

2014 China-Japan-Korea Symposium
on Analytical Chemistry



Program and Abstracts

August 22-25, 2014

Shenyang, China

Organized by: Northeastern University(东北大学)
The Japan Society for Analytical Chemistry

Sponsored by: Shimadzu (China) Co., Ltd
Chinese Chemical Letters

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2014 China-Japan-Korea Symposium
on Analytical Chemistry
August 22-25, Shenyang, China

August 22, Friday.

10:00-18:00 Registration. Open at the Lobby of NEU International Hotel
18:30-- Dinner. Coffee shop, 1st floor

August 23, Saturday. GRAND BALLROOM, 2nd floor (2 楼宴会厅)

08:20-08:40 Opening address
08:40-10:00 Session 1, Keynote presentation
10:00-10:20 Coffee Break
10:20-12:00 Session 2, Keynote presentation
12:00-14:00 Lunch. Coffee Shop, 1st floor
14:00-15:40 Session 3, Keynote presentation
15:40-16:20 Coffee Break & Poster presentation
16:20-18:00 Session 4, Keynote presentation
18:00-18:40 Poster presentation & Poster award nomination
18:40-- SHIMADZU Night, GRAND BALLROOM, 2nd floor (2 楼宴会厅)

August 24, Sunday.

Branch meeting place 1: Juxian Room, 2nd floor(2 楼聚贤厅)
Branch meeting place 2: Conference Room 405, 4th floor
08:00-09:55 Parallel Session 1, Keynote & invited presentation
09:55-10:15 Coffee Break
10:15-12:00 Parallel Session 2, Keynote & invited presentation
12:00-14:00 Lunch. Coffee Shop, 1st floor
14:00-16:00 Parallel Session 3, Keynote & invited presentation
16:00-16:20 Coffee Break
16:20-17:50 Parallel Session 4, Keynote & invited presentation
17:50-18:20 Poster awards & Closing remarks.
18:20-- Dinner. Coffee Shop, 1st floor

Poster session: 23th 13:00--24th 18:00, the aisle outside Juxian Room

August 25. Monday

08:30-- Excursion for foreign participants (Travel agency).

2014 CJK Symposium Program

August 23, Saturday, Morning, GRAND BALLROOM, 2nd floor(2 楼宴会厅), NEU International Hotel				
	08:20-08:40	Opening address. Prof. Jianhua Wang, Prof. Jinming Lin, Prof. Jaeho Ha		
Session 1, Keynote presentation, 08:40-10:00. Chairman: Prof. Jinming Lin & Prof. Kin-ichi Tsunoda				
	Period	Lecture Title	Speaker	Affiliation
K01	08:40-09:00	Creation of needs-oriented chemical probes	Koji Suzuki	Keio University, Japan
K02	09:00-09:20	Cell Analysis Using Microfluidic Device and Mass Spectrometry	Jinming Lin	Tsinghua University, China
K03	09:20-09:40	A Review on the limit of detection for analytical method validation	Dong-Sun Lee	Seoul Women's University, Korea
K04	09:40-10:00	Simultaneous electrophoresis and dielectrophoresis of cells	Yi Chen	Institute of Chemistry, CAS, China
	10:00-10:20	Coffee break		
Session 2, Keynote presentation, 10:20-12:00. Chairman: Prof. Xiuping Yan & Prof. Dong-Sun Lee				
K05	10:20-10:40	Electrochemical sensing on compact disk-type microfluidics platform	Toshihiko Imato	Kyushu University, Japan
K06	10:40-11:00	Characterization of lipids variation during different growth phases of living cyanobacteria by easy ambient sonic-spray ionization mass spectrometry	Huwei Liu	Peking University, China
K07	11:00-11:20	Analysis of E,E-farnesol and squalene in makgeolli using SBSE coupled with gas chromatography-mass spectrometry	Jaeho Ha	Korea Food Research Institute, Korea
K08	11:20-11:40	Development of C ₆₀ -Fullerene Bonded Capillaries for LC	Koji Otsuka	Kyoto University, Japan
K09	11:40-12:00	Speciation of iodine and vanadium by flow injection analysis	Koichi Oguma	Chiba University, Japan
	12:20-14:00	Lunch. Coffee shop, 1 st floor.		

August 23, Saturday, Afternoon, GRAND BALLROOM, 2nd floor(2 楼宴会厅)				
Session 3, Keynote presentation, 14:00-15:40. Chairman: Prof. Yi Chen & Prof. Koji Suzuki				
	Period	Lecture Title	Speaker	Affiliation
K10	14:00-14:20	Development of the new determination method of oxoanions using electrospray ionization mass spectrometry	Kin-ichi Tsunoda	Gunma University, Japan
K11	14:20-14:40	Metal-Organic Frameworks for Sample Preparation	Xiuping Yan	Nankai University, China
K12	14:40-15:00	Comparison of headspace methods for the determination of the emission of volatile organic compounds from vehicle interior parts	Man-Goo Kim	Kangwon National University, Korea
K13	15:00-15:20	Chemical speciation of silicic acids in seawater	Miho Tanaka	Tokyo University of Marine Science and Technology, Japan
K14	15:20-15:40	Multifunctional Silver Nanoparticle	Joon Myong Song	Seoul National University, Korea
	15:40-16:20	Coffee break & Poster presentation		
Session 4, Keynote presentation, 16:20-18:00. Chairman: Prof. Huwei Liu & Prof. Man-Goo Kim				
K15	16:20-16:40	Polycyclic Aromatic Hydrocarbons and Inorganic Ions in Snow Layers at Murodo, Tateyama, Japan	Kazuichi Hayakawa	Kanazawa University, Japan
K16	16:40-17:00	Fast screening of toxic substance in food, drug and their packing materials using the desorption corona beam ionization source	Yuki Hashi	Shimadzu (China) Co., Ltd.
K17	17:00-17:20	Selective fluorescence and fluorescence-free single-molecule detection techniques and bio-applications	Seong Ho Kang	Kyung Hee University, Korea
K18	17:20-17:40	Heavy metal adsorptivity of calcium alginate-modified silica gel using a flow analytical system with atomic absorption spectrometry	Masanobu Mori	Gunma University, Japan
K19	17:40-18:00	Analytical Advances and Challenges in Studying Metal/Metalloid Biogeochemistry	Yong Cai	Florida International University, USA
	18:00-18:40	Poster presentation & Poster award nomination		
	18:40--	SHIMADZU Night. Place: GRAND BALLROOM, 2 nd floor(2 楼宴会厅)		

August 24, Sunday, Morning. Branch 1: Juxian Room, 2nd floor(2 楼聚贤厅)				
Session 1, Keynote & Invited presentation. 08:00-09:55. Chairman: Prof. Bin Hu & Prof. Sunyoung Bae				
	Period	Lecture Title	Speaker	Affiliation
K20	08:00-08:20	Screening of aromatase and neuraminidase inhibitors from Chinese medicine by capillary electrophoresis and enzyme microreactor	Zilin Chen	Wuhan University, China
K21	08:20-08:40	Direct Quantification of Analytes of Interest in Complex Chemical Systems Using Smart Higher-order Calibration Methods	Hailong Wu	Hunan University, China
K22	08:40-09:00	Formaldehyde of hygroscopic aerosol (PM2.5)	Kei Toda	Kumamoto University, Japan
K23	09:00-09:20	Online sample preparation techniques based on functional graphene sorbents coupled with chromatography for trace analysis of complicated samples	Gongke Li/Yuling Hu	Sun Yat-sen University, China
K24	09:20-09:40	Developments of functional lanthanide complex-based bioprobes for time-resolved luminescence bioassay applications	Jingli Yuan	Dalian University of Technology, China
I01	09:40-09:55	A facile and highly sensitive fluorescence DNA glycosylase activity assay based on autonomous exonuclease III-assisted signal amplification	Feng Li	Qingdao Agricultural University, China
	09:55-10:15	Coffee break		
Session 2, Keynote & Invited presentation. 10:15-12:00. Chairman: Prof. Jingli Yuan & Prof. Kei Toda				
K25	10:15-10:35	New strategy for the analysis of trace elements and their species in cells	Bin Hu	Wuhan University, China
K26	10:35-10:55	Spectroscopy-Based Imaging Nanoprobe	Lehui Lu	Changchun Institute of Applied Chemistry, CAS, China
K27	10:55-11:15	In needle Microextraction with PDMS-based Coatings for Volatile Organic Compounds	Sunyoung Bae	Seoul Women's University, Korea
I02	11:15-11:30	Determination of p-aminophenol at p-aminophenol modified carbon paste electrode and quantum chemical study of its electrochemical mechanism	Yongchun Zhu	Shenyang Normal University, China
I03	11:30-11:45	Electrochemical sensors for pollutants Based on porous carbon composites	Liping Guo	Northeast Normal University, China
I04	11:45-12:00	Self-organized TiO ₂ nanotubes: Formation and Applications	Yanyan Song	Northeastern University, China
	12:00-14:00	Lunch. Coffee shop, 1 st floor		

August 24, Sunday, Afternoon. Branch 1: Juxian Room, 2nd floor(2 楼聚贤厅)				
Session 3, Keynote & Invited presentation. 14:00-16:00. Chairman: Prof. Aijun Tong & Prof. Joon Myong Song				
	Period	Lecture Title	Speaker	Affiliation
K28	14:00-14:20	Some Recent Applications of Microplasmias in Atomic Spectrometry	Xiandeng Hou	Sichuan University, China
K29	14:20-14:40	Europium-doped graphene quantum dots as a fluorescent probe for label-free, rapid and sensitive detection of Cu ²⁺ and biothiols	Xi Chen	Xiamen University, China
K30	14:40-15:00	Surface bubble modulated liquid chromatography: a new approach for manipulation of chromatographic retention and investigation of solute distribution at water/hydrophobic interfaces	Masami Shibukawa	Saitama University, Japan
I05	15:00-15:15	Determination of heavy metal ions by AAS based on SPE using tetraoxocalix[2]-arene [2]triazine-coated magnetic nanoparticles as sorbent	Shusheng Zhang	Zhengzhou University, China
I06	15:15-15:30	Online solid sampling platform using multi-wall carbon nanotube assisted matrix solid phase dispersion for mercury speciation in fish by HPLC-ICP-MS	Chengbin Zheng	Sichuan University, China
I07	15:30-15:45	Development of Ruthenium(II) Complexes for the Detection of various bioactive species	Zhiqiang Ye	Dalian University of Technology, China
I08	15:45-16:00	Preparation of macrocyclic compounds-modified organic monolith and its application in polymer monolithic microextraction	Qiong Jia	Jilin University, China
	16:00-16:20	Coffee break		
Session 4, Keynote & Invited presentation. 16:20-18:20. Chairman: Prof. Xiandeng Hou & Prof. Masami Shibukawa				
K31	16:20-16:40	Photochromic System Based on Rhodamine B Salicylaldehyde Hydrazone Metal Complexes	Aijun Tong	Tsinghua University, China
K32	16:40-17:00	Herbal drug interaction study through pharmacokinetics of berberine and salvianolic acid B in single herb and complex herbal medicine	Jong Seong Kang	Chungnam National University, Korea
K33	17:00-17:20	The application of CuInS ₂ quantum dots for lysozyme detection and prostate cancer cell imaging	Xingguang Su	Jilin University, China
I09	17:20-17:35	Surface Enhanced Raman Spectroscopy for Rapid detection of Environmental Pollutants	Jinhua Zhan	Shandong University, China
	17:35-17:50			
	17:50-18:20	Poster awards & Closing remarks. Juxian Room, 2 nd floor(2 楼聚贤厅)		
	18:20--	Dinner. Coffee shop, 1 st floor		

August 24, Sunday, Morning. Branch 2: Conference Room 405, 4th floor				
Session 1, Keynote & Invited presentation. 08:00-09:55. Chairman: Prof. Zhengping Li & Prof. Katsumi Uchiyama				
	Period	Lecture Title	Speaker	Affiliation
K34	08:00-08:20	Ultrafast microfluidic mixers for tracking early folding kinetics of nucleic acid and protein	Bifeng Liu	Huazhong University of Science and Technology, China
K35	08:20-08:40	Gel electrophoretic valence-separation of DNA-nanoparticle conjugates	Zhaoxiang Deng	University of Science and Technology of China, China
K36	08:40-09:00	Cytochrome P450 Modified ITO Electrode as a Drug Metabolizing Electrochemical Biosensor based on Direct Electron Transfer	Osamu Niwa	National Institute of Advanced Industrial Science and Technology (AIST), Japan
K37	09:00-09:20	Aptamer-mediated nanoparticle-based platform for prion protein detection and intracellular protein tracking	Chengzhi Huang	Southwest University, China
K38	09:20-09:40	Effects of Acid Rains on Aquatic Plants Studied by Beam Deflection and Absorbance Spectroscopy Methods	Xing-Zheng Wu	Fukuoka Institute of Technology, Japan
I10	09:40-09:55	Genetic Modification of Microbial Cell for Heavy Metal Separation and Analysis/Speciation	Ting Yang	Northeastern University, China
	09:55-10:15	Coffee break		
Session 2, Keynote & Invited presentation. 10:15-12:00. Chairman: Prof. Bifeng Liu & Prof. Osamu Niwa				
K39	10:15-10:35	Sensitive, specific, and multiplexed microRNA detection using ligation-based amplification	Zhengping Li	Shaanxi Normal University, China
K40	10:35-10:55	Micro Immunoassay by Multicapillary Plate and PDMS micro array	Katsumi Uchiyama	Tokyo Metropolitan University, Japan
K41	10:55-11:15	LC-MS/MS analysis of formaldehyde after dansyl hydrazine derivatization	Yong-Moon Lee	Chungbuk National University, Korea
I11	11:15-11:30	Preparation of highly polar stationary phases for liquid chromatography	Bingcheng Yang	East China University of Science and Technology, China
I12	11:30-11:45	Sensitive detection of microRNA by chronocoulometry and rolling circle amplification on gold electrode	Bo Yao	Zhejiang University, China
I13	11:45-12:00	Application of G-Quadruplex DNAzyme in Chemiluminescence analysis	Baoxin Li	Shaanxi Normal University, China
	12:00-14:00	Lunch. Coffee shop, 1 st floor		

August 24, Sunday, Afternoon. Branch 2: Conference Room 405, 4th floor				
Session 3, Keynote & Invited presentation. 14:00-16:00. Chairman: Prof. Lihua Zhang & Prof. Kazuaki Ito				
	Period	Lecture Title	Speaker	Affiliation
K42	14:00-14:20	Use of electrospun SiO ₂ /TiO ₂ composite fiber for rapid enrichment of phosphopeptides	Yuqi Feng	Wuhan University, China
K43	14:20-14:40	Automated and High-Throughput Assay and Screening Based on Droplet Microfluidics Technique	Qun Fang	Zhejiang University, China
K44	14:40-15:00	Affordable flow-based analysis of human metabolites	Norio Teshima	Aichi Institute of Technology, Japan
I14	15:00-15:15	Determination of dopamine and L-Dopa use Differential Pulse Voltammetry	Jianguo Wang	Liaoning University, China
I15	15:15-15:30	Efforts towards highly reproducible microchip electrophoresis	Qiaosheng Pu	Lanzhou University, China
I16	15:30-15:45	The Synthetic Methods of Carbon Dots	Xuebo Yin	Nankai University, China
I17	15:45-16:00	An aptasensor for detection of lysozyme based on graphene oxide and carbon dots	Mei Yang	Liaoning Normal University, China
	16:00-16:20	Coffee break		
Session 4, Keynote & Invited presentation. 16:20-18:20. Chairman: Prof. Yu-Qi Feng & Prof. Norio Teshima				
K45	16:20-16:40	Novel separation materials for proteome analysis	Lihua Zhang	Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China
K46	16:40-17:00	Simultaneous and selective determination of nitrite, nitrate, and phosphate ions in seawater by ion chromatography	Kazuaki Ito	Kinki University, Japan
I18	17:00-17:15	The introduction to 《Chinese Chemical Letters》	Huanfang Guo	Chinese Chemical Letters, China
I19	17:15-17:30	Determination of Methylparaben at a Glassy Carbon Electrode Modified with Langmuir-Blodgett Film of MWCNTs	Baoxian Ye	Zhengzhou University, China
I20	17:30-17:45	Electrokinetic Separation of Polystyrene Microspheres in Conductive Media	Jian Gao	Qilu University of Technology, China
	17:50-18:20	Poster awards & Closing remarks. Juxian Room, 2 nd floor(2 楼聚贤厅)		
	18:20--	Dinner. Coffee shop, 1 st floor		

Poster Session, CJK Symposium 2014, Aug 23th 13:00--24th 18:00
(Place: the aisle outside Juxian hall, 2nd floor of NEU International Hotel)

No.	Presentation Title	Authors	Affiliation
P01	Silicon dioxide/poly(dimethylsiloxane) encapsulating multi-wall carbon nanotubes coating with bilayer structure supported on stainless steel wire as solid-phase microextraction fiber for the determination of trace phthalate esters in drinking water samples	Maosheng Zhang	Minnan Normal University, China
P02	Characteristics of electrogenerated chemiluminescence of europium and terbium complexes based on β -diketone and bathophenanthroline and their analytical application	Eri Kunisawa, Ryoichi Ishimatsu, Koji Nakano, Toshihiko Imato*	Kyushu University, Japan
P03	Determination of fat soluble vitamins in dairy products using μ -HPLC	You-Shin Shim ¹ , Haewon Jang ¹ , Jinbong Hwang ¹ , Jaeho Ha ^{1*} , Byung-Joo Kim ² , Junhee Lee ² , Hiroaki Nakagawa ³	¹ Korea Food Research Institute, Korea ² Korea Research Institute for Standards and Science, Korea ³ Hitach High-Technologies Corp, Japan
P04	The simultaneous analytical method for the determination of structural amino acid in infant formula using automated amino acid analyzer(2014)	Jinbong Hwang ^{1*} , Bae Namgung ¹ , Won-Jin Yun ¹ , You-Shin Shim ¹ , Sam-Pin Lee ² , Hyun-Jeong Kim ² , Ji-Hyun Seo ² , So-Jung Kim ³ , Won-Kap Yun ³	¹ Korea Food Research Institute, Korea ² Keimyung University, Korea ³ Gyeongbuk Institute for Marine Bioindustry, Korea
P05	Determination of fatty acid contents in milk powder by gas chromatography	Dongwon Seo ^{1*} , You-shin Shim ¹ , Hae Won Jang ¹ , Byungjoo Kim ² , Joonhee Lee ² , Jaeho Ha ¹ , Jinbong Hwang ¹	¹ Korea Food Research Institute, Korea ² Korea Research Institute of Standards and Science, Korea
P06	Determination of cholesterol in infant formulas using GC/FID	Hae Won Jang ^{1*} , Haebin Cho ¹ , Jaeho Ha ¹ , Jinbong Hwang ¹ , Dongwon Seo ¹ , Byung-Joo Kim ² , Junhee Lee ²	¹ Korea Food Research Institute, Korea ² Korea Research Institute for Standards and Science, Korea
P07	Validation of Mineral Analytical Method for the Determination Food Nutrient Component(2014)	Bae Namgung ^{1*} , Mira Oh ¹ , Soyoung Kim ¹ , Jinbong Hwang ¹ , Byung-Joo Kim ² , Junhee Lee ²	¹ Korea Food Research Institute, Korea ² Korea Research Institute for Standards and Science, Korea
P08	Highly sensitive detection of guanine by using synthesized carbon nanodots as fluorescence probes	Shengbin Pang, Yi Zhang, Chengke Wu, Suling Feng*, Jing Fan	Henan Normal University, China
P09	Development of a surface plasmon resonance sensor with linear detection area based on a linear CCD and its suitable sensor chip with a striped array pattern	Jie Zhan ¹ , Akihide Hemmi ² , Ryoichi Ishimatsu ¹ , Koji Nakano ¹ , Toshihiko Imato ^{1*}	¹ Kyushu University, Japan ² Mebius Advanced Technology Ltd, Japan
P10	Analysis of Carbon Distribution on Products from HTC of Food Waste	Yura Hwang, Sunyoung Bae*	Seoul Women's University, Korea
P11	Analysis of Free Fatty Acid in Bio-liquid by Hollow Fiber-Liquid Phase Microextraction	Minseon Choi, Sunyoung Bae*	Seoul Women's University, Korea
P12	Comparison of APCI and ESI for the LC-MS analysis of glucose, cellobios, cellopentaose and gluconolactone	Jiye Kim ^{1,2} , Jaeyeon Choi, Jinhee Eom, Yunje Kim ^{1*}	¹ Korea Institute of Science and Technology, Korea ² Korea University, Korea

P13	Development of a simply LC-MS method for various CoAs.	Jiye Kim ^{1,2} , Jaeyeon Choi, Jinhee Eom, Yunje Kim ^{1*}	¹ Korea Institute of Science and Technology, Korea ² Korea University, Korea
P14	Rapid determination of xylose in freeze dried coffee powder by LC-ESI-MS/MS	<u>Jang-Hyuk Ahn</u>	Namyang Dairy Co., Ltd., Korea
P15	pH/temperature dependent adsorption of Cr(VI) from aqueous solution by imidazolium ionic liquid functionalized magnetic carbon nanotubes	Chunlai Wu, Jing Fan*	Henan Normal University, China
P16	Development of photometric and fluorometric detectors assembled with an organic light emitting diode and an organic thin film based photodiode and its application on flow analysis	<u>Rong Liu</u> ^a , Ryoichi Ishimatsu ^a , Masayuki Yahiro ^{b,c} , Chihaya Adachi ^{a,c} , Koji Nakano ^a , Toshihiko Imato ^{a*}	^a Kyushu University, Japan ^b Institute of System, Information Technologies and Nanotechnologies, Japan ^c Kyushu University, Japan
P17	Monitoring of Mitochondrial dysfunction-mediated hepatotoxicity from drugs through Real-Time High-Content Screening	Baskaran Purushothaman, Joon Myong Song*	Seoul National University, Korea
P18	Drug-induced Cardiotoxicity High-content screening via Single Cell Imaging Cytometry	Jieun Ki, Joon Myong Song*	Seoul National University, Korea
P19	Early Stage High-Content HIV Diagnosis through Simultaneous monitoring of Actin Cytoskeleton CD3, CD4, and CD8	Yumi Shim, Joon Myong Song*	Seoul National University, Korea
P20	Influence of anion on the adsorption property of the ionic liquid surface molecularly imprinted polymers	Xiaolong Wang, Guifen Zhu, Jing Fan*	Henan Normal University, China
P21	Investigation of monodisperse droplet generation by inkjet in liquids and its potentials	Hulie Zeng, Jianmin Yang, Hizuru Nakajima, Katsumi Uchiyama	Tokyo Metropolitan University, Japan
P22	Concentration Variation of Precipitation Components in Accordance with Inflow Pathway of Air Mass at Jeju Island, Korea during 2010-2012	Ki-Ju Kim ¹ , Dong-Rim Hyeon ² , Jung-Min Song ² , and Chang-Hee Kang ^{2*}	¹ Magma Seawater Industrialization Support Center, Korea ² Jeju National University, Korea
P23	Composition Characteristics of PM10 and PM2.5 Fine Particulate Matters during Haze Days of 2012-2013 at Background Area of Korea	Dong-Rim Hyeon, Jung-Min Song, Won-Hyung Kim and Chang-Hee Kang*	Jeju National University, Korea
P24	Atmospheric Radon-222 and PM10 Concentrations at Jeju Island of Korea during 2011-2012	Jung-Min Song ¹ , Won-Hyung Kim ¹ , Chang-Hee Kang ^{1*} , Hee-Jung Ko ² , S. Chambers ³	¹ Jeju National University, Korea ² National Institute of Meteorological Research, Korea ³ Australian Nuclear Science and Technology Organisation, Australia
P25	A new voltammetric method for determining the water content of aprotic media	Tiange Wang, Jiabao Fu, Lijian Sun, Jianguo Wang*	Liaoning University, China
P26	Analysis of Odor Compounds in Environmental Tobacco Smoke (ETS)	Hiroshi Sato ^{1*} , Daichi Ishihara ¹ , Ryu Hamazono ¹ , Ena Sonoda ¹ , Kaori Imi ¹ , Naoki Mizoguchi ¹ , Hidetaka Matsubara ² , Yayoi Imamura ² , Keiichi Arashidani ³	¹ Nagasaki International University, Japan ² Chukun Laboratory for Life and Environment, Japan ³ University of Occupational and Environmental Health, Japan

P27	Magnetophoretic and electrophoretic separation of native single super-paramagnetic nanoparticles in microchip	Peng Zhang ^a , Seong Ho Kang ^{a,b,*}	^a Kyung Hee University, Korea ^b Kyung Hee University, Korea
P28	Photoswitching and super-localization of intercalating dye in single DNA molecule by direct stochastic optical reconstruction microscopy	Suresh Kumar Chakkarapani ^a , Guenyoung Park ^a , Seungah Lee ^b , Seong Ho Kang ^{a,b,*}	^a Kyung Hee University, Korea ^b Kyung Hee University, Korea
P29	Sub-diffraction image of fluorescence intercalating dyes in single-DNA molecule by binding-activated localization microscopy	Guenyoung Park ^a , Suresh Kumar Chakkarapani ^a , Seungah Lee ^b , Seong Ho Kang ^{a,b,*}	^a Kyung Hee University, Korea ^b Kyung Hee University, Korea
P30	Toxicity research of pH-sensitive QDs in vivo	Yan Du, Daoquan Tang, Dongzhi Yang	Xuzhou Medical College, China
P31	Quantitative Capillary Electrophoresis by Inkjet Technique	Ying Rang, Hulie Zeng, Hizuru Nakajima, Katsumi Uchiyama*	Tokyo Metropolitan University, Japan
P32	Determination of quantitative analysis method for selaginellinoids from Selaginella tamariscina by high performance liquid chromatography	Chong Woon Cho, Jang Hoon Kim, Kyung Tae Kim, Young Ho Kim*, Jong Seong Kang*	Chungnam National University, Korea
P33	Development of simultaneous analytical method for origin distinction and quality control of Cassiae Semen	Chi Byung Park, Yan Zhao, Kyung Tae Kim, Chong Woon Cho, Sreenivasa Kalyan Adidi, Eon Ji Kim ¹ , Jae Sue Choi ¹ , Jong Seong Kang*	Chungnam National University, Korea ¹ Pukyong National University, Korea
P34	HPLC analytical method development for quality control of multi herbal extract (KJ001)	Hee Hyun Kim, Kyung Tae Kim, Chong Woon Cho, Sreenivasa Kalyan Adidi, Eunsil Lee ¹ , Young Ho Kim, Jong Seong Kang *	Chungnam National University, Korea
P35	Quality control of Aloe using multiple marker compounds by high performance liquid chromatography-diode array detector (HPLC-DAD) and liquid chromatography-tandem mass (LC-MS/MS)	Yan Zhao, Kyung Tae Kim, Sreenivasa Kalyan Adidi, Chong Woon Cho, Eunsil Lee, Jong Seong Kang*	Chungnam National University, Korea
P36	Simultaneous chiral assay of enantiomer separation of β -blockers using cyclodextrin and chiral crown ether as dual chiral selectors by capillary electrophoresis in normal polarity mode	Man-Jeong Paik ¹ , Md. Fokhrul Islam, Wonjae Lee*	Chosun University, Korea ¹ Suncheon National University, Korea
P37	Chromatographic enantiomer separation of α -amino acid esters as nitrobenzoxadiazole derivatives using polysaccharide-derived chiral columns with fluorescence detection	Md. Fokhrul Islam, Won Nam Yun, Wonjae Lee*	Chosun University, Korea
P38	Field device for measurement of dimethyl sulfide and dimethylsulfoniopropionate in Lake Baikal	Kei Toda ^{*1} , Takanori Nagaharta ¹ , Kentaro Ezoe ¹ , Akira Yanaga ¹ , Satoshi Iyadomi ¹ , Naruto Hozumi ¹ , Shin-Ichi Ohira ¹ , Vladimir A. Obolkin ² , Vladimir L. Potemkin ² , Tamara V. Khodzher ²	¹ Kumamoto University, Japan ² Limnological Institute, Russian Academy of Sciences Siberian Branch, Russia
P39	Determination of trace impurities in high-density and high-purity α -alumina by ICP-MS and ICP-OES	Jung Ki Suh, Chang Soo Kim, Chang Joon Park	Korea Research Institute for Standards and Science, Korea
P40	Metagenomic Analysis of Bacterial Community under the treatment of siloxane	Beom Soo Kim, Jin Gyu Kim, Daekeun Kim, Joonho Park	Seoul National University of Science and Technology, Korea

P41	Synthesis of new D3h symmetry Chiral aminoalcohol derived chiral stationary phases and their application	JeongJae Yu, Jae Jeong Ryoo*	Kyungpook National University, Korea
P42	Three-dimensional subdiffraction limited detection of sandwich immunoassay on nanobiochip based on wavelength-dependent enhanced dark field illumination	He Nan, Seungah Lee, Guenyong Park, Seong Ho Kang*	Kyung Hee University, Korea
P43	Fluorescent-free immunoassay based on plasmonic nanometal scattering by total internal reflection microscopy	Seungah Lee, Guenyong Park, Seong Ho Kang*	Kyung Hee University, Korea
P44	Immunoassay chip based on plasmonic nanometal scattering for quantification analysis of human thyroid-stimulating hormone	Seungah Lee, Suresh Kumar Chakkarapani, Seong Ho Kang*	Kyung Hee University, Korea
P45	Development of Sr isotope ratio analysis by ICP-SF-MS for ferromanganese nodules	Junichi Hirata, Miho Tanaka*	Tokyo University of Marine Science and Technology, Japan
P46	Isolated apamin, phospholipase A ₂ , melittin from bee venom by Prep-HPLC	Jung Keun Park*, Jong Soo Lee ¹ , Il Kwang Kim ² , Eui Kyung Kim ³ , Choul Goo Kim*	* Chung Jin Biotech Co., Ltd, Korea ¹ Chungnam National University, Korea ² N. CosmeCeutical Co., Ltd, Korea ³ Gyeongsang National University, Korea
P47	Effect of concentration, pressure and cut-off size on removing phospholipase A2 in ultrafiltration system.	Ji Yeon Lee*, Jong Soo Lee ¹ , Il Kwang Kim ² , Eui Kyung Kim ³ , Choul Goo Kim*	* Chung Jin Biotech Co., Ltd, Korea ¹ Chungnam National University, Korea ² N. CosmeCeutical Co., Ltd, Korea ³ Gyeongsang National University, Korea
P48	The lead isotopes of aeolian dust observed at Saitama area (Japan) and their genetic implications	Kazuya Takahashi ¹ , Yuri Obi ¹ , Miho Tanaka ²	¹ RIKEN, Japan ² Tokyo University of Marine Science and Technology, Japan
P49	Controll Kidney ROS and Antitumour activities of Morchella esculenta in S. Korea	SoungSu Kim* ¹ , NamKi Beak ¹ , DongHoon Kim ² , WonJoong Kim ² , IlKwang Kim* ²	¹ Jeonbuk Forest Environment Research Institute, Korea ² Wonkwang University, Korea
P50	Proficiency test on bio-markers in biological samples in Korea	Mi-Young Lee	Occupational safety and health research institute, Korea occupational safety and health agency (KOSHA), Korea
P51	Validation of analytical method for cotinine in urine by high performance liquid chromatography	Yoon-jung Choi, Mi-Young Lee	Occupational safety and health research institute, Korea occupational safety and health agency (KOSHA), Korea
P52	Detection of nitroaromatics in blood samples using CB[6] derivatization-polymer microextraction monolith column coupled with HPLC	Haijiao Zheng, Qiong Jia*	Jilin University, China
P53	Preconcentration and determination of nobel metals with carboxylated pillar[5]arene as a novel sorbent coupled with flow injection FAAS	Shaoyan Zhou, Qiong Jia*	Jilin University, China
P54	Synthesis of CoFe ₂ O ₄ -zeolite materials and application to the adsorption of gallium and indium	Fangbiao Zhao, Qiong Jia*	Jilin University, China
P55	A webcam based economical full-spectrum fluorometer	Jing Wu, Yuanhang Wang, Qiaosheng Pu*	Lanzhou University, China

P56	A Ratiometric pH Sensor Based on Rare-earth Doped Upconverting nanoparticles	Mingcong Rong, Xinhong Song, Xi Chen*	Xiamen University, China
P57	A loop DNA probe-based label free fluorescence detection of nicotinamide adenine dinucleotide	Chunshui Lin, Xi Chen*	Xiamen University, China
P58	Carbon supported noble metal nanoparticles via in situ reduction, and their catalytic applications for electrooxidation	Zhixiong Cai, Xi Chen*	Xiamen University, China
P59	Ultrasensitive Atomic Fluorescence Spectrometric Detection of DNA with Quantum Dot-Assemblies as Signal Amplification Labels	Jing Hu, Xiandeng Hou*, Peng Wu*	Sichuan University, China
P60	Monodispersed nano-hydroxyapatite conjugated with low-toxic Mn:ZnSe/ZnS quantum dots for cell imaging	Ronghui Zhou, Mei Li, Peng Wu, Lan Wu*, Xiandeng Hou	Sichuan University, China
P61	Novel quantum dot-based nanoprobes for multimodality imaging and sensing applications in cancer cells	Qiang Ma ^{a*} , Xingguang Su ^a , Takashi Jin ^b , Yoshichika Yoshioka ^c	^a Jilin University, China ^b Quantitative Biology Center, Japan ^c Osaka University, Japan
P62	Sequential Injection-Chemiluminescence Determination of Dopamine	Na Feng, Shihua Fan	Northeastern University, China
P63	Investigations on Excitation of Acetone in Dielectric Barrier Discharge Micro-plasma and Its Determination by Optical Emission Spectrometry	Dong-Xue Gao, Ming-Li Chen, Jian-Hua Wang	Northeastern University, China
P64	Gold Nanorods/ Graphitic-phase carbon nitride Core/Shell Nanocomposites For Chemophotothermal Therapy	Lu Han, Xuwei Chen, Jianhua Wang*	Northeastern University, China
P65	3D GrapheneEncapsulate La ₂ O ₃ Nanoparticles for Phosphate Removal	Chun-Bao Huo, Ming-Li Chen, Jian-Hua Wang	Northeastern University, China
P66	Different Bio-functionalized silica gel for the adsorption and separation of trace cadmium	Lin-Yu Ma, Ming-Li Chen, Ting Yang, Jian-Hua Wang	Northeastern University, China
P67	Preparation of carbon nandots from ionic liquid and investigation of the photoluminescence properties	Mao Quanxing, Chen Xuwei, Wang Jianhua	Northeastern University, China
P68	Separation of proteins using ionic liquid based aqueous two-phase system coupled with in situ dispersive liquid-liquid microextraction	Mingcen Gao, Yang Shu, Lu Han, Xiaofeng Wang, Xuwei Chen, Jianhua Wang	Northeastern University, China
P69	An new antibacterial agent Ag@rGO-PEI-Fe ₃ O ₄ composite	Ning Wang, Xu-Wei Chen, Jian-Hua Wang	Northeastern University, China
P70	One-Step Synthesis of Highly Luminescent POSS-NH ₂ Functionalized Carbon Dots	Wenjing Wang, Xuwei Chen, Jianhua Wang	Northeastern University, China
P71	Polymeric ionic liquid for the isolation of hemoglobin in the presence of abundant proteins	Xiaofeng Wang, Yang Shu, Zhang Yue, Xuwei Chen, Jianhua Wang	Northeastern University, China

P72	A multi-mode isolation system for preferential hemoglobin adsorption based on metallic nanoparticles-incorporated ordered mesoporous carbon composites	Yang Zhang, Xuwei Chen, Jianhua Wang	Northeastern University, China
P73	A Miniature DBD-OES System for Nickel Detection Using Vapor Generation by UV Irradiation Instead of Hydride Generation	Yi CAI, Yongliang YU, Jianhua WANG	Northeastern University, China
P74	Preparation of Keggin-type Phosphomolybdate via One-step Solid-state Reaction at Room Temperature and its Application in Protein Adsorption	Qing CHEN, Dandan ZHANG, Xuwei CHEN, Jianhua WANG	Northeastern University, China
P75	Isolation of ovalbumin from egg white using solid phase extraction with mono-substituted heteropoly silicotungstate doped with aniline	Dandan Zhang, Xuwei Chen, Jianhua Wang	Northeastern University, China
P76	Polyethyleneimine-iron phosphate nanocomposite as a promising adsorbent for the isolation of DNA	Lin-lin Hu, Dan-dan Zhang, Xu-wei Chen, Jian-hua Wang	Northeastern University, China
P77	The spectral properties of boron-doped graphene quantum dots	Xin Hai, Shuai Chen, Xu-Wei Chen, Jian-Hua Wang	Northeastern University, China
P78	Three-dimensional Amylopectin-Reduced Graphene Oxide Composite for the Selective Removal of Hemoglobin	Yue Zhang, Jia-wei Liu, Xuwei Chen, Jianhua Wang	Northeastern University, China
P79	Generation of two-dimensional concentration-gradient droplet arrays on a two-layer chip for screening of protein crystallization conditions	Chun-Guang Yang, Yan-Hua Liu, Yue-Qin Di, Zhang-Run Xu*	Northeastern University, China
P80	Microfluidic Generation of Quantum Dot Encoded Hydrogel Microparticles	Chun-Guang Yang, Kai Shi, Zhang-Run Xu*	Northeastern University, China
P81	Colorimetric detection of Ag ⁺ using dCTP-stabilized gold nanoparticles	Chun-Guang Yang, Miao Zhang and Zhang-Run Xu*	Northeastern University, China
P82	Biopanning for the selection of peptides with high specificity to Cr ³⁺ from phage displayed peptide library	Xiaoyu Zhang, Ting Yang, Jianhua Wang	Northeastern University, China
P83	Integration of Nanofluidic Stacking and Microchip Gel Electrophoresis for DNA Analysis	Min Li, Ming-Yu Hu, Hong-Yu Zhu, Hui-Qin Zhang, Zhi-Yong Wu*	Northeastern University, China
P84	Investigation of Ion Concentration Polarization and Water Splitting Effects in Micro Free Flow Electrophoresis	Yan-Fang Mei, Cong-Cong Lu, Yong-Chao Song, Zhi-Yong Wu*	Northeastern University, China
P85	Preparation of Nanofluidic Interface with Single Nanopores for Nanoparticle and Biomacromolecule Translocation Assays	Xiao-Jing Niu, Guang-Yu Li, Hong-Yu Zhu, Zhi-Yong Wu*	Northeastern University, China