-degrading bacteria. Enzyme and Microbial Technology, 2002, 30, 10-18.	1.6	43
86	Application of a Variable Structure Model in Observation and Control of an Anaerobic Digestor. Biotechnology Progress, 2002, 18, 898-903.	1.3	15
87	Combining photolysis and bioprocesses for mineralization of high molecular weight polyacrylamides. Biodegradation, 2002, 13, 221-227.	1.5	40
88	DEGRADATION OF AROCLOR 1242 IN A SINGLE-STAGE COUPLED ANAEROBIC/AEROBIC BIOREACTOR. Water Research, 2001, 35, 4323-4330.	5.3	37
89	Enhanced selection of an anaerobic pentachlorophenol-degrading consortium. Biotechnology and Bioengineering, 2001, 73, 476-483.	1.7	50
90	Detection of intermediate metabolites of benzene biodegradation under microaerophilic conditions. Biodegradation, 2001, 12, 379-391.	1.5	27

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91	Biodegradation of Benzene in a Laboratory-Scale Biobarrier at Low Dissolved Oxygen Concentrations. Bioremediation Journal, 2001, 5, 63-77.	1.0	7
92	Long-term impact of dissolved O2 on the activity of anaerobic granules. , 2000, 49, 611-620.		53
93	Effects of bioaugmentation strategies in UASB reactors with a methanogenic consortium for removal of phenolic compounds. Biotechnology and Bioengineering, 2000, 67, 417-423.	1.7	43
94	Anaerobic Biodegradation of Trichloroethylene Sorbed by a Surrogate Soil Organic Matter. Journal of Environmental Quality, 2000, 29, 1033-1040.	1.0	6
95	Enhanced Biodegradation and Fate of Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX) and Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine (HMX) in Anaerobic Soil Slurry Bioprocess. Bioremediation Journal, 2000, 4, 27-39.	1.0	30
96	Origin of <i>p</i> -cresol in the anaerobic degradation of trinitrotoluene. Canadian Journal of Microbiology, 2000, 46, 119-124.	0.8	11
97	Monitoring Methanotrophic Bacteria in Hybrid Anaerobic-Aerobic Reactors with PCR and a Catabolic Gene Probe. Applied and Environmental Microbiology, 1999, 65, 381-388.	1.4	17
98	Differentiation of <i>Methanosaeta concilii</i> and <i>Methanosarcina barkeri</i> in Anaerobic Mesophilic Granular Sludge by Fluorescent In Situ Hybridization and Confocal Scanning Laser Microscopy. Applied and Environmental Microbiology, 1999, 65, 2222-2229.	1.4	110
99	Effects of Dilution and Fungal Pretreatment on Anaerobic Biodegradability of Oxygen Delignification Process Spent Liquor. Water Quality Research Journal of Canada, 1999, 34, 599-614.	1.2	1
100	Ecotoxicological Evaluation of a Bench-Scale Bioslurry Treating Explosives-Spiked Soil. Bioremediation Journal, 1999, 3, 233-246.	1.0	21
101	Biodegradation of gasoline and BTEX in a microaerophilic biobarrier. Biodegradation, 1999, 10, 341-352.	1.5	52
102	Synthesis of14C-labelled octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) for use in microcosm experiments. Journal of Labelled Compounds and Radiopharmaceuticals, 1999, 42, 1251-1264.	0.5	11
103	Effects of oxygenation and upflow liquid velocity on a coupled anaerobic/aerobic reactor system. Water Research, 1999, 33, 2855-2863.	5.3	27
104	Biodegradation of Pentachlorophenol in a Continuous Anaerobic Reactor Augmented with <i>Desulfitobacterium frappieri</i> PCP-1. Applied and Environmental Microbiology, 1999, 65, 4357-4362.	1.4	44
105	Fate of explosives and their metabolites in bioslurrytreatment processes. Biodegradation, 1998, 8, 339-347.	1.5	32
106	Modeling and Analysis of Co-immobilized Aerobic/Anaerobic Mixed Cultures. Biotechnology Progress, 1998, 14, 672-679.	1.3	6
107	Immobilization of anaerobic sludge using chitosan crosslinked with lignosulfonate. Journal of Industrial Microbiology and Biotechnology, 1998, 20, 45-47.	1.4	10
108	Kinetics of biodegradation of gasoline and its hydrocarbon constituents. Applied Microbiology and Biotechnology, 1998, 49, 475-481.	1.7	45

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109	Fungal pretreatment by Phanerochaete chrysosporium to reduce the inhibition of methanogenesis by dehydroabietic acid. Applied Microbiology and Biotechnology, 1998, 49, 538-544.	1.7	4
110	Enhanced Biodegradation of Petroleum Hydrocarbons in Contaminated Soil. Journal of Soil Contamination, 1998, 7, 37-51.	0.5	7
111	Influence of synthetic and natural polymers on the anaerobic granulation process. Water Science and Technology, 1998, 38, 341-347.	1.2	24
112	Process coupling of anaerobic and aerobic biofilms for treatment of contaminated waste liquids. Studies in Environmental Science, 1997, , 591-602.	0.0	2
113	Simulation and sterilization of a surrogate soil organic matter for the study of the fate of trichloroethylene in soil. Communications in Soil Science and Plant Analysis, 1997, 28, 1177-1190.	0.6	12
114	Fate of explosives and their metabolites in bioslurry treatment processes. Biodegradation, 1997, 8, 339-347.	1.5	16
115	Influence of the starting microbial nucleus type on the anaerobic granulation dynamics. Applied Microbiology and Biotechnology, 1997, 47, 189-194.	1.7	33
116	Modeling and analysis of layered stationary anaerobic granular biofilms. , 1997, 54, 122-130.		24
117	Methanotroph and methanogen coupling in granular biofilm under O2-limited conditions. Biotechnology Letters, 1996, 18, 495-500.	1.1	19
118	Long-term impact of dissolved O2 on the activity of anaerobic granules. , 1996, 49, 611.		33
119	Performances of a full-scale novel multiplate anaerobic reactor treating cheese whey effluent. Biotechnology and Bioengineering, 1995, 45, 398-405.	1.7	48
120	Liming impact on granules activity of the multiplate anaerobic reactor (MPAR) treating whey permeate. Bioprocess and Biosystems Engineering, 1995, 12, 47-53.	0.5	26
121	Electron microscopic examination of the extracellular polymeric substances in anaerobic granular biofilms. World Journal of Microbiology and Biotechnology, 1995, 11, 481-485.	1.7	18
122	Impact of liquid-to-gas hydrogen mass transfer on substrate conversion efficiency of an upflow anaerobic sludge bed and filter reactor. Enzyme and Microbial Technology, 1995, 17, 1080-1086.	1.6	28
123	Solubility of pentachlorophenol in aqueous solutions: The pH effect. Water Research, 1995, 29, 131-136.	5.3	85
124	Dynamic modelling of the population distribution in the anaerobic granular biofilm. Water Science and Technology, 1994, 30, 63-73.	1.2	20
125	Hydrogen monitoring in anaerobic sludge bed reactors at various hydraulic regimes and loading rates. Water Environment Research, 1993, 65, 276-280.	1.3	37
126	A Structured Model of the Anaerobic Granule Consortium. Water Science and Technology, 1992, 25, 1-10	1.2	142

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127	Induction of Granulation by Sulphonated‣ignin and Calcium in an Upflow Anaerobic Sludge Bed Reactor. Journal of Chemical Technology and Biotechnology, 1992, 53, 45-56.	1.6	11
128	Thermodynamic evidence of trophic microniches in methanogenic granular sludge-bed reactors. Applied Microbiology and Biotechnology, 1990, 33, 88-92.	1.7	21
129	Thermodynamical and Microbiological Evidence of Trophic Microniches for Propionate Degradation in a Methanogenic Sludge-Bed Reactor. , 1990, , 173-183.		6
130	Layered structure of bacterial aggregates produced in an upflow anaerobic sludge bed and filter reactor. Applied and Environmental Microbiology, 1990, 56, 1598-1607.	1.4	353
131	Liquid-to-Gas Mass Transfer in Anaerobic Processes: Inevitable Transfer Limitations of Methane and Hydrogen in the Biomethanation Process. Applied and Environmental Microbiology, 1990, 56, 1636-1644.	1.4	239
132	Assessment of macroenergetic parameters for an anaerobic upflow biomass bed and filter (UBF) reactor. Biotechnology and Bioengineering, 1989, 34, 1277-1288.	1.7	27
133	Quantitative method based on energy and mass balance for estimating substrate transient accumulation in activated sludge during wastewater treatment. Biotechnology and Bioengineering, 1986, 28, 1637-1646.	1.7	0
134	Mixing characteristics and performance of the anaerobic upflow blanket filter (UBF) reactor. Journal of Chemical Technology and Biotechnology Biotechnology, 1985, 35, 65-74.	0.2	9
135	Performance of an upflow anaerobic reactor combining a sludge blanket and a filter treating sugar waste. Biotechnology and Bioengineering, 1985, 27, 800-806.	1.7	85
136	Performance and biomass retention of an upflow anaerobic reactor combining a sludge blanket and a filter. Biotechnology Letters, 1984, 6, 161-164.	1.1	31