General Session and Opening Ceremony  
(9:00 am—12:00 pm, August 8, 2013)

9:00 Welcome Remarks:  
Weixing Tong, Ph.D., President of SCCAEPA  
Jeff Kuo, Ph.D., President of OCEESA  
Scarlett Kwong, President of CIE-SoCal

9:20 Dignitary Speeches:  
Judy Chu, Ph.D., US Congresswoman, CA-27 (to be confirmed)  
Xuesong Huo, Secretary of Chinese Society for Environmental Sciences  
Larry, L.G., Chen, Ph.D., Chairman of Taiwan Environmental Sustainable Development Foundation

10:00 Keynote Speeches:  
Frank Hsia-San Shu, Ph.D., member of National Academy of Science (USA) (or substitute)  
Jimin Hao, Ph.D., member of Chinese Academy of Engineering  
Shaw-Chen Liu, Ph.D., member of Academia Sinica

LUNCHEON PRESENTATION (12:40 — 1:10 PM)  
Michael R. Hoffmann, Ph.D., member of National Academy of Engineering (USA)
TECHNICAL SESSION 1A:
Wastewater treatment

Moderators:
Jason Wen, Ph.D., P.E., Utility Superintendent
City of Downey
Jian Peng, Ph.D., Environmental Scientist
Orange County Watersheds Program

Speakers:
1:30 Removal of steroid estrogens from waste activated sludge using Fenton oxidation
Li, Yongmei; Tongji University
1:55 Fate and biodegradation of estrogens in the environment and engineering systems
Song, Hai-Liang; Southeast University
2:20 Enzymatic degradation of pharmacetical contaminants in water by a hollow fiber membrane module
Sung, Menghau; Tunghai University
2:45 Degradation of extracellular polymeric substances (EPS) in high-solid anaerobic digestion of dewatered sludge
Dong, Bin; Tongji University

3:10-3:30pm Coffee Break

3:30 Influence of Fe\(^{2+}\)-sodium persulfate on extracellular polymeric substances and dewaterability of sewage sludge
Shi, Yafei; Huazhong University of Science and Technology
3:55 Influence of continuous Zn (II) on the organic degradation capability and soluble microbial products (SMP) of activated sludge
Liu, Yan; Fudan University
4:20 Effect of short-time aerobic digestion on bioflocculation of extracellular polymeric substances from waste activated sludge
Zhang, Zhiqiang; Tongji University

TECHNICAL SESSION 1B:
Wastewater treatment

Moderators:
Charles Cheng, Ph.D. Engineering Geologist, San Diego Regional Water Quality Control Board
Guangyu Wang, Ph.D., Deputy Director, Santa Monica Bay Restoration Commission

Speakers:
1:30 Phylogenetic analyses of human adenoviruses (HAdVs) in recycled activated sludge of municipal wastewater treatment plant
Kuo, Hsion-Wen; Tunghai University
1:55 Structure dynamics and function of microbial community in a denitrifying dephosphatation system
Lu, Xiwu; Southeast University
2:20 Microbial community analysis of dry anaerobic digested sewage sludge under mesophilic condition
Dai, Xiaohu; Tongji University
2:45 Activated biomass enrichment and excess biomass decrease from municipal wastewater by a bacteria-chlorella-Daphnia magna artificial food web system
Huo, Mingxin; Northeast Normal University

3:10-3:30pm Coffee Break

3:30 A self-contained, PV-powered domestic toilet and waste water disinfection system
Qu, Yan; California Institute of Technology
3:55 Construction and performance studies of a microbial fuel cell based on the degradation of organic pollutants by cyanobacteria with the novel redox mediator
Zhou, Peijiang; Wuhan University
4:20 Relationship between lake Whatcom algal densities, water quality, and filtration rate at the Bellinghem Water Treatment Plant, WA
He, Bowei; Western Washington University
TECHNICAL SESSION 1C:

Industrial Waste Management

Moderators:
Jason Wen, Ph.D., P.E., Utility Superintendent
City of Downey
Jian Peng, Ph.D., Environmental Scientist
Orange County Watersheds Program

Speakers:

1:30 A dye self-photosensitization photocatalytic fuel cell (DSPFC) with BiOCl/Ti photoanode
Jia, Jinping; Shanghai Jiao Tong University

1:55 Using sodium persulfate for the oxidation of dye wastewater treatment
Shu, Hung-yee; Hungkuang University

2:20 Adsorptive removal of thiocyanate by layered double hydrotalcite modified with silver chloride
Zhang, Jingdong; Huazhong University of Science and Technology

2:45 Recovery of acetic acid from mixed waste acids of electronic industry by simple distillation with partial neutralization pretreatment
Du, Dongyun; South-Central University for Nationalities, Wuhan

3:10-3:30pm Coffee Break

3:30 Study of nitrogen transformation of paper-making wastewater by ozonation
Zeng, Ke; Zhengzhou University

3:55 Treatment of wastewater with high concentration of aniline and harvesting polyaniline from the water through suitable chemical oxidation process
Wang, Dihua; Wuhan University

4:20 High efficiency microwave-enhanced catalytic degradation (MECD) of environmental organic pollutants with nano-sized metal oxides
Shu, Youn-Yuen; National Kaohsiung Normal University

Continued SESSION 1C

4:45 Studies on preparation of REC/ZnO/TiO₂ nanocomposites and its decolourization of methylene blue by photocatalysis
Zhou, Peijiang; Wuhan University

5:10 Wastewater management and applications in the Los Angeles Region, California, USA
Tsai, Tsau-Don; Los Angeles Regional Water Quality Control Board
TECHNICAL SESSION 1D:

Surface Water - Nutrients/Eutrophication

Moderators:
Charles Cheng, Ph.D. Engineering Geologist, San Diego Regional Water Quality Control Board
Guangyu Wang, Ph.D., Deputy Director, Santa Monica Bay Restoration Commission

Speakers:

1:30 Coagulation-microfiltration process for treatment of algae-rich water
   Dong, Bingzhi; Tongji University

1:55 Effect of climate change on cyanobacteria bloom in Lake Taihu
   Qian, Xin; Nanjing University

2:20 Evaluation of the improved anaerobic baffle reactor performance during start-up operation treating cyanobacteria
   Yu, Yaqin; Southeast University

2:45 A DPSIR model combined with screening indicators for eutrophic lake ecological security assessment
   Zhen, Wang; Wuhan University

3:10-3:30pm Coffee Break

3:30 Modeling analysis and adsorption characteristic studies of the phosphorus in Honghu Lake wetland
   Zhang, Liang; Institute of Geodesy and Geophysics, Chinese Academy of Sciences

3:55 Studies on algae bloom of Xiangxi River in the Three Georges Reservoir Area based on Multiple Parameter model
   Li, Haiyan; Wuhan University

4:20 Process development of pre-pressure coagulation and sedimentation for removing cyanobacteria in source water
   Cong, Haibing; Yangzhou University

Continued SESSION 1D

4:45 On climate changes and sustainable water environment: impacts and strategic adaptation
   Huang, Chin-Pao; University of Delaware

5:10 The EPA established Malibu Creek and Lagoon TMDL
   Lin, Cindy; U.S. Environmental Protection Agency
Technical Program

Thursday, August 8, 2013

1:30—5:30 pm

TECHNICAL SESSION 1E:
Soil and Groundwater

Moderators:
Jason Wen, Ph.D., P.E., Utility Superintendent
City of Downey
Jian Peng, Ph.D., Environmental Scientist
Orange County Watersheds Program

Speakers:

1:30 Groundwater pollution and remediation technologies of China
Wu, Yanqing; Shanghai Jiaotong University

1:55 Experimental conditions optimization and kinetic studies on the decolorization of azo dyes by Dactylococcopsis acicularis with mediator catalyzed
Zhou, Peijiang; Wuhan University

2:20 Occurrence and concentrations of perfluorinated chemicals and pharmaceuticals in groundwater in Taiwan
Lin, Angela YC; National Taiwan University

2:45 Treatment of high levels of chlorinated solvents in soil vapor using C3 technology
Xiong, Zhong; AMEC

3:10-3:30pm Coffee Break

3:30 Impact of sulfate on selection of remediation methods - lesson from several case studies
Zhai Scarlett; AECOM, Orange, California

3:55 Degradation of dichloromethane by zero-valent copper and vitamin B₁₂
Lo, Shang-Lien; National Taiwan University

4:20 Using filtering techniques to improve subsurface contaminant model accuracy
Chang, Shoou-Yuh; North Carolina A&T State University

4:45 Phytoremediation by afforestation on heavy metal contaminated farmlands and the carbon sequestration estimation in Taiwan
Chang Ming-Chin; HungKuang University

TECHNICAL SESSION 1F:
Air Quality

Moderators:
Charles Cheng, Ph.D. Engineering Geologist, San Diego Regional Water Quality Control Board
Guangyu Wang, Ph.D., Deputy Director, Santa Monica Bay Restoration Commission

Speakers:

1:30 Atmospheric organic carbon and elemental carbon over East China Sea: One year observation at a downwind site of continental outflow
Wang, Fengwen; Fudan University

1:55 Managing effective leak detection and repair programs
Chen, Jay; Former AQMD

2:20 An electrochemical membrane reactor for a recycled flue gas desulfurization process
Yang, Ji; East China University of Science and Technology

2:45 The synergistic mechanism and microbial population succession in an anaerobic methane oxidation and denitrification system
Li, Lin; Chinese Academy of Sciences

3:10-3:30pm Coffee Break

3:30 Concentrations of polybrominated diphenyl ethers (PBDEs) in different categories of dust from a typical large open-plan office: indoor distribution, variability, and potential exposure
Chen, Ling; Tongji University

3:55 Development and field-scale application of hydrogen sulfide removal technology from COREX coal gas by high sulfur capacity desulfurizer
Sun, Tonghua; Shanghai Jiaotong University

4:20 Leachate odor removal by a full-scale biofilter in a sanitary landfill site: factors and microbial characteristics
Li, Lin; Chinese Academy of Sciences
Continued SESSION 1F

4:45 Emission of greenhouse gases and airborne bacteria from a wastewater treatment plant using oxidation ditch
Xu, Yan; Chinese Academy of Sciences
TECHNICAL SESSION 2A:

Wastewater treatment

Moderators:
Jason Wen, Ph.D., P.E., Utility Superintendent
City of Downey
Jian Peng, Ph.D., Environmental Scientist
Orange County Watersheds Program

Speakers:

8:30 Nitrogen removal from nitrate-laden wastewater by integrated vertical-flow constructed wetland systems
Liang, Wei; Institute of Hydrobiology, Chinese Academy of Sciences

8:55 The carbon source absorption, releasing and utilization within A-A N wastewater treatment process
He, Chengda; Yangzhou University

9:20 The performance of UASB operation on the removal of COD, P and N in swine wastewater with heavy metals
Zhu, Duanwei; Huazhong Agricultural University

9:45 Nitrogen and phosphorus removal behaviors in the new anaerobic-anoxic/nitrifying/induced crystallization process
Shi, Jing; Southeast University

10:10-10:30pm Coffee Break

10:30 Enhancement effects of iron on the biomass production, nutrient removal and lipid accumulation of Scenedesmus sp.LX1
Zhao, Wenyu; Guiling Univ of Tech

10:55 The assembly of magnetic metal ozone catalyst decompose humic acid
Lu, Li-wei; Tunghai University, Taiwan

11:20 Complete dechlorination of 2,4-dichlorophenol in aqueous solution on Pd/Ppy-CTAB/Foam-Ni composite electrode
Sun, Zhirong; Beijing University of Technology

TECHNICAL SESSION 2B:

Wastewater treatment

Moderators:
Charles Cheng, Ph.D. Engineering Geologist, San Diego Regional Water Quality Control Board
Guangyu Wang, Ph.D., Deputy Director, Santa Monica Bay Restoration Commission

Speakers:

8:30 Correlation of key control factors for the formation and stabilization of aerobic granule
Zhu, Liang; Zhejiang University

8:55 Optimization of phase time of SBR combined with simultaneous nitrification and denitrification and denitrifying dephosphatation
Zhu, Guangcan; Southeast University

9:20 Identifying key parameters to a novel bio-ecological wastewater treatment process combined with A2O biofilm and hydrophyte filter bed for rural areas
Wu, Yifeng; Purdue University

9:45 The performance enhancement of aerobic granular sludge (AGS) reactor for perspective practical application
Yang, Chang zhu; Huazhong University

10:10-10:30pm Coffee Break

10:30 Effects of Ca(II) on the performance and the membrane fouling of a submerged membrane bioreactor
Xia, Siqing; Tongji University

10:55 Extended kalman filter for parameter estimation in membrane bioreactor process model using batch experimental data
Wu, Jun; Yangzhou University
Saturday, August 10, 2013

8:30 am — 12:00 pm

TECHNICAL SESSION 2D:
Surface Water—Drinking Water Supply

Moderators:
Charles Cheng, Ph.D. Engineering Geologist, San Diego Regional Water Quality Control Board
Guangyu Wang, Ph.D., Deputy Director, Santa Monica Bay Restoration Commission

Speakers:
8:30 Impact of small amount of chlorine dioxide on chlorine disinfection efficiency
Huo, Mingxin; Northeast Normal University
8:55 Iodinated trihalomethane formation from microbially derived organic matter during the biological treatment of micro-polluted source water
Wei, Yuanyuan; Tongji University
9:20 The impact study of hexavalent chromium on the environmental safety of the drinking water source from the Jiangsu section of the Yangtze River basin
Sun, Xiaoxiao; Nanjing University
9:45 Bromate formation in O₃, UV/O₃ and UV-microO₃ processes for bromide-containing water
Zhao, Guangyu; Southeast University
10:10-10:30pm Coffee Break
10:30 A mobile, rapid platform for the characterization of cyanobacteria and metabolites in drinking water reservoirs
Lin, Tsair-Fuh; National Cheng Kung University
10:55 The relationship between pre-treatment and critical flux of ultrafiltration for drinking water production from Taihu River
Li, Weiying; Tongji University
11:20 Inactivation of viruses in environmental waters by titanium dioxide coupled with solar radiation
Jiang, Sunny; UCI, Nibo University

TECHNICAL SESSION 2C:
Industrial Wastewater

Moderators:
Jason Wen, Ph.D., P.E., Utility Superintendent
City of Downey
Jian Peng, Ph.D., Environmental Scientist
Orange County Watersheds Program

Speakers:
8:30 Treatment of chromium-containing wastewater using ferrate process under ambient temperatures
Wu, Junyi; National Cheng Kung University
8:55 Feasibility of constructed wetland planted with Leersia hexandra Swartz for removing Cr, Cu and Ni from electroplating wastewater
Liu, Jie; Guiling University of Technology
9:20 Biosorption of Cu²⁺ from aqueous solution using de-oiled soybean treated by NaOH (DOS-NaOH): Isotherms, kinetics and thermodynamics
Gao, Jingfeng; Beijing University of Technology
9:45 Fluoride recovery from spent fluoride etching solution through crystallization of Na₃AlF₆ (synthetic cryolite)
Li, Chi-Wang; Tamkang University, Taiwan
10:10-10:30pm Coffee Break
10:30 Preparation and characterization of poly-silicic-cation coagulant with different pH
Li, Ran; Shanxi
10:55 Preparation and evaluation of carboxymethylpullulan-aluminium chloride as a coagulant for water treatment: A case study with kaolin
Kang, Jianxiong; Huazhong University of Science and Technology
TECHNICAL SESSION 2E:

Soil and Groundwater

Moderators:
Jason Wen, Ph.D., P.E., Utility Superintendent
City of Downey
Jian Peng, Ph.D., Environmental Scientist
Orange County Watersheds Program

Speakers:

8:30 Root acid invertases are associated with elevated shoot-to-root resource allocation of metallophyte *Elsholtzia haichowensis* under copper stress
Xiong, Zhiting; Wuhan University

8:55 Effects of bio-supramolecule and metal ions on the adsorption of fluoroquinolone antibiotic onto soils
Qian, Shahua; Wuhan University

9:20 Isolation, identification and biodegradation characteristics of a bifenthrin-degrading bacterium
Miao, Li; Yangzhou University

9:45 Remediation of heavy metal contaminated soil using a solidification/stabilization technology
Hou, Haobo; Wuhan University

Continued SESSION 2D

11:45 Emergency response platform building for Suzhou regional water supply
Li, Shuping; Tongji University

10:10-10:30pm Coffee Break

10:30 Rapid index of soil gas investigation from CPC gasoline spill sites in Taiwan
Chen, Hung-Ta;

10:55 Analysis on organochlorine pesticides residue in soils of Jianghan Plain, China
Shen, Rui-li; Hubei Institute of Geological Survey

11:20 Remediation of arsenic contaminated soil by in situ ferrrous compound treatment
Zhu, Lihua; Huazhong University of Science and Technology
Saturday, August 10, 2013

8:30 am — 12:00 pm

TECHNICAL SESSION 2F:

Low Carbon Economy and Sustainable Development

Moderators:
Charles Cheng, Ph.D. Engineering Geologist, San Diego Regional Water Quality Control Board
Guangyu Wang, Ph.D., Deputy Director, Santa Monica Bay Restoration Commission

Speakers:

8:30 Exergy analysis of energy utilization for China’s railway transport enterprises
Huang, Tao; Southwest Jiaotong University

8:55 Application of AHP and fuzzy synthetic evaluation for integrated regional environmental assessment - A case study in North Bund Shipping Service Cluster, Shanghai
Li, Weiying; Tongji University

9:20 Integrated photobioreactor system for microalgal CO₂ fixation: feasibility testing and energy appraisal
Den, Walter; Tunghai University, Taiwan

9:45 Sustainable strategy for urban water resource and environment
Ren, Nanqi; Harbin Institute of Technology

10:10-10:30 pm Coffee Break

10:30 Study on water-saving of heat-transfer system in a chemical industrial park
Luo, Lan; Tongji University

10:55 Development and implementation of waste-to-resources supply chain exemplified by Yong-An industrial park
Pan, S.Y.; National Taiwan University

11:20 Renewable biofuels for transportation: U.S. perspectives
Wu, Jy-Shing; University of North Carolina at Charlotte, USA

11:45 E-Waste recycling at Jackson State University
Yuan, Pao-Chiang; Jackson State University

Continued SESSION 2E

11:45 Remediation of 2,4-dichlorophenol contaminated soil by ZVI/EDDS/air system
Lu, Xiaohua; Huazhong University of Science and Technology
TECHNICAL SESSION 3A:

Wastewater treatment

**Moderators:**
Jason Wen, Ph.D., P.E., Utility Superintendent  
City of Downey  
Jian Peng, Ph.D., Environmental Scientist  
Orange County Watersheds Program

**Speakers:**

1:30  **Formation of carbonaceous and nitrogenous disinfection by-products during monochloramination of oxytetracycline including N-Nitrosodimethylamine**  
Tian, Fuxiang; Tongji University

1:55  **Study on influencing factor of phosphorus removal with two-stage biological filter by alternated aration**  
Zheng, Jun; Anhui University of Technology

2:20  **Research progress in the treatment of phthalic acid esters in water Environment**  
Song, Guojing; Northeast Normal University

2:45  **Biodegradation and detoxification of endosulfan in endosulfan-contaminated soil by Alcaligenes faecalis strain JBW4**  
Zhu, Lusheng; Shangdong Agriculture University

3:10-3:30pm  **Coffee Break**

3:30  **Toxicity studies of three antibiotics on Microcystis aeruginosa**  
Zhang, Weihao; Wuhan University

3:55  **Computer-controlled liquid-phase microextraction combined with other analytical techniques for environment analysis**  
Wang, Lingling; Huazhong University of Science and Technology

3:10-3:30pm  **Coffee Break**

3:30  **Wastewater treatment towards environmental-footprint reduction and resource capture: A refined assessment framework and case study**  
Wang, Xu; Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences

TECHNICAL SESSION 3B:

Wastewater treatment

**Moderators:**
Charles Cheng, Ph.D. Engineering Geologist, San Diego Regional Water Quality Control Board  
Guangyu Wang, Ph.D., Deputy Director, Santa Monica Bay Restoration Commission

**Speakers:**

1:30  **Mesoporous aluminosilicate synthesized with biomass ash and their adsorption properties to heavy metals Pb^{2+}**  
Zhou, Min; Wuhan University

1:55  **The syngas production and dioxins yield characteristics in sludge gasification and incineration**  
Chen, Chong; Shanghai Urban Construction Design & Research Institute

2:20  **Preparation and characterization of polyacrylonitrile/bentonite blend membrane for wastewater filtration**  
Wang, Pan; Tongji University

2:45  **The simulation, verification and optimization of the sedimentation tank of a high-efficient device for treating stormwater overflows**  
Wang, Hongwu; Tongji University

3:10-3:30pm  **Coffee Break**

3:30  **Wastewater treatment towards environmental-footprint reduction and resource capture: A refined assessment framework and case study**  
Wang, Xu; Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
**TECHNICAL SESSION 3C:**

**Solid and other (Agriculture) Waste**

**Moderators:**
Jason Wen, Ph.D., P.E., Utility Superintendent  
City of Downey  
Jian Peng, Ph.D., Environmental Scientist  
Orange County Watersheds Program

**Speakers:**

1:30 Renovation of used lithium cobalt oxide from lithium ion rechargeable battery by ultrasonic irradiation  
Zhang, Zheming; He, Wenzhi; Tongji University

1:55 Electrochemical recovery of gallium using deep eutectic solvents  
Wang, H. Paul; National Cheng Kung University, Taiwan

2:20 Evaluation of the process imbalance in anaerobic digestion of food waste  
Xuya, Peng; Chongqing University

2:45 Degradation of bisphenol A by hydrogen peroxide activated with CuFeO$_2$ microparticles as heterogeneous Fenton-like catalyst: efficiency, stability and mechanism  
Tang, Heqing; South-Central University for Nationalities, Wuhan

3:30 Defluoridation from aqueous solution by chitosan modified natural zeolite  
Sha, Peng; Wuhan University

3:55 Noise harm and noise control engineering  
Fang, Danqun; US Sound & Vibration Institute

4:20 Research and solution of occupational noise in print industrial factory in China  
Zhu, Yidan; US Sound & Vibration Institute
TECHNICAL SESSION 3D:
Surface Water - Hydromodification

Moderators:
Charles Cheng, Ph.D. Engineering Geologist, San Diego Regional Water Quality Control Board
Guangyu Wang, Ph.D., Deputy Director, Santa Monica Bay Restoration Commission

Speakers:
1:30 Research on ecological health risk assessment and prediction of hydro-fluctuation belt in the Three Gorges Reservoir region
Zhou, Peijiang; Wuhan University
1:55 Effect of flow rate on environmental variables and phytoplankton dynamics: results from field enclosures
Li, Feipeng; Tongji University
2:20 Multi-factor analysis of water area changes in Hanjiang River Basin
Li, Baishan; Wuhan University
2:45 Modeling analysis method of multifactor on water blooms in Hanjiang River Basin
Li, Baishan; Wuhan University
3:10-3:30pm Coffee Break
3:30 Spatial distribution of perfluorinated compounds in water from East Lake and Hangjiang River, China
Chen, Jing; Huazhong University of Science and Technology
3:55 Priority control screening and water quality benchmarking of toxic chemicals in China: necessity, method and a case study
He, Wei; Peking University
4:20 Degradation of atrazine in water by nanoscale zero-valent iron supported on modified wheat bran
Xiao, Zhidong; Huazhong Agricultural University
4:45 A field study on phytoremediation of sediment dredged from urban eutrophic lakes
Wu, Juan; Tongji University

TECHNICAL SESSION 3E:
Surface Water

Moderators:
Jason Wen, Ph.D., P.E., Utility Superintendent
City of Downey
Jian Peng, Ph.D., Environmental Scientist
Orange County Watersheds Program

Speakers:
1:30 Southern California Bight regional monitoring program – Orange County perspective
Peng, Jian; Orange County Watersheds Program, CA, USA
1:55 Using steel slag to remedy heavy metals pollution in marine
Wang, Jun; Qingdao Association for Science and Technology
2:20 Water pollution prevention and the initial permit allocation on main pollutants from major sectors of industries in the Hanjiang River basin as an example of the Xiangyang city part of the Hanjiang River basin
Zhou, Peijiang; Wuhan University
2:45 Ecoregion based environmental protection mechanism in Taihu Lake basin
Li, Bing; Jiangsu Provincial Academy of Environmental Sciences
3:10-3:30pm Coffee Break
3:30 A combined system of lagoon and the constructed wetland for effectively controlling agriculture runoff pollution in Tai Lake region, China
Wu, Lei; Southeast University
3:55 Strategic study on pollution control and restoration of Tangxi River, Hefei City
Ning, Bo; Hefei New Binhu Region Construction Investment Co.
4:20 Residues and risk assessment of typical persistent organic pollutants in Dianshan Lake, Shanghai
Qiu, Yanling; Tongji University
Saturday, August 10, 2013  
1:30—5:30 pm

**TECHNICAL SESSION 3F:**

**Low Carbon Economy and Sustainable Development**

**Moderators:**
Charles Cheng, Ph.D. Engineering Geologist, San Diego Regional Water Quality Control Board  
Guangyu Wang, Ph.D., Deputy Director, Santa Monica Bay Restoration Commission

**Speakers:**

1:30  Assessing spatiotemporal variability of NPP, NEP and carbon sinks of North America, Europe, Australia & China in response to global climate change from 1911 to 2000  
Li, Jianglong; Nanjing University

1:55  Greenhouse gas permitting requirements and practices in the U.S  
Chen, Jay; Former AQMD

2:20  Shanghai’s CO₂ emissions and policy implication for low carbon construction  
Zhu, Haochen; Tongji University

2:45  Building towards a sustainable city: assessment for urban ecological impact and carbon sink  
Den, Walter; Tunghai University, Taiwan

3:10-3:30pm  Coffee Break

3:30  Analysis of present situations of industrial carbon emissions and its decoupling relationship with economic development in the central China  
Zhou, Peijiang; Wuhan University

3:55  Research on eco-compensation for water conservation based on WTA: case study of Miyun Reservoir, China  
Yu, Bing; Beijing Normal University

4:20  Enhanced hydrogen production of *Rhodobacter sphaeroides* promoted by extracellular H⁺ of *Halobacterium salinaum*  
Ye, Jiang-Yu; Chongqing University

Continued **SESSION 3E**

4:45  Potential effect and accumulation of veterinary antibiotics in phragmites australis under hydroponic condition  
Liao, Jie; Xiamen University of Technology
4:45 Biofuel energy production as catalyst for sustainable agriculture in Nigeria
Luke Onyekakeyah, Guardian Newspapers Ltd

5:10 The sustainable development of cleaner production and circular economy for PCB industry
Robert C. Lao and Youn Y. Shu; Hua-Xia New Resources Group, Kaohsiung Normal University
TECHNICAL SESSION 3E:

Surface Water

Moderators:
Jason Wen, Ph.D., P.E., Utility Superintendent  
City of Downey  
Jian Peng, Ph.D., Environmental Scientist  
Orange County Watersheds Program

Speakers:

1:30 Southern California Bight regional monitoring program – Orange County perspective  
Peng, Jian; Orange County Watersheds Program, CA, USA

1:55 Using steel slag to remedy heavy metals pollution in marine  
Wang, Jun; Qingdao Association for Science and Technology

2:20 Water pollution prevention and the initial permit allocation on main pollutants from major sectors of industries in the Hanjiang River basin- as an example of the Xiangyang city part of the Hanjiang River basin  
Zhou, Peijiang; Wuhan University

2:45 Ecoregion based environmental protection mechanism in Taihu Lake basin  
Li, Bing; Jiangsu Provicial Academy of Environmental Sciences

3:10-3:30pm Coffee Break

3:30 A combined system of lagoon and the constructed wetland for effectively controlling agriculture runoff pollution in Tai Lake region, China  
Wu, Lei; Southeast University

3:55 Strategic study on pollution control and restoration of Tangxi River, Hefei City  
Ning, Bo; Hefei New Binhu Region Construction Investment Co.

4:20 Residues and risk assessment of typical persistent organic pollutants in Dianshan Lake, Shanghai  
Qiu, Yanling; Tongji University

Continued SESSION 3E

4:45 Potential effect and accumulation of veterinary antibiotics in phragmites australis under hydroponic condition  
Liao, Jie; Xiamen University of Technology
Friday, August 9, 2013

Site Visits

Friday 8:30 a.m.—4:30 p.m.

Direction: Meet in hotel lobby at 8:30 a.m. (Long pants & walking shoes required!)

**Trip 1 (Wastewater Treatment)**
Coordinator:
Jian Peng, Ph.D., Environmental Scientist
Orange County Watersheds Program

- 1. Orange County Sanitation District Wastewater Treatment Plant
  http://www.ocsd.com/education/tours.asp

- 2. Orange County Water District- The Groundwater Replenishment System
  http://www.gwrsystem.com

  - Has production capacity of 70 million gallons (265,000 m³) per day
  - Takes highly treated wastewater and purifies it to near-distilled quality water
  - Cost $481 million (US Dollars)
  - Is one of the most celebrated civil engineering and water reuse projects in the world.

Site Visits

Trips Run Concurrently

Direction: Meet in hotel lobby at 8:30 a.m. (Long pants & walking shoes required!)

**Trip 2 City of Los Angeles Hyperion Waste Water Treatment Plant (morning), West Basin Municipal Water District - Advanced Recycled Water Facility (afternoon)**

Coordinator:
Steve Fan, P.E, Plant Manager, Hyperion Treatment, City of Los Angeles

Hyperion Plant— Dry weather average design treatment capacity of 450 million gallons per day (mgd) and a wet weather peak hydraulic capacity of approx. 850 mgd. One of the largest plants in the US

West Basin Recycled Water Facility (WBWRF) —24 mgd of secondary effluent sent to West Basin for advanced treatment. As one of the largest recycled water plants in the nation, WBWRF is the only treatment facility in the US to provide five qualities of “designer” or custom-made recycled water for various municipal, commercial and industrial applications.
Reducing the impacts of goods movement on health and the environment is a top priority for the Port of Long Beach. In 2006, the Port of Long Beach, with the Port of Los Angeles adopted the landmark Clean Air Action Plan (CAAP). The CAAP, updated in 2010, was developed in coordination with the United States Environmental Protection Agency Region 9, the California Air Resources Board, and the South Coast Air Quality Management District. The CAAP focuses on strategies to reduce health risk to communities surrounding the ports and targets reductions of diesel particulate matter (DPM), nitrogen oxides (NOx), and sulfur oxides (SOx) from goods movement-related sources. Aboard the Harbor Breeze “Caroline”, the 90-minute Harbor Boat Tour will highlight the Port’s significant air quality improvement efforts, and provide an opportunity to see the Port of Long Beach from the water-side and get an up-close look at port operations as they happen.

1. Irvine Desalter Project at former El Toro marine base (TCE plume). The project is a joint cleanup project between Irvine Ranch Water District, Orange County Water District, and the US Navy. Beginning full operation in January 2007, the project includes multiple pumps that extract water from the plume that is treated to remove the TCE. The cleaned water is used for non-drinking water purposes in IRWD’s extensive recycled water system.

2. Site cleanup project at former Tustin Marine Corps Air Station (MCAS). The site has a famous blimp hanger (a National Civil Engineering Landmark) which was decommissioned in 1999. The site has been undergoing intensive cleanup of its soil and groundwater due to contamination of MTBE, TCE, and other pollutants. Remediation technologies include air sparging, soil excavation, and groundwater pump & treat.
Friday, August 9, 2013

Friday 8:30 a.m.—4:30 p.m.  Trips Run Concurrently

**Trip 5 (San Diego)**
Direction: Meet in hotel lobby at 7:30 a.m.

**Coordinator:**
Charles Cheng, Ph.D. Engineering Geologist, San Diego Regional Water Quality Control Board, Cal EPA

1. San Dieguito Lagoon Restoration Project - this site demonstrates wetland restoration and environmental mitigation projects.

2. San Diego Water Purification Demonstration Project - this site uses state-of-the-art technologies to treat wastewater to drinking water standard (1-1.5 hour).

3. La Jolla ASBS (Areas of Special Biological Significance) - this site demonstrate BMPs for stormwater treatment, and have a chance to visit the famous SIO and La Jolla Cove.

4. Point Loma Wastewater Treatment Plant - this site demonstrates offshore ocean disposal and is uniquely exempted for secondary treatment requirement by CWA. Guests have a chance to visit the Point Loma Light-house and tide pool, as well as a grand view of Downtown San Diego.

**Trip 6 (CEQA Projects, City of Los Angeles)**

**Coordinator:**
Rebecca Chou, Ph.D., P.E. Section Chief, Cal/EPA Los Angeles Regional Water Quality Control Board, Cal EPA

The Bureau of Engineering (BOE) will provide a briefing on CEQA and CERCLA mandated procedures for design and construction of public works. The briefing will entail presentations in a class-room setting (provided by BOE) and a visit to at least one project site (arranged & lead by BOE).

About 2–3 hours in class-room (tentatively at City of Los Angeles Public Works Building, 1149 S Broadway, Los Angeles):

- **Anticipating Significant Environmental Issues:** A general description of the environmental review process required by the California Environmental Quality Act with examples and emphasis on chemical contamination issues.

- **Identifying & Remediating Chemical Contamination:** A general description of the City’s procedures for environmental site assessment, characterization and remediation with examples drawn from Bureau projects.
Special Workshop and Forum
Soil and Groundwater Contamination Cleanup Technologies and Government Regulation & 2013 Contaminated Site Remediation Technology Innovation and Industry Development Forum

Presented By
Southern California Chinese American Environmental Protection Association (SCCAEPA) Science & Technology Innovation Union for Contaminated Site Remediation (STIUCSR)

Time: August 12—15, 2013
Location: Los Angeles/San Gabriel Hilton, 225 West Valley Boulevard San Gabriel, CA 91776

August 12, 2013
1. Heavy Metal Soil Contamination Cleanup Technologies and Case Study
3. In-Situ Remediation Technology Applications and Expected Outcomes
4. Refinery Site Contamination Cleanup and Management

August 13, 2013
1. Procedures and Regulations on Off-Site Disposal of Excavated Contaminated Soil in State of California
2. Applications of Environmental Forensics in Contaminated Site Assessment, Source Identification and Site Cleanup
3. School Site Contamination Management and Risk Assessment Standards in California
4. “Brown Field” Project Management in California

August 14 - Field trips:
Soil Remediation; In-situ Remediation; UST cleanup; and groundwater wellhead treatment system

August 15, 2013
1. Model Analysis on Impact of Groundwater Contamination to Surface Water Quality
2. Regulations on Soil, Soil Vapor and Groundwater Sampling and Laboratory Analysis in California
3. Contaminated Site Remediation Policy and Technology Development in China
4. Public Participation and Its Impact to the Environment Recovery Projects
Special Workshop

Integrated Water Resource Management in the United States

Presented By
Oversea Chinese Environmental Engineers and Scientists Association (OCEESA)
A Chapter of Chinese Institute of Engineers, USA (CIE-USA)

Time: August 12 - 14, 2013
Location: Los Angeles/San Gabriel Hilton
225 West Valley Boulevard, San Gabriel, CA 91776

August 12, 2013: Wastewater Treatment and Reclamation
- Wastewater treatment practices
- Treatment plant management and discharge compliance
- Industrial wastewater pre-treatment

Air Quality Management in Metro Los Angeles Area
- Smog control and air quality management
- Odor and VOC control in wastewater and sludge treatment
- Greenhouse gases and alternative energies

August 13, 2013: Sludge Management and Resource Recovery
- Sludge anaerobic digestion
- Biosolid treatment and beneficial reuse
- Biogas production and energy recovery

Water Reclamation/Reuse and Watershed Management
- Watershed management and storm-water runoff BMPs
- Water reclamation/reuse and groundwater recharge
- Treatment plant effluent disposal and monitoring

August 14, 2013: Field Trip
Ground Water Replenishment System (GWRS) www.gwrsystem.com
- the world largest advanced wastewater purification system for potable reuse.

Forum
- Interactive discussion on workshop topics by all participants
Symposium Steering Committee

Committee Co-Chairs:
Weixing Tong, Ph.D., PG., CHG., CEG., Unit Chief, Los Angeles Regional Water Quality Control Board (LARWQCB), Cal EPA

Jeff Kuo, Ph.D., P.E., Professor, Dept. of Civil and Environmental Engineering, California State University, Fullerton

Members:
- Charles Cheng., P.G., Engineering Geologist, San Diego RWQCB, Cal EPA
- Rebecca Chou, Ph.D., P.E., Section Chief, LARWQCB, Cal EPA
- Steve Fan., P.E., Plant Manager, Hyperion Wastewater Treatment Plant, City of Los Angeles
- Scarlett Kwong, President of CIE-Southern California Chapter
- Sunny Jiang, Ph.D., Professor, University of California, Irvine, CA
- Anmin Liu, P.E., President of AML Engineering Consultants
- Kun Liu., Ph.D.,
- Yue Rong, Ph.D., Section Chief, Cal/EPA LARWQCB
- David Shaw, Ph.D., Professor, State University of New York at Buffalo, NY
- Michael E. Shiang, RG., CHG, President, ADvTECH Environmental, Inc.
- Tony Torng., Ph.D. Chairman of CIE-Southern California Chapter
- Guangyu Wang., Ph.D., Deputy Director, Santa Monica Bay Restoration Commission
- Jason Wen., Ph.D., P.E., Utility Superintendent, City of Downey
- Eric Wu., Ph.D., P.E., Unit Chief, LARWQCB, Cal EPA

Other Events

- University campus tours (University of California, Los Angeles and Irvine) (August 7, 2013)
- Universal Studios Hollywood tour (August 11, 2013)
- Tour for wineries and Cabazon Factory Outlets Mall (August 11, 2013)
- Technical tour to Hoover Dam and Grand Canyon (August 12–14 or August 16-18)
- Golf tournament (subject to number of applicants) (August 11, 2013)
- Ping-pong tournament (subject to number of applicants) (August 11, 2013)
- Special Roundtable Meeting and Ensenada Cruise, Mexico (subject to number of applicants) (August 16-19, 2013)