

**2010 International Symposium on Sustainable
Energy: Challenges and Opportunities
(ISSE2010)**

Final Program

**February 5-8, 2010
XIJIAO HOTEL, Beijing, China**

Sponsored by

Bureau of Personnel and Education, Chinese Academy of Sciences, China

Bureau of International Cooperation, Chinese Academy of Sciences, China

Organized by

Institute of Process Engineering, Chinese Academy of Sciences, China

Academy Chairman

Prof. Jinghai Li, Member & Vice President, Chinese Academy of Sciences

Conference Chairman

Prof. Suojiang Zhang, Deputy Director in General,

Institute of Process Engineering, Chinese Academy of Sciences

Executive Chairman

Prof. Guangwen Xu, Institute of Process Engineering, Chinese Academy of Sciences

Welcome Address

Welcome to 2010 International Symposium on Sustainable Energy: Challenges and Opportunities (ISSE2010) in Beijing from February 5th to 8th. Energy sustainability provides the essential guarantee of sustainable development, which not only generates challenges to both academy and industry but creates also opportunities for innovation. The International Symposium on Sustainable Energy: Challenges and Opportunities, aims to provide an international forum for presentation, discussion and review of the latest advance in innovative strategies, policies and technologies for maintaining sustainable energy production, supply and utilization. The symposium will contribute to an interactive discussion on sustainable development of renewable energy and innovative clean utilization of fossil fuels, especially coal.

The symposium was sponsored by the Bureau of Personnel and Education and the Bureau of International Cooperation, Chinese Academy of Sciences (CAS). The organization work was undertaken by the Research Group of Ionic Liquids and Clean Energy and the Research Group of Advanced Energy Technology of Institute of Process Engineering (IPE), CAS. The Personnel and Research Offices of IPE, CAS, provided great assistance to the organization work.

We would like to thank you again for your attending ISSE2010 and your contribution to the success of the symposium.



Chairmen of ISSE2010

Program at a Glance

Time	Event	Venue
Feb. 5th(Friday)		
9:30~20:30	Registration	Reception Desk
12:00~13:30	Lunch	Yiyuan
17:30~19:00	Reception	Shangyuan
Feb. 6th(Saturday)		
8:30~8:50	Opening Ceremony	Jinyuan Hall
8:50~10:15	Plenary	
10:15~12:10	Invited and Oral Sessions	
12:10~13:30	Lunch	Shangyuan
13:30~17:50	Invited and Oral Sessions	Jinyuan Hall
17:50~	<i>Bus departure for YiJin Yuan</i>	
18:30~21:00	<i>Banquet at YiJin Yuan</i>	
Feb. 7th(Sunday)		
8:20~9:45	Plenary	Jinyuan Hall
9:45~12:15	Invited and Oral Sessions	
12:15~13:40	Lunch	Shangyuan
13:40~17:45	Invited and Oral Sessions	Jinyuan Hall
17:45~20:00	Dinner	Shangyuan
Feb. 8th(Monday)		
8:40~	Bus Departure for Institute of Process Engineering	
9:00~10:30	Technical Tour	Institute of Process Engineering
10:30~11:30	Discussion between IPE Scholars and Oversea Attendees	
12:00~13:30	Lunch	Shangyuan

Notification to Delegates

(1) Registration

Please kindly collect the conference package for ISSE2010 when you arrive at the registration area. Your registration fee covers meals and banquet during the symposium period as well as the Technical tour in the morning of February 8th.

(2) Oral presentation

Please copy your PPT file into our PC before your session. Please do not use a CD-ROM, DVD, or floppy disk. The software for the presentation is Microsoft Powerpoint 2003. Please do not forget to test the projection when you copy your file into our PC since a PC may change the arrangement of figures and characters, and generally, use of fonts in foreign languages may cause a problem.

The time for each kind of reports is as follows:

Plenary Lecture	35 min
Invited Lecture	25 min
Oral presentation	15 min

It is suggested that you should leave about 5 min for questions and comments.

	Plenary	Invited Lecture	Oral Presentation
1st ring	25	18	10
2nd ring (end of talk)	30	20	12
3rd ring (end of discussion)	35	25	15

(3) Poster

Posters should be passed to the organization office at the registration and the office will be responsible for posting your posters for February 6th or 7th. Posters (90 cm wide by 120 cm high) should be mounted on the poster board on February 5, 2010.

(4) Transportation

We will not arrange pick-up at airport and train stations. Please take taxi or any other transportation tool to reach the hotel, Beijing Xijiao Hotel. Our staff will meet you there.

More information about Beijing XiJiao Hotel is available in the website of <http://www.xijiao-hotel.com.cn/>. It is about 30 km from Beijing International Airport and you can reach it via TAXI at cost of about 100 RMB. If you arrive at any train stations of Beijing, you can also take TAXI at cost of not over 100 RMB.

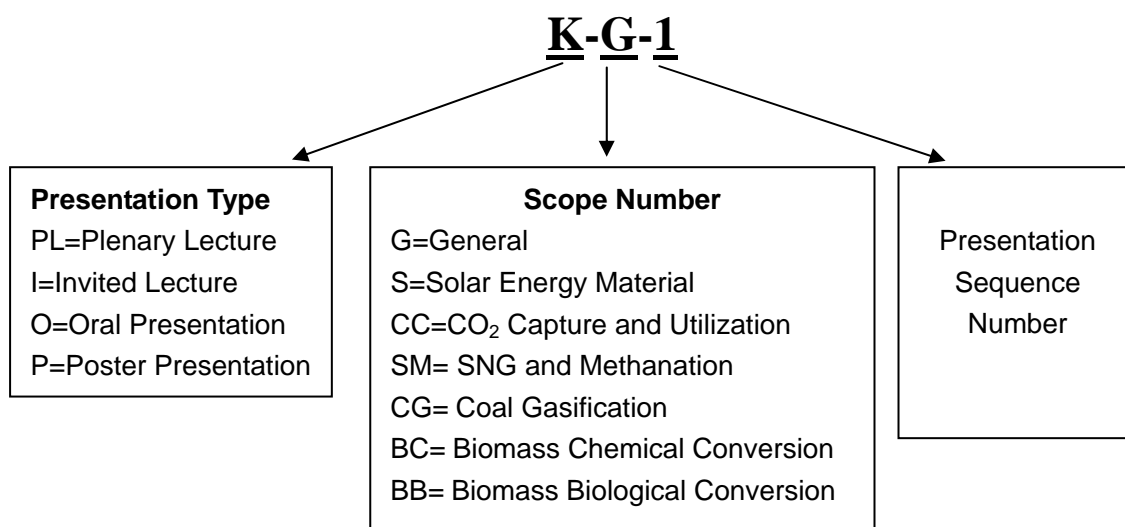


(4) Helper

When you meet any problem please do not hesitate to contact: Ms. Junrong Yue (13521394790), Ms. Jingai Tian (13601026062).

Guide for the Presentation ID Number

Each presentation in the symposium, both in oral and poster sessions, is assigned to a presentation ID number which is illustrated as below:



ISSE2010 Agenda, Jinyuan Hall

February 6 (Saturday)

Time	Title	Speaker	Affiliation
8:30~8:50	Opening for Symposium		
Plenary (Chair: Suojiang Zhang)			
8:50~9:25	PL-1: Towards Virtual Process Engineering- Multi-Scale Simulation on Multi-Scale HPC Systems	Jinghai Li	CAS
9:25~10:00	PL-2: Some Special Features of Low-Rank Fuel Gasification	Chunzhu Li	Curtin University of Technology
10:00~10:15	Coffee Break		
General (Chair: Tai-Shung Chung, Zifeng Ma)			
10:15~10:40	I-G-1: Energy Storage – A Key to Renewable Energy Utilisation and Low Carbon Economy	Yulong Ding	University of Leeds
10:40~11:05	I-G-2: Developing China's Low-Carbon Economy: The Role of Bioenergy	He Huang	Nanjing University of Technology
11:05~11:30	I-G-3: The Future Picture of Energy Based on My Many Years of Experience Working at Different Sectors of Energy Industry in US	Ke Liu	National Institute of Clean and Low-Carbon Energy
11:30~11:55	I-G-4: A Systematic Methodology for Sustainability Assessment in the Design of Chemical/Energy Production Systems	Helen Lou	Lamar University
11:55~12:10	O-G-1: Cyclic Economy in Textile Industry	Gong Yan	Beijing institute of fashion technology
12:10~13:30	Lunch		
Solar Energy Material (Chair: Yulong Ding, Wei Liu)			
13:30~13:55	I-S-1: Design and Fabrication of Organic/Inorganic Hybrid Ordered Materials for Photovoltaic Application	Hongzheng Chen	Zhejiang University
13:55~14:20	I-S-2: Structure Determination of Periodic Porous Materials	Junliang Sun	Stockholm University
14:20~14:45	I-S-3: Electrochemical Energy Storage for the Substitutional Energy System Application	Zifeng Ma	Shanghai Jiao Tong University
14:45~15:00	O-S-1: Enhancement of Energy Conversion and Utilization via Nanoscale Crystallization Strategies: A Useful Viewpoint from Materials Science	Dongfeng Xue	Dalian University of Technology
15:00~15:15	O-S-2: Preparation of Silica Nanoparticles using Silicon Tetrachloride	X. Cai	Soochow University
15:15~15:30	O-S-3: Study of Low-Temperature Metallurgical Methods for Si Purification	Lixin Zhao	IPE,CAS
15:30~15:45	Coffee Break		

CO₂ Capture and Utilization (Chair: Yong Wang, He Huang)			
15:45~16:10	I-CC-1: State of the Art Membrane Technologies for Clean Energy (Natural Gas and Hydrogen) and CO ₂ Capture	Tai-Shung Chung	National University of Singapore
16:10~16:35	I-CC-2: Perspectives of Green Technology Innovations with Reduced Carbon Foot Print: CO ₂ Capture, Biomass Conversion, Others	Wei Liu	Pacific Northwest National Lab
16:35~17:00	I-CC-3: Carbon Dioxide Reforming of Methane Over Nickel Supported Mesoporous Material Catalysts with Superior Stability	Yanhui Yang	Nanyang Technological University
17:00~17:25	I-CC-4: Sustainable Transportation Fuels from Off-peak Wind Energy, CO ₂ , and Water	F. David Doty	Doty Energy
17:25~17:40	O-CC-1: Key Scientific Issues of Ionic Liquids for Applications	Xiangping Zhang	IPE, CAS
17:40~	Bus departure for Yijin Yuan		
18:30~21:00	Banquet at Yijin Yuan		

February 7 (Sunday)

Time	Title	Speaker	Affiliation
Plenary (Chair: Guangwen Xu)			
8:20~8:55	PL-3: Sub-molten Salt Clean Technology for Chemical Metallurgy and Circular Economy	Yi Zhang	IPE, CAS
8:55~9:30	PL-4: TBD	Yong Wang	Washington State University
9:30~9:45	Coffee Break		
SNG and Methanation (Chair: Chunzhu Li)			
9:45~10:10	I-SM-1: Coal-To-SNG Project Progress and Key Technology Development in China	Chunqi LI	Datang Int. Chem. Technol. Research Institute Co.,Ltd
10:10~10:35	I-SM-2: GE's Solution for Coal to SNG Process with Case Study	Shihong Yan	GE Energy, Gasification Technology
10:35~10:50	O-SM-1: R&D of Methanation Technology at IPE of CAS	Fabing Su	IPE, CAS
10:50~11:05	O-SM-2: From Coal To Substitute Natural Gas Tremptm (Topsoe Recycle Methenation Process)	Sabrina Qincong Zhao	Beijing Office Haldor Topsøe A/S
Coal Gasification (Chair: Kunio Yoshikawa)			
11:05~11:30	I-CG-1: Progress Updates Of Tsinghua Oxygen Staged Gasification Process and Researches on Improving Gasifier Performance	Guangxi Yue	Tsinghua University
11:30~11:45	O-CG-1: Decoupling Gasification: Approach Principle and Technology Justification	Juwei Zhang	IPE, CAS

11:45~12:00	O-CG-2: Organosulfur Compounds from CS ₂ Extraction of Four Low-rank Coals Oxidized with NaOCl	Guizhen Gong	China University of Mining and Technolog
12:00~12:15	O-CG-3: Plasma Preparation of Carbon Nanoparticles and Carbon Nanotubes	Ruoyu Hong	Soochow University
12:15~13:40	Lunch		
Biomass Chemical Conversion (Chair: Fabing Su, Shihong Yan)			
13:40~14:05	I-BC-1: Production of Useful Fuels and Electricity from Biomass and Waste Resources	Kunio Yoshikawa	Tokyo Institute of Technology
14:05~14:30	I-BC-2: Development of Biomass Fired Circulating Fluidized Bed Combustion Technology	Qinhui Wang	Zhejiang University
14:30~14:55	I-BC-3: Behavior Of Alkali Metals During Co-Firing Cornstalk and Coal	Xiaolin Wei	Institute of Mechanics, CAS
14:55~15:10	O-BC-1: Novel cinder supported K ₂ CO ₃ as a solid catalyst for biodiesel production	Hui Liu	China University of Geosciences
15:10~15:25	O-BC-2: Study on the Hydrothermal Drying Technology of Sewage Sludge	Zili Jiang	Beijing Machinery and Electricity Institute Co., LTD
15:25~15:40	O-BC-3: Study of Aqueous Two-Phase System on Bio-oil	Shaopeng Liu	China University of Mining & Technology
15:40~15:50	Coffee Break		
Biomass Biological Conversion (Chair: He Huang, Hongzheng Chen)			
15:50~16:15	I-BB-1: Opportunities and Challenges of Anaerobic Digestion Biotechnology for New Applications	Shulin Chen	Washington State University
16:15~16:40	I-BB-2: Key Technologies for Biogasification of Crop Stalks And The Demonstration In China	Xiujin Li	Beijing Institute of Chem. Eng.
16:40~17:05	I-BB-3: Research and Development of Lignocellulosic Biofuel by Enzymatic Process	Xu Fang	Shandong University
17:05~17:20	O-BB-1: High-Concentration Sugars Production from corn stover Based on Combined Pretreatments and Fed-batch Process	Jianmin Xing	IPE, CAS
17:20~17:35	O-BB-2: Feasibility Evaluation of Converting Cassava Dregs to Fermentable Sugars	Haisong Wang	Qingdao Institute of Bioenergy and Bioprocess Technology, CAS
17:35~17:40	O-BB-3: Development of Acetic-Acid Tolerant Saccharomyces Cerevisiae Strains	Shi'an Wang	Qingdao Institute of Bioenergy and Bioprocess Technology, CAS
17:40~20:00	Dinner		

February 8 (Monday)

Time	Event
8:40~	Bus departure to Institute of Process Engineering
9:00~10:30	Technical Tour to Institute of Process Engineering
10:30~11:30	Discussion between IPE Scholars and Oversea Attendees
12:00~13:30	Lunch at Shangyuan

Poster

No.	Title	Author	Affiliation
P-01	Fast Pyrolysis of Agricultural and Woody Biomass in a Free Fall Reactor	Shaoping Xu	Dalian University of Technology
P-02	Hydrogen Production from Methanol Steam Reforming via a Plate Carbon Membrane Reactor	Bing Zhang	Shenyang University of Technology
P-03	Effects of Some Metal Oxides on Pyrolysis of Pine and Corncob Powder by TG-FTIR Method	Ze Wang	IPE, CAS
P-04	The Comparisons of Sequential Pyrolysis of Houlinguole Lignite with Alcohols and Cyclohexane	Haiyun Lu	China University of Mining & Technology
P-05	Development of Project-oriented Engineering Chemistry Database System	Yuehong Zhao	IPE, CAS
P-06	Clean Technology of Titanium Oxide and Electrodeposition of Metals in Ionic Liquids	Lina Wang	IPE, CAS
P-07	Hydrogen Production from Organic Matter by Microbial Electrolysis Cells	Haoran Li	IPE, CAS
P-08	Uniform-Sized P (NIPAM-Co-AA) Microspheres Preparation by Membrane Emulsification with Controllable Pore Size	Yuxia Wang	IPE, CAS
P-09	Micro Fluidized Reaction Analyzer and its Application	Jian Yu	IPE, CAS
P-10	Pilot Tests Of Pyrolysis-Gasification Of Coal in a Dual Fluidized Bed System	Yin Wang	IPE, CAS

