

**2011 China-Japan-Korea Symposium  
On Analytical Chemistry**

**Program and Abstracts**

October 31 to November 2, 2011  
Jeju, Korea

# 2011 China-Japan-Korea Symposium on Analytical Chemistry

<http://cjk2011.weebly.com/>

October 31 – November 2, 2011

Grand Hotel, Jeju, Korea

## **Organized by**

*The Korean Analytical Science Research Group  
China-Japan-Korea Analytical Science Discussion Group  
Korea Food Research Institute*

## **Supported by**

*Seoul Women's University  
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## Message from Chairman

Welcome to CJK Symposium 2011, the China-Japan-Korea Symposium on Analytical Chemistry on Food, Environment and Nano-technology, which is held from Oct. 31 to Nov. 2, 2011 at Jeju Grand Hotel, Korea. We have chosen a beautiful Jeju island with wonders of nature and friendly people. This CJK Symposium can be traced to the China-Japan Symposium held in 2002 in Beijing. And, in 2003, Korea-Japan Symposium on Gas Chromatography was held in Seoul, Korea. The first CJK Symposium on Environmental Analytical Chemistry was held in Beijing, in 2004. Since 2004, former CJK Symposiums were in Chiba (2005), Chongqing (2006), Jeju (2007) jointly with ASIANALYSIS, Xiamen (2008), Chiba (2009) and Wuhan (2010). From 2009, the name of symposium was changed into “China-Japan-Korea Symposium on Analytical Chemistry”. Now we organized 8<sup>th</sup> CJK Symposium in Jeju again.

As you already have noted in preliminary announcement, the organizing committee has put together superb plenary lectures, key-note lectures, oral and poster presentations that should have something of interest for all attendants. You will experience rapid changes in the world of analytical science as you look the lectures, key-note or oral presentations and poster sessions. The Abstract book will be helpful to attendants who want to know more about presentations being given in the scientific program.

In this opportunity the organizing committee appreciates to Dr. Suk-Hoo Yoon, the President of Korea Food Research Institute, and several sponsors, Prof. Jin-Ming Lin and Dr. Haifang Li of China delegate, Prof. Hiroshi Nakamura and Dr. Tsuneaki Maeda of Japan delegate, Dr. Jaeho Ha of Korea delegate for their all consideration for this symposium. We are pleased to have you join us to share your very recent research ideas and activities, and to extend our friendship. I wish that you will be both a professionally rewarding and most enjoyable experience.

Dong –Sun Lee, Prof. Ph.D.

Chair of the Organizing Committee of CJK Symposium 2011.

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## SCIENTIFIC PROGRAMME

MONDAY, OCTOBER 31th

### Afternoon

13:00 - 18:00 Registration

TUESDAY, NOVEMBER 1<sup>st</sup>

(Room Jade)

### Morning

08:00 - 08:40 Opening Ceremony

PLENARY LECTURES

(Room Jade)

**Chairpersons : Prof. Man-Goo Kim and Prof. Chengzhi Huang**

08:40 - 09:05 - Prof. Hanfa Zou, China

The application of monolithic and mesoporous materials in analysis of biological samples

09:05 - 09:30 - Prof. Katsumi Uchiyama, Japan

Development of micro-gas chromatography system for on-site measurement

09:30 - 09:55 - Prof. Myeong-Hee Moon, Korea

Flow fluid-flow fractionation: A new pipeline to proteomics

09:55 - 10:20 - Prof. Yi Chen, China

SPME and GC-MS of polycyclic aromatic hydrocarbons from different sources

**10:20 - 10:35 - Coffee Break**

10:35 - 11:00 - Dr. Osamu Niwa, Japan

Nano-structured carbon film for direct electron transfer with biomolecules

11:00 - 11:25 - Dr. Jaeho Ha, Korea

Determination of E,E-farnesol in Makgeolli using stir bar sorptive extraction coupled with gas chromatography – mass spectrometry

11:25 - 11:50 - Prof. Mengsu(Michael) Yang, China

High-throughput and real-time analysis of cell communication by integrated microfluidics

**11:50 - 13:00 Lunch/Poster Presentations**

**Poster should be put up 11:30 to 15:00**

**Afternoon**

**13:00 - 15:00 Poster Presentations & Exhibition**

KEYNOTE LECTURES

(Room Jade)

**Chairpersons : Prof. Katsumi Uchiyama and Prof. Zilin Chen**

13:00 - 13:20 - Prof. Hideaki Hisamoto, Japan

Combinable PDMS capillary (CPC) sensor array towards the development of single step and multiple biosensing microdevices

13:20 - 13:40 - Prof. Xinghua Xia, China

Interfacial behavior of biomolecules and bioelectrochemical analysis

13:40 - 14:00 - Prof. Man-Goo Kim, Korea

A novel investigation method of VOC emission from car interior components by  $\mu$ -chamber

14:00 - 14:20 - Prof. Jianhua Wang, China

Biomass/cell manipulation for arsenic analysis and removal from water samples

14:20 - 14:40 - Prof. Kei Toda, Japan

Atmospheric isoprene and formaldehyde analyzers utilizing chemiluminescence detection and microchannel scrubber

**14:40 - 14:50 Coffee Break**

ORAL PRESENTATIONS

(Room Jade)

**Chairpersons : Prof. Mengsu(Michael) Yang and Prof. Hiroshi Nakamura**

14:50 - 15:05 - Prof. Jin-Ming Lin, China

Preparation of hydrogel microarrays in microchannels and its application for cell research

15:05 - 15:20 - Prof. Kinichi Tsunoda, Japan

Application of electrospay ionization mass spectrometry to the determination of inorganic ions in environmental samples

15:20 - 15:35 - Prof. Xi Chen, China



Electrochemically enhanced solid-phase microextraction

15:35 - 15:50 - Dr. Cheong-Tae Kim, Korea

Determination of melamine and its analogues in various processed foods by using tandem mass spectrometry

15:50 - 16:05 - Prof. Cheng Zhi Huang, China

On the analytical chemistry of phosphate-containing anions

**16:05 - 16:15 Coffee Break**

**Chairpersons : Prof. Xi Chen and Dr. Cheong-Tae Kim**

16:15 - 16:30 - Prof. Lehui Lu, China

$\text{Bi}_2\text{S}_3$  nanodots as a contrast agent for *in vivo* x-ray computed tomography imaging

16:30 - 16:45 - Prof. Koichi Oguma, Japan

Speciation of vanadium using difference in rate of complex formation with xylenol orange

16:45 - 17:00 - Prof. Yang Tian, China

A ratiometric fluorescent sensor for intracellular metal ions based on inorganic-organic nanocomposites

17:00 - 17:15 - Prof. Xiangying Sun, China

Synthesis of dual-fluorescence nanocomposites and ratiometric fluorescence sensing for  $\text{Hg}^{2+}$

17:15 - 17:30 - Prof. Zilin Chen, China

Analysis of active components in Chinese herbs by LC/CE with MS and electrochemical detections

TUESDAY, NOVEMBER 1<sup>st</sup>

(Room Armethyst)

KEYNOTE LECTURES

**Chairpersons : Prof. Jin-Ming Lin and Dr. Kangbong Lee**

13:00 - 13:20 - Dr. Man Ho Choi, Korea

Mass spectrometry-based hair metabolomics in biomarker discovery of hormonal-dependent diseases

13:20 - 13:40 - Dr. Takumi Takasuga, Japan

Application of GC-HRTOFMS for environmental analysis: A comprehensive screening and identification techniques for trace organohalogen Compounds in environmental matrices

13:40 - 14:00 – Dr. Yuki Hashi, China

Determination of carbamate pesticides in vegetables and fruits by on-line GPC-LCMS system

14:00 - 14:20 - Prof. Masami Shibukawa, Japan

Liquid chromatography with a gas-liquid hybrid stationary phase

14:20 - 14:40 - Prof. Sunyoung Bae, Korea

Hydrochar of cabbage by hydrothermal carbonization Reaction and its sorption capacity

**14:40 - 14:50 Coffee Break**

ORAL PRESENTATIONS

(Room Armethyst)

**Chairpersons : Prof. Myeong Hee Moon and Prof. Koichi Oguma**

14:50 - 15:05 - Dr. Kangbong Lee, Korea

Monitoring of corticosteroids in cosmetic products manufactured in Korea

15:05 - 15:20 - Prof. Bi-feng Liu, China

Neuronal analysis in vivo with microfluidic chip

15:20 - 15:35 - Dr. Shinya Tahara, Japan

Current eating habit of Japanese and their effect on fecal odor

15:35 - 15:50 - Prof. Cheng-Xiao Zhang, China

Electrogenerated chemiluminescence biosensor for protein and bacteris

15:50 - 16:05 - Mr. Daisuke Kozaki, Japan

Preliminary study on ion-exclusion/cation-exchange chromatography for determining simultaneously radioactive anions and cations released from nuclear power plant

**16:05 - 16:15 Coffee Break**

**Chairpersons : Prof. Hideaki Hisamoto and Prof. Jianghua Wang**

16:15 - 16:30 - Prof. Gongke Li, China

Hybrid field-assisted solid-liquid-solid dispersive extraction for the determination of organochlorine pesticides in tobacco by gas chromatography

16:30 - 16:45 – Dr. Jang-Hyuk Ahn, Korea

A novel sample preparation method by rapid and simple no-heating saponification for the determination of cholesterol in infant formula

16:45 - 17:00 - Prof. Bin Liu, China

Urea electrochemical sensor based on molecularly imprinted chitosan film doped with CdS QDs

17:00 - 17:15 - Prof. Dong-Sun Lee, Korea

A new needle packed with poly(dimethylsiloxane) having a micro-bore tunnel as alternative solid phase microextraction

17:15 - 17:30 - Prof. Hai-Long Wu, China

Aspects of recent developments of chemical multiway calibration methodologies

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