#### **108** December 2008 (Monday) SPEAKER (Affiliation Prof. Joon Ha Kim (Conference Chair, Director of Sustainable Water Resource Technology Center, GIST) 09:30-09:35 OPENING REMARKS Prof. Miriam Balaban (Chief editor of Desalination, 09:35-09:40 CONGRATORY REMARKS #1 Prof. Zuwhan Yun (President of Korean Society 09:40-09:45 CONGRATORY REMARKS #2 on Water Quality, Korea University Mr. Adrian Puigarnau (IWA Young Water Professionals Program Officer) 09:45-09:50 INVITED SPEECH FOR YWP Prof. In S. Kim (Executive Director of Center for Seawater Desalination Plant, GIST) 09:50-10:20 PLENARY LECTURE #1 TEA BREAK WATER RESOURCES AND DRINKING WATER TECHNOLOGIES C1 11:00-11:20 A2 C2 11:20-11:40 Δ3 C3 11:40-12:00 C4 LUNCH 13-10-13-40 SPECIAL LECTURE Laewon Cho. SPECIAL LECTURE (Hisashi Satoh) SPECIAL LECTURE (How Your No.) 13:40-14:00 14:00-14:20 C6 14:20-14:40 Α7 C7 14:40-15:00 R8 POSTER SESSION 15:30-15:50 15.50-16.10 A10 B10 C10 16-10-16-30 Δ11 B11 C11 16.30-16.50 A12 R12 TEΔ RREΔK 17-00-17-20 A13 B13 17-20-17-40 A14 B14 C14 17:40-18:00 B15

TIME	EVENT		SPEAKER (Affiliation)	
09:00-09:30	PLENAR'	Y LECTURE #2	Prof.Guibin Jiang (Associate editor of Environmental Science Technology, Chinese Academy of Sciences)	
		ERSHED MANAGEMENT IND PUBLIC HEALTH	CONVERGENCE WATER TECHNOLOGIES	ENERGY RECOVERY AND WATER GENERAL
Session Chair	Qiuw	en Chen / Lee-Hyung Kim	Sang Ho Lee / H.K. Shon	In Seop Chang / Kenneth Widmer
09:40-10:00		D1	E1	F1
10:00-10:20		D2	E2	F2
10:20-10:40		D3	E3	F3
10:40-11:00		D4	E4	F4
			TEA BREAK	
11:10-11:30		D5	E5	F5
11:30-11:50		D6	E6	F6
11:50-12:10		D7	E7	F7
12:10-13:20			LUNCH	
13:20-13:50	SPECIA	AL LECTURE (Qiuwen Chen)	SPECIAL LECTURE (Hee Chul Choi)	SPECIAL LECTURE (In Seop Chang)
13:50-14:10		D8	E8	F8
14:10-14:30		D9	E9	F9
14:30-14:50		D10	E10	F10
14:50-15:10		D11	E11	F11
			POSTER SESSION	
15:40-16:00		D12	E12	F12
16:00-16:20		D13	E13	F13
16:20-16:40		D14	E14	F14
16:40-17:00		D15	E15	F15
			TEA BREAK	
17:10-17:50		WRA	P-UP MEETING & CLOSING REM	IARKS
			CITY NIGHT TOUR	

10 December 2008 (Wednesday

**109** December 2008 (Tuesday

TECHNICAL TOUR

### **Welcome Message**



Conference chair Joon Ha Kim

> Director of Sustainable Water Resource Technology Ce (SWRTC), GIST

#### Welcome to the 1st IWA AP YWP conference.

Thank you for your interest in the 1st Asia-Pacific Young Water Professionals Conference. On behalf of the International Water Association (IWA), I would cordially welcome the opportunity to hold this conference with you at Gwangiu Institute of Science and Technology (GIST) in Gwangiu City, the

To reflect a motivation for young water professionals programme, the conference provides the expanded international communication among young and senior water professionals, and discusses main concerns in the fields of Drinking / Wastewater, Desalination/Water Reuse, Watershed Management/Public Health, and Convergence Technologies/Energy Recovery related to Waters at Asia-Pacific region. The conference also offers professionals to ensure that future needs of the fields are adequately addressed. Specific details for the conference are given in the announcement.

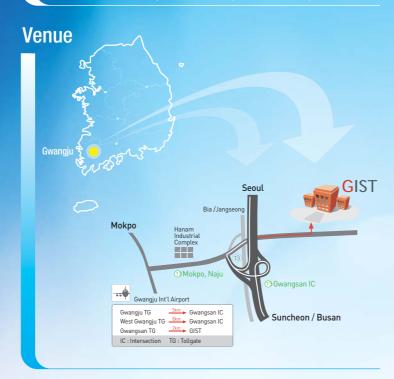
We look forward to welcoming you to this attractive conference and wish your success in the academic career arena.

Best Wishes,

See you at GIST!

## Registration

Registration	n fee	Early Bird Rate	Normal Rate	
IWA members	General	\$ 300	\$ 350	
	Student	\$ 250	\$ 300	
Non-IWA members	General	\$ 400	\$ 450	
	Student	\$ 350	\$ 400	





"Meeting Water Challenges in Asia-Pacific Region"

• When : December 08-10, 2008

• Where: GIST, Gwangju, Korea































Supporting Organizations









#### **About IWA**

The International Water Association is a global network of water professionals, spanning the continuum between research and practice and covering all facets of the water cycle.

#### **Invitation from Young Water Professionals**



Adrian Puigarnau Programmes Officer, International Water Association

On behalf of the International Water Association, and especially on behalf of the members of our Young Water Professionals Committee, I would like to welcome you to the 1st Asia Pacific Young Water Professionals Conference.

The conference, organised by a dedicated group of YWPs and their professors, reflects the spirit of our programme:

- It helps you to improve your presentation skills either if you had a platform presentation or a poster – and, at the same time, it provides you with the visibility that you deserve.
- It allows you to meet with established water professionals and ask them any questions that you might have about the your career development in the water sector
- But above all, it offers you the great opportunity to meet new people and to establish long-lasting relationships that will go with you through your professional life.

During the three days that you will be at the conference, my only advice will be: make the most of your time, learn from your peers and make it your mission to go come back home with new friends.

The organisers of the 1st Asia Pacific Young Water Professionals Conference have done a great job organising this fantastic event, and I am sure that we all will enjoy our time in Gwangju.

#### The 2<sup>nd</sup> IWA Asian-Pacific Young Water Professionals Conference 2009 in Beijing, China

#### "Water in Transition Region"

Organized by RCEES Chinese Academy of Sciences



Contact: Prof. Qiuwen Chen (Beijing) RCEES, Chinese Academy of Sciences qchen@rcees.ac.cn



## ORAL PRESENTATION

## **Session A.** Water resources and drinking water technologies

Session	Title	Presenter ( Nationality/Affiliation)
A01	A Project to Supply Safe and Tasty Water	<b>S. Takahashi</b> (JAPAN / Yokohama Waterworks Bureau)
A02	Small Hydraulic Structure to Maintain Reliable Water Municipal Supply	Annie Wulandari (INDONESIA / University of Indonesia)
A03	Improvement of resolution in direct membrane integrity test by controlling solution surface tension	J.H Lee (KOREA / KOREA University)
A04	Breakthrough curve for one dimensional solute transport through a soil column	Santosh G. Thampi (INDIA / National Institute of Technology in Kerala
A05	Analysis of a Nepalese water resources system: stress, adaptive capacity and vulnerability	Vishnu Prasad Pandey (NEPAL / University of Yamanashi)
A06	Effect of Algae Growth on the Operation Properties of Drinking Water Treatment System combined with Membrane	Minkoo Park (KOREA / KUMHO Engineering & Construction)
A07	Dynamic Change of Nonpoint Source Pollutants during Storm Flow Conditions	Yi, Qitao (CHINA / Hanseo University)
A08	Removal of N-Nitrosodimethylamine (NDMA) from Raw Drinking Water by PAC and Mesoporous Silica Adsorption	Q. Zaib (PAKISTAN / Hanyang University)
A09	Arsenic occurrence in groundwater of Kathmandu Valley, Nepal	Saroj K. CHAPAGAIN (NEPAL / University of Yamanashi)
A10	Tea Drinking Habit for Reducing Copper Concentration in Drinking Water	Handojo Djati Utomo (MALAYSIA / University Teknologi Malaysia)
A11	Statistical approaches for surface water quality evaluation	Seo Jin Ki (KOREA / Gwangju Institute of Science and Technology
A12	Occurrence of perchlorate in drinking water sources in KOREA	<b>Hyun-koo Kim</b> [KOREA / National Institute of Environmental Research
A13	Rice Husk Fe-MCM-41 as an Adsorbent for Arsenic Removal	Suthipong Sthiannopkao (THAILAND / Gwangju Institute of Science and Technology
A14	Urban river restoration strategies with respect to the environmental flow for sustainable development, Gwangju River, Korea	Sung Min Cha (KOREA / Gwangju Institute of Science and Technology
A15	Effects of chemical/physical water treatment technologies on removal of retinoic acid receptor agonistic activity in sewage effluent	Daisuke Inoue (JAPAN / Osaka University)

## Session D. WATERSHED MANAGEMENT AND PUBLIC HEALTH

ession	Title	Presenter ( Nationality/Affiliation)
D01	Characterization of heavy metal pollution in river sediment of Hanoi City and its downstream area by multivariate analyses	<b>Tetsuro Kikuchi</b> (JAPAN / Meisei University)
D02	Sequential application of principal component analysis and autocorrelation Analysis for interpreting the seasonal variation of water quality in the Yeongsan Reservoir, Korea	Kyung Hwa Cho (KOREA / Gwangju Institute of Science and Technology)
D03	Application of bioassay and chemical analysis to the urban dust and surface runoff at a mega city [Gwangju, KOREA]	Thuy Chung Nguyen (VIETNAM / Gwangju Institute of Science and Technology
D04	Influence of Surface State of Paddy Fields on Pollutant Load Outflow in Non-irrigation period	Hyungjun LEE (KOREA / Tottori University)
D05	Estrogenic activity and endocrine disrupting chemicals in sewage and river water using yeast two-hybrid assay and ELISA	Byoung-cheun Lee (KOREA / National Institute of Environmental Research)
D06	Development of Statistical Linear Regression Model for Metals from Transportation Landuses	Marla C. Maniquiz (PHILIPPINES / Kongju National University)
D07	Eutrophication management using control of hydrodynamic parameter from water quality modeling in integrated reservoirs, Korea	Yongeun Park (KOREA / Gwangju Institute of Science and Technology)
D08	Design of a Water Quality Monitoring Network in a Large River System	Jung Hyun Choi (KOREA / Ewha Womans University)
D09	LH-OAT Sensitivity Analysis of LEACHN Model	Jaewoopark (KOREA / Hanyang University)
D10	A Comparative Scenario Analysis to reduce Non-point Source Pollution using a SWAT model in an Urban Watershed, Gwangju, KOREA	Joo-Hyon Kang (KOREA / Gwangju Institute of Science and Technology)
D11	Development of Water Safety Plans in Tokyo Waterworks	Kazuki Wako [JAPAN / Tokyo Metropolitan Government]
D12	Efforts for Improving Water Quality Control using ISO 9001 in Purification Dept. of Yokohama Waterworks Bureau	H .Kuroko (JAPAN / Yokohama Waterworks Bureau)
D13	A study of methods to predict dispersion coefficient using ordinary and partial equations	Seungwon Lee [KOREA / Gwangju Institute of Science and Technology]
D14	Occurrence of pharmaceutical compounds in estuarine wetland influenced by with wastewater effluent	Eunkyung Lee (KOREA / Gwangju Institute of Science and Technology
D15	Fundamental system on simultaneous removal for phytoplankton and nutrient salt in lakes	Kazuo TAKI (JAPAN / Chiba Institute ofTechnology)

## **Session B.** WASTEWATER TREATMENT TECHNOLOGIES

Session	Title	Presenter ( Nationality/Affiliation)
B01	Influences of chloride ion on electrochemical oxidation of pigment wastewater using Ti/IrO2 tube type electrode	Jongsik Jeong (KOREA / Ukseung Chemical Co., Ltd)
B02	Development of a new hollow-fiber module [KIMAS 60] for municipal wastewater treatment	Moon Sun Kang (KOREA / Kolon E&C)
B03	Requirement of Existing Primary Settling Tank Retrofitting for Maximizing Internal Carbon Source Usage for Treating Typical KOREAn Sewage	Mi-Hwa Kim (KOREA / Hanyang University)
B04	Growth of microalgae in diluted process water of the animal wastewater treatment plant	Ki Young Park (KOREA / Konkuk University)
B05	Buffering Capacity in Anaerobic Baffled Reactor Treating Carbohydrate-Protein Wastewater	Sopa Chinwetkitvanich [THAILAND / Mahidol University]
B06	Biological nitrogen and phosphorus removal in UCT-type MBR process	Hansaem Lee (KOREA / KOREA University)
B07	Influence of the wastewater composition on denitrification and biological p-removal in the S-DN-P-Process: Effect of wastewater fractions (d)	Hee-Jeong Choi [KOREA / Kwandong University]
B08	Comparisons of in vitro bioassay with MCF-7 cells and recombinant receptor gene assay in river water and sewage treatment plants, KOREA	Hyun-young Kim [KOREA / Gwangju Institute of Science and Technology
B09	Microbial Risk Assessment in UV Disinfected Wastewater Irrigation on Paddy using E.Coli	Han-Pil Rhee [KOREA / Konkuk University]
B10	Evaluation of a Low-Pressure Membrane Filtration for Retrofitting of Water Treatment Plant	Jihee Moon (KOREA / Kolon E&C)
B11	Performance of Anaerobic Hybrid Reactor (AHR) in treating synthetic modified-starch wastewater contained high salt concentration	Benjaphon Suraraksa (THAILAND / National Center for Genetic Engineering and Biotechnology (BIOTEC)
B12	Process evaluation of BNR process for statistical process control	Sang Woo An [KOREA / Hanyang University]
B13	The Performance and Analysis of Natural and Ecological Wastewater Treatment System	Yeong-Kwon Son [KOREA / Konkuk University]
B14	Evaluation of full scale BNR plants for piggery wastewater	S.W. OA (KOREA /Woosong University)
B15	Harnessing Wastewater by Microbes: Hollow Fiber Type – Microbial Fuel Cell	Daehee Kim (KOREA / Gwangju Institute of Science and Technology

## Session E. CONVERGENCE WATER TECHNOLOGIES

Session	Title	Presenter ( Nationality/Affiliation)
E01	Factors Affecting the Reductive Transformation of Nitroaromatics by Zerovalent Iron: Dissolved Anions, Adsorption, Iron Loss, and Possibility of Clogging	Seok-Young Oh (KOREA / University of Ulsan)
E02	Simultaneous domestic wastewater treatment and denitrification in an up-flow horizontal channel microbial fuel cell	H. Y. Ng (SINGAPORE / National University of Singapore)
E03	Feasibility study of water softening in capacitive deionization	Seok-Jun Seo (KOREA / Gwangju Institute of Science and Technology)
E04	Comprehension about microbial metabolites generated by electricigens in MFCs	Kyoung-Yeol Kim (KOREA / Gwangju Institute of Science and Technology)
E05	The performance and fouling characteristics of different pore -size submerged ceramic membrane bioreactors (SCMBR)	H. Y. Ng (SINGAPORE / National University of Singapore)
E06	Reduction of nitrate by resin-spported nanoscale zero-valent iron	Sang-Hyup Lee (KOREA / Korea Institute of Science and Technology)
E07	Investigation of anaerobic bio-hydrogen gas production from organic digester sludge waste under various operational conditions	Young Haeng Lee (KOREA / Korea Institute of Science and Technology)
E08	Microbial Fuel Cell Operation with Triiodide ions as cathodic electron acceptor	Folusho F Ajayi (NIGERIA / Gwangju Institute of Science and Technology
E09	Biofilm-community selection during autohydrogenotrophic reduction of nitrate and perchlorate in ion-exchange brine	Joonhong Park (KOREA / Yonsei University)
E10	Treatment of carbon materials to enhance capacitance for electrosorption of ions in capacitive deionization systems	Revocatus L Machunda (TANZANIA / Gwangju Institute of Science and Technology)
E11	Anaerobic Co-digestion and Biogas Production Using Food Wastewater and Swine Manure By KH-ABC System	Youngseob Yu (KOREA / Kumho Engineering & Construction)
E12	Biohydrogen Production from Glucose using Visible Light -harvesting Function of Mg Chlorophyll-a as Photosensitizer	Mi-Jin Choi (KOREA / Gwangju Institute of Science and Technology)
E13	Occurrence of Antibiotics in Hospital, Drug Production Facility Effluents and the Rivers in Taiwan	Tsung-Hsien Yu (TAWAN / National Taiwan University)
E14	Assessment of water quality with pathogenic bacteria and antibiotic -resistant Escherichia coli in the Yeongsan River basin, KOREA	Ha Na Yoo (KOREA / Gwangju Institute of Science and Technology)
E15	Optimization and Characterization of Nano-composite Electrochemical Bio-label for Detection of Microcystin-LR	Hye-Weon Yu (KOREA / Gwangju Institute of Science and Technology)

## **Session C.** DESALINATION AND WATER REUSE

ession	Title	Presenter ( Nationality/Affiliation)
C01	Development of a new membrane fouling index: a novel approach	S. H. Choi (KOREA / KOREA University)
C02	A review of NOM fouling models in seawater reverse osmosis process	<b>Monruedee</b> [THAILAND /Gwangju Institute of Science and Technology]
C03	Multiple Hybridization using Quantum dot-DNA Probes for Rapid Analysis of Microbial Community on RO Membrane	Jinwook Lee (KOREA / Gwangju Institute of Science and Technology
C04	Negative pressure external membrane bioreactor for domestic wastewater reuse	Nguyen Thi Thanh Hoan (VIETNAM / KOREA University)
C05	Surface characterization of reverse osmosis membrane under seawater conditions	J.H Yang (KOREA / KOREA University)
C06	Simulation and Optimization of Reverse Osmosis Membrane Networks for Seawater Desalination Plant	Young Mi Kim (KOREA/Gwangju Institute of Science and Technology)
C07	Removal Efficiency and Microbial Community in Long-term operated Sub-surface Constructed Wetland for Bathroom Wastewater Treatment and Reuse in Apartment Complex	Kyoung Hak Hyun [KOREA / Korea National Housing Corporation]
C08	A Mathematical Model for Predicting the Performance of a Reverse Osmosis Membrane	Young Geun Lee [KOREA / Gwangju Institute of Science and Technology
C09	Chemical aspects of organic fouling of reverse osmosis membranes under seawater condition	Y.B. Yu (KOREA / KOREA University)
C10	Application of Quorum Quenching Principles against Biofilm-Formation on an RO Membrane	Diby Paul [INDIA / Konkuk University]
C11	Comparison of Fouling Behaviors in Forward Osmosis (FO) and Reverse Osmosis (RO)	Sangyoup Lee (KOREA / KOREA University)
C12	Complete prediction of performance of reverse osmosis process using solution-diffusion transport theory	Phan Vu Xuan Hung VIETNAM / Gwangju Institute of Science and Technology
C13	Biofouling minimization in reverse osmosis membrane processes by integrated biochemical technology based on bacterial signaling control	M. J. Kim (KOREA / KOREA University)
C14	Energy Saving Methodology with Controlling Feed Water Temperature and Pressure for SWRO Desalination Process using Genetic Programming	Seung Joon Kim (KOREA / Gwangju Institute of Science and Technolog)
C15	Photocatalytic Organic Removal for Wastewater Reuse with simultaneous Photocatalytic Hydrogen Production	H.K. Shon (Australia / University of Technology, Sydney)

# Session F. ENERGY RECOVERY AND WATER GENERAL

Session	Title	Presenter ( Nationality/Affiliation)
F01	Selenium nanoparticles produced by Shewanella sp. HN41: size control and formation of selenium nanowire from spherical nanoparticles	<b>Cuong T. Ho</b> (VIETNAM / Gwangju Institute of Science and Technology)
F02	Performance of reactive membrane incorporated with iron oxide nanoparticles for arsenic removal	Hosik Park [KOREA / Gwangju Institute of Science and Technology!
F03	Effect of thermochemical sludge pretreatment on the performance of the partial sludge recycling A2/0- membrane bioreactor	Rajesh Banu. J. (INDIA / Sungkyunkwan University)
F04	Removal characteristic of Mn(II) using manganese coated solids	Wongee Kim (KOREA / GreenTec co.)
F05	Performance of electron beam irradiation for treatment of ground water contaminated with acetone	Yeo Joon Yoon (KOREA / Yonsei Institute of Environmental Science and Technology)
F06	Improvement of wastewater management: how to set effluent standard	Ijung Kim (KOREA / KOREA Institute of Science and Technology)
F07	TCE degradation modeling in soil column: Effect of iron, iron-reducing bacteria, and substrate	Yeunook Bae (KOREA / Hanyang University)
F08	Nutrient Removal in a Coir Geotextile Biofilter for the Onsite Treatment of Organic Rich Low Volume Industrial Wastewater	Santosh .G.Thampi (INDIA / National Institute of Technology)
F09	Application of Mn-AC and Fe-AC on the treatment of multi-contaminants	M. R. Yu (KOREA / Kwangwoon University)
F10	A New GA-based Data Fusion Methodology for Detecting Harmful Algal Blooms	Taegyun Jeon (KOREA / Gwangju Institute of Science and Technology
F11	Screening method for potential wastewaters to be pretreated by zero-valent iron	J. W. Lee (KOREA / KOREA University)
F12	Enhanced Bio-Energy Recovery in a Two-Stage Hydrogen/Methane Fermentation Process	<b>JiHyeon Song</b> [KOREA / Sejong University]
F13	Determination of Electron Transfer Kinetics in Microbial Fuel Cell	Phuc Thi Ha (VIETNAM / Gwangju Institute of Science and Technology)
F14	Antibiotic Resistance E. coli from feces of livestock in Jeollanam-do , South Korea	<b>Dukki Han</b> [KOREA / Gwangju Institute of Science and Technology
F15	Progressive Billing: A Novel Approach to Solve Global Water Crises	Garg Ankur (INDIA / Indian Institute of Technology)

## POSTER PRESENTATION

## Session P. Poster Session

P01	Features of hypereutrophication in urbanized area, Bangladesh	Roksana Jahan
P02	Long-Term Trend Analyses of Water Qualities Based on Non-Parametric Statistical Methods	Jung Hyun Cho
P03	Effect of Iron Reducing Bacteria on Nano-scale Zero Valent Iron	Young-Do Park
P04	Source tracking with Escherichia coli in the Yeongsan River, South KOREA using the multiple- antibiotic-resistance profiles	T. Unno
P05	The difference of hydraulic conductivity with tidal effect at costal rock aquifer in Yongho bay, Busan city, KOREA	Tae Yeong KIM
P06	The fluctuation of sea-water/fresh-water transition zone with the tidal effect at coastal rock aquifer in Yongho bay, Busan city, KOREA	Sung Soo KIM
P07	Ozonation of seawater for SWRO desalination plant  Long-Term Trend Analyses of Water Qualities In Saemangeum Watershed, KOREA Using the	Byung Soo Oh
P08	Statistical Methods	Hyewon Lee
P09	Microbiological monitoring of acid mine drainage treatment systems and aquatic surroundings using real-time PCR	C. G. Kim
P10	Levels of perfluorootanesulfonate and perfluorooctanoate in river and sediment from KOREA	lg-chun Eom
P11	The calibration curves for analysis of the protein/carbohydrate and the estimation of passive adsorption using hydrophilic membrane	Jo-Eun Lee
P12	Estimation for Membrane Resistance and Recovery Rate of contaminated hydrophilic membrane through passive adsorption in an activated bioreactor	Sang-Woo Shin
P13	Effects of EBCT and Water Temperature on HAA Removal using BAC Process	Hee-Jong Son
P14	Simultaneous determination of Divalent METAL EDTA complexes in wastewater by Ion Chromatography	Muhammad Shahzad Khi
P15	Fabrication of Zero Valent Iron(ZVI) Nanotube Film via Potentiostatic Anodization and Electroreduction	Jun-Won Jang
P16	Dynamic parameter estimation to calibrate the activated sludge model for an enhanced biological phosphate removal process	Jongrack Kim
P17	Biofilm/Membrane Filtration for Reclamation and Reuse of Rural Integrated Wastewater	Suk-Ju Lee
P18	Enhanced phosphorous recovery from EBPR sludge in the presence of condensed phosphate	Rajesh Banu. J.
P19	Nitrification monitoring and aeration time control based on DO dynamics in a sequencing batch reactor	D.H. Kim
P20 P21	Reclamation of BNR Process Effluent using Denitrifying filter and Sand filter  A Study on the Efficiency of the DAF Process Using Ozone Injection	Jung-yeol Lee Chul W., Lee
	Prediction of Membrane Fouling in Pilot-Scale Microfiltration System Using Artificial Neural	
P22	Network Model and Genetic Programming  Application of monitoring & control system for 2-methylisoborneol (MIB) removal by PAC for	Tae-Mun Hwan
P23	drinking water treatment	Tae-Mun Hwan
P24 P25	Potential application of membrane bioreactor with nonwoven fabric filter for rural water  Nitrogen removal from an aged landfill by leachate recirculation	Xianghao Ren Junghun Lee
	Application of computational fluid dynamics for Improving the distribution and circulation of	3
P26	sponge media in aerobic basin and sponge-sustaining screen design	Kyu-Jung Chae
P27	Development of Alternative External Carbon Source for Advanced Sewage Treatment System and its Field Applicability Assessment	Byung-Gil Jung
P28	Development and Field Assessment of D0 Control System in an Aeration Tank for Automation of Sewage Treatment Plant	Byung-Gil Jung
P29	Application of Coal Ash for Polyvinyl alcohol (PVA) Immobilization of Nitrifying Bacteria for Effective Ammonia-Nitrogen Removal	Sopa Chinwetkitva
P30	Enhanced TPH Degradation and Heavy Metal Leaching of Diesel- Contaminated Soil by Hydrogen Peroxide (H <sub>3</sub> 0 <sub>3</sub> ) in Korea	Byung-Gil Jung
P31	Application of Microwave Heating for Diesel-Contaminated Soil Remediation in Korea	Nak-Chang Sur
P32	Development of Ubiquitous Monitoring System for Management at Influent of Sewage Treatment Plant	Byung-Gil Jung
P33	Application of Ultrasonic System for Enhanced Sewage Sludge Disintegration : A Comparative Study of Single- and Dual- Frequency	Yoo-Jin Jung
P34	Removal efficiency of arsenic by adsorbents having different type of metal oxides	B. K. Kim
P35	Polybrominated diphenyl ethers[PBDEs] and Tetrabromobisphenol-A(TBBPA) in biota, aquatic environments and sediments from industrial complex, KOREA	Eun-ju Kim
P36	Determination of Extremely Low Level 14C-Labeled N-Nitrosodimethylamine Using Liquid Scintillation Counter	Lee Jin
P37	Pilot Testing for novel mathematical model for dissolved organic matter and nitrogen removal by advanced aerated submerged biofilm reactor	YI. Choi
P38	Decolorization and semi-batch continuous treatment of molasses distillery wastewater by Aspergillus tubingensis DCT6	Takashi Watana
P39	Enhanced drinking water treatment during sequential treatment of UV/H202 followed by Cl2:	Jae-hong Kim
P40	Microbial inactivation and contaminants degradation  Fabrication of carbon membranes by pyrolysis of hydrocarbon using a modified chemical vapor deposition	Sang-Dae Bae
P41	Study on mercury-coated electrode for quantum dot-based electrochemical detection of microcystin-LR	Giang Huong Ngu
P42	Effect of organic/inorganic materials in hybrid module of ceramic MF and GAC adsorption for advanced water treatment	Jin Yong Park
P43	Pretreatments for Sludge Solubilization and Energy Recovery	H.Y. Kim
P44	Granulation of Nitrifying Bacteria in a Sequencing Batch Reactor: Distribution of Ammonia Oxidizers and Nitrite Oxidizers	Y. Kim
P45	Finding the most resistant bacteria on the fouled RO membrane	Ji-Yeon Jung
P46	Development of simple continuous flow measurement method for the accurate monitoring of	Young Haeng Lo
	erratic and gas-containing membrane permeate flux	
P47 P48	Measurement of Oxygen Diffusion Coefficient and Proton Conductivity of CEMs for Use in MFCs  Electricity Harvest Using Simply Structured Marine Mud Battery with Tidal-mud	Eunkyoung Ji Junyeong An
P49	Characterization of the electrochemical properties for the prepared heterogeneous cation-	Yong-Hee Lee
P50	exchange membranes and their heterogeneity  Isolation and identification of microorganisms in seawater used for desalination Process	Youngpil Chun
	Substrate Specificity Change of Naphthalene Dioxygenase:	•
P51	Effect of Phenylalanine 224 at the Active Site of the Enzyme	J. Seo
P52	Presence of Isoeugenol Monooxygenase Gene in a Gene Cluster Involved in Metabolism of Isoeugenol and Eugenol by Pseudomonas nitroreducens Jin1 and Gene Expression Patterns of Metabolic Genes	JY. Ryu
P53	Distribution of Membrane Resistance due to the Fouling in a Vessel	Do Yeon Kim
P54 P55	Biogenic Formation of As-S Nanotubes by Shewanella sp. Strains  Hydro-chemistry and microbial activity in a Sphagnum microcosm	S.H. Jiang Young-Joo Kim
P56	Titanium Tetrachloride (TiCl4) and Titanium Sulfate (Ti (SO4)2) as Coagulants for Wastewater Treatment	Y. Okour
P57	Centralized and Semi Centralized Systems - Tools in assisting asset management works in water	Zailan Shariff
P58	and wastewater business  Removal of Cu(II) with the Hydroxyapatite (animal bone) as Inorganic Ion Exchanger	Wongee Kim
P59	Biogeographic Features: Identification and Quantification of Reductive Dechlorinating Bacteria in Estuarine and Tidal Flat Sediments	Jaejin Lee
P60	Integrated Metagenomic Approach to Detect Novel Enzyme of Biphenyl Oxygenase in Estuarine and Tidal Flat Sediment	Tae Kwon Lee