KSMS

2019 한국질량분석학회 여름정기학술대회 및 총회

POSTER PRESENTATION

포스터 발표 및 우수포스터상 안내

■ **포스터 게시 및 철거**

- 게시: 28일(수), 12:00 ~ 29일(목), 10:00 까지
- 철거: 30일(금), 10:00 ~ 이후

- 포스터 발표자는 아래의 포스터 번호 및 배치도를 참고하여 포스터를 게시하고, 29일(목) 10:20~ 11:50까지 포스터 앞에 대기하여 질문에 응해야 합니다.

- 포스터 발표자 순서: 홀수번호 10:20~11:05 / 짝수번호 11:05~11:50

■ **우수포스터 상**

- 포스터 발표 회원중 심사를 거쳐 15명을 선정하여 우수포스터상을 수여합니다.
  ※ Brief Oral Presentation 발표자는 우수포스터 상의 우선권이 주어짐.

- 시상: 2019년 8월 30일 (금), 폐회식
- 부상: 상장 및 상금 5 만원

■ **분야별 포스터 번호**

분야	포스터번호
1. Fundamental & Instrumentation	001 ~ 017
2. Life & Informatics	018 ~ 028
3. Biological & Environment	029 ~ 057
4. Medical/Pharmaceutical Science	058 ~ 106
5. Food	107 ~ 120
6. General	121 ~ 144

1. Fundamental Instrumentation : P001 ~ P017

P-001

Nanomaterial-coated substrate assisted transmission-mode laser desorption for ambient mass spectrometry imaging

Jae Young Kim[1,2*], Hee Jin Lim[1], Sun Young Lee[3], Dong Kwon Lim[4], Dae Won Moon[1], and Cheol Song[2]

[1]Department of New Biology and
[2]Department of Robotics Engineering, Daegu Gyeongbuk Institute of Science and Technology (DGIST), Daegu, Republic of Korea.
[3]National Institute for Nanomaterials Technology (NINT), Pohang University of Science and Technology (POSTECH), Pohang, Republic of Korea.
[4]KU-KIST Graduate School of Science and Technology, Korea University, 145 Anam-ro, Seongbuk-gu, Seoul, Republic of Korea.

P-002

Polyimide film characterization with chemical analysis (DESI/APGC/HRMS)

Sang-Mi Oh[1*], Han Soon Kwon[2]

[1,2]Dept of Solution Marketing, Waters Korea, 101 Yeouigongwon-ro, Yeongdeungpo-gu, Seoul, 07241, Korea

P-003

Development of a Lab-on-a-Disc System and Its Application

Hwa-yong Jang, Han Bin Oh*

Department of chemistry, Sogang University, Seoul 04107, Korea

P-004

Mechanism Studies of TEMPO-FRIPS Mass Spectrometry

Jae-ung Lee[1], Yeonjoon Kim[2], Woo Youn Kim[2], Han Bin Oh[1,*]

[1]Department of chemistry, Sogang University, Baekbeum-ro 35, 04107, Republic of Korea
[2]Department of chemistry, Kaist, Daehak-ro 291, 34141, Republic of Korea

P-005

Improved Free radical initiated backbone dissociation of peptides conjugated with *p*-TEMPO-Benzyl Succinic Acid

Sang Tak Lee[1,2*], Han Bin Oh[1]

[1] Dept of Chemistry, Sogang University, 35 Baekbeom-ro, Mapo-gu, Seoul, 04107, Seoul
[2] Research Institute for Basic Science, Sogang University, 35 Baekbeom-ro, Mapo-gu, Seoul, 04107, Seoul

P-006

Development and Application of Liquid Handler for the Automated Pretreatment of TEMPO-FRIPS

Kee Won Yang[1], Han Bin Oh[1,*]

[1]Department of chemistry, Sogang University

P-007

Major ionization process of electrospray ionization coupled with gas chromatography is atmospheric pressure chemical ionization

Sang Moon Han[1,2], Seunghwa Lee[1,2], Jaeick Lee[1,*]

[1]Doping Control Center, Korea Institute of Science and Technology, Hwarang-ro 14-gil 5, Seongbuk-gu, Seoul, 02792, Korea
[2]Department of Chemistry, Research Institute for Natural Sciences, Korea University, 145 Anam-ro, Seongbuk-gu, Seoul, 02841, Korea

P-008

Unusual H/D exchange in *meso*-substituted porphyrin investigated by mass spectrometry

Jiyeon Lee,[1] Seongjae Jang,[1] Seoyoung Lee,[1] Youngchol Jung,[1] and Jongcheol Seo[1,2,*]

[1] Department of Chemistry, POSTECH, 77 Cheongam-ro, Pohang, 37673, Korea
[2] Division of Advanced Material Science, POSTECH, 77 Cheongam-ro, Pohang, 37673, Korea

P-009

Chiral-Selective Aggregation of Serine and Glucose in the Gas Phase

Sumin Hong,[1] Yeongji Jeong,[1] and Jongcheol Seo[1,2,*]

[1] Department of Chemistry, POSTECH, 77 Cheongam-ro, Pohang, 37673, Korea
[2] Division of Advanced Material Science, POSTECH, 77 Cheongam-ro, Pohang, 37673, Korea

P-010

Construction of a Quadrupole Ion Trap Time-of-Flight Secondary Ion Mass Spectrometer

Chang Min Choi[1*], Ji Young Baek[1], Jae Young Eo[2], Sang Ju Lee[1], Boo Ki Min[1] and Myoung Choul Choi[1]

[1]Mass Spectrometry and Advanced Instrumentation Research Group, Division of Scientific Instrumentation, Korea Basic Science Institute, Chungbuk 28119, Republic of Korea
[2]Instrumentation Development Support Group, Division of Scientific Instrumentation, Korea Basic Science Institute, Chungbuk 28119, Republic of Korea

P-011

Analysis of OLED materials using LDI-ToFMS

Ji Young Baek, Chang Min Choi, Myoung Choul Choi*

Mass spectrometry and Advanced Instrumentation Research Group, Division of Scientific Instrumentation, Korea Basic Science Institute, Chungbuk 28119, Korea

P-012

Validation of sample preparation method for isotope ratio measurements of Pb and Sr in airborne particulate matter

Su-min Seo[1,2], Hwan Lee[1,2], Yong-Hyeon Yim[1], Tae kyu Kim[2], ManHo Lim[2], Kyoung-Seok Lee[1*]

[1]Korea Research Institute of Standards and Science (KRISS), Daejeon 305-340, South Korea
[2]Department of Chemistry, Pusan National University, Busan 609-735, South Korea

2. Life & Informatics
: PO18 ~ PO28

P-013

Comparisons of instrumental fractionation models in lead isotope ratio measurements: Standard-sample bracketing, combined standard-sample bracketing with internal normalization, and regression model

Hwan Lee[a,b], Su-min Seo[a,b], Seung-hee Kim[a,b], Man-ho Lim[b], Tae-kyu Kim[b], Yong-Hyeon Yim[a] and Kyoung-Seok Lee*[a]

[1]Center for Analytical chemistry, Korea Research Institute of Standards and Science (KRISS), Daejeon, 34113, Korea
[2]Department of Chemistry, Pusan National University, Busan 46241, Korea

P-014

LC-MS/MS-based Proteomic Analysis of Synechystis Using Two Phase Samples on Growth curve

Da-Mi Kwon[1*], Jong-Moon Park[1], Kwak-Hyun Jin[1], Seong-Joo Hong[2], Byung-Kwan Cho[3], Choul-Gyun Lee[2], Hyung-Kyoon Choi[4] and Hookeun Lee[1]

[1]College of Pharmacy, Gachon University, 191 Hambanmoe-ro, Yeonsu-gu, Incheon 21936, Republic of Korea
[2]Institute of Industrial Biotechnology, Department of Biological Engineering, Inha University, Incheon 402-751, Republic of Korea
[3]Department of Biological Sciences, Korea Advanced Institute of Science and Technology (KAIST), Daejeon 305-701, Republic of Korea
[4]College of Pharmacy, Chung-Ang University, Seoul 156-756, Republic of Korea

P-015

Development of optimized MS calibration methods for complex mixtures analysis with ESI, APPI, APCI, and LDI

Eunji Cho[1] and Sunghwan Kim[1,2*]

[1]Department of Chemistry, Kyungpook National University, 80 Daehak-ro, Buk-gu, Daegu 41566, Korea
[2] Green-NanoMaterials Research Center, Daegu 41566, Republic of Korea

P-016

Development of MALDI sample preparation method for reproducible MALDI spectra of synthetic polymers

Yong Jin Bae[1], Kyoungjoo Jin[2], Yeu Young Youn[2], Young Hee Lim[1]

[1]LG Chem/LG Science Park, 30, Magokjungang 10-ro, Gangseo-gu, Seoul, 07796, Korea
[2]LG Chem R&D Campus, 188, Munji-ro, Yuseong-gu, Daejeon, 34122, Korea

P-017

Deuterium-Free, Three-Plexed Peptide Diethylation for Highly Accurate Quantitative Proteomics

Jae Hun Jung[3,4], Kyowon Jeong[1,2], Yeon Choi[1,2], Sun Ah Kim[1,2], Hyunjoon Kim[1,2], Joon Won Lee[3], V. Narry Kim[1,2], Hyung Keun Lee[4], Kwang Pyo Kim[3], and Jong-Seo Kim[1]

[1]Center for RNA Research, Institute for Basic Science (IBS), Seoul 08826, Korea
[2]School of Biological Sciences, Seoul National University, Seoul 08826, Korea
[3]Department of Applied Chemistry, College of Applied Science, Kyung Hee University, Yongin 17104, Korea
[4]Institute of Vision Research, Department of Opthalmology, Yonsei University College of Medicine, Seoul 03722, Korea

P-018

Identification and characterization of low-molecular-weight proteins in biological samples using MALDI-FTICR-MS

Huu-Quang Nguyen[1], Dabin Lee[1], Minseok Paek[1], Kyoung-Soon Jang[2], Jeongkwon Kim[1*]

[1]Dept of Chemistry, Chungnam National University, Daejeon, Korea
[2]Biomedical Omics Center, Korea Basic Science Institute, Daejeon, Korea
**Corresponding author: jkkim48105@cnu.ac.kr*

P-019

Toward the construction of the hazardous accident site gas database using a TD-GC/MS method

Eunwoo Choi, Han Bin Oh*

Department of chemistry, Sogang University, Seoul 04107, Korea

P-020

Serum lipid signatures of post-hepatectomy liver failure caused by extended hepatectomy using nanoflow UHPLC-ESI-MS/MS

HaeA Kim, Jong Cheol Lee, and Myeong Hee Moon*

Dept of Chemistry, Yonsei University, 50 Yonsei-ro, Seoul, 03722, Korea

P-021

Optimizations in simultaneous analysis of fatty acid and other lipid classes using nUHPLC-ESI-MS/MS

Kang Uk Kim, Jong Cheol Lee, and Myeong Hee Moon*

Dept. of Chemistry, Yonsei University, 50 Yonsei-ro, Seoul, 03722, Korea

P-022

Lipidomic perturbations in lipoproteins of patients with postmenopausal osteoporosis by asymmetrical flow field-flow fractionation and nUHPLC-ESI-MS/MS

Kang Geun Lee, Joon Seon Yang and Myeong Hee Moon*

Dept. of Chemistry, Yonsei University, 50 Yonsei-ro, Seoul, 03722, Korea

P-023

Global histidine phosphoproteome using TiO_2 affinity chromatography

Yan Gao[1], Ann Yae Na[1], Do Eun Kim[1], Ki-Tae Kim[2], Sangkyu Lee[1,*]

[1]BK21 Plus KNU Multi-Omics based Creative Drug Research Team, College of Pharmacy, Kyungpook National University, 80 Daehakro, Bukgu, Daegu, 41566, Korea
[2]Department of Environmental Engineering, Seoul National University of Science and Technology, 232 Gongneung-ro, Nowon-gu, Seoul, 01811, Korea

3. Biological & Environment
: PO29 ~ PO57

P-024

Metabolic signatures of serum adrenal steroids in 17α-hydroxylase deficiency evaluated by selective LC-MS analysis

Chaelin Lee[1,2], Jung Hee Kim[3], Sun Joon Moon[3], Hugh I. Kim[2], and Man Ho Choi[1,*]

[1]Molecular Recognition Research Center, KIST, Seoul 02792; [2]Department of Chemistry, Korea University, Seoul 02841, Korea; [3]Department of Internal Medicine, Seoul National University Hospital, Seoul 03080, Korea

P-025

Altered androgenic pathways between fetal and adult mouse testes evaluated by GC-MS/MS-based steroid profiling

Soyun Han[1,2], Jae-Hong Kim[2], Man Ho Choi[1]

[1]Molecular Recognition Research Center, KIST, Seoul 02792; [2]College of Life Sciences, Korea University, Seoul 02841, Korea

P-026

Quantitative analysis of RGB dopant materials by supercritical fluid chromatography coupled with mass spectrometry

Keumjung Yoon, Sunghwan Kim*

Department of Chemistry, Kyungpook National University, Daegu, Korea

P-027

Middle-down glycoproteomic approach of targeted serum haptoglobin for biomarker discovery in gastric cancer

Seunghyup Jeong[1, 2], Unyong Kim[3], Se Hoon Park[4], and Hyun Joo An[1, 2*]

[1]Graduate School of Analytical Science and Technology, Chungnam National University, Daejeon, Korea
[2]Asia-Pacific Glycomics Reference Site, Daejeon, Korea
[3]GLYCAN Co., Ltd, Seoul, Korea
[4]Division of Hematology-Oncology, Department of Medicine, Sungkyunkwan University Samsung Medical Center, Seoul, Korea

P-028

Serum and salivary profiles of cholesterols in lipidemia

Go Eun Kwon[1,2], Ki-Jung Paeng[2], Man Ho Choi[1]

[1]Molecular Recognition Research Center, KIST, Seoul 02792; [2]Department of Chemistry, Yonsei University, Seoul 03722, Korea

P-029

Simultaneous quantitative analysis of a large number of vocs with a multitude of isotope-labelled internal standards using a headspace gc-ms.

Jee seon Moon, Jae-ung Lee, Han Bin Oh

Department of Chemistry, Sogang University, 35 Baekbeom-ro, Mapo-gu, Seoul 04107, Korea

P-030

Analysis of Quaternary Ammonium Compounds (QACs) by Liquid Chromatography-Mass Spectrometry

Hye-ri Kim, Han Bin Oh*

Department of Chemistry, Sogang University, Seoul 04107, Korea

P-031

Metabolomic analysis of the glucotoxicity state in pancreatic beta cell

Hyun-A Oh[1*], Jun-Ho Ahn[1], Heeyoung Yang[1], Byung Hwa Jung[2], Jung-Hwa Oh[1], Seokjoo Yoon[1]

[1]Department of Predictive Toxicology, Korea Institute of Toxicology, Daejeon, Korea
[2]Molecular Recognition Research Center, Korea Institute of Science and Technology, Seoul, Republic of Korea

P-032

Comprehensive N-glycosylation profiling of canine serum by nano-LC Chip Q-TOF

Hyun June Lee[1], A Hyun Lee[1], Nari Seo[2, 3], Hyun Joo An[2, 3], and Jaehan Kim[1]

1 Department of Food and Nutrition, Chungnam National University, Korea
2 Graduate School of Analytical Science and Technology, Chungnam National University, Korea
3 Asia-Pacific Glycomics Reference Site, Korea

P-033

Comparative proteome analysis for 3-dimensional spheroids formation compared to 2-dimendional cancer cell culture

Hee-Sung Ahn[1], Junhyuk Song[2], Jiyoung Yu[1], Jeonghun Yeom[1], Sangyong Jon[2,3] and Kyunggon Kim[1,4,*]

[1]Department of Convergence Medicine, Asan Medical Center, Seoul, 05505, South Korea
[2]Department of Biological Sciences, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, 34141, South Korea.
[3]Graduate School of Medical Science and Engineering, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, 34141, South Korea
[4]College of Medicine, University of Ulsan, Seoul, 05505, South Korea

P-034

Minimization of background contamination of endocrine disrupting chemicals in mobile phase and sample preparation

Seunghwa Lee[1,2], Sang Moon Han[1,2], Kang Mi Lee[1], Hosub Im[3], Jaeick Lee[1,*]

[1]Doping Control Center, Korea Institute of Science and Technology, Hwarang-ro 14-gil 5, Seongbuk-gu, Seoul, 02792, Korea
[2]Department of Chemistry, Research Institute for Natural Sciences, Korea University, 145 Anam-ro, Seongbuk-gu, Seoul, 02841, Korea
[3]Institute for Life & Environmental Technology, Smartive Corporation, Dobong-ro 110na-gil, Dobong-gu, Seoul, 01454, Korea

P-035

Multi-class analysis of endocrine disruptors in human urine by LC-ESI/MS/MS with two consecutive liquid-liquid extraction

Kang Mi Lee[1], Seunghwa Lee[1,2], Sang Moon Han[1,2], Hosub Im[3], Jaeick Lee[1,*]

[1]Doping Control Center, Korea Institute of Science and Technology, Hwarang-ro 14-gil 5, Seongbuk-gu, Seoul, 02792, Korea
[2]Department of Chemistry, Research Institute for Natural Sciences, Korea University, 145 Anam-ro, Seongbuk-gu, Seoul, 02841, Korea
[3]Institute for Life & Environmental Technology, Smartive Corporation, Dobong-ro 110na-gil, Dobong-gu, Seoul, 01454, Korea

P-036

Quantitative proteomic profiling of ionizing radiation effects in a Mouse bone marrow

Jeonghun Yeom[1]*, Jiyoung Yu[1], Hee Sung Ahn[1], Hwangkyo Jeong[1], Je-Won Ryu[1], Sang-wook Lee[2], Kyunggon Kim[1]

[1]Asan Institute for Life Sciences, Asan Medical Center, 88 43-gil, Olympic-ro, Songpa-gu, Seoul, 05505, Korea
[2]Department of Radiation Oncology, Asan Medical Center, University of Ulsan College of Medicine, 88 43-gil, Olympic-ro, Songpa-gu, Seoul, 05505, Seoul, Korea

P-037

Analysis of contamination source of contaminated soil by crude oil using GC×GC-MS

Hyeong Won Mun[1], Da Seul Lee[1], Ki-Jung Paeng[1], Byong Hun Jeon[2]

[1]Department of Chemistry, Yonsei University, Wonju, 26493, Korea
[2]Department of Earth Resources and Environmental Engineering, Hanyang University, Seoul, 04763, Korea

P-038

Comprehensive analysis of persistent organic pollutants (POPs) in human serum and comparison of different mass spectrometric ionization approaches

Jooeun Lee[1,2], Hanbin Oh[2], Hosub Im[3], Ki Hun Kim[1*]

[1]Doping Control Center, Korea Institute of Science and Technology, Hwarang-ro 14-gil 5, Seongbuk-gu, Seoul, 02792, Korea
[2]Department of Chemistry, Sogang University, Seoul, 04107,Korea
[3]Institute for Life & Environmental Technology, Smartive Corporation, Dobong-ro 110na-gil, Dobong-gu, Seoul, 01454, Korea

P-039

Glycoprotein profiling of gastric cancer-associated fibroblast secretome

Jong Hwan Shin[1,2], Hyun Kyoung Lee[1,2], Gun Wook Park[1], Jong Shin Yoo[1,2], Hoon Hur[3], Jae-Young Kim[2]*, and Jin Young Kim[1]*,

[1]Biomedical Omics Group, Korea Basic Science Institute, Ochang 368-883, Korea
[2] Graduate School of Analytical Science and Technology, Chungnam National University, Daejeon Korea
[3] Division of Gastrointestinal Surgery, Department of Surgery,Ajou University School of Medicine, 164, Worldcup-ro,Yeongtong-gu, Suwon, Gyeonggi-do 16499, Korea

P-040

Easy charcterisation of biologics using SmartEnzymes from Genvois

Jooyoung Kim, PhD

Chayon Laboratories, BMS bldg. 22 Yeoksam-ro 7gil, Gangnam-gu, Seoul 06244, Korea

P-041

Reconstruction of cancer cell homeostatic network through analysis of global proteome and phosphoproteome in CRISPR-Cas9 knock-out cell.

Bitnara Han[1*], Hyeong Min Lee[1], Hyoseon Kim[1], Jin-Soo Kim[3,4], Kwang Pyo Kim[1,2]

[1]Department of Applied Chemistry, Institute of Natural Science, Global Center for Pharmaceutical Ingredient Materials, Kyung Hee University, Yongin 17104, Republic of Korea.; [2]Department of Biomedical Science and Technology, Kyung Hee Medical Science Research Institute, Kyung Hee University, Seoul, 02453 Republic of Korea; [3]National Creative Research Initiatives Center for Genome Engineering, Seoul National University, Seoul, South Korea; [4]Department of Chemistry, Seoul National University, Seoul, South Korea.

P-042

Analysis of polycyclic aromatic hydrocarbons in particulate matters by using GCxGC/High resolution mass spectrometer

Moonhee Park[1], Kyoung Soon Jang[1], Kihong Park[2], Young Hwan Kim[1,*]

[1]Biomedical Omics Group, Korea Basic Science Institute, Cheongju 28119, Republic of Korea
[2]School of Earth Science and Environmental Engineering, Gwangju Institute of Science and Technology, Gwangju 61005, Republic of Korea

P-043

Comparisons of RP-RP HPLC separation with different pH and additives for TMT based proteomics

Hong Kyeong Jung [1], Hae In Jeong[1], Ki Na Yun[1,2], Jin Young Kim[1]

[1]Biomedical Omics Group, Korea Basic Science Institute, Ochang, Korea
[2]Department of Chemistry, Sogang University, Seoul, Korea

P-044

Lipidomic analysis in a fibrosis model of unilateral ureteral obstruction (UUO)

Min-Kyeong Seo[1†], Kyu-Jin Song[1], Su Woong Jung[3], Su-Mi Kim[3], Dong-Jin Kim[3], Sang-Ho Lee[3], Kwang Pyo Kim[1,2,*]

[1] Department of Applied Chemistry, Institute of Natural Science, Global Center for Pharmaceutical Ingredient Materials, Kyung Hee University, Yongin 17104, Republic of Korea.
[2] Department of Biomedical Science and Technology, Kyung Hee Medical Science Research Institute, Kyung Hee University, Seoul, 02453 Republic of Korea.
[3] Division of Nephrology, Department of internal medicine, Kyung Hee University, Seoul

P-045

Inspection of serum metabolomics profiles in adult asthma

Hayung Chung[1], Sae-Hoon Kim[2,3], Byung-Keun Kim[2,3], Woo-Jung Song[3], Heung-Woo Park[3], Bong-Soo Kim[4], Yoon-Seok Chang[2,3], Myung-Hee Nam[1]

[1] Korea Basic Science Institute (KBSI), Seoul, 02855, Republic of Korea
[2]Department of Internal Medicine, Seoul National University Bundang Hospital, Seongman, Republic of Korea
[3]Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea
[4]Department of Life science, Hallym University, Chuncheon, Republic of Korea

P-046

Effect of microbe-drived metabolites on the lipid metabolism in high fat diet-induced obese mouse model

Byunghyun Kim[1], Hayung Chung[1], Yeonmi Lee[2], Hui-Young Lee[2], Hayoung Kim[5], Sung-Yup Cho[3], Hansoo Park[4], Yun Gyong Ahn[5], Myung Hee Nam[1]

[1]*Korea Basic Science Institute(KBSI), Seoul Center, Republic of Korea*
[2]*Korea Mouse Metabolic Phenotyping Center, Lee Gil Ya Cancer and Diabetes Institute, Gachon University, Republic of Korea*
[3]*Seoul National University College of Medicine, Republic of Korea*
[4]*Gwangju Institute of Science & Technology(GIST), Republic of Korea*
[5]*Korea Basic Science Institute(KBSI), Western Seoul Center, Republic of Korea*

P-047

Quantitative analysis of free fatty acids in elaiosome of *Coreanomecon hylomeconoides* Nakai species using UPLC-ESI-MS/MS

Hyejin Park[1], Dongyeob Lee[1], Eunsuk Kim[1,*], Tae-Young Kim[1,*]

[1]*School of Earth Science and Environmental Engineering, Gwangju Institute of Science and Technology, 123 Cheomdangwagi-ro, Buk-gu, Gwangju, 61005, Korea*

P-048

Study on Photodegradable Compounds of Expanded PolyStyrene (EPS)

Seulgidaun Lee[1], Sunghwan Kim[1*]

[1]*Department of chemistry, Kyungpook National University, 80 Daehak-ro, Buk-gu, Daegu 702-701, Republic of Korea.*

P-049

Mass-spectrometric evaluation for in-vitro hepatic metabolism of endocrine-disrupting chemicals

Hyung-Do Kwon[1*], Hee Seok Lee[2], Hong Jin Lee[3], Joong Hyuck Auh[3], Do Yup Lee[1]

[1]*The Department of Bio and Fermentation Convergence Technology, BK21 PLUS Program, Kookmin University, Seoul 02707, Republic of Korea*
[2]*Ministry of Food and Drug Safety, Chungcheongbuk-do, South Korea*
[3]*The Department of Food Science and Technology, Chung-Ang University, Ansung 456-756, Republic of Korea*

P-050

Analysis of Diethanolamine (DEA) and Triethanolamine (TEA) in Han River Based Water Source using LC-MS/MS

Do-A Lee*, Young-jun Park , Seung-Yoon Choi, Gun-Young Ryu, Jung-Hyun Lee

Dept of Consumer Product & Enviroment Business, KOTITI Testing & Research Institute, 111 Sagimackgol-ro, Jungwon-gu, Seongnam-si, Gyeonggi-do, 13202, Korea

P-051

Study on extraction and ionization method optimization for high resolution mass spectrometry analysis of organic compounds in atmospheric particulate matter

Sungjune Kim[1*], Sunghwan Kim[1,2]

[1]*Deptartment of Chemistry, Kyungpook National University, 80 Daehakro, Deagu, 41566, Korea*
[2]*Green-Nano Materials Research Center, Korea*

P-052

Tracing of groundwater nitrogen source driving *Ulva lactuca* bloom using ^{15}N-NO_3, ^{18}O-NO_3 stable isotope ratios

[1,2]Min-Soeb Kim, [2]Suk-Hee Yoon, [2]Jaeson Park, [2]Bo-Ra Lim, [2]Hyunwoo Park, [2]Hyen-Mi Chung, [2]Jong-Woo Chio*

[1]*Chemical Monitoring and Assessment Laboratory, National Insitute of Fisheries Science, Gizanghaean-ro 216, Busan, 46083, Republic of Korea*
[2]*Environmental Measurement & Analysis Center, National Instiute of Environmental Research, Hwangyong-ro 42, Incheon, 22689, Republic of Korea*

P-053

DART-MS/MS for metabolite analysis of small brown planthopper (*Laodelphax striatellus*)

Jong Bok Seo[1], Eui-Gil Jung[1], Hee-Jung Kim[1], Bo Yoon Seo[1], Gwan Seok Lee[2]

[1]*Korea Basic Research Institute, Seoul Center, Seoul, South Korea.*
[2]*Department of Plant Protection, National Academy of Agricultural Science, RDA*

P-054

MALDI-Mass spectrometry imaging based investigation of Alzheimer's disease models

Yeri Won[1], Chtistine Yi[2], Eui-Gil Jung[3], Hee-Jung Kim[3], Eun Sol Kim[3], Hyuno Kang[4], Jong Bok Seo[3]

[1]*Dulwich College Seoul, 6 Sinbanpo-ro 15-gil, Seocho-gu, Seoul, 06504, Republic of Korea.*
[2]*Seoul International School, 15, Seongnam-daero 1518 beon-gil, Sujeong-gu, Seongnam-si, Gyeonggi-do, 13113, Republic of Korea.*
[3]*Korea Basic Research Institute, Seoul Center, Seoul, South Korea.*
[4]*Korea Basic Science Institute, Gwangju Center, Gwangju, South Korea.*

P-055

Alterations in lipid profile of an depression model detected by MALDI imaging mass spectrometry

Hee-Jung Kim[1], Eui-Gil Jung[1], Yun Ea Ji[2] , Bong-June Yoon[2], Jong Bok Seo[1]

[1]*Korea Basic Research Institute, Seoul Center, Seoul, South Korea.*
[2]*School of Life sciences, Korea University, Anam-Ro 145, Sungbuk-gu, Seoul, 02841, Republic of Korea.*

P-056

Differential study of Cell Culture Media to Identify Secretary Metabolites with CE Q-TOF

Joong-mok Jung[1], Joon-seok Lee, Hyun-jin Jung[1,*]

[1]*LSS Application Engineer Team, Agilent Thechnologies Korea Ltd., A+Asset Tower, 369 Gangnam-daero, Seocho-gu, Seoul, 06621, Republic of Korea*

P-057

Identification and Quantitation of dimethyl fumarate(DMFu) in dye using Agilent 7250 GC-QTOF

Byeong Ho Kim[1], Jee Hoon Kim[1], Seong Hoon Kang[1], Hyun Jin Jung[1,*]

[1]*LSS Application Engineer Team, Agilent Thechnologies Korea Ltd., A+Asset Tower, 369 Gangnam-daero, Seocho-gu, Seoul, 06621, Republic of Korea*

4. Medical/Pharmaceutical Science : PO58 ~ P106

P-058

Validated UPLC/MS/MS method for detection of zolpidem in human plasma and its application to pharmacokinetic study.

Seongmee Jeong[1]*, Eben Jung[1], Ki Soon Kim[1], Woo-Yong Oh[1], and Jehyuk Chung[1]

[1] Clinical Research Division, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Cheongju 28159, Korea

P-059

Quantitative Analysis of Metabolic Markers in Urine Samples from Miscarriage/Pre-term Birth Patients Using LC-MS/MS

Seyoon Oh and Han Bin Oh

Department of Chemistry, Sogang University, Seoul 04107, Korea

P-060

Immunoproteomics approach to discover immunogenic SFTS virus antigen for vaccine and diagnostic kit development

Jiyoung Yu[1]*, Eunsil Kim[2], Hee-Sung Ahn[1], Jeonghun Yeom[1], Yumi Oh[1], Hwangkyo Jeong[1], Yujin Jo[1], Keun Hwa Lee[3], Yangsoo Kim[2], Kyunggon Kim[4]

Dept. of Convergence Medicine, Asan Medical Center, Songpa-gu, Seoul, South Korea
Dept. of Infectious Disease, Asan Medical Center, Seoul, South Korea
Dept. of Microbiology and Immonolgy, Jeju National University, Jeju, South Korea
Dept. of Convergence Medicine, Asan Medical Center/University of Ulsan, Seoul, South Korea

P-061

Method development of trace amount of nitrogen mustard metabolites for GC-TSQ

Sung-Hyun Yang*, Ji-Eun Jung, Hyun-Suk Kim

Agency for Defense Development, Yuseong P.O.Box 35, Daejeon, 34186, Korea

P-062

Study on method development of trace amount of sulfur mustard metabolites for GC-TSQ

Ji-Eun Jung*, Sung-Hyun Yang, Hyun-Suk Kim

Agency for Defense Development, Yuseong P.O.Box 35, Daejeon, 34186, Korea

P-063

Development and validation of LC-MS/MS method for the determination of trimethylamine N-oxide (TMAO) in human plasma

Dajeong Ji [1]*, Sang-Guk Lee [2]

[1,2]Department of Laboratory Medicine, Yonsei University College of Medicine, 50, Yonsei-ro, Seodaemun-gu, Seoul, 110-810, Korea

P-064

Automated derivatization of neurotransmitters in plasma extracts for liquid chromatograph tandem mass spectrometry

Junghoon Shin*, Jaewoo Song, Jihyun Lee, Youngmin Hong

Technical Research Center, Shimadzu Scientific Korea, 145, Gasan digital 1-ro, Geumcheon-gu, Seoul, 08506, South Korea

P-065

Hydrogen deuterium scrambling in Nano-ESI TEMPO-FRIPS tandem Mass Spectrometry

Phanikumar Nasika[1], Sang Tak Lee[1], Han Bin Oh[1,*]

[1]Department of chemistry, Sogang University, Baekbeum-ro 35, 04107, Republic of Korea

P-066

Metabolsim and pharmarcokinetic studies of carisbamate in rat using liquid chromatography-quadrupole time-of-flight mass spectrometry

Byeong ill Lee[1], Min-Ho Park[1], Jangmi Choi[1], Seok-Ho Shin[1], Jin-Ju Byeon[1], Minjae Park[1], Jeonghyun Lim[1], Seojin Park[1], Young G. Shin[1]

[1] College of Pharmacy, Chungnam National University, Daejeon, 305-764, Republic of Korea (South)

P-067

Metabolic characterization of Mertansine (DM1): in vitro metabolic stability assessment and metabolite identification in various species by using liquid chromatography-mass spectrometric (LC-MS) method.

Seo-Jin Park[1], Min-Ho Park[1], Seok-Ho Shin[1], Jin-Ju Byeon[1], Byeong ill Lee[1], Jangmi Choi[1], Min-Jae Park[1], Jeonghyun Lim[1] and Young G. Shin[1*]

College of Pharmacy, Chungnam National University, Daejeon 305-764, South Korea

P-068

In vitro catabolic identification of antibody drug conjugates with non-cleavable linkers or cleavable linkers using liquid chromatography-quadrupole time-of-flight mass spectrometry

Min-Jae Park, Min-Ho Park, Jin-Ju Byeon, Seok-Ho Shin, Byeong ill Lee, Jangmi Choi, Seo-jin Park, Jeonghyeon Lim and Young G. Shin

College of Pharmacy, Chungnam National University, Daejeon 305-764, South Korea

P-069

Metabolic stability of auristain e in various species matrices and its metabolite identification using liquid chromatography–tandem mass spectrometry

Jeonghyun Lim[1], Min-Ho Park[1], Seok-Ho Shin[1], Byeong ill Lee[1], Jangmi Choi[1], Seojin Park[1], Minjae park[1], Jinju Byeon[1] and Young G. Shin*[,1]

[1]College of Pharmacy, Chungnam National University, Daejeon 305-764, Republic of Korea (South)

P-070

Characterization of in vitro and in vivo metabolism and pharmacokinetic properties for Ciforadenant (CPI-444) in rat using liquid chromatography-quadrupole time-of-flight mass spectrometry (LC-qTOF-MS)

Jin-Ju Byeon[1]*, Yeon-Jae Kang[1], Min-Ho Park[1], Seok-Ho Shin[1], Yuri Park[1], Byeong ill Lee[1], Jangmi Choi[1], Seo-Jin Park[1], Minjae Park[1], Jeonghyun Lim[1] and Young G. Shin[1]

[1]College of Pharmacy, Chungnam National University, Daejeon 305-764, Republic of Korea (South)

P-071

Untargeted metabolomic analysis to characterize exercise-induced metabolite changes associated with myocardial ischemia

Hyun Ji Han[1], Kyung Min Lee[1], Mi-Ri Gwon[1], Sook Jin Seong[1], Jae-Hyung Roh[2], Seungil Cho[1] and Young-Ran Yoon[1]

[1]BK21 Plus KNU Bio-Medical Convergence Program for Creative Talent, Department of Molecular Medicine, School of Medicine, Kyungpook National University, Daegu, 41944, Korea
[2]Department of Cardiology, Chungnam National University Hospital, Daejeon, 35015, Korea

P-072

Liquid chromatography - triple quadrupole - time of flight / mass spectrometry assay for the evaluation of metabolic profile and pharmacokinetic properties of omeprazole in mouse brain and plasma

Seok-Ho Shin[1]*, Yuri Park, Min-Ho Park, Jin-Ju Byeon, Byeong ill Lee, Jangmi Choi, Seo-Jin Park, Minjae Park, Jeonghyun Lim and Young G. Shin

[1]College of Pharmacy, Chungnam National University, Daejeon 305-764, South Korea

P-073

A novel and simple LC-MS/MS method for simultaneous determination of lansoprazole, amoxicillin, and clarithromycin in human plasma and its application to a pharmacokinetic study

Hyun-Jung Kwon1*, Sang-Heon Cho1, Cheol-Woo Kim2, Kwang-Youl Kim1

[1]Department of Clinical Pharmacology
[2]Department of Internal Medicine, Inha University Hospital, Inha University School of Medicine, Incheon, Korea

P-074

Method optimization of protein extraction from formalin-fixed, paraffin-embedded tissue for global proteome analysis using liquid chromatography coupled with high resolution mass spectrometry

Yujin Jo[1], Hwangkyo Jeong[1], Yumi Oh[1], Heesung Ahn[1], Jeonghun Yeom[1], Jiyoung Yu[1] and Kyunggon Kim[1]*

[1]Department of convergence Medicine, Asan Medical Center, Seoul 05505, South Korea

P-075

In vitro and in vivo metabolite profiling and identification of sulfasalazine by stable-isotope labeling and liquid chromatography-time-of-flight mass spectrometry

Jangmi Choi, Min-Ho Park, Jin-Ju Byeon, Seok-Ho Shin, Byeong ill Lee, Minjae Park, Seojin Park, Jeonghyun Lim and Young G. Shin

College of Pharmacy, Chungnam National University, Daejeon 305-764, South Korea

P-076

Plasma stability of brentuximab vedotin and search of its catabolism and metabolism

Min-Ho Park, Jeonghyun Lim, Minjae Park, Seo-Jin Park, Byeong ill Lee, Seok-Ho Shin, Jin-Ju Byeon, Jangmi Choi, and Young G. Shin*

College of Pharmacy, Chungnam National University, Daejeon 305-764, South Korea

P-077

Drug Interaction Study of CYP3A Modulators and Loxoprofen

Sanjita Paudel[1], Aarajana Shrestha[2], Piljoung Cho[1], Younah Kim[1], Eung-Seok Lee[2], Sangkyu Lee[1,*]

[1]BK21 Plus KNU Multi-Omics based Creative Drug Research Team, College of Pharmacy, Kyungpook National University, 80 Daehakro, Bukgu, Daegu, 41566, Korea
[2]College of Pharmacy, Yeungnam University, Gyeongsan 38541, Republic of Korea

P-078

Quantitative and simultaneous analysis of multiple cancer biomarkers using MALDI-TOF based on a parylene-matrix chip

Jong-Min Park[1], Moon-Ju Kim[1], Joo-Yoon Noh[1], Tae Gyeong Yun[1], Min-Jung Kang[2], Sang-Guk Lee [3], Byong Chul Yoo[4], Jae-Chul Pyun[1,*]

[1] Department of Materials Science and Engineering, Yonsei University, 50 Yeonsei-ro, Seodaemun-gu, Seoul, 03722, Korea
[2] Korea Institute of Science and Technology
[3] Yonsei University College of Medicine
[4] National Cancer Center

P-079

Quantitative carbapenem susceptibility test of carbapenemase-producing enterobacteriaceae using MALDI-TOF based on a parylene-matrix chip

Jong-Min Park, Joo-Yoon Noh, Moon-Ju Kim, Tae Gyeong Yun, Jae-Chul Pyun*

Department of Materials Science and Engineering, Yonsei University, 50 Yeonsei-ro, Seodaemun-gu, Seoul, 03722, Korea

P-080

Quantitative analysis of lysophosphatidylcholine in patient serum for diagnosis of sepsis using MALDI-TOF MS based on a parylene-matrix chip

Jong-Min Park[1], Joo-Yoon Noh[1], Moon-Ju Kim[1], Tae Gyeong Yun[1], Sang-Guk Lee[2], Kyung Soo Chung[2], Sohee Yoon[3], Min-Jung Kang[4], Moo Suk Park[2], Jae-Chul Pyun[1,*]

[1] Department of Materials Science and Engineering, Yonsei University, 50 Yeonsei-ro, Seodaemun-gu, Seoul, 03722, Korea
[2] Yonsei University College of Medicine
[3] Korea Research Institute of Standards and Science
[4] Korea Institute of Science and Technology

P-081

Rapid determination of rivaroxaban in rat plasma using liquid-liquid extraction and LC-MRM

Hyo Chun Lee, Dong Yoon Kim, Yong Seok Choi*

College of Pharmacy, Dankook University, Cheonan, Chungnam 31116, South Korea

P-082

Qualitative analysis method of methotrexate (MTX) in biological sample by high-performance liquid chromatography with tandem mass spectrometry (HPLC-MS/MS)

Yeongsuk Yoo[1], Sangkwang Lee[2], Cho Kun[1,*]

[1,]Korean Basic science institute, Biomedical omics research*
[2] Eulji University, Eulji Medi-Bio Research institute
**Corresponding author: chokun@kbsi.re.kr*

P-083

Effect of Trastuzumab-doxorubicin Conjugates in Cancer Cell line and Identification

Seung-Hwan Kim[a], Jung-Dong Kim[b], Joo-Hyun Jeon[b], Hyun-Jun Ahn[a], Hee-Jeong Seo[a], Jin-Hyun Jeong*

[a]Department of Industrial Pharmaceutical Sciences, Yonsei Institute of Pharmaceutical, Yonsei University
[b]College of pharmacy, Yonsei Institute of Pharmacetical, Yonsei University
85 Songdogwahak-ro, Yeonsu-gu, Incheon 21983, Republic of Korea

P-084

Comparative Efficiency of ADCs Conjugated with Doxorubicin or Palbociclib on MCF-7 and PC3 cell line and Characterization of ADCs

Hee-Jeong Seo [a,*], Hyun-Jun Ahn [a,*], Joo-Hyun Jeon[b], Jeong-Dong Kim[b], Dong-Min Ku[a], Jin-Hyun Jeong[#]

[a]Department of Industrial Pharmaceutical Sciences, Yonsei Institute of Pharmaceutical, Yonsei University
[b]College of pharmacy, Yonsei Institute of Pharmacetical, Yonsei University
85 Songdogwahak-ro, Yeonsu-gu, Incheon 21983, Republic of Korea
* Contributed equally
[#] Correspondence

P-085

Characterization of Antibody-Drug Conjugates Using Middle-up Assay

Joo-hyun Jeon[a], Jeong-Dong Kim[a], Jin-Hee Kim[a], Ga-Hyun Lee[b], Hyun-Jun Ahn[b], Seung-Hwan Kim[b], Yong-Beom Lee[b], Jin-Hyun Jeong[a,b,*]

[a]College of Pharmacy, Yonsei Institute of Pharmaceutical Sciences, Yonsei University, 85 Songdogwahak-ro, Yeonsu-gu, Incheon 21983, Republic of Korea
[b]Department of Industrial Pharmaceutical Sciences, Yonsei Institute of Pharmaceutical, College of Pharmacy, Yonsei University, 85 Songdogwahak-ro, Yeonsu-gu, Incheon 21983, Republic of Korea

P-086

Surrogate matrix approach for quantitation of endogenous thyroid hormones in rat serum using LC tandem mass spectrometry

Dong Hwi Kim[1], A Yeong Ko[1,2], Seok In Jang[1], Han Young Eom[1], and Jong Hwa Lee[1]

[1]Analytical Research Center, Korea Institute of Toxicology, 141 Gajungro, Yuseong-gu, Daejeon, 34114, Korea
[2]University of Science and Technology, 217 Gajeong-ro, Yuseong-gu, Daejeon, 34113, Korea

P-087

Differing polyamine levels in the vertex and occipital hair of male and female patients with hair loss

Yu Ra Lee[1, 2,*], Jeongae Lee[1], Bark Lynn Lew[4], Woo Young Sim[4], Jongki Hong[2,3], Bong Chul Chung[1,2]

[1]Molecular Recognition Research Center, Korea Institute of Science and Technology, Hwarang-ro 14-gil, Seoul;
[2]KHU-KIST Department of Converging Science and Technology, Kyung Hee University, Kyungheedae-ro, Seoul;
[3]College of Pharmacy, Kyung Hee University, Kyungheedae-ro, Seoul;
[4]Department of Dermatology, Kyung Hee University Hospital at Gangdong, Kyung Hee University, Dongnam-ro, Seoul

P-088

Validated LC-MS/MS method for quantification of rosuvastatin in small volume of human blood

Seon Eui Lee[1*], Song-Hee Han[1], Na Ha[1], Seol Ju Moon, MD[1], Min-Gul Kim, MD, PhD[1,2]

[1]Center for Clinical Pharmacology, Chonbuk National University Hospital, Jeonju, Republic of Korea
[2]Department of Pharmacology, School of Medicine, Chonbuk National University, Jeonju, Republic of Korea

P-089

Nanostructured TiO_2 materials for the analysis of gout-related crystals using LDI-ToF mass spectrometry

Moon-Ju Kim[1], and Jae-Chul Pyun [1*]

[1] Department of Materials Science and Engineering, Yonsei University,

E-mail address: jcpyun@yonsei.ac.kr

P-090

Analysis of N-Linked Glycan of Intact Phospholipase A2 from Honeybee Venom by Mass Spectrometry

Jeong-Dong Kim[1*], Jin-Hyun Jeong[2]

[1,2]College of Pharmacy, Yonsei Institute of Pharmaceutical Sciences, Yonsei University, 85 Songdogwahak-ro, Yeonsu-gu, Incheon 21983, Republic of Korea

P-091

Analysis of galactose by MALDI-ToF mass spectrometry using TiO_2 nanowire chip

Joo-Yoon Noh, Jae-Chul Pyun*

Department of Materials Science and Engineering, Yonsei University, Seoul, Korea
**E-mail: jcpyun@yonsei.ac.kr*

P-092

Full-automated and integrated workflow for glycoprotein and glycan analysis of pharmaceutical drugs using LC-MS

Jeong-Hun Mok*, Jong-Moon Park, Van-An Duong and Hookeun Lee

Department College of Pharmacy, Gachon University, 191 Hambanmoe-ro, Yeonsu-gu, Incheon 21936, Republic of Korea

P-093

Metabolomic assessment of early-onset of preeclampsia

Yujin Kang[1]*, Seung Mi Lee[2], Eun Mi Lee[1], Joong Shin Park[2] and Do Yup Lee[1]

[1]Department of Bio and Fermentation Convergence Technology, Kookmin University, Seoul, Korea
[2]Seoul National University College of Medicine, Seoul, Korea

P-094

Combi-matrix of CHCA and graphene for detection of L-Thyroxine (T_4)

Joo-Yoon Noh, Jae-Chul Pyun*

Department of Materials Science and Engineering, Yonsei University, Seoul, Korea
**E-mail: jcpyun@yonsei.ac.kr*

P-095

Breath Analysis with Thermal Desorption GCMS

Bongyoon Yi[1,2], Si Hyun Seong[1,3], Hyun Sik Kim[1,*]
Jieun Oh[4], Jae-Seok Kim[5]

1. Mass Spectrometry & Advanced Instrumentation Group, Korea Basic Science Institute, Cheongju 28119, Republic of Korea
2. Department of Physics, Chungbuk National University, Cheongju 28644, Republic of Korea
3. College of Pharmacy, Chungbuk National University, Cheongju 28644, Republic of Korea
4. Department of Internal Medicine, Kangdong Sacred Heart Hospital, Hallym University College of Medicine, Seoul 05355 Republic of Korea
5. Department of Laboratory Medicine, Kangdong Sacred Heart Hospital, Hallym University College of Medicine, Seoul 05355 Republic of Korea

P-096

Simple determination method for bioactive compounds of Bojungikgi tang by UPLC-MS/MS: Application to clinical pharmacokinetics

Eun-Jeong Choi[1], Dong Wook Kang[1], Ju Hee Kim[1], Guk-Yeo Lee[2], Young-Dal Kwon[3], Go-Wun Choi[1], Hea-Young Cho[1]*

[1]College of Pharmacy, CHA University, 335 Pangyo-ro, Seongnam-si, 13488, Korea
[2]National Development Institute of Korean Medicine, 288 Udeuraendeu-gil, Anyang-myeon, Jangheung-gun, Jeollanam-do, 59338, Korea
[3]Wonkwang University Gwangju Oriental Medicine Hospital, Gwangju, 61729, Korea

P-097

A middle-up strategy for glycosylation quality assessment of monoclonal antibodies by UPLC/MS

Jung A Seo[1,2], Myung Jin Oh[1,2], Youngsuk Seo[1,2], and Hyun Joo An[1,2*]

[1] Graduate School of Analytical Science and Technology, Chungnam National University, Daejeon, 34134, Korea
[2]Asia-Pacific Glycomics Reference Site, Daejeon, 34134, Korea

P-098

Development of mass spectrometry-based receptor tyrosine kinase high throughput screening platform technology for the identification of biomarkers and for the cancer therapy

Hyeweon Kang[1], Jin-Tae Hong[2], Won-Kyu Lee, [1]Hye-Jung Kim[1]

[1]New Drug Development Center, KBIO Osong Medical Innovation Foundation, Cheongju-si, Korea
2College of Pharmacy and Medical Research Center, Chungbuk National University, Cheongju, Chungbuk 28160, South Korea

P-099

Studies on human epidermal growth factor receptor 2/4 (Her2/4) inhibitors that cause changes in protein expression level of protozoan parasite, *Toxoplasma gondii*

Hyeweon Kang[1], Jaehui Park[1], Hye-Jin Ahn[2], Ho-Woo Nam[2], Jin-Tae Hong[3]
Won-Kyu Lee[1], and Hye-Jung Kim[1]

[1]New Drug Development Center, KBIO Osong Medical Innovation Foundation, Cheongju-si, Korea
[2]Department of Parasitology, College of Medicine, The Catholic University of Korea, Seoul 06591, Korea
3College of Pharmacy and Medical Research Center, Chungbuk National University, Cheongju, Chungbuk 28160, South Korea

P-100

Changes in the proteomic profiles of mouse brain after infection with *Toxoplasma gondii*

Hyeweon Kang[1], Jaehui Park[1], Hye-Jin Ahn[2], Ho-Woo Nam[2], Jin-Tae Hong[3],
Won-Kyu Lee[1], and Hye-Jung Kim[1]

[1]New Drug Development Center, KBIO Osong Medical Innovation Foundation, Cheongju-si, Korea
[2]Department of Parasitology, College of Medicine, The Catholic University of Korea, Seoul 06591, Korea
3College of Pharmacy and Medical Research Center, Chungbuk National University, Cheongju, Chungbuk 28160, South Korea

P-101

Effect of therapeutic agent BS11 on interaction between intestinal microbes and metabolic responses of metabolic diseases

Jung-Eun Lee[1], Yun Ha Lee[1], and Jeeyoun Jung[1]

[1] Clinical research Division, Korea Institute of Oriental Medicine, 1672 Yuseong-daero, 34054, Daejeon, Republic of Korea

P-102

A sensitive LC-MRM method to determine montelukast in rat plasma using liquid-liquid extraction

Dong Yoon Kim, Hyo Chun Lee, Yong Jin Jang, Jin Hee Kim, Yong Seok Choi*

College of Pharmacy, Dankook University, Cheonan, Chungnam 31116, South Korea

P-103

Comparative proteome analysis for three different developmental stage of muscle cell

Hwangkyo Jeong[1], Jeonghun Yeom [1], Hee Sung Ahn[1], Jiyoung Yu[1], Yumi Oh[1], Yujin Jo[1], Jung-Min Koh[2], and Kyunggon Kim[1].

[1]Department of Convergence Medicine and Asan Institute for Life Sciences, Asan Medical Center, University of Ulsan College of Medicine, Seoul 05505, Republic of Korea
[2]Department of Endocrinology and Metabolism, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea

P-104

Simultaneous Determination of the five components in Citrus junos Using a UPLC–PDA and UPLC/ESI-MS.

Ara Jo[1], Ji hun Shin, Hwa young Song, Ye eun Lee, Da eun Jung, Ui hyeon Im, Mina Lee*

College of Pharmacy, Sunchon National University, 255 Jungangno, Suncheon-si 57922, Jeonnam, Korea

P-105

Proteomics analysis of thyroid tissues revealed the change of aminoacyl-tRNA synthetases and its interacting proteins in follicular thyroid carcinoma and follicular adenoma

Yumi Oh[1,2], Hee-Sung Ahn[1], Jeonghun Yeom[1], Jiyoung Yu[1], Hwangkyo Jung[1,2], Yujin Jo[1], Eyun Song[3], Wonggu Kim[3], Sunghoon Kim[4] and Kyunggon Kim[1,2]

[1]Dept. of Convergence Medicine, Asan Medical Center, Seoul 05505, South Korea,
[2]Dept. of Convergence Medicine, University of Ulsan, Seoul 05505, South Korea,
[3]Dept. of Endocrinology, Asan Medical Center, Seoul 05505, South Korea,
[4]Medicinal Bioconvergence Research Center, College of Pharmacy, Seoul National University, Seoul 08826, South Korea

P-106

Multi-Attribute Analysis of Monoclonal Antibodies Using the Agilent InfinityLab 2D-LC Solution and Q-TOF MS

Gerd Vanhoenacker[1], Isabel Vandenheede, Pat Sandra, Koen Sandra[1,*]
Sonja Kreiger, Sonja Schneider, Udo Huber[2,*]

[1]Research Institute for Chromatography (RIC), Kortrijk, Belgium
[2]Agilent Technologies, Inc. Waldbronn, Germany

5. Food
: P107 ~ P120

P-107

Enhanced analysis of veterinary drug in livestock products with novel LC-MS ionization source

Juhee Sim[1]*, Mina Kang[1], Juhyeon An[1], Han Soon Kwon[1]

[1]Dept of Solution Marketing, Waters Korea, 101 Yeouigongwon-ro, Yeongdeungpo-gu, Seoul, 07241, Korea

P-108

Multi-residue Analysis of 43 Pesticides in Fishery Products Using Gas Chromatography with Tandem Mass Spectrometry (GC-MS/MS)

Joohye Kim[1], Hei-Seung Kang[1*], SooYeon Choi[1], Byung-Hoon Cho[1], Jae-Ho Oh[1]

[1]Pesticide and Veterinary Drug Residues Division, National Institute of Food & Drug Safety Evaluation, Osong, Chungcheongbuk-do 363-700, Republic of Korea

P-109

Multi-Residue Determination of 83 Veterinary Drugs in Fishery Products by LC–MS/MS

Soo Yeon Choi[1], Hui-Seung Kang[1*], Joohye Kim[1], Byung-Hoon Cho[1], Jae-Ho Oh[1].

[1]Pesticide and Veterinary Drug Residues Division, National Institute of Food & Drug Safety Evaluation, Osong, Chungcheongbuk-do 363-700, South Korea
[3]Center for Neuro-Medicine, Korea Institute of Science and Technology, Seoul 136-791, Korea

P-110

Multi-Residue Determination of 81 Veterinary Drug Residues in Livestock Products using LC-MS/MS

Hyunjin Park, Hui-Seung Kang*, Joohye Kim, Soo Yeon Choi, Byung-Hoon Cho and Jae-Ho Oh

Pesticide and Veterinary Drug Residues Devision, Food Safety Evaluation Department, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Cheongju, Korea

P-111

Analysis of Sorbitol of Brown Rice and White Rice in Storage Using a Mass Spectrometer

Kahee Kim*, Ji-Mi Cho, Sung-Woo Lee, Jae-Ho Kim

National Agricultural Products Quality Management Service, 800 Imbangul-daero, Gwangsan-gu, Gwangju, 62276, Korea

P-112

Selection and optimization of the identification marker in gamma-irradiated soybeans for a HS-SPME-GC-MS analysis

Beom-Seok Song[1]*, Ki-Chang Lee[1], Jong-Heum Park[1], Ha-Young Park[1], Jae-Kyung Kim[1], Min Jung Kim[2]

[1]Advanced Radiation Technology Institute, Korea Atomic Energy Research Institute, 29, Geumgu-gil, Jeoneup, 56212, Republic of Korea
[2]Research Division of Food Functionality, Korea Food Research Institute, 245, Nongsaengmyeong-ro, Wanju-gun, 55365, Republic of Korea

P-113

Simultaneous determination of B-group vitamins in health functional foods by LC-MS/MS

Soo Jin Bang*, Bo Young Oh, Min Ji Ye, Soo Jung Hu, Hye Young Lee

Nutrition and Functional Food Research Team, National Institute of Food and Drug Safety Evaluation, 28159, Korea

P-114

Comprehensive metabolomic analysis of sesame seeds

Bo Mi Lee[1], Eun Mi Lee[1], Byeung Kon Shin[2], Dong Jin Kang[2] and Do Yup Lee[1*]

[1]Department of Bio and Fermentation Convergence Technology, BK21 plus program, Kookmin University, Seoul, Republic of Korea
[2] National Agricultural Products Quality Management Service, Gimcheon, Republic of Korea

P-115

Analysis of pyrrolizidine alkaloids and their N-oxides in plants using LC-MS/MS with low pressure column switching

Ji Hyun Lee[1], Jung Hoon Shin[1], Jae Woo Song[1], Young Min Hong[1*]

[1]Technical Research Center, Shimadzu Scientific Korea corp., 145, Gasan digital 1-ro, Geumcheon-gu, Seoul, 08506, South Korea

P-116

Development and validation of UPLC-MS/MS method for analysis of emodin in tartary buckwheat flower

Jaecheol Kim[1*], Suna Kim[2], Keum Taek Hwang[1]

[1]Department of Food and Nutrition, and Research Institute of Human Ecology, Seoul National University, Seoul 08826, Republic of Korea
[2]Department of Food and Nutrition in Human Ecology, College of Natural Science, Korea National Open University, Seoul 03078, Republic of Korea

6. General
: P121 ~P144

P-117

MRM/MS-based Platform for Quantitative Determination of Sialic Acids in Human and Mammal milk

Daum Lee[1,2], Jaekyoung Ko[1,2], Nari Seo[1,2], Myung Jin Oh[1,2], and Hyun Joo An[1,2*]

[1]Graduate School of Analytical Science and Technology, Chungnam National University, Daejeon, 34134, Korea
[2]Asia-pacific Glycomics Reference Site, Daejeon, 34134, Korea

P-118

Development of isotope dilution–liquid chromatography tandem mass spectrometry for the accurate determination of deoxynivalenol and its derivatives in corn flour

Mohamed. A. Gab-Allah, Kihwan Choi, Byungjoo Kim*

Center for Analytical Chemistry, Division of Chemical and Medical Metrology, Korea Research Institute of Standards and Science, Daejeon, 34113, Korea

P-119

Study of the Metabolites and Flavor Characteristics in Different Subtypes of White Tea by Metabolomics Profiling

Chen Yang[1], Weidong Dai, Junfeng Tan, Zhi Lin[1,*], Meliling Lu,[2,*]

[1]Chinese Academy of Agricultural Sciences, Hangzhou, China
[2]Agilent Technologies (China) Co., Ltd, Beijing, China

P-120

Method Validation for Analysis of Per- and Polyfluoroalkyl Substances in Crab and Fish using LC-MS/MS

Geu Rim Song, Seong Hwan Yu, Won Young Kim, Ji Soo Lee[1], Young Lim Kho*

[1]Department of health, Environment & Safety Eulji University, Sungnam, Gyeonggi, 461-713, South Korea
[1]Department of Food Technology & Service Eulji University, Sungnam, Gyeonggi, 461-713, South Korea

P-121

Preliminary study on optimized analysis of I-129 using ICP-MS

Kahee Jeong*, Sang-Ho Lee, Jinsoo Choi and Wook SOHN

Chemistry & Environment Group, KHNP Central Research Institute
70-1312 gil, Yuseong-daero, Yuseong-gu, Daejeon, 34101
kaheejeong@khnp.co.kr

P-122

Derivatizaton of pinacolyl alcohol (PA) with various reagents for enhanced analysis by gas chromatography mass spectrometry

Sangmoon Byun*

Agency for Defense Development, Yuseong P.O.Box 35, Daejeon, 34186, Korea

P-123

Optimizing ICP-QMS for determination of uranium isotopic ratio

Ji Young Park*, Jong Myoung Lim, Hyuncheol Kim, Young Gun Ko, Wanno Lee

Dept of Environmental Radioactivity Assessment Team,
Korea Atomic Energy Research Institute, Daejeon, 34057, Korea

P-124

Comparison of Matrix Deposition Methods for Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry Imaging (MALDI MSI) of *Drosophila* Brain lipids

Hyun Jun Jang[1,2], Minh Uyen Thi Le[1,3], Jeong Hyang Park[4], Joon Sig Choi[2], Tae Geol Lee[1] Sohee Yoon[1*]

[1] Center for Nano-Bio Measurement, Korea Research Institute of Standards and Science (KRISS), Daejeon 34113, Republic of Korea
[2] Department of Biochemistry, Chungnam National University, Daejeon 34134, Republic of Korea
[3] Department of Nano Science, University of Science and Technology (UST), Daejeon 34113, Republic of Korea
[4] Department of Brain & Cognitive Sciences, Daegu Gyeongbuk Institute of Science & Technology (DGIST), Daegu 42988, Republic of Korea.

P-125

LC-HR-MS/MS Analysis of *E. papyrifera* and its Anti-osteoporosis Activity

Woo Jung Kim, Yong Mun Choi, and Jin-Mo, Ku*

Biocenter, Gyeonggido Business & Science Accelerator, Gyeonggi 16229, Korea

P-126

Optimization of Chromatography Conditions for Efficient Isomer Separation and Sensitive Mass Spectrometric Detection of Gangliosides

Jun-young Park[1], Sangwon Cha[1*]

[1]Departmentt of Chemistry, Hankook University of Foreign Studies, 81 Oedae-ro, Yongin, 17035, Korea

P-127

Validation of Analytical Method for Determination of Diacetyl and Acetylpropionyl in e-liquid Using GC-MS

Min-Chul Shin, Young-Sang Kwon, Jong-Wook Song, Yeong-Jin Kim, Jong Cheol Shon, Jong-Hwan Kim and Jong-Su Seo*

Korea Institute of Toxicology, Environmental Chemistry Research Group, Jinju City, Republic of Korea

P-128

Urine metabolomics in alopecia areata patient; androgens and bile acids profiling by LC-MS/MS

Haksoon Kim[1,2], Jeongae Lee[1], Bark Lynn Lew[3], Woo Young Sim[3], Han Bin Oh[2], Bong Chul Chung[1,4]

[1]Molecular Recognition Research Center, KIST, Seoul 02792, Korea
[2]Department of chemistry, Sogang University, Seoul 04107 Korea
[3]Department of Dermatology, Kyung Hee University Hospital at Gangdong, Kyung Hee University School of Medicine, Seoul 05278, Korea
[4]KHU-KIST Department of Converging Science and Technology, Kyung Hee University, Seoul 02453, Republic of Korea

P-129

Universal Sample Processing of Multiple Sample Types for Reproducible Proteomic Sample Preparation

John P. Wilson[1] , Visa Meyyappan[2], Domenic N. Narducci[2], Ben A. Neely[3], Jim A. Laugharn[2], and Darryl J. Pappin[1,4*]

[1]ProtiFi LLC, Huntington NY; [2]Covaris Inc., Woburn, MA; [3]National Institute of Standards and Technology (NIST), Charleston, SC; [4]Cold Spring Harbor Laboratory, Cold Spring Harbor, NY

P-130

Accurate determination of Mg, Fe, and Si in high purity alumina by inductively coupled plasma optical emission spectroscopy with standard addition method

Seunghee Kim[1,2], Eun hwa Kim[1,2], Cheongah Go[1,3], Young-Hyeon Yim[1], Tae Kyu Kim[2], Manho Lim[2], Ilsun Yoon[3], Kyoung-Seok Lee[1*]

[1]Korean Research Institute of Standards and Science (KRISS), Daejeon 305-340, South Korea
[2]Dept. of Chemistry, Pusan National University, Busan 609-375, South Korea
[3]Dept. of Chemistry, Chungnam National University, Daejeon 305-764, South Korea

P-131

Feasibility study of uranium isotope ratios for particle analysis by femtosecond LA-MC-ICP-MS

Ranhee Park, Sun-Ho Han, Jinkyu Park, Chi-Gyu Lee

Safeguards Samples Analysis Team, Korea Atomic Energy Research Institute(KAERI), Korea
[2]College of Pharmacy, Sungkyunkwan University, Sebu-ro 2066, Changan-Ku, Gyeonggi-Do, Suwon,16419, Republic of Korea

P-132

Optimization of chemical separation of nuclear material particle at picogram levels using MC-ICP-MS for nuclear safeguards

Ranhee Park[1], Sun-Ho Han[1], Eun Ju Choi[2], Jinkyu Park[1], Chi-Gyu Lee[1]

[1] Safeguards Samples Analysis Team, Korea Atomic Energy Research Institute(KAERI), Korea
[2] Chemical Analysis center, Korea Reseach Institute of Chemical Technology(KRICT), Korea

P-133

Identification of similarities between antibody drugs and biosimilars using unique peptide

Jinyoung Kim*

Biocenter, Gyeonggido Business & Science Accelerator, Suwon, Korea

P-134

Measurement of mass bias during isotope analysis of uranium particles using secondary ion mass spectrometry

Na-Ri Lee, Jinkyu Park*, Jungwoon Choi, Chi-Gyu Lee

Safeguards Samples Analysis Team, Korea Atomic Energy Research Institute, 111, 989 beon-gil Daedeok-daero, Yuseong-gu, Daejeon, 34057, Korea

P-135

Determination of chlorpyrifos and its products produced by plasma discharge using LC/MS

Yunhee Lee, Yun-Cheol Na

Western Seoul Center, Korea Basic Science Institute, 150 Bugahyeon-ro, Seodaemun-gu, Seoul 03759, Republic of Korea

P-136

Synergistic effect of heterostructure of Au nanoislands on TiO_2 nanowires for efficient ionization in laser desorption/ionization (LDI) mass spectrometry

Moon-Ju Kim[1], and Jae-Chul Pyun [1*]

[1] Department of Materials Science and Engineering, Yonsei University, E-mail address: jcpyun@yonsei.ac.kr

P-137

Gold-coated magnetic beads for analyte concentration and ionization for LDI-ToF mass spectrometry

Moon-Ju Kim[1], and Jae-Chul Pyun [1*]

[1] Department of Materials Science and Engineering, Yonsei University,
E-mail address: jcpyun@yonsei.ac.kr

P-138

Peptide Sequencing using LDI-TOF MS by Wet-Corrosion Processed TiO_2 Nanowires

Jong-Min Park[1], Tae Gyeong Yun[1], Joo-Yoon Noh[1], Moon-Ju Kim[1], Min-Jung Kang[2], Jae-Chul Pyun[1]

[1] Department of Materials Science and Engineering, Yonsei University, 50 Yonsei-ro, Seodaemun-gu, Seoul, 03722, Korea
[2] Korea Institute of Science and Technology, 5 Hwarang-ro 14-gil, Seongbuk-gu, Seoul, 02792, Korea

P-139

Investigation of the relationships between experimental parmeters and ionization patterns in paper spray ionization (PSI MS)

Youngjoo Kal[1] and Sangwon Cha[1]*

[1]Departmentt of Chemistry, Hankook University of Foreign Studies, 81 Oedae-ro, Yongin, 17035, Korea

P-140

Development of chemical fingerprint analysis methods for refill solutions of e-cigarettes by using direct sampling ionization mass spectrometry.

Eun-mi Jeon[1] and Sangwon Cha[1]*

[1]Departmentt of Chemistry, Hankook University of Foreign Studies, 81 Oedae-ro, Yongin, 17035, Korea

P-141

Simultaneous quantitative analysis of marker components of in herbal extract using high performance liquid chromatography-tandem mass spectrometry

Sun Ho Chung*, Woo Jung Kim

Infrastructure Support Team, Biocenter, Gyeonggido Business & Science Accelerator(GBSA), 147 Gwanggyo-ro, Yeongtong-gu, Suwon, Gyeonggi-do, 16229, Korea

P-142

Verification of size determination method using Au standard nanoparticles in single particle ICP-MS.

Y. H. Park and H. B. Lim

Dankook University, Dept. of Chem., 119 Dandaero, Dongnam-gu, Cheonan, Chungnam, S. Korea 31116.

P-143

Structural elucidation of isomer-specific gangliosides by C18 LC-MS/MS

Dongtan Yin[1,2], Jua Lee[1,2], and Hyun Joo An[1,2]*

[1] Asia Glycomics Reference Site, Chungnam National University, Daejeon, Korea
[2] Graduate School of Analytical Science and Technology, Chungnam National University, Daejeon, Korea

P-144

Molecular Structure Characterization of Petroleum Heavy Oil After Cracking Processes Using FT-ICR MS

Minjoung Im, Kyungsuk Suk, Eunkyoung Kim

Analysis Unit, Platform Tech. R&D Center, Institute of Technology Innovation, SK Innovation