Invited Lectures

The 2nd Microbial Fuel Cell Conference

Plen	ary Lecture		
	g Hong Kim a University, Korea)	Microbial Fuel Cell; where to go	
	note Lectures		
In S. Kim (Gwangju Institute of Science & Technology, Korea)		Water and Energy,Indispensable Factors of Human City	
Bruce E. Logan (The Pennsylvania State University, U.S.A.)		Recent advances in the design and operation of microbial fuel and microbial electrolysis cells	
Bruce E. Rittmann (Arizona State University, U.S.A.)		How Do the Anode-Respiring Bacteria Get the Electrons to the Anode So Fast?	
Robert C.T. Slade [University of Surrey, U. K.] Chang Won Kim [Pusan National University, Korea]		Indirect and Direct Electron Transfer in Microbial Fuel Cells incorporating Sulfate-Reducing Bacteria Design Factor Affecting the Electrochemical Performance of Directly Applicable Microbial Fuel Cell for Wastewater Treatment	
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art A	Sung-Taek Oh (University of Glasgow, U.K.)	Introduction of Microbial Fuel Cell Modelling: Prospective and Applications	
art B	Hyung-Sool Lee (Arizona State University, U.S.A.)	Understanding Bio-electrochemical Systems: Focusing on Biofilm Anode	
ess	ion A: Microbiology	5. 10 1. 5"	
A-1	John M.Regan (The Pennsylvania State University, U.S.A.)	External Resistance Effects on Anode Biofilm Architecture and Performance	
-A-2	Joonhong Park (Yonsei University, Korea)	Discovering Commonly-Existing Anode Biofilm Microbes from Different Wastewater Treatment MFCs using Comparative Microbial Community Profiling Analysis	
-A-3	Korneel Rabaey (The University of Queensland, Australia)	Microbial ecology and interactions in anodic and cathodic biofilms	
-A-4	Satoshi Okabe (Hokkaido University, Japan)	Continuous power generation and microbial community structure of the anode biofilms in a three-stage microbial fuel cell system	
-A-5	Yuri Gorby (J. Craig Venter Institute, U.S.A.)	Bacterial Nanowires and Extracellular Electron Transfer in Microbial Fuel Cells	
ess	ion B: Electrochemistry & Material S	Science	
B-1	Sunghyun Kim (Konkuk University, Korea)	Improvement of MFC Performance through Chemical Modifications of Electrode Surfaces	
B-2	Uwe Schröder (Technical University Braunschweig, Germany)	Chemical versus microbial cathodes – do we still need chemical cathodes?	
ess	ion C: System Development		
C-1	Kazuya Watanabe (University of Tokyo, Japan)	Cassette-electrode Microbial Fuel Cell For Sustainable Bienergy	
C-2	Xia Huang (Tsinghua University, China)	Photo-stimulated Microbial Fuel Cell	
C-3	Largus T. Angenent (Cornell University, U.S.A.)	Integrating BES in wastewater and sludge treatment flows	
C-4	Hong Liu (Oregon State Univ., U.S.A.)	Strategies for Enhancing Power Generation in Microbial Fuel Cells	
	NG How Yong	Energy Considerations for Self-sustainable	
·C-5	(National University of Singapore, Singapore)	Microbial Fuel Cells	
	(National University of Singapore, Singapore) Yujie Feng (Harbin Institute of Technology, China)	Microbial Fuel Cells Effects of Different Pretreatments for Carbon Fiber on Power Production in Air-cathode Microbial Fuel Cells	
-C-6	Yujie Feng	Effects of Different Pretreatments for Carbon Fiber on Power Production in Air-cathode Microbial Fuel Cells	
·C-6	Yujie Feng (Harbin Institute of Technology, China)	Effects of Different Pretreatments for Carbon Fiber on Power Production in Air-cathode	
-C-6 Sess -D-1	Yujie Feng (Harbin Institute of Technology, China) ion D: MFC Application Jong Bor Chyan	Effects of Different Pretreatments for Carbon Fiber on Power Production in Air-cathode Microbial Fuel Cells Microbial Fuel Cell for Oil Palm Industry: potential for wastewater treatment and bioenergy generation Modular tubular microbial fuel cells for energy	
-C-5 -C-6 -D-1 -D-2 -D-3	Yujie Feng (Harbin Institute of Technology, China) ion D: MFC Application Jong Bor Chyan (Malaysian Nuclear Agency, Malaysia) Jung Rae Kim	Effects of Different Pretreatments for Carbon Fiber on Power Production in Air-cathode Microbial Fuel Cells Microbial Fuel Cell for Oil Palm Industry: potential for wastewater treatment and bioenergy generation Modular tubular microbial fuel cells for energy	
-C-6 Sess -D-1	Yujie Feng (Harbin Institute of Technology, China) ion D: MFC Application Jong Bor Chyan (Malaysian Nuclear Agency, Malaysia) Jung Rae Kim (University of Glamorgan, U.K.) Kyuseon Yoo	Effects of Different Pretreatments for Carbon Fiber on Power Production in Air-cathode Microbial Fuel Cells Microbial Fuel Cell for Oil Palm Industry: potential for wastewater treatment and bioenergy generation Modular tubular microbial fuel cells for energy recovery and treatment at low organic loading Organic removal with denitrification by continuous operation of floating air-cathode	
-C-6 Sess -D-1 -D-2	Yujie Feng (Harbin Institute of Technology, China) ion D: MFC Application Jong Bor Chyan (Malaysian Nuclear Agency, Malaysia) Jung Rae Kim (University of Glamorgan, U.K.) Kyuseon Yoo (Jeonju University, Korea) René A. Rozendal	Effects of Different Pretreatments for Carbon Fiber on Power Production in Air-cathode Microbial Fuel Cells Microbial Fuel Cells for Oil Palm Industry: potential for wastewater treatment and bioenergy generation Modular tubular microbial fuel cells for energy recovery and treatment at low organic loading Organic removal with denitrification by continuous operation of floating air-cathode microbial fuel cells [MFCs] Industrial integration of bioelectrochemical	

Welcome

Message from the Conference Chair



In Seop Chang, PhD
Associate Professor
Department of Environmental Science and Engineering
Gwangju Institute of Science and Technology

On behalf of the Organization and Program Committee, I would like to extend a warm welcome to all participants of **The 2**nd **International Microbial Fuel Conference**.

Since microbial fuel cells have been studied and a variety of applications developed, one of the main concerns has been electricity generation associated with waste treatment. For this reason, the quest for efficient microbial fuel cells has rapidly increased in recent years, especially in terms of trying to meet the increasing demand for environmental concerns as well as energy production. These concepts match the theme of this conference, from "Waste to Energy".

The aim of this conference is to provide a comprehensive forum for researchers and professionals engaged in the field of microbial fuel cells to present their work and meet their associates. We understand that microbial fuel cell research is a type of multi-disciplinary research that requires different areas of research such as microbiology, electrochemistry, and materials science as well as systems engineering. Hence, we hope that this event will bring together international scientists and engineers to meet and discuss their achievements and share ideas for further research and the development of other practical approaches.

The conference consists of the formal presentation of papers and posters. In addition, there are special sessions focused on Microbiology, Electrochemistry, Materials Science, and MFC System Development & Applications proposed along with a number of social activities. As such, we hope that this conference will provide an overview of the latest scientific and technological developments and current status of microbial fuel cells systems. I would like to express my sincere thanks to all invited speakers for their contribution in showing the big picture of Microbial Fuel Cells.

Finally, I would like to sincerely wish all our guests and delegates a very pleasant time during their stay at GIST.

Supporting Organizations







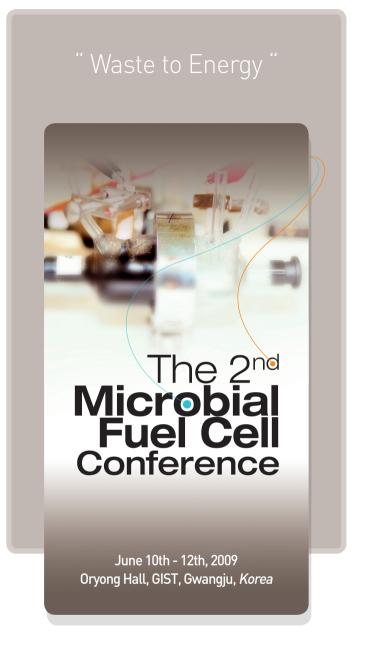






Contact: Junyeong An / tel: +82-62-970-2454 / e-mail: ajy@gist.ac.kr Website: http://www.mfc-conference.kr

http://www.**mfc-conference**.kr



Organized by



Gwangju Institute of Science and Technology

Program Schedule The 2nd Microbial Fuel Cell Conference

	The 2nd			
	June 10	th, 2009		
Time (pm)		Contents		
12:30 - 1:30	On-site registr	ation opens in th	ne Oryong-Hall	
		e and opening r		
1:00 - 1:30		e president of G		
	Deputy Director of Minis	ry Lecture (roor		
1:30 - 2:10		Byung Hong Kin		
		al Fuel Cell; whe		
2:10 - 2:25	Brea	k, with refreshr		
	Session A : Microbiology (room 303)	Session B :	Electrochemistry & Material Science (room 204)	
Moderator	In Seop Chang	Moderator	Rene Rozendal	
2:25 - 2:50	I-A-1: Invited speaker	2:25 - 2:50	I-B-1: Invited speaker	
2:50 - 3:15	I-A-2: Invited speaker	2:50 - 3:10	0-B-1: Oral speaker	
3:15 - 3:40	I-A-3: Invited speaker	3:10 - 3:30	O-B-2: Oral speaker	
Moderator	Korneel Rabaey	Moderator	Uwe Schröder	
3:40 - 4:00 4:00 - 4:20	O-A-1: Oral speaker	3:30 - 3:50 3:50 - 4:10	O-B-3: Oral speaker	
4:00 - 4:20	O-A-2: Oral speaker O-A-3: Oral speaker	4:10 - 4:30	O-B-4: Oral speaker O-B-5: Oral speaker	
4:40 - 5:00	0-A-4: Oral speaker	4:30 - 4:50	O-B-6: Oral speaker	
5:00 - 6:00		ession (P-A-1 ~	P-B-17)	
	June 11	th, 2009		
Time	Sanori	Contents		
7:00 - 8:00	Sunrise meeting for "Mathem	natical Modellin	g for MFC system" (room 303)	
	Keynot	te Lectures (roo	m 303)	
		In S. Kim		
9:00 - 10:00	Water and Energy, I		ctors of Human City	
	Recent advances in the design and ope	Bruce E. Logan eration of microl	ial fuel and microhial electrolysis cells	
		erator: In Seop C		
10:00 - 10:15	Brea	ak, with refreshr	nent	
	Session A : Microbiology	Session B :	Electrochemistry & Material Science	
Moderator	(room 303) Joonhong Park	Moderator	(room 204) Sunghyun Kim	
10:15 - 10:40	I-A-4: Invited speaker	10:15 - 10:40	I-B-2: Invited speaker	
10:40 - 11:05	I-A-5: Invited speaker	10:40 - 11:00	0-B-7: Oral speaker	
11:05 - 11:25	O-A-5: Oral speaker	11:00 - 11:20	O-B-8: Oral speaker	
11:25 - 11:45	O-A-6: Oral speaker	11:20 - 11:40	O-B-9: Oral speaker	
11:40 - 12:40		Lunch	000	
		te Lectures (roo		
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John M. Regan

I- C-4: Invited speaker O- D-7: Oral speaker O- D-8: Oral speaker

Kazuya Watanabe

I- C-5: Invited speaker I- C-6: Invited speaker O- C-9: Oral speaker O- C-10: Oral speaker O- C-11: Oral speaker Moderator

10:55 - 11:20 11:20 - 11:45

10:20 - 10:40

Moderator

11:20 - 11:45

Satoshi Okabe

I- D-4: Oral speaker O- D-7: Oral speaker O- D-8: Oral speaker

I- D-6: Invited speaker O- D-9: Oral speaker O- D-10: Oral speaker O- D-11: Oral speaker

Oral **Presentation**

The 2nd Microbial Fuel Cell Conference

	Jessiuii A: r	Alcrobiology
0-A-1	Lital Alfonta (Ben-Gurion University of the Negev, Israel)	Surface Display of Redox Enzymes as a Novel Approach in MFCs
0-A-2	Prathap Parameswaran	Community structure in a biofilm anode fed with
0-A-3	(Arizona State University, U.S.A.) Ryuhei Nakamura	ethanol: Significance of hydrogen scavengers Microbial Semiconductor Respiration: How Does Shewanella
0-A-4	(The University of Tokyo, Japan) Akihiro Okamoto	Engage in Long-Distance Extracellular Electron Transfer? In vivo Kinetics of Extracellular Electron Transfer in Shewanella loihica PV-4 Adsorbed on the Surface of
0 4 5	(The University of Tokyo, Japan) Aijie Wang	Metal-Oxide Electrode Performance as a Function of Anode Potential and
0-A-5	(Harbin Institute of Technology, China) Xiaoxin Cao	Community Analysis of the Anode Bio-film in a Two- chamber Microbial Electrolysis Cell (MEC) Electricity generation by Klebsiella sp. in a microbial
0-A-6	(Tsinghua University, China)	fuel cell
	Session B: Electrochem	istry & Material Science
0-B-1	(University of Rennes, France)	A Bio-Fuel Cell with Microbes at the Anode and Enzymes at the Cathode
0-B-2	Matthew D. Merrill [The Pennsylvania State University, U.S.A.]	Electrolyte Effects on Hydrogen Evolution and Solution Resistance in Microbial Electrolysis Cells
0-B-3	Sheela Berchmans [Central Electrochemical Research Institute, India]	Biodegradation of azo dyes by Hansenula anomala for current generation
0-B-4	Phuc Thi Ha [Gwangju Institute of Science and Technology, Korea]	Determination of Charge Transfer Resistance and Double- layer Capacitance of Microbial Fuel Cell through Transient Response Analysis of Cell Voltage by Load Step Change
0-B-5	Neda Faraghi (Sahand University of Technology, Iran)	Effect of Conduction of Different Cations in Microbial Fuel Cells using Electrochemical Impedance Spectroscopy (EIS)
0-B-6	Hyung-Sool Lee (Arizona State University, U.S.A.)	Kinetic Characterization of Anode-respiring Bacteria in Microbial Electrochemical Systems
0-B-7	Sung T. Oh (University of Glasgow, U.K.)	Effect of electric field in anodic biofilm in microbial fuel cell.
0-B-8	Beate Christgen [University of Newcastle upon Tyne, U.K.]	Wastewater Treatment using Modified Carbon Anodes in Microbial Fuel Cells
0-B-9	Peng Liang (Tsinghua University, China)	Application of Carbon Nanotube powder in Microbial Fuel Cell
		em Development
0-C-1	Falk Harnisch	Does the necessity of charge balance separate
0-C-2	[Technical University Braunschweig, Germany] Shaoan Cheng	microbially driven devices from application? Effect of configuration and solution conditions on power
0-C-3	[The Pennsylvania State University, U.S.A.] J Jayapriya	generation of air cathode microbial fuel cells [MFCs] The role of electrode configuration in capturing
0-C-4	[PSG College of Technology, India] Ai-Jie Wang	power generated in microbial fuel cells Design and performance of a sediment microbial
0-C-5	[Harbin Institute of Technology, China] Manal Ismail [University Kebangsaan Malaysia, Malaysia]	fuel cell (SMFC) with floating-biocathode Electricity Generation in Microbial Fuel Cell by Local Isolate of Clostridium butyricum from Palm Oil Mill Effluent
0-C-6	Ronen Shechter (Emefcy – Bio energy systems Ltd., Israel)	Comparison of performance and operation of membrane- less microbial fuel cells with bio-catalysis and Pt catalysis
0-C-7	Charles C. Zhou (Cascade Clean Energy, Inc. U.S.A.)	Generate Clean Energy from Wastewaters Using Cascade MFC and Cascade Methane Bioreactor
0-C-8	Xian-Wei Liu [University of Science & Technology of China, China]	Biohydrogen production from propionate in an in- novative biocatalyzed system
O-C-9	Hyung-Sool Lee (Arizona State University, U.S.A.)	H2 Recycle Effect by Anode-respiring Bacteria in a Steady-state Single-Chamber Microbial Electrolysis Cell
O-C-10	Olivier Lefebvre [National University of Singapore, Singapore]	Conception of a Membrane Electrode Assembly Microbial Fuel Cell (MEA-MFC)
0-C-11	Erika A. Parra [University of California, U.S.A.]	Microfabricated Microbial Fuel Cell for Real-Time Bio- Catalyst Optical Monitoring and Electrical Signal Coupling
		-C Application
0-D-1	Yang Mu	Decolourization of Azo Dyes in Bio-electrochemical Systems
0-D-2	(University of Queensland, Australia) Chontisa Sukkasem (Thaksin University, Thailand)	The influence of Sulfate and Nitrate on Electricity Generation in Single-Chamber Microbial Fuel Cells
0-D-3	Ruud A. Timmers	Long term electricity generation from rhizodeposits of salt marsh species Spartina anglica in a plant microbial fuel cell
0-D-4	(Wageningen University, Netherlands) Chansoo Choi (Daejeon University, Korea)	Improved Electrical Measurement Method of the Microbial Fuel Cell Reactor
0-D-5	Kyu-Jung Chae [Gwangju Institute of Science and Technology, Korea]	Hydrogen production using a solar-powered microbial electrolysis cell with Platinum catalyst-free cathode
0-D-6	Tuan Van Doan (Yonsei University, Korea)	Metagenomic Microbial Profiling of Anode – and Cathode Biofilms from Nitrate-Reducing Wastewater –Treating Membrane-Less Microbial Fuel Cell
0-D-7	Folusho F Ajayi (Gwangju Institute of Science and Technology, Korea)	Photo-assisted microbial electrolysis with dye sensitized solar cell
0-D-8	Miriam Rosenbaum (Cornell University, U.S.A.)	Efficiencies of bio-electrocatalytic production of hydrogen from lactate using Shewanella oneidensis MR-1
0-D-9	Yunhee Lee (New Mexico State University, U,S.A.)	Single Chambered MFC with Two Air-cathode for Optimized Performance
0-D-10	Alagunambi Ramasubbu	Microbial Fuel Cell for Electricity Generation with
0-D-11	Jin-na Zhang	Power generation from scalable permanganate-cathode microbial fuel cell – cathode degradation and recovery
	(Government Arts College, India)	in-situ Industrial Waste Water Treatment Power generation from scalable permanganate-ca

Poster **Presentation**

The 2nd Microbial Fuel Cell Conference

	Session A: N	Microbiology
P-A-1	Chien-Yen Chen	Stable and High Energy Generation of Micro-
1 -A-1	(National Chung Cheng University, Taiwan)	bial Fuel Cell using Bacillus subtilis
	Windi Indra Muziasari	Characterization of c-type cytocrhome
P-A-2	(Gwangju Institute of Science and	proteins involved in current production by
	Technology, Koreal	Shewanella algae BrY
	Patrick D. Kiely	The conversion of cellulose fermentation end
P-A-3	(The Pennsylvania State University, U.S.A.)	products to hydrogen using a defined microbial
	(The Fernisywaria State Oniversity, 0.5.A.)	consortia and a microbial electrolysis cell.
	Atsushi Kouzuma	Isolation and Characterization of a Mutant of
P-A-4	(Japan Science and Technology Agency,	Shewanella oneidensis MR-1 with Increased
	Japan)	Ability to Adhere to Electrodes and Generate
		Current
	Chamiltonii	Comparison of Electrode Reducing Properties
P-A-5	Shun'ichi Ishii	of Geobacter sulfurreducens and an Enriched
	(J. Craig Venter Institute, U.S.A.)	Consortium in an Air-Cathode Microbial Fuel
		Cell
	Conservation	Increase in the Aerotolerance of the Electro-
P-A-6	Gregory Hitz	genic Anaerobe Geobacter Sulfurreducens
P-A-6	(University of Maryland Biotechnology	Due to Over-Expression of Oxidative Stress
	Institute, U.S.A.)	Protection Genes Superoxide Dismutase and
		Catalase Microbial Community Analysis of a Microbial
P-A-7	Eun Yeon Ryu	Fuel Cell Enriched using Sludge from Tannery
1 'H-1	(Pusan National University, Korea)	Wastewater Treatment Plant
		Performance of metal-reducing bacteria
P-A-8	Lay-Ching Chai	isolated from mangrove estuarine brackish
	(Universiti Putra Malaysia, Malaysia)	water in electricity generation
		Microbial community distribution in a lamellar
P-A-9	lain Michie	carbon veil anode using fermentable and non-
	(University of Glamorgan, U.K.)	fermentable substrates
	17.1.1. 11.1	An Investigation into Changes in the Bacterial
P-A-10	Kristina Nelson	Community Structures of Microbial Fuel Cells
	(University of Regina, Canada)	under an Applied Load
	Nelli Delemen	Performance of a sucrose-fed microbial fuel
P-A-11	Nelli Rahunen	cell and analysis of the bacterial and archaeal
	(University of Surrey, U.K.)	anodic community
	Shoutao Xu	Enhanced Performance of Microbial Elec-
P-A-12	(Oregon State University, U.S.A.)	trolysis Cells Using Nanostructure Decorated
	(oregon state oniversity, o.s.A.)	Electrodes
	S. M. Zain	Preliminary identification of microorganism
P-A-13	(Universiti Kebangsaan Malaysia,	communities in microbial fuel cell (MFC) using
	Malaysia)	Fluorescence In Situ Hybridization (FISH) and
	1	Polymerase Chain Reaction (PCR) Techniques.
D 4.47	Yoshiyuki Ueno	Microbial Diversity of Microflora in a Ther-
P-A-14	(Kajima Technical Research Institute,	mophilic Microbial Fuel Celland Isolation of
	Japan)	Metal-reducing Microorganisms
P-A-15	Hiroyuki Futamata	Bacterial Community Succession and Performance of Mediatorless Microbial Fuel Cell
	[Shizuoka University, Japan] Jean-Michel Monier	Cathodic Communities in Microbial Fuel Cells
P-A-16		Fed with Domestic Wastewater
	[Ecole Centrale de Lyon, France]	Electricity Generation and Microbial Diversity
P-A-17	Jae Cheul Yu	of Microbial Fuel Cells Fed with Different
1 -A-1/	(Pusan National University, Korea)	Substrates
	Seok Won Hong	Comparison of Microbial Community Struc-
P-A-18	(Korea Institute of Science and	tures of Freshwater Sediments under Current
	Technology, Korea)	Flowing Conditions
	-	Cytochrome-Mediated Electron-Transfer in
P-A-19	Akihiro Okamoto	Biofilm of Shewanella loihica PV-4 Studied by
	(The University of Tokyo, Japan)	In-vivo Electrochemistry
•		Microbial Diversity of a Microbial Fuel Cell
P-A-20	Liew Pauline Woan Ying	Enriched with Microbial Consortium from
	(Malaysian Nuclear Agency, Malaysia)	Palm Oil Mill Processing Wastewater
	Hyunjung Kim	Isolations and Identifications of Bacteria from
P-A-21	(Gwangju Institute of Science and	Psychrophilic- and Halophilic Iron Reducing
	Technology, Korea)	Environments
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The 2nd Microbial Fuel Cell Conference

	Sossian P. Flostrochom	istry & Material Science
	Koichi Nishio	Microbial solar cell utilizing natural com-
P-B-1	(University of Tokyo, Japan)	munities
P-B-2	Mario Mitov (South-West University, Bulgaria)	Improvement of Candida melibiosica Yeast – Carbon-Type Anode Interaction in a Two- Chamber Biofuel Cell
P-B-3	Yolina Hubenova (University of Plovdiv, Bulgaria)	Lactobacillus Consortium as a Biocatalyst in Mediatorless Microbial Fuel Cell
P-B-4	F. Zhao [University of Surrey Guildford, U.K.]	Direct Electron Transfer between Bacteria and Electrode
P-B-5	Tunc Catal (National University of Ireland, Ireland)	Electrochemical Characterization of Electro- active Bacteria Grown at Different Physiologi- cal Conditions
P-B-6	Yong Yuan (Konkuk University, Korea)	A conductive polymer used both on anode and on cathode in a single-chamber microbial fuel cell
P-B-7	Jung Rae Kim (University of Glamorgan, U.K.)	Temporal and Spatial Monitoring of Continuously Operated Tubular Microbial Fuel Cells by Electrochemical Impedance Spectroscopy
P-B-8	Godfrey Kyazze (University of Glamorgan, U.K.)	Influence of catholyte pH on hydrogen production from acetate using a microbial electrolysis cell
P-B-9	Mi-Jin Choi (Gwangju Institute of Science and Technology, Korea)	Influence of membrane biofouling on performances of microbial fuel cells
P-B-10	Eunkyoung Ji (Gwangju Institute of Science and Technology, Korea)	Effect of ion-exchange membranes on the performance of microbial fuel cell operated with different electrolyte conditions
P-B-11	Sang-Eun Oh (Kangwon National University, Korea)	Sustained Power Generation by Microbial Fuel Cells: Effects of Applied Voltages and Oxygen Intrusion to the Anode
P-B-12	Sokhee Jung (Pennsylvania State University, U.S.A.)	Electrochemistry of Anode Biofilm in Air- cathode MFCs Operated with Different pH Condition
P-B-13	Youngmi Yi (Gwangju Institute of Science and Technology, Korea)	Electrodeposited Pd nanostructure as effective electrocatalysts in direct bio-ethanol fuel cells
P-B-14	Ye Eun Kim (Gwangju Institute of Science and Technology, Korea)	Electrocatalytic oxidation of L-ascorbic acid on a modified carbon electrode
P-B-15	Jeffrey J. Fornero (Washington University in St. Louis, U.S.A.)	Ion Exchange Membrane Influence on Ohmic Resistance
P-B-16	Soo Jung Choi (Pusan National University, Korea)	Electrochemical performance of microbial fuel cell with various electrode materials, thickness and configurations
	Honggiang Hu	Hydrogen Production in Microbial Electrolysis
P-B-17	Hongqiang Hu (Oregon State University, U.K.)	Cells Using Precious-Metal-Free Cathode Catalysts (NiMo, NiW)
P-B-17	(Oregon State University, U.K.)	Célls Űsing Precious-Metal-Free Cathodé Catalysts (NiMo, NiW) em Development
P-B-17	(Oregon State University, U.K.)	Célls Üsing Precious-Metal-Free Cathodé Catalysts (NiMo, NiW) m Development Power Generation and Internal Resistance of Microbial Fuel Cell Affected by Interactions between Electrode Distance and Influent Fuel
	(Oregon State University, U.K.) Session C: Syste Chi-Yuan Lee (National Taiwan Ocean University, Taiwan)	Célls Üsing Precious-Metal-Free Cathodé Catalysts (NiMo, NiW) em Development Power Generation and Internal Resistance of Microbial Fuel Cell Affected by Interactions between Electrode Distance and Influent Fuel Concentration Interactions between external resistance, or- ganic load and fuel type in a single chambered
P-C-1	Chi-Yuan Lee [National Taiwan Ocean University, Taiwan] Jamie Hinks [Newcastle University, U.K.] Yu-jin Lee [Korea Institute of Energy Research,	Cells Üsing Precious-Metal-Free Cathode Catalysts [NiMo, NiW] m Development Power Generation and Internal Resistance of Microbial Fuel Cell Affected by Interactions between Electrode Distance and Influent Fuel Concentration Interactions between external resistance, or- ganic load and fuel type in a single chambered air-cathode batch-fed microbial fuel cell Enhancing Factors of Electricity Generation in a Microbial Fuel Cell Using Geobacter
P-C-1	(Oregon State University, U.K.) Session C: Syste Chi-Yuan Lee (National Taiwan Ocean University, Taiwan) Jamie Hinks (Newcastle University, U.K.) Yu-jin Lee (Korea Institute of Energy Research, Korea) Kevin W. McNamara	Célls Üsing Precious-Metal-Free Cathodé Catalysts (NiMo, NiW) Powelopment Power Generation and Internal Resistance of Microbial Fuel Cell Affected by Interactions between Electrode Distance and Influent Fuel Concentration Interactions between external resistance, or- ganic load and fuel type in a single chambered air-cathode batch-fed microbial fuel cell Enhancing Factors of Electricity Generation in a Microbial Fuel Cell Using Geobacter sulfurreducens Commercial Development of Sediment-Based
P-C-1 P-C-2 P-C-3	(Oregon State University, U.K.) Session C: Syste Chi-Yuan Lee (National Taiwan Ocean University, Taiwan) Jamie Hinks (Newcastle University, U.K.) Yu-jin Lee (Korea Institute of Energy Research, Korea)	Cells Üsing Precious-Metal-Free Cathode Catalysts (NiMo, NiW) m Development Power Generation and Internal Resistance of Microbial Fuel Cell Affected by Interactions between Electrode Distance and Influent Fuel Concentration Interactions between external resistance, organic load and fuel type in a single chambered air-cathode batch-fed microbial fuel cell Enhancing Factors of Electricity Generation in a Microbial Fuel Cell Using Geobacter sulfurreducens
P-C-1 P-C-2 P-C-3	Chi-Yuan Lee (National Taiwan Ocean University, Taiwan) Jamie Hinks (Newcastle University, U.K.) Yu-jin Lee (Korea Institute of Energy Research, Korea) Kevin W. McNamara (Trophos Energy Inc., U.S.A.) Kyungmi Chung (Hokkaido University, Japan) Lay-Ching Chai	Célls Üsing Precious-Metal-Free Cathodé Catalysts (NiMo, NiW) m Development Power Generation and Internal Resistance of Microbial Fuel Cell Affected by Interactions between Electrode Distance and Influent Fuel Concentration Interactions between external resistance, or- ganic load and fuel type in a single chambered air-cathode batch-fed microbial fuel cell Enhancing Factors of Electricity Generation in a Microbial Fuel Cell Using Geobacter sulfurreducens Commercial Development of Sediment-Based Microbial Fuel Cell Effect of biofilms and chemical precipitates in the cathode electrode on the continuous MFC performance Construction and performance of a charcoal
P-C-1 P-C-2 P-C-3 P-C-4	Chi-Yuan Lee [National Taiwan Ocean University, Taiwan] Jamie Hinks [Newcastle University, U.K.] Yu-jin Lee [Korea Institute of Energy Research, Korea] Kevin W. McNamara [Trophos Energy Inc., U.S.A.] Kyungmi Chung [Hokkaido University, Japan]	Célls Üsing Precious-Metal-Free Cathode Catalysts (NiMo, NiW) m Development Power Generation and Internal Resistance of Microbial Fuel Cell Affected by Interactions between Electrode Distance and Influent Fuel Concentration Interactions between external resistance, organic load and fuel type in a single chambered air-cathode batch-fed microbial fuel cell Enhancing Factors of Electricity Generation in a Microbial Fuel Cell Using Geobacter sulfurreducens Commercial Development of Sediment-Based Microbial Fuel Cell Effect of biofilms and chemical precipitates in the cathode electrode on the continuous MFC performance Construction and performance of a charcoal air-cathode microbial fuel cell Advective U-shaped Microbial Fuel Cell for Stable Power Production in the Absence of Phosphate Buffer
P-C-1 P-C-2 P-C-3 P-C-4 P-C-5	Goregon State University, U.K.) Session C: Syste Chi-Yuan Lee (National Taiwan Ocean University, Taiwan) Jamie Hinks (Newcastle University, U.K.) Yu-jin Lee (Korea Institute of Energy Research, Korea) Kevin W. McNamara (Trophos Energy Inc., U.S.A.) Kyungmi Chung (Hokkaido University, Japan) Lay-Ching Chai (Universiti Putra Malaysia, Malaysia) Shi-Jie You	Célls Üsing Precious-Metal-Free Cathodé Catalysts (NiMo, NiW) Powelopment Power Generation and Internal Resistance of Microbial Fuel Cell Affected by Interactions between Electrode Distance and Influent Fuel Concentration Interactions between external resistance, or- ganic load and fuel type in a single chambered air-cathode batch-fed microbial fuel cell Enhancing Factors of Electricity Generation in a Microbial Fuel Cell Using Geobacter sulfurreducens Commercial Development of Sediment-Based Microbial Fuel Cell Effect of biofilms and chemical precipitates in the cathode electrode on the continuous MFC performance Construction and performance of a charcoal air-cathode microbial fuel cell Advective U-shaped Microbial Fuel Cell for Stable Power Production in the Absence of
P-C-1 P-C-2 P-C-3 P-C-4 P-C-5 P-C-6	Goregon State University, U.K.) Session C: Syste Chi-Yuan Lee (National Taiwan Ocean University, Taiwan) Jamie Hinks (Newcastle University, U.K.) Yu-jin Lee (Korea Institute of Energy Research, Korea) Kevin W. McNamara (Trophos Energy Inc., U.S.A.) Kyungmi Chung (Hokkaido University, Japan) Lay-Ching Chai (Universiti Putra Malaysia, Malaysia) Shi-Jie You (Harbin Institute of Technology, China) Kyoung-Yeol Kim (Gwangju Institute of Science and	Célls Üsing Precious-Metal-Free Cathodé Catalysts (NiMo, NiW) Powelopment Power Generation and Internal Resistance of Microbial Fuel Cell Affected by Interactions between Electrode Distance and Influent Fuel Concentration Interactions between external resistance, or- ganic load and fuel type in a single chambered air-cathode batch-fed microbial fuel cell Enhancing Factors of Electricity Generation in a Microbial Fuel Cell Using Geobacter sulfurreducens Commercial Development of Sediment-Based Microbial Fuel Cell Effect of biofilms and chemical precipitates in the cathode electrode on the continuous MFC performance Construction and performance of a charcoal air-cathode microbial fuel cell Advective U-shaped Microbial Fuel Cell for Stable Power Production in the Absence of Phosphate Buffer Hybridization of Glucose Enriched and Pro- pionate Enriched Anodes to Reduce Electron Losses in Glucose-Fed Microbial Fuel Cells
P-C-1 P-C-2 P-C-3 P-C-4 P-C-5 P-C-6 P-C-7	Chi-Yuan Lee [National Taiwan Ocean University, Taiwan] Jamie Hinks [Newcastle University, U.K.] Yu-jin Lee [Korea Institute of Energy Research, Korea] Kevin W. McNamara [Trophos Energy Inc., U.S.A.] Kyungmi Chung [Hokkaido University, Japan] Lay-Ching Chai [Universiti Putra Malaysia, Malaysia] Shi-Jie You [Harbin Institute of Technology, China] Kyoung-Yeol Kim [Gwangju Institute of Science and Technology, Korea] Krishna P. Katuri	Célls Üsing Precious-Metal-Free Cathodé Catalysts (NiMo, NiW) EM Development Power Generation and Internal Resistance of Microbial Fuel Cell Affected by Interactions between Electrode Distance and Influent Fuel Concentration Interactions between external resistance, or- ganic load and fuel type in a single chambered air-cathode batch-fed microbial fuel cell Enhancing Factors of Electricity Generation in a Microbial Fuel Cell Using Geobacter sulfurreducens Commercial Development of Sediment-Based Microbial Fuel Cell Effect of biofilms and chemical precipitates in the cathode electrode on the continuous MFC performance Construction and performance of a charcoal air-cathode microbial fuel cell Advective U-shaped Microbial Fuel Cell for Stable Power Production in the Absence of Phosphate Buffer Hybridization of Glucose Enriched and Pro- pionate Enriched Anodes to Reduce Electron Losses in Glucose-Fed Microbial Fuel Cells (MFCs] Hybrid reactor configuration for bio-electricity
P-C-1 P-C-2 P-C-3 P-C-4 P-C-5 P-C-6 P-C-7	Chi-Yuan Lee [National Taiwan Ocean University, Taiwan] Jamie Hinks [Newcastle University, U.K.] Yu-jin Lee [Korea Institute of Energy Research, Korea] Kevin W. McNamara [Trophos Energy Inc., U.S.A.] Kyungmi Chung [Hokkaido University, Japan] Lay-Ching Chai [Universit Putra Malaysia, Malaysia] Shi-Jie You [Harbin Institute of Technology, China] Kyoung-Yeol Kim [Gwangju Institute of Science and Technology, Korea] Krishna P. Katuri [Newcastle University, U.K.]	Célls Üsing Precious-Metal-Free Cathode Catalysts (NiMo, NiW) m Development Power Generation and Internal Resistance of Microbial Fuel Cell Affected by Interactions between Electrode Distance and Influent Fuel Concentration Interactions between external resistance, or- ganic load and fuel type in a single chambered air-cathode batch-fed microbial fuel cell Enhancing Factors of Electricity Generation in a Microbial Fuel Cell Using Geobacter sulfurreducens Commercial Development of Sediment-Based Microbial Fuel Cell Effect of biofilms and chemical precipitates in the cathode electrode on the continuous MFC performance Construction and performance of a charcoal air-cathode microbial fuel cell Advective U-shaped Microbial Fuel Cell for Stable Power Production in the Absence of Phosphate Buffer Hybridization of Glucose Enriched and Pro- pionate Enriched Anodes to Reduce Electron Losses in Glucose-Fed Microbial Fuel Cells [MFCs] Hybrid reactor configuration for bio-electricity generation and wastewater treatment Phylogenetic analyses of microbial com- munities developed in a cassette-electrode

	1	FC Application
P-D-1	Liu Hong (Beihang University, China)	Generate Electricity Directly Using Huma Feces Via Microbial Fuel Cell
P-D-2	Xiao Benyi (Research Center for Eco-Environmen- tal Sciences, China)	Treatment of sewage sludge with microb fuel cell
P-D-3	Tunc Catal (Oregon State University, U.S.A.)	Simultaneous Electricity Generation and Selenium Removal from Wastewater Usi Mediator-less Microbial Fuel Cells
P-D-4	Jin-Dal-Rae Choi (Korea Advanced Institute of Science and Technology, Korea)	Electricity generation in microbial fuel ce using Shewanella putrefaciens and food
P-D-5	Kee Suk Nahm (Chonbuk National University, Korea)	Microbial Electricity Generation of Divers Carbonaceous Electrodes
P-D-6	Tunc Catal (National University of Ireland, Ireland)	Electricity generation in microbial fuel ce from leachate produced during anaerobia digestion of grass silage
P-D-7	Yongwon Jeon (Konkuk University, Korea)	Electricity generation from animal waste in microbial fuel cells
P-D-8	Joo-Youn Nam (Korea Advanced Institute of Science and Technology, Korea)	Inhibition of electricity production by amr in single-chamber microbial fuel cells
P-D-9	Kiyoshi Omine (Kyushu University, Japan)	Development of Compost Type of Microbi Fuel Cell with Anaerobic Biodegradation
P-D-10	Shino Ishii (J. Craig Venter Institute, U.S.A.)	Wastewater treatment of primary clarifie fluent using an air-cathode microbial fue
P-D-11	Joung Yee Yoon [Hallym University, Korea]	Effect of Wastewater Sludge Pre-treatme Methods on the Electricity Generation in Microbial Fuel Cell
P-D-12	Hyung Joo Kim (Konkuk University, Korea)	Practical operation of microbial fuel cells hypereutrophic lake
P-D-13	Yujie Feng (Harbin Institute of Technology, China)	Comparison of Electricity Generation of N Amino Acids in Microbial Fuel Cells
P-D-14	Baogang Zhang [Peking University, China]	Factors Affecting the Performance of Mic Fuel Cells for Sulfide and Vanadium (V) T ment
P-D-15	Jae Cheul Yu (Pusan National University, Korea)	Power Production Comparison of Air-Ca Microbial Fuel Cell According to Different Types of Membrane
P-D-16	Tae-Sik Hwang [KORBI, Co., Ltd., Korea]	Biomonitoring System using Microbial F Cell
P-D-17	Sebastia Puig (University of Girona, Spain)	Start-up assessment of two Microbial Fu Cells for nutrient removal from wastewa
P-D-18	Keiichi Kubota (National Institute for Environmental Studies, Japan)	Treatment of sucrose-containing wastew by a Single-chamber Microbial Fuel Cell 20°C
P-D-19	Junyeong An (Gwangju Institute of Science and Technology, Korea)	A Combination of Sediment Microbial Fu (SMFC) and Simply Structured Floating-t Microbial Fuel (FT-MFC)
P-D-20	Jae kyung Jang (Rural Development Administration, Korea)	Limiting factors for current generation fo MFCs
P-D-21	Jong-Hwan Shin (Seoul National University, Korea)	A Novel Bio-reformer Converting Formic to Hydrogen for Use in Fuel Cells

