

포스터 발표 및 우수포스터상 안내

■ 포스터 게시 및 철거

- 게시: 24일(목), 08:00 ~ 10:00 까지
- 철거: 25일(금), 12:00 ~ 이후
- 포스터 발표자는 아래의 포스터 번호 및 배치도를 참고하여 포스터를 게시하고, 24일(목) 10:50~ 11:50까지 포스터 앞에 대기하여 질문에 응해야 합니다.
- 포스터 발표자 순서: 홀수번호 10:50~11:20 / 짝수번호 11:20~11:50

■ 우수포스터 상

- 포스터 발표 회원중 심사를 거쳐 15명을 선정하여 우수포스터상을 수여합니다.
※ Brief Oral Presentation 발표자는 우수포스터 상의 우선권이 주어짐.
- 시상: 2017년 8월 25일 (금), 폐회식
- 부상: 상장 및 상금 5 만원

■ 분야별 포스터 번호

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Medical / Pharmaceutical Science	055 ~ 112
Food Environment	113 ~ 138
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1. Fundamental Instrumentation : PO01 ~ POT1	P-006 On-line hydrogen/deuterium exchange of gas-phase molecules using gas chromatography-electrospray ionization/mass spectrometry <u>Eun Sook Jeong</u> ¹ , Eunju Cha ¹ , Ho Jun Kim ¹ , Oh-Seung Kwon ¹ , Sangwon Cha ² , Sunghwan Kim ³ , Hanbin Oh ⁴ , 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, Hankuk University of Foreign Studies, Oedae-ro, Mohyeon-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do 17035, Korea ³ Department of Chemistry, Kyungpook National University, 80 Daehakro, Buk-gu, Daegu 41566, Korea ⁴ Department of Chemistry, Sogang University, 35 Baekbeom-ro, Mapo-gu, Seoul 04107, Korea
P-001 MATLAB-based Software Development for Screening Illegal Drugs and Analogues Identification Using LC-MS/MS Data <u>Inae Jang</u> , Insu Song, Jungmin Lee, Yunha Ju and Han Bin Oh* <i>Dept of Chemistry, Sogang University, Seoul 04107, Korea</i>	P-007 A new configuration of time-of-flight mass spectrometer for simultaneous measurements of primary ions and fragments of a selected ion <u>Bongyoon Yi</u> ^{1,2} , Seung Yong Kim ¹ , Wanseop Jeong ^{1,2} , Myoung Yeo ¹ , Byeongwon Kang ² , Hyun Sik Kim ^{1,*} and Mo Yang ¹ 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
P-002 Rapid Classification of Edible Oils using MATLAB-based Statistical Analysis Software <u>Minhee Son</u> , Han Bin Oh* <i>Dept of Chemistry, Sogang University, Seoul 04107, Korea</i>	P-008 Nanosecond pulse of electron beam for a field-portable time-of-flight mass spectrometer <u>Wanseop Jeong</u> ^{1,2} , Seung Yong Kim ¹ , Myoung Yeo ¹ , Bongyoon Yi ^{1,2} , Jae Yeong Eo ¹ , Byeongwon Kang ² , Hyun Sik Kim ^{1,*} and Mo Yang ¹ 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
P-003 Protein Sequence Analysis by TEMPO-assisted Free Radical Initiated Peptide Sequencing (FRIPS) Mass Spectrometry <u>Jae-ung Lee</u> and Han Bin Oh* <i>Dept of Chemistry, Sogang University, Seoul 04107, Korea</i>	P-009 The noble method of quantitative analysis of organic by-products using APC Hyeon Jeong Eom* <i>LG Display, 245, LG-ro Wollong-myeon, Paju-Si, Gyeonggi-do, 10845, Korea</i>
P-004 Efficient Enrichment of Phosphopeptides on Digital Microfluidic Chip Using TiO₂-magnetic Bead. <u>Jinwoo Kim</u> , Hyunji Lee, Inae Jang and Han Bin Oh* <i>Dept of Chemistry, Sogang University, Seoul, 04107, Korea</i>	P-010 Good agreement observed between theoretical prediction and experiment data on ionization efficiency of polycyclic aromatic hydrocarbons by positive mode atmospheric pressure photoionization mass spectrometry. <u>Seulgidan Lee</u> ¹ , Arif Ahmed ¹ , Ji Won Ha ² and Sunghwan Kim ^{1*} ¹ Department of chemistry, Kyungpook National University, 80 Daehak-ro, Buk-gu, Daegu 702-701, Republic of Korea. ² Department of Chemistry, University of Ulsan, 93 Dahak-Ro, Nam-Gu, Ulsan 44610, Republic of Korea.
P-005 TEMPO-assisted Free Radical Initiated Peptide Sequencing (FRIPS) Mass Spectrometry Using MALDI-TOF/TOF <u>In Su Song</u> ¹ , Sang Yun Han ² , Sangwon Cha ³ , and Han Bin Oh ^{1*} ¹ Dept of Chemistry, Sogang University, Seoul 04107, Korea ² Dept of Chemistry, Gachon University, Gyeonggi-do 13120, Korea ³ Dept of Chemistry, Hankuk University Foreign Studies, Gyeonggi-do 17035, Korea	P-011 Development of inert-DART-MS system for analysis of air- or moisture-sensitive compounds Young Hee Lim, Yeon Hwa Lee, <u>Yong Jin Bae</u> , Yeu-Young Yoon, Hye Sung Cho <i>LG Chem./Research Park, 104-1 Moonji-dong, Yuseong-gu, Daejeon 304-380, Korea</i>

2. Life & Informatics : PO12~ PO28	<p>P-017 Phospholipid quantification and enhancement of cardiolipin profiling based on isotope-labeled methylation by nUPLC-ESI-MS/MS</p> <p><u>Jong Cheol Lee</u>, Seul Kee Byeon, Myeong Hee Moon*</p> <p>Dept of Chemistry, Yonsei University, 50 Yonsei-ro, Seodaemun-gu, Seoul, 03722, South Korea</p>
<p>P-012 Determination of ethnic differences in human saliva proteome by the construction and the characterization of the Korean whole saliva proteome</p> <p><u>Ha Ra Cho</u>¹, Han Sol Kim¹, Jun Seo Park¹, Seung Cheol Park², Kwang Pyo Kim², Troy D. Wood³, Yong Seok Choi^{1*}</p> <p>¹College of Pharmacy, Dankook University, Cheonan, Chungnam, South Korea ²Department of Applied Chemistry, The Institute of National Science, College of Applied Science, Kyung Hee University, Yongin, Kyongki, South Korea ³Department of Chemistry, The State University of New York at Buffalo, Buffalo, New York, The United States of America</p>	<p>P-018 Comprehensive proteomics of 2D-/3D-cultured adipocyte cell and its co-cultured with macrophage using a nLC-ESI-MS/MS</p> <p><u>Sun Young Lee</u>^{1,2}, Kwonseong Kim², Jongki Hong¹, Sung Bum Park³, Ki Young Kim³, Dukjin Kang²</p> <p>¹Department of Life and Nanopharmaceutical Sciences, Kyung Hee University, Seoul 02447, Korea ²Center for Bioanalysis, Division of Metrology for Quality of Life, Korea Research Institute of Standards and Science, Daejeon, 34113, Korea ³Bio & Drug Discovery Division, Korea Research Institute of Chemical Technology, P.O. Box 107, Yuseong-gu, Daejeon 305-600, Republic of Korea</p>
<p>P-013 Systematic integrative analysis of chemical-induced signal transduction in unicellular microalgae, <i>Chlamydomonas reinhardtii</i></p> <p><u>Jung-Eun Lee</u> and Do Yup Lee</p> <p>Department of Bio and Fermentation Convergence Technology, Kookmin University, 77 Jeongneung-ro, Seongbuk-gu, Seoul, 02707, Korea</p>	<p>P-019 Bottom-up and Top-down proteomic analysis of HDL from coronary artery disease patients using flow field-flow fractionation and mass spectrometry</p> <p><u>Jae Hyun Lee</u>, Joon Seon Yang, MyeongHee Moon*</p> <p>Department of Chemistry, Yonsei University, Seoul, 03722, Korea.</p>
<p>P-014 Quantitative proteomic analysis of colon cancer cell line in two-dimensional and three-dimensional cell culture</p> <p><u>Young Eun Kim</u>^{1*}, Hyejin Jeon², Kwangrok Kim², Dukjin Kang¹</p> <p>¹Center of Bioanalysis, Division of Metrology for Quality of life, Korea Research Institute of Standard and Science, Daejeon, Korea ²Center of Drug Discovery Technology, Korea Research Institute of Chemical Technology, Daejeon, Korea</p>	<p>P-020 Profiling of lipoproteins from patients with mild cognition impairment and Alzheimer's disease by asymmetrical flow field-flow fractionation and nUPLC-ESI-MS/MS</p> <p><u>San Ha Kim</u>¹, Joon Seon Yang², Myeong Hee Moon^{1,*}</p> <p>Dept. of Chemistry, Yonsei University, 50 Yonsei-ro, Seoul 03722, Korea</p>
<p>P-015 Profiling of a wide range of neurochemicals in human urine by ultra performance liquid chromatography-tandem mass spectrometry combined with <i>in situ</i> selective derivatization</p> <p><u>Wonwoong Lee</u>, Keon Hee Ko, Na Hyun Park, Jongki Hong *</p> <p>College of Pharmacy, Kyung Hee University, 26 Kyungheedaero, Dongdaemun-gu, Seoul, 02447, Korea</p>	<p>P-021 Proteome analysis of Macaca fascicularis for Drug addiction model</p> <p><u>Gaseul Lee</u>¹, Yeung Bae Jin², Sang-Rae Lee^{2,3}, Jeong Hee Moon¹</p> <p>¹Disease Target Structure Research Center, KRIBB, Daejeon 34141, Republic of Korea ²National Primate Research Center, KRIBB, Cheongju 28116, Republic of Korea ³Department of Functional Genomics, University of Science and Technology, Daejeon 34113, Republic of Korea</p>
<p>P-016 Development of an on-line proteolysis and glycopeptide enrichment method using enzyme immobilized thermo-sensitive porous polymer membrane enzyme reactor (μPPMER) and nanoflow liquid chromatography-tandem mass spectrometry</p> <p><u>Joon Seon Yang</u>¹, Juan Qiao², Li Qi², Myeong Hee Moon^{1*}</p> <p>¹Department of Chemistry, Yonsei University, 50 Yonsei-ro, Seoul, 03722, Korea ²Beijing National Laboratory for Molecular Sciences; Key Laboratory of Analytical Chemistry for Living Biosystems, Institute of Chemistry, Chinese Academy of Sciences, No. 2 Zhongguancun Beijijie, Beijing, 100190, China</p>	<p>P-022 Quantitation of glycans in yeast using metabolic isotope labeling with isotopic glucose by mass spectrometry</p> <p><u>Ji-Yeon Kim</u>¹, Soo-Hyun Choi¹, Yeo-Jin Park², Hye-Jung Choi², Woo-Hong Joo², Seong-hun Kim³ and Jae-Min Lim^{1,*}</p> <p>¹Department of Chemistry, Changwon National University, Changwon 51140, South Korea ²Department of Biology and Chemistry, Changwon National University, Changwon 51140, South Korea ³Integrative Omics Research Center, Korea Research Institute of Bioscience and Biotechnology, 52 Eoeun-dong, Yuseong-gu, Daejeon 34141, South Korea</p> <p>*Email: jmlim@changwon.ac.kr</p>

<p>P-023 Quantitative analysis of <i>n</i>-linked glycan in <i>oryza sativa</i> using metabolic labeling with isotopic glucose by mass spectrometry</p> <p><u>Soo-Hyun Choi</u>¹, Ji-Yeon Kim¹, Kyun-Oh Lee², Jae-Yong Yoo², and Jae-Min Lim^{1,*}</p> <p>¹Department of Chemistry, Changwon National University, Changwon 51140, South Korea ²Department of Life Science, Gyeongsang National University, Gyeongsang 52828, South Korea</p> <p>*Email: jmlim@changwon.ac.kr</p>	<p>3. Mass Spectrometry in Elemental Analysis : PO29 ~ PO54</p>
<p>P-024 Urine metabolic signature in human pulmonary tuberculosis disease</p> <p><u>Yu Ri Cho</u>^{1,2} and Soo Hyun Lee³</p> <p>¹Advanced Analysis Center, Korea Institute of Science and Technology, 5, Hwarang-ro 14-gil, Seongbuk-gu, Seoul, Korea ²College of pharmacy, Kyung Hee University, 26, Kyungheedaero-ro, Dongdaemun-gu, Seoul, 02447, Korea ³Department of Medical Record and Health Information Management, Kongju National University, 56, Gongjudaehak-ro, Gongju-si, Chungcheongnam-do, Korea</p>	<p>P-029 Development and validation of an analytical procedure for the total mercury in oyster and tuna using isotope-dilution inductively coupled plasma mass spectrometry</p> <p><u>Hwijin Kim</u>^{1,2}, Jong Wha Lee¹, Youngran Lim¹, Euijin Hwang¹, Yong-Hyeon Yim¹, Sung Woo Heo¹, Hyung Sik Min¹, Myung Chul Lim¹, Kyoung-Seok Lee^{1*}</p> <p>¹Center for inorganic analysis, Korea Research Institute of Standards and Science (KRIS), Daejeon, 34113, Korea ²Department of Bio-Analytical Science, University of Science and Technology (UST), Daejeon, 34113, Korea</p>
<p>P-025 Effect of tryptophan supplementation on endogenous metabolism and balance of neurotransmitters</p> <p><u>Mi Jung Ji</u>¹, Yu Ri Cho^{1,2}, Da-Jung You¹, Mi Yeon Lee¹, Suk Youn Son¹, Ki Soo Lee¹, Byung-Yong Yu¹, Soo Hyun Lee³ and Hyun-Mee Park¹</p> <p>¹Advanced Analysis Center, Korea Institute of Science and Technology, 5, Hwarang-ro 14-gil, Seongbuk-gu, Seoul, Korea ²College of pharmacy, Kyung Hee University, 26, Kyungheedaero-ro, Dongdaemun-gu, Seoul, 02447, Korea ³Department of Medical Record and Health Information Management, Kongju National University, 56, Gongjudaehak-ro, Gongju-si, Chungcheongnam-do, Korea</p>	<p>P-030 Metabolic profiling for discrimination between <i>Angelica gigas</i> and other <i>Angelica</i> species using HPLC-QTOF/MS</p> <p><u>Guijae Yoo</u>, Youngse OH, SeonJu Park, Jun Hyung Park, Hee Jae Kwak and Seung Hyun Kim*</p> <p>College of Pharmacy, Yonsei Institute of Pharmaceutical Science, Yonsei University, Incheon 406-840, Korea</p>
<p>P-026 Intact glycopeptide analysis of targeted serum haptoglobin for gastric cancer biomarker discovery</p> <p>Seunghyup Jeong^{1,2}, <u>So Won Mun</u>^{1,2}, Unyong Kim^{1,2}, and Hyun Joo An^{1,2*}</p> <p>¹Graduate School of Analytical Science and Technology, Chungnam National University, Daejeon, Korea ²Asia-Pacific Glycomics Reference Site, Daejeon, Korea</p>	<p>P-031 HPLC-QTOF/MS based chemical profiling of the burs of <i>Castanea creanata</i> Sieb.</p> <p><u>Nanyoung Kim</u>, Hee Jae Kwak, SeonJu Park, Guijae Yoo, Jun Hyung Park, Youngse OH and Seung Hyun Kim*</p> <p>College of Pharmacy, Yonsei Institute of Pharmaceutical Science, Yonsei University, Incheon 406-840, Korea</p>
<p>P-027 Plasma metabolomics for discrimination of graves' disease using GC-TOF-MS and LC-MS</p> <p><u>Dong Yoon Ji</u>¹, Soo Jin Park¹, DaHam Kim², Eun Jig Lee² and Do Yup Lee¹</p> <p>¹Department of Bio and Fermentation Convergence Technology, Kookmin University, Seoul, Korea ²Endocrinology, Brain Korea 21 Project for Medical Science, Institute of Endocrine Research, and Severance Integrative Research Institute for Cerebral & Cardiovascular Disease, Seoul, Korea</p>	<p>P-032 Characterization and quantification of short chain fatty acids in biological samples using GC-MS</p> <p><u>Ha Eun Song</u>^{1*}, Hyun Ju Yoo²</p> <p>^{1,2}Metabolomics core, Asan Institute for Life Sciences, Asan Medical Center, 88 Olympic-ro 43-gil, Songpa-gu, Seoul, 05505, Republic of Korea</p>
<p>P-028 Discovery of potential metabolic biomarkers for discrimination of subtypes of Guillain-Barre syndrome</p> <p><u>Soo Jin Park</u>¹, Ho Jin Kim², Jong Kuk Kim³, Do Yup Lee¹</p> <p>¹Department of Bio and Fermentation Convergence Technology, Kookmin University, Seoul, Korea ²Department of Neurology, Research Institute and Hospital of National Cancer Center, Goyang, Korea ³Department of Neurology, College of Medicine, Dong-A University, Busan, Korea</p>	<p>P-033 Absolute and site-specific quantification of phosphopeptides using multiple reaction monitoring (MRM): It's potential to develop a quantitative platform</p> <p><u>Ji Hye Hong</u>¹ and Jonghwa Jin¹</p> <p>¹Osong Medical Innovation Foundation, New Drug Development Center, Division of Drug Screening and Evaluation, Osong Saengmyung-Ro 123, Cheongju-si, Chungbuk, 363-951</p>

<p>P-034 Effect of ethanol on Freeze Vacuum Drying sample preparation in MALDI-MS</p> <p><u>Jangsu Lee</u>, Jihyun Paek, Yeoseon Kim, Dabin Lee, Sooyeon Chae, Jeongkwon Kim*</p> <p>Department of Chemistry, Chungnam National University, Daejeon 34134, Republic of Korea</p> <p>E-mail:marufirst@naver.com</p>	<p>P-040 Evaluation of a set of calibrants for more accurate measurement of collision cross section (ccs) of polycyclic aromatic hydrocarbon compounds</p> <p><u>Dongwan Lim</u>¹, Kimberly L. Davidson², Arif Ahmed¹, Matthew F. Bush², Hoeil Chung³ and Sunghwan Kim^{1*}</p> <p>¹Kyungpook National University, Department of Chemistry, Daegu, 702-701, Republic of Korea</p> <p>²Department of Chemistry, University of Washington, Seattle, Washington 98195, United States</p> <p>³Department of Chemistry and Research Institute for Convergence of Basic Sciences, Hanyang University, Seoul 133-791, Republic of Korea</p>
<p>P-035 Accurate measurement of chlorine in human serum based on validated sample preparation method with isotope-dilution mass spectrometry</p> <p><u>Sangyeob Hong</u>^{1,2}, Jiha Choi^{1,2}, Yong-Hyeon Yim¹, Hyung Sik Min¹, Tae Kyu Kim², Kyoung-Seok Lee^{1*}</p> <p>¹Center for inorganic analysis, Korea Research Institute of Standards and Science (KRISS), Daejeon, 34113, Korea</p>	<p>P-041 Development of lipid extraction method using super absorbent polymers for mass spectrometry</p> <p>Geul Bang¹, <u>Yeong Jun Yu</u>¹, Young Hwan Kim^{1,2}, Jeong Ah Kim^{1,2*}</p> <p>¹Biomedical Omics Group, Korea Basic Science Institute, Chungbuk 28119, Republic of Korea</p> <p>²Department of Bio-Analytical Science, University of Science and Technology, Daejeon 34113, Republic of Korea</p> <p>*E-mail: jakim98@kbsi.re.kr</p>
<p>P-036 A study on analytical methods for the determination of the arsenic species in rice</p> <p>Seong Hun Son, Won Bae Lee, and <u>Sang Ho Nam</u>*</p> <p>Department of Chemistry, College of Natural Science, Mokpo National University, Muangun, Chonam, Republic Korea</p>	<p>P-042 A sandwich-type HBsAg immunoassay using ICP-MS with metal-doped nanoparticles</p> <p><u>Chan-Mi Kim</u>¹, Eun-Ji Kim², and H. B. Lim*</p> <p>^{1,2}Dept of Chemistry, Dankook University, 119 Dandae-ro, Cheonan, 31116, Korea</p>
<p>P-037 The experimental autoimmune myocarditis in rat activates the autophagy and apoptosis</p> <p>Seung-Min Choi^{1,2}, <u>Hee-Jung Kim</u>¹, Ha-Yung Chung¹, Jong-Bok Seo¹</p> <p>¹Seoul Center, Korea Basic Science Institute, Seoul, Korea</p> <p>²College of life Science and Biotechnology, Korea university, Anam-ro, Seongbuk-gu, Seoul, 02841 Korea</p>	<p>P-043 Optimized chemical separation of Nd, Sm with LN resin in environmental samples for nuclear forensics purpose by using ICP-MS</p> <p><u>Ranhee Park</u>¹, Sun-Ho Han¹, Sang Ho Lim^{1,2}, Eun Ju Choi^{1,2}, Jinkyu Park¹, Chi-Gyu Lee¹</p> <p>¹Nuclear Chemistry Research Division, Korea Atomic Energy Research Institute, Korea</p> <p>²Radiochemistry & Nuclear Nonproliferation, University of Science & Technology, Korea</p>
<p>P-038 Probiotics-induced amelioration of obesity related lipid metabolism in high fat diet induced obese rat model</p> <p>Hayung Chung¹, Joo-Hyun Shin², Joong-Su Lee², Jae-Gu Seo^{2*} and Myung Hee Nam¹</p> <p>¹Risk and Welfare Research Team, Korea Basic Science Institute (KBSI), Seoul, 02855, Republic of Korea</p> <p>²R&D Center, Cell Biotech Co., Ltd., Gyeonggi-do, 10003, Republic of Korea</p>	<p>P-044 Isotopic ratio analysis of individual uranium particle using MC-ICP-MS</p> <p><u>Eun Ju Choi</u>^{1,2}, Sang Ho Lim^{1,2}, Sun-Ho Han¹, Ranhee Park¹, Jinkyu Park¹, Chi-Gyu Lee¹</p> <p>¹Nuclear Chemistry Research Division, Korea Atomic Energy Research Institute, 989-gil 111, Daedeok-daero, Yuseong-gu, Daejeon, 34057, Republic of Korea</p> <p>²Department of Radiochemistry and Nuclear Nonproliferation, University of Science and Technology, 217 Gajeong-ro, Yuseong-gu, Daejeon 34113, Republic of Korea</p>
<p>P-039 Multiplex Proteins and Lipids ToF-SIMS Imaging Assisted with Metal Oxide Nanoparticles</p> <p><u>Sun Young Lee</u>¹, Eun Soek Seo¹, Young Ho Park², Su Il In², Eun Sook Choi³, Eun Ju Kim³, Dae Won Moon^{1*}</p> <p>¹Department of New Biology, DGIST, TechnoDaeRo 333, Dalsung, Daegu, Korea 711-873</p> <p>²Department of Energy Systems Engineering, DGIST, TechnoDaeRo 333, Dalsung, Daegu, Korea 711-873</p> <p>³Department of Nano and Energy Convergence Research, DGIST, TechnoDaeRo 333, Dalsung, Daegu, Korea 711-873</p>	<p>P-045 Identification of binding sites between HuNoV and Concanavalin A using hydrogen/deuterium exchange mass spectrometry</p> <p><u>Ah Young Ki</u>¹, Hee-chung Chung¹, Se-Young Cho¹ and Joseph Kwon^{1*}</p> <p>¹Biological Disaster Analysis group, Korea basic science institute, Gwahak-ro, Yuseong-gu, Daejeon, 34133, Republic of Korea</p>

<p>P-046 Pb-interference correction on uranium isotope analysis using secondary ion mass spectrometry (SIMS)</p> <p><u>Taehee Kim</u>, Jinkyu Park, Chi-Gyu Lee, Sang Ho Lim, Sun-Ho Han</p> <p><i>Nuclear Chemistry Research Division, Korea Atomic Energy Research Institute, 989-gil 111, Daedeok-daero, Yuseong-gu, Daejeon, 34057, Republic of Korea</i></p>	<p>P-052 Analysis of plant metabolites via TOF-SIMS spectroscopy mode</p> <p><u>Ji Yeong Sung</u>¹, Sumin Lee^{1,2} and Jong Sung Jin^{1,*}</p> <p>¹<i>Busan Center, Korea Basic Science Institute (KBSI), Gangseo-gu, Busan, 46742, Korea</i> ²<i>Dept of Energy & Mineral Resources Engineering, Dong-A University, Saha-gu, Busan, 49315, Korea</i></p>
<p>P-047 Improvement of uranium bulk analysis in environmental samples with high thorium contents by using MC-ICP-MS</p> <p><u>Eun-Su Park</u>¹, Sang Ho Lim^{1,2}, Ranhee Park¹, Eun Ju Choi^{1,2}, Sun-Ho Han¹, Chi-Gyu Lee¹</p> <p>¹<i>Nuclear Chemistry Research Division, Korea Atomic Energy Research Institute, Korea</i> ²<i>Radiochemistry & Nuclear Nonproliferation, University of Science & Technology, Korea</i></p>	<p>P-053 Image analysis of grafted hydrophobic functional group onto paper using TOF-SIMS</p> <p><u>Sumin Lee</u>^{1,2}, Ji Yeong Sung¹ and Jong Sung Jin^{1,*}</p> <p>¹<i>Busan Center, Korea Basic Science Institute (KBSI), Gangseo-gu, Busan, 46742, Korea</i> ²<i>Dept of Energy&Mineral Resource Engineering, Dong-A University, Saha-gu, Busan, 49315, Korea</i></p>
<p>P-048 Screening of functional metabolites with antiviral activity using systematic metabolomics.</p> <p><u>Chang-Wan Lee</u>^{1*}, Yu Jin Oh¹, Moon-Hee Sung¹, and Do Yup Lee¹</p> <p>¹<i>Department of Bio and Fermentation Convergence Technology, Kookmin University, Seoul, Korea</i></p>	<p>P-054 Application of Two-Color Three-Photon Scheme on the Resonance Laser Excitation of Uranium for Sputtered Neutral Mass Spectrometry</p> <p><u>Jinkyu Park</u>, Taehee Kim, Chi-Gyu Lee, Sang Ho Lim, Sun-Ho Han</p> <p><i>Nuclear Chemistry Research Division, Korea Atomic Energy Research Institute, 989-gil 111, Daedeok-daero, Yuseong-gu, Daejeon, 34057, Republic of Korea</i></p>
<p>P-049 Optimization of copper sample shape in glow discharge mass spectrometer</p> <p><u>MinKyung, Jang</u>^{1*}, JongHyun, Lee¹, JaeYeol, Yang^{2*}, HongYeul, Ryu[*], JaeSik, Yoon[*]</p> <p>[*]<i>Environmental and Materials sciences, Korea Basic Science Institute, Ochang, 18119, Korea</i> ¹<i>Department of materials science and engineering, ChungNam national university, DaeJeon, 34134, Korea</i> ²<i>Department of physics, ChungNam national university, DaeJeon, 34134, Korea</i></p>	<p>4. Medical/Pharmaceutical Science</p> <p>: PO55 ~ PT12</p>
<p>P-050 Determination of EDCs in surface water from Asan lake in Korea by season</p> <p><u>Sungmin Kim</u>[*], Boyoung Kim, Hyojong Park, Jeoungsun Lee, Soyoung Park, Younglim Kho</p> <p><i>Department of Health, Environment & Safety, Eulji University, Republic of Korea</i></p>	<p>P-055 Comparative proteomics analysis to the anti-obesity effect of taemjowui-tang in the livers of Type 2 diabetic mice.</p> <p><u>Yoon-sun Yi</u>^{1*}, Sun Joo Kim¹, Ha Young Lee^{1,2}, Sung Ho Yun¹, Sang-Yeop Lee¹, Chi-Won Choi¹, Jin Young Kim¹, Gun-Hwa Kim¹, Seung Il Kim^{1,2}, Edmond Changkyun Park^{1,2}</p> <p>¹<i>Drug & Disease Target Team, Korea Basic Science Institute (KBSI), Ochang, 28119, Republic of Korea</i> ²<i>Department of Bio-Analytical Science, University of Science and Technology (UST), Daejeon, 34113, Republic of Korea</i></p>
<p>P-051 Level of phthalate metabolites in urine from students in Korea</p> <p><u>Jeongsun Lee</u>^{1*}, Seongmin Kim¹, Ahyeong Kim¹, Hyunah Lim¹, Jewoo Park¹, Dongchan Lee², Soyoung Park¹, Younglim Kho¹</p> <p>¹<i>Department of Health, Environment & Safety, Eulji University, Republic of Korea</i> ²<i>Food Technology & Service, Eulji University, Republic of Korea</i></p>	<p>P-056 Proteome analysis of anti-obesity effect of extracted <i>platycondon grandifloras</i> root in the livers of Type 2 diabetic mice</p> <p><u>Sung Ho Yun</u>^{1*}, Hayoung Lee^{1,2*}, Sang-Yeop Lee¹, Gun-Hwa Kim^{1,2}, Jin Young Kim¹, Seung Il Kim^{1,2}, Edmond Changkyun Park^{1,2}</p> <p>¹<i>Drug & Disease Target Team, Korea Basic Science Institute (KBSI), Ochang, 28119, Republic of Korea</i> ²<i>Department of Bio-Analytical Science, University of Science and Technology (UST), Daejeon, 34113, Republic of Korea</i></p>

<p>P-057 Effects of storage conditions on the protein stability in human growth hormone</p> <p><u>Thi Thanh Huong Tran</u>, Sueji Han, Soyun Baek, Jun-Hyuk Choi, Ji-Seon Jeong</p> <p>Department of Bio-analytical science, University of Science and Technology (UST), Daejeon, Republic of Korea Center for Bioanalysis, Division of Metrology for Quality of Life, Korea Research Institute of Standards and Science (KRISS), Daejeon, Republic of Korea</p>	<p>P-063 Systems-wide Analysis of Protein Expression in Formalin-fixed Paraffin-embedded Rare histological Types of Breast</p> <p>Hyeyoon Kim^{1,*}, Hyeyun Kim^{1,*}, Hyunsuk Shin¹, Ki Soon Dan¹, Han Suk Ryu^{2,*}, And Dohyun Han²</p> <p>¹Proteomics core facility, Biomedical Research Institute ²Dept of Pathology, Seoul National University Hospital, 71 Daehak-ro, Seoul, 110-799, KOREA</p>
<p>P-058 Comparative proteomic analysis of human follicular fluid during the natural cycle and stimulated cycle undergoing an in vitro fertilization program</p> <p><u>You-Rim Lee</u>¹, Ae Eun Seok¹, Jiyeong Lee², Sora Mun¹, Arum Park¹, Byung Heun Cha², Yunseok Yang³, Hee-Gyoo Kang²</p> <p>¹Laboratory of Signal Transduction and Disease Biomarker Discovery, Department of Senior Healthcare, BK21 Plus Program, Graduate School, Eulji University, Daejeon 34824, Republic of Korea ²Department of Biomedical Laboratory Science, College of Health Science, Eulji University, Seongnam 13135, Republic of Korea ³Department of Obstetrics and Gynecology, Eulji University Hospital, Daejeon 35233, Republic of Korea</p>	<p>P-064 Method validation and Application of 164 Toxicological Drugs in Whole Blood and Urine using LLE and UPLC-ESI-tandem MS (QQQ and Q-TOF)</p> <p><u>Choong Sik Lee</u>[*] and Phil Sang Ahn</p> <p>Scientific investigation Lab., Criminal Investigation Command, Ministry of National Defense, 22 Itaewon-ro, Yongsan-gu, Seoul, 04383, Korea</p>
<p>P-059 Theranostic System for Hypoxia Mediated Drug Delivery by Rhodamine-Derived Azobenzene Mustards</p> <p><u>Jiyeong Lee</u>^{1,*}, Sora Mun², AeEun Seok², Arum Park², Hee-Gyoo Kang^{1,2,*}</p> <p>¹Department of Biomedical Laboratory Science, College of Health Science, Eulji University, Seongnam 13135, South Korea. ²Department of Senior Healthcare, BK21 Plus Program, Graduate School, Eulji University, Seongnam 13135, South Korea.</p>	<p>P-065 Establishment of measurement standards for flavor compounds in Kimchi</p> <p><u>Jeesoo Han</u>, Hong Hee Lee, Byungjoo Kim[*], Song-Yee Baek, Sunyoung Lee</p> <p>Center for Organic Analysis, Division of Metrology for Quality of Life, Korea Research Institute of Standard and Science (KRISS), Gajeong-ro, Daejeon, 34113, South Korea</p>
<p>P-060 Comparative Proteomic Analysis of Human Follicular Fluid : Younger versus Older Women</p> <p><u>You-Rim Lee</u>¹, AeEun Seok¹, Jiyeong Lee², Arum Park¹, Yun-Seok Yang³, Hee-Gyoo Kang²</p> <p>¹Laboratory of Signal Transduction and Disease Biomarker Discovery, Department of Senior Healthcare, BK21 Plus Program, Graduate School, Eulji University, Daejeon 34824, republic of Korea ²Department of Biomedical Laboratory Science, College of Health Science, Eulji University, Seongnam 13135, Republic of Korea ³Department of Obstetrics and Gynecology, Eulji University Hospital, Daejeon, South Korea</p>	<p>P-066 Targeted quantitation of proteins for discriminating obese from normal-weight adolescents by liquid chromatography-mass spectrometry</p> <p><u>Hyunsuk Shin</u>¹, Kisoan Dan¹, Sang Hoon Song², and Dohyun Han¹</p> <p>¹Proteomics core facility, Department of Biomedical Research Institute ²Department of Laboratory Medicine, Seoul National University Hospital, 28 Yongon-Dong, Seoul, Korea</p>
<p>P-061 A Preliminary Study for determination of neurosteroids by liquid chromatography-electrospray tandem mass spectrometry</p> <p><u>Hyuck Ho Son</u>^{1,2}, Wan Soo Yun², Sung-Hee Cho^{1*}</p> <p>¹Center for Chemical Analysis, Korea Research Institute of Chemical Technology (KRICT), 141, Gajeong-ro, Yuseong-gu, Daejeon, 34114, Republic of Korea ²Department of Chemistry, Sungkyunkwan University, 2066 Seobu-Ro, Jangnan-Gu, Suwon, Gyeonggi-Do 440-746, Republic of Korea</p>	<p>P-067 Application of extracted common ion chromatogram and neutral loss scan for rapid screening of sulfonamide in supplements by UHPLC-Q/TOF-MS</p> <p><u>Nam-Yong Ki</u>, Na-Hyun Park, Wonwoong Lee, Jisu Hur, Keon-Hee Ko, Youna Kim, Jongki Hong</p> <p>College of Pharmacy, Kyung Hee University, 26 Kyunghee-daero, Dongdaemun-gu, Seoul 02447, Korea</p>
<p>P-062 Characterization of C₁₈ ceramides with metal ions using paper spray ionization mass spectrometry</p> <p><u>Shavkatjon Azizov</u>¹, Jae-Min Lim¹, Yong-Il Lee^{1*}</p> <p>¹Department of Chemistry, Changwon National University, Changwon, 641-773, Korea</p>	<p>P-068 Simultaneous determination of imperatorin and its metabolite xanthotoxol by LC-MS/MS and its application to pharmacokinetic studies</p> <p><u>Hea-Young Cho</u>^{1*}, Lien Ngo², Phuong Tran², Seong-Ho Ham³, Jung-Hee Cho³, Yong-Bok Lee²</p> <p>¹College of Pharmacy, CHA University, 335, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, 13488, Republic of Korea ²College of Pharmacy, Chonnam National University, 77, Yongbong-ro, Buk-gu, Gwangju, 61186, Republic of Korea. ³Division of Traditional Korean Medicine Resource, National Development Institute of Korean Medicine, 288, Woodland-gil, Anyang-myun, Jangheung, Jeonnam, 59338, Republic of Korea</p>

<p>P-069 Screening and confirmation of 64 PDE-5 inhibitor counterfeit drugs in dietary supplements based on extracted common ion chromatograms using gas chromatography tandem mass spectrometry</p> <p><u>Myoung Eun Lee</u>, Na Hyun Park, Jongki Hong*</p> <p>College of Pharmacy, Kyung Hee University, 26 Kyunghee-daero, Dongdaemun-gu, Seoul 02447, Korea</p>	<p>P-075 Newborn screening by MALDI-ToF mass spectrometry using parylene-matrix chip</p> <p>Joo-Yoon Noh, <u>Jong-Min Park</u>, Jae-Chul Pyun*</p> <p>Department of Materials Science and Engineering, Yonsei University, 50 Yeonsei-ro, Seodaemun-gu, Seoul, 03722, Korea</p>
<p>P-070 Comparability and Similarity Assessment of Primary Structure for Antibody Biologics</p> <p><u>Hyemin Lee</u>^{1*}, Jung-Keun Suh²</p> <p>¹BIONSYSTEMS Ltd., 801, A-dong, PDC, 242, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, 13487, Korea ²Seoul Media Institute of Technololog, IMLab, #1217, 402 World Cup Buk-ro, Mapo-gu, Seoul, Korea</p>	<p>P-076 Detection of small molecules and amino acid using MALDI-ToF mass spectrometry with TiO₂ nanowire chips</p> <p>Mira Kim, <u>Jong-Min Park</u>, Jae-Chul Pyun*</p> <p>Department of Materials Science and Engineering, Yonsei University, 50 Yeonsei-ro, Seodaemun-gu, Seoul, 03722, Korea</p>
<p>P-071 Clinical application of multi hormones in human serum by liquid tandem mass spectrometry</p> <p><u>Houn Lee</u>, Hyojin Kim, Jinsun Jung, Hanseul Suh, Heejung Jang, Eunha Oh</p> <p>R&D office, Seegene Medical Foundation, 320, Cheonho-daero, Seongdong-gu, Seoul, Korea</p>	<p>P-077 Simultaneous quantification of sterols and fatty acids in human saliva samples using high-temperature gas chromatography-tandem mass spectrometry</p> <p><u>Ju-Yeon Moon</u>, Tae Yeon Kong, Hyun-Jun Jang, Ju-Hyun Kim, Won-Gu Choi, Hye Suk Lee</p> <p>College of Pharmacy, Catholic University of Korea, Bucheon-si 14662, Korea</p>
<p>P-072 Simultaneous determination of mixture of biopharmaceuticals by a liquid chromatography-quadrupole time-of-flight mass spectrometric method in rat plasma following cassette-dosing</p> <p><u>Min-Ho Park</u>*, Jin-Ju Byeon, Seok-Ho Shin, Nahye Kim, Yuri Park, Byeong ill Lee, Jangmi Choi, Yeonjae Kang and Young G. Shin</p> <p>College of Pharmacy, Chungnam National University, Daejeon 305-764, South Korea</p>	<p>P-078 Assessment of cerebrospinal fluid concentration or plasma free concentration as a surrogate measurement for brain free concentration</p> <p><u>Jangmi Choi</u>¹, Nahye Kim¹, Yeonjae Kang¹, Jin-Ju Byeon¹, Min-Ho Park¹, Seok-Ho Shin¹, Byeong ill Lee¹, Yuri Park¹, Young G. Shin^{*,1}</p> <p>¹College of Pharmacy, Chungnam National University, Daejeon 305-764, Republic of Korea (South)</p>
<p>P-073 Development of a parylene-matrix chip for small molecule analysis with MALDI-TOF MS</p> <p><u>Jong-Min Park</u>, Jae-Chul Pyun*</p> <p>Department of Materials Science and Engineering, Yonsei University, 50 Yeonsei-ro, Seodaemun-gu, Seoul, 03722, Korea</p>	<p>P-079 Quantification of a novel aldehyde dehydrogenase inhibitor in rat using liquid chromatography-quadrupole time-of-flight mass spectrometric method.</p> <p><u>Nahye Kim</u>¹, Yuri Park¹, Byeong ill Lee¹, Min-Ho Park¹, Seok-Ho Shin¹, Jin-Ju Byeon¹, Jangmi Choi¹, Yeonjae Kang¹, Inkyu Hwang¹, Young G. Shin^{*,1}</p> <p>¹College of Pharmacy, Chungnam National University, Daejeon, 305-764, Republic of Korea</p>
<p>P-074 Rapid and sensitive carbapenemase assay using LDI-MS based on a parylene-matrix chip</p> <p><u>Jong-Min Park</u>, Jae-Chul Pyun*</p> <p>Department of Materials Science and Engineering, Yonsei University, 50 Yeonsei-ro, Seodaemun-gu, Seoul, 03722, Korea</p>	<p>P-080 Specific and sensitive Liquid Chromatography – Electro Spray Ionization – Triple Time of Flight / Mass Spectrometry assay for the quantification and application of Fabry disease biomarker – Globotriaosylceramide (GB3)</p> <p><u>Seok-Ho Shin</u>, Min-Ho Park, Jin-Ju Byeon, Yuri Park, Byeong ill Lee, Jangmi Choi, Nahye Kim, Yeonjae Kang and Young G. Shin*</p> <p>College of Pharmacy, Chungnam National University, Daejeon 305-764, South Korea</p>

<p>P-081 Qualification and application of a liquid chromatography-quadrupole time-of-flight mass spectrometric method for the determination of adalimumab in rat plasma</p> <p><u>Yuri Park</u>¹, Nahye Kim¹, Jangmi Choi¹, Minho Park¹, Byung ill Lee¹, Seokho Shin¹, Jinju Byeon¹, Yeonjae Kang¹ and Young G. Shin¹</p> <p>¹College of Pharmacy, Chungnam National University, Daejeon 305-764, South Korea</p>	<p>P-087 Development and validation of a quantification method for free amino acids in human plasma to develop the certified reference material using liquid chromatography-tandem mass spectrometry</p> <p><u>Eunju Cha</u>¹, Eun Sook Jeong¹, Byungjoo Kim², Joonhee Lee², Jiyoung Han^{1,3}, Oh-Seung Kwon¹, Jaeick Lee¹</p> <p>¹Doping Control Center, Korea Institute of Science and Technology, 5, Hwarang-ro 14-gil, Seongbuk-gu, Seoul 02792, Korea ²Analytical Chemistry Center, Division of Metrology for Quality Life, Korea Research Institute of Standards and Science, 267 Gajeong-ro, Yuseong-gu, Daejeon 34113, Korea ³Department of Chemistry, Hanyang University, 222 Wangsimni-ro, Seongdong-gu, Seoul 04763, Korea</p>
<p>P-082 A single liquid chromatography-quadrupole time-of-flight mass spectrometric method platform for the quantification of antibody-drug conjugates</p> <p><u>Jin-Ju Byeon</u>[*], Min-Ho Park, Seok-Ho Shin, Byeong ill Lee, Yuri Park, Jangmi Choi, Nahye Kim, Yeon Jae Kang, Young G. Shin</p> <p>College of Pharmacy, Chungnam National University, Daejeon 305-764, South Korea</p>	<p>P-088 Quantitative proteomics of a human neuronal cell culture model of Alzheimer's disease</p> <p><u>Min-Young Song</u>, Da Kyeong Park, Soo Youn Lee, Young Ha Ryu, Ju Yeon Lee, and Young Hye Kim</p> <p>Biomedical Omics Group, Korea Basic Science Institute, Cheongju-si, 28119, Republic of Korea</p>
<p>P-083 Comparison of tricin concentration in different parts of <i>Phragmites communis</i></p> <p><u>Dae Wook Kim</u>, Seung-Young Lee, Buyng Su Hwang, Sang-Chul Jeong*</p> <p>Freshwater Bioresources Utilization Bureau, Nakdonggang National Institute of Biological Resources, Sangju 37242, Republic of Korea</p>	<p>P-089 Global N-glycoproteome analysis in the course of human neural stem cell differentiation</p> <p><u>Min-Young Song</u>, Da Kyeong Park, Hyun Kyeong Lee, Gun Wook Park, Ju Yeon Lee, Jin Young Kim, Jong Shin Yoo*, and Young Hye Kim*</p> <p>Biomedical Omics Group, Korea Basic Science Institute, Cheongju-si, 28119, Republic of Korea</p>
<p>P-084 Novel metabolomic markers in acute liver transplantation rejection</p> <p><u>Su Jung Kim</u>^{1*}, Na Young Kim¹, Shin Hwang² and Hyun Ju Yoo¹</p> <p>¹Asan Institute for Life Sciences ²Department of Liver Transplantation and Hepatobiliary Surgery, Asan Medical Center, University of Ulsan College of Medicine, Seoul 138-736, Republic of Korea</p>	<p>P-090 Feasibility of desorption electrospray ionization (desi)-q-tof system as a new imaging system for evaluation of the distribution of indocyanine green in sentinel lymph nodes</p> <p><u>Hyeonsoo Park</u>[*], Yong hyun Jeon, Sang kyoan Kim</p> <p>DaeguGyeonbuk Medical Inovation Foundation (DGMIF) Laboratory Animal Center (LAC), Choem bok ro 80, Daegu, 41061, Korea</p>
<p>P-085 Quantification and application of a liquid chromatography-tandem mass spectrometric method for the determination of WKYVMm peptide in rat using solid phase extraction</p> <p><u>Byeong ill Lee</u>^{1*}, Min-Ho Park¹, Soon chul Heo², Yuri Park¹, Seok ho Shin¹, Jin ju Byeon¹, Jangmi Choi¹, Nahye Kim¹, Yeonjae Kang¹, Jae ho Kim², Young G. Shin¹</p> <p>¹College of Pharmacy, Chungman National University, Daejeon, 305-764, Republic of Korea (South) ²College of Medicine, Pusan National University, Yangsan Kyungsangnamdo, 626-870, Republic of Korea (South)</p>	<p>P-091 High-sensitivity, high-throughput quantitation of catecholamines in plasma by automatable derivatization and SPE coupled to LC-MS/MS for clinical research</p> <p><u>Kim Jae-hyung</u>¹, Atsuhiko TOYAMA², Mikael LEVI², Ichiro HIRANO², Jun WATANABE²</p> <p>¹Analytical Instrument Division, Dong-il Shimadzu Corporation, Seoul, Korea ²Mass Spectrometry Business Unit, Shimadzu Corporation, Kyoto, Japan</p>
<p>P-086 Simultaneous quantification of the four coumarins including one active metabolite in humans by UHPLC-MS/MS: Application to pharmacokinetics</p> <p>Seong-Moon Cheon¹, Hwajin Shin¹, Se-Mi Ko¹, Go-Wun Choi¹, Sook-Jin Kim¹, Seong-Ho Ham², Yong-Bok Lee³, <u>Hea-Young Cho</u>^{1*}</p> <p>¹College of Pharmacy, CHA University, 335 Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, 13488, Republic of Korea. ²National Development Institute of Korean Medicine, 288 Udeuraendeu-gil, Anyang-myeon, Jangheung-gun, Jeollanam-do, 59338, Republic of Korea. ³College of Pharmacy, Chonnam National University, 77 Yongbong-ro, Buk-gu, Gwangju, 61186, Republic of Korea.</p>	<p>P-092 Simultaneous determination and identification in individual herbs and Bojungikgi-tang(mixture) by UHPLC/Q-Orbitrap & MS/MS for NDIN submission</p> <p><u>Sunmin Jin</u>^{***}, Eun-Jung Jeon[*], Seung-Woo Kang[*], Sang Beom Han^{***}</p> <p>[*]Natural Products Research Institute, ARIBIO Inc., 15Pangyo-ro228-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, 13487, South Korea ^{***}Department of Pharmaceutical Analysis, College of Pharmacy, Chung-Ang University, 221 Heukseok-Dong, Dongjak-Gu, Seoul 156-756, South Korea</p>

<p>P-093 Lipidomics Analysis of Serum in Traumatic Injury Patients with Blood Stasis</p> <p><u>Jin Hee Kim</u>¹, Hee Joo Kang¹, Ri Rang Kim¹, Hye Jung Yang¹, Jee youn Jung², Myung-Sunny Kim¹ and Min Jung Kim¹</p> <p>¹Division of Nutrition and Metabolism Research, Korea Food Research Institute, Gyonggi-do, Korea ²Medical Research Division, Korean Institute of Oriental Medicine, Daejeon, Korea</p> <p>Email : kmj@kfri.re.kr</p>	<p>P-099 I knew you were trouble: expanding LC methods to include difficult GC compounds using a novel ionization technique</p> <p><u>Jessica Han</u>¹, Kari Organtini², Susan Leonard², Eimear McCall², Simon Hird², Gareth Cleland² and Kenneth Rosnack²</p> <p>¹Waters Korea ²Waters Corporation</p>
<p>P-094 Genetically Modified Resveratrol-enriched Rice Attenuates UVB-ROS Induced Skin Aging via Downregulation of Inflammatory, Apoptosis and MMP1 Mediated Aging Cascades</p> <p><u>Lalita Subedi</u>^{1,*}, Silvia Yumnam¹, kyo hee Cho¹, Zahra Khan¹, Amna Praveen¹ and Sun Yeou Kim¹</p> <p>Department of Pharmacognosy, College of Pharmacy and Gachon Institute of Pharmaceutical Sciences, Gachon University, Incheon, 21936, Republic of Korea</p>	<p>P-100 MALDI-TOF MS Characterization of Poly(ethylene glycol)-conjugated Octapeptides Fractionated Drop-by-drop from Reversed-phase HPLC</p> <p><u>Eun Ji Park</u>[*], Yejin Kim, Hye Gyeong Yang, Dong Hee Na[*]</p> <p>College of Pharmacy, Chung-Ang University, 84 Heukseok-ro, Dongjak-gu, Seoul 06974, Korea</p>
<p>P-095 Quantitative analysis of ethanol in micro volume blood samples by GC-MS headspace detection</p> <p><u>Young Min Goo</u>^{1,*}, Yeon Gyu Moon², Young Sook Kil¹, Hyeong-Hwan Lee¹ and Dong Yeol Lee¹</p> <p>¹Gyeongnam Oriental Medicinal Herb Institute, Sancheong, 52215, Republic of Korea ²Gyeongnam Biological Resource Research Center, Gyeongnam Environmental Toxicology, Korea Institute of Toxicology, Jinju 52834, Korea</p>	<p>P-101 Data independent top-down characterization of proteins for biotherapeutic applications</p> <p><u>Adele Oh</u>^{1,*}, <u>Lindsay J. Morrison</u>^{2,*}, Brad J. Williams², and Barbara J. Sullivan²</p> <p>¹Waters Korea Limited, 101 Yeouigongwon-ro, Seoul, 07241, Korea ²Waters Corporation, Beverly, MA 01215, USA</p>
<p>P-096 Sensitive UPLC Method with Tandem Mass Detection for Analysis of Genotoxic Impurities of Imatinib Mesylate Drug</p> <p><u>Ian Yang</u>, Margaret Maziarz and Mark Wrona</p> <p>Waters Corporation, 34 Maple Street, Milford, MA, USA, 01757</p>	<p>P-102 Optimization of SONAR elevated energy ramps applied to different molecular classes</p> <p><u>Adele Oh</u>^{1,*}, <u>James Langridge</u>^{2,*}, Chris Hughes², Johannes PC Vissers², Lee Gethings², Keith Richardson², Praveen H² and Jon Williams²</p> <p>¹Waters Korea Limited, 101 Yeouigongwon-ro, Seoul, 07241, Korea ²Waters Corporation, Wilmslow, United Kingdom</p>
<p>P-097 Lipid quantification-based cancer diagnosis by using nanostructure-assisted laser desorption ionization mass spectrometry</p> <p><u>Sunho Joh</u>^{1,2}, Jin Gyeong Son¹, Hee-Kyung Na¹, Jeong Hee Moon^{2,4} and Tae Geol Lee^{1,3}</p> <p>¹Center for Nano-Bio Measurement, Korea Research Institute of Standards and Science (KRISS), Daejeon 34113, South Korea ²Disease Target Structure Research Center, Korea Research Institute of Bioscience and Biotechnology (KRIBB), Daejeon 305806, South Korea ³Department of Nano Science, University of Science & Technology (UST), Daejeon 34113, South Korea ⁴Department of Proteome Structural Biology, University of Science & Technology (UST), Daejeon 34113, South Korea</p>	<p>P-103 Liquid chromatography-tandem mass spectrometry (LC-MS/MS) based metabolic profiling of steroids and prostaglandins in pattern baldness</p> <p><u>Eun Ju Im</u>^{1,2}, Su Hyeon Lee^{1,3}, Mi Yeon Lee⁴, Jeongae Lee¹, Ki Jung Paeng², Bong Chul Chung^{1,*}</p> <p>¹Molecular Recognition Research Center, Korea Institute of Science and Technology, Hwarang-ro 14-gil, Seoul ²Department of chemistry, Yonsei University, Yeonsedae-gil, Wonju ³Forensic Chemistry Section, National Forensic Service, Seoul Institute Jiyang-ro, Seoul ⁴Advanced Analysis Center, Korea Institute of Science and Technology, Hwarang-ro 14-gil, Seoul</p>
<p>P-098 Label-free quantitative strategy for non-human sialic acid using MRM-MS</p> <p><u>Jaekyoung Ko</u>^{1,2}, Nari Seo^{1,2}, MyungJin Oh^{1,2}, and Hyun Joo An^{1,2*}</p> <p>¹Graduate School of Analytical Science and Technology, Chungnam National University, Korea ²Asia-Pacific Glycomics Reference Site, Korea</p>	<p>P-104 Investigation of exercise effects using non-targeted metabolomics and targeted polyamine profiling by liquid chromatography-mass spectrometry (LC-MS) in athlete's urine</p> <p><u>Yu Ra Lee</u>^{1,2}, Mi-jung Ji⁴, Jeongae Lee¹, Jongki Hong^{2,3}, Bong Chul Chung^{1,2,*}</p> <p>¹Molecular Recognition Research Center, Korea Institute of Science and Technology, Hwarang-ro 14-gil, Seoul ²KHU-KIST Department of Converging Science and Technology, Kyungheeda-ro, Seoul ³College of pharmacy, Kyung Hee University, Kyungheeda-ro, Seoul ⁴Advanced Analysis Center, Korea Institute of Science and Technology, Hwarang-ro 14-gil, Seoul</p>

<p>P-105 Application of LC-MS/MS method for simultaneous determination of tramadol and its metabolites in human plasma</p> <p><u>Min Je Choi</u>, Sooyeon Lee, Jung-Woo Bae*</p> <p><i>College of Pharmacy, Keimyung University, 1095 Dalgubeol daero, Daegu, 42601, Korea</i></p>	<p>P-111 Metabolic signatures of polyamines and cholesterol using GC-triple quadrupole-mass spectrometry</p> <p><u>Chaelin Lee</u>, Byeong-Yun Lim, Man Ho Choi</p> <p><i>Molecular Recognition Research Center, KIST, Seoul 02792, Korea</i></p>
<p>P-106 Automated robotic platform to enrich native glycans using liquid handling system</p> <p><u>Gyeong Mi Park</u>^{1,2}, Youngsuk Seo^{1,2}, and Hyun Joo An^{1,2}</p> <p>¹<i>Graduate School of Analytical Science and Technology, Chungnam National University, 99 Daehak-ro, Yuseong-gu, Daejeon, 34134, Korea</i> ²<i>Asia-Pacific Glycomics Reference Site, 99 Daehak-ro, Yuseong-gu, Daejeon, 34134, Korea</i></p>	<p>P-112 Determination of dermal absorption rate of propylidene phthalide, a cosmetic ingredient, using LC/MS/MS</p> <p><u>Ji-young Kim</u>¹, Jung Dae Lee², Jin Ju Park¹, Hyun Jun Jang¹, and Kyu-Bong Kim¹</p> <p>¹<i>College of Pharmacy, Dankook University, 119 Dandae-ro, Chungnam, 330-714, Republic of Korea</i> ²<i>College of Pharmacy, Sungkyunkwan University, Sebu-ro 2066, Changan-Ku, Gyeonggi-Do, Suwon, 440-746, Republic of Korea</i></p>
<p>P-107 Specific ion chromatograms for rapid screening of steroids in dietary supplements by GC-MS/MS combined with selective derivatization</p> <p><u>Youna Kim</u>, Na-Hyun Park, and Jongki Hong</p> <p><i>College of Pharmacy, Kyung Hee University, Kyungheedaero-ro, Seoul 02447, Korea</i></p>	<p>5. Food Environment : PT13 ~ PT38</p>
<p>P-108 TMT-Based quantitative proteomics in adipose and liver tissue of high-fat diet induced mice</p> <p><u>Ki Na Yun</u>^{1,3}, Eun Sun Ji¹, Gun Wook Park¹, Sung Ho Yun², Sang-Yeop Lee², Seung Il Kim², Ju Yeon Lee¹, Jong Shin Yoo¹, Han Bin Oh³, Jin Young Kim¹</p> <p>¹<i>Biomedical Omics Group, Korea Basic Science Institute, Ochang, Korea</i> ²<i>Drug & Disease Target Team, Korea Basic Science Institute, Ochang, Korea</i> ³<i>Department of Chemistry, Sogang University, Seoul, Korea</i></p>	<p>P-113 A Gas-phase Host-guest system for Identifying Diverse Types of Monosaccharide Derivative Isomers</p> <p><u>Hyun Hee L. Lee</u>¹, Hugh I. Kim^{1,*}</p> <p>¹<i>Dept of Chemistry, Korea University, 145 Anam-ro, Seongbuk-gu, Seoul, 02841, Korea</i></p>
<p>P-109 Quantitative profiling of adrenal and hybrid steroids using a polarity switching LC-MS/MS</p> <p><u>Nanhee Lee</u>¹, Chaelin Lee¹, Fumitosh Satoh², Hironobu Sasano², Jung Hee Kim³, Man Ho Choi¹</p> <p>¹<i>Molecular Recognition Research Center, KIST, Seoul 02792, Korea</i> ²<i>Tohoku University Graduate School of Medicine, Sendai 980-8574, Japan</i> ³<i>Department of Internal Medicine, Seoul National University Hospital, Seoul 03080, Korea</i></p>	<p>P-114 Non-targeted analysis of soybean recombinant inbred lines by LC-MS/MS</p> <p><u>Hee-Jung Sim</u>*, Sang-Tae Kim, Sun Young Moon, Sang-Gyu Kim, Jin-Soo Kim</p> <p><i>Center for Genome Engineering, Institute for Basic Science (IBS), Yuseong-daero 1689-gil, Daejeon 34047, Korea</i></p>
<p>P-110 Method validation for the determination of urea in serum by IDMS and proficiency testings</p> <p><u>Hwa-shim, Lee</u>*, Sang-ryoul, Park</p> <p><i>Center for bioanalysis, Division of Quality of Life, Korea Research Institute of Standards and Science, 267, Gajeong-ro, Daejeon, 34113, Korea</i></p>	<p>P-115 Development simultaneous analytical method for determination of volatile alcohols in drinking water using TMS derivatization</p> <p><u>Lee Yoonhye</u>^{1,2}, Park JuHyun³, Oh Hanbin², Pyo Heesoo¹</p> <p>¹<i>Korea Institute of Science and Technology</i> ²<i>Sogang University</i> ³<i>National Institute of Environmental Research</i></p>

<p>P-116 Optimization of sample preparation and analytical condition for simultaneous multi-residue analysis of phenols, parabens, phthalates, PAHs, VOCs, cotinine by LC-MS</p> <p><u>Minho Yang</u>¹, Eun Sook Jeong², Hojun Jung¹, Yong Min Cho¹, Eunju Cha², Sang Moon Han^{2,3}, Seunghwa Lee^{2,4}, Sangwon Cha⁵, Sang Beom Han⁶, Jaekick Lee², Hosub Im^{1*}</p> <p>¹Institute for Life & Environmental Technology, Smartive Corporation, Dobong-ro 110na-gil, Dobong-gu, Seoul, 01454, Korea ²Doping Control Center, Korea Institute of Science and Technology, Hwarang-ro 14-gil 5, Seongbuk-gu, Seoul, 02792, Korea ³Department of Fine Chemistry, Seoul National University of Science and Technology, Gongneung-ro 232, Nowon-gu, Seoul, 01811, Korea ⁴Department of Applied Chemistry, Dongduk Women's University, Hwarang-ro 13-gil, Seongbuk-gu, Seoul, 02748, Korea ⁵Department of Chemistry, Hankuk University of Foreign Studies, Oedae-ro, Mohyeon-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, 17035, Korea ⁶College of Pharmacy, Chung-Ang University, 84 Heukseok-ro, Dongjak-gu, Seoul, 06974, Korea</p>	<p>P-122 Screening metabolites responsible for distinct soybean types and bioactivities evaluated by correlation analysis</p> <p><u>Jiu Liang Xu</u>^{1,2}, Jeong-Sook Shin¹, Yongsoo Choi¹</p> <p>¹Systems Biotechnology Research Center, Korea Institute of Science and Technology (KIST), Gangneung 25451, Republic of Korea ²Department of Food and Nutrition, Gangneung-Wonju National University, Gangneung, Gangwon 210-702, Republic of Korea</p>
<p>P-117 Autosampler Based Online GC-MS System: SPME and Purge-Trap technique for Online Water Quality Monitoring</p> <p>Sung-Yun Ahn¹, Wonkyung Lee², Yuns Kim¹, <u>Jaewon Choi</u>¹</p> <p>¹WQRC of Kwate, Daejeon ²Euro Science, Seoul</p>	<p>P-123 Profiling for the volatile organic compounds in fermented coffees using HS-SPME and Pyrolysis-GC/MS</p> <p><u>Su-Jin Kim</u>^{1,2}, Sul Lee^{1,3}, Ji-Hyun Lee^{1,3}, Jin-Kyu Rhee^{2,*}, Yun-Cheol Na^{1,3*}</p> <p>¹Western Seoul Center, Korea Basic Science Institute, 150 Bugahyeon-ro, Seodaemun-gu, Seoul, 03759, Korea ²Department of Food Science and Engineering, Ewha Womans University, 52 Ewhayeodae-gil, Seodaemun-gu, Seoul, 03760, Korea ³Department of Chemistry and Nano Science, Ewha Womans University, 52 Ewhayeodae-gil, Seodaemun-gu, Seoul, 03760, Korea</p>
<p>P-118 In-depth characterization and comparative profiling of ethanol-extracts of propolis by ultra-high resolution FT-ICR mass spectrometry</p> <p><u>Juhee Kim</u>^{1*}, Jiyeon Hong¹, Mee Young Kim², Seung-Wan Lee², Kyoung-Soon Jang^{1,3}</p> <p>¹Biomedical Omics Group, Korea Basic Science Institute, Cheongju 28119, Korea ²Propolis Research Institute, Seoul Propolis Co., Daejeon 34025, Korea ³Division of Bio-Analytical Science, University of Science and Technology, Daejeon 34113, Korea</p>	<p>P-124 Residual behaviour of insecticide chlorfenapyr on strawberry using QuEChERS with gas chromatography mass spectrometry</p> <p><u>Dong Yeol Lee</u>^{1*}, Kyeong Yeol Oh¹, Young Sang Kwon², Yeong Jin Kim², and Young Min Goo¹</p> <p>¹Gyeongnam Oriental Medicinal Herb Institute, Sancheong, 52215, Republic of Korea ²Environmental Toxicology Research Center, Korea Institute of Toxicology, Jinju 52834, Korea</p>
<p>P-119 Determination of N-nitrosamines in Kimchi by HR-ESI-UPLC-Q-Orbitrap-MS</p> <p>In Min Hwang, Hee Min Lee, <u>Sung Hyun Kim</u>[*]</p> <p>Hygienic Safety and Analysis Center, Research and Development Division, World Institute of Kimchi, Gwangju 61755, Republic of Korea</p>	<p>P-125 Chemical composition of the essential oils from four kinds <i>Chrysanthemum indicum</i></p> <p><u>Kyeong Yeol Oh</u>^{1*}, Dong Yeol Lee¹, Seung-Mi Sin¹, Won Min Jeong¹, Young-Min Goo¹ and Yun Geun Kim¹</p> <p>¹Gyeongnam Oriental Medicinal Herb Institute, Sancheong, 52215, Republic of Korea</p>
<p>P-120 Fat-Soluble Vitamin Analysis by online SFE-SFC-MS/MS</p> <p><u>Cho Yoon-seong</u>¹, Kenichiro Tanaka², Yasuhiro Funada², Indarpal Singh³, Ricardo Gonzalez³</p> <p>¹Analytical Instrument Division, Dong-il Shimadzu Corporation, Seoul, Korea ²Shimadzu Corporation, 1, Nishinkyo-Kuwabaracho Nakagyo-ku, Kyoto 604-8511, Japan ³ConAgra Foods, Inc. Chicago, Illinois, USA</p>	<p>P-126 Evaluation of Ultra-high Resolution Mass Spectrometry as a Tool for Stable Carbon Isotope Ratio Analysis of Oils at the Molecular Level</p> <p><u>Seungwoo Son</u>¹, Donguk Kim², Hyeonik Jo², yeongkwan Na², Minsuk Yoon², Wondoo Lee², Sunghwan Kim^{1*}</p> <p>¹Department of Chemistry, Kyungpook National University, Daegu, Republic of Korea ²Daegu Science High School, Daegu, Republic of Korea</p>
<p>P-121 Characterization of weathered oil by paper spray ionization and estimation of the oxidation degree of spilled oils depending on the chemical class distribution</p> <p><u>Donghui Kim</u>¹, Joon Geon An², Sung Yong Ha², Un Hyuk Yim², Youngil Lee³, Sangwon Cha⁴, and Sunghwan Kim^{1*}</p> <p>¹Dept of Chemistry, Kyungpook National University, 80 Daehakro, Bukgu, Daegu, 41566, Republic of Korea ²Korea Institute of Ocean Science and Technology, Geoje, 53201, Republic of Korea ³Dept of Chemistry, University of Ulsan, 93 Daehakro, Ulsan, 44610, Republic of Korea ⁴Dept of Chemistry, Hankuk University of Foreign Studies, 81 Oedae-ro, Yongin, 17035, Republic of Korea</p>	<p>P-127 Determination of perfluorooctanoic acid (PFOA) extractable from the frying pan in fatty acids by LC/MS/MS</p> <p><u>So Jung Kim</u>^{1,2}, Nak-Kwan Chung^{1,*}</p> <p>¹Vacuum center, Korea Research Institute of Standards and Science, Gajeong ro, Daejeon, 34055, Korea ²Advanced material engineering, Chungnam National University, Yuseong gu, Daejeon, 34134, Korea</p>

<p>P-128 Comparative analysis of functional components in Asian milk; Korean, Chinese, and Vietnamese</p> <p><u>Jaekyoung Ko</u>^{1,2}, Nari Seo^{1,2}, Tuyen Nguyen³, Suhee Kim⁴, Yongki Kim⁵, Jia Jeong⁵, Jae Han Kim⁵, and Hyun Joo An^{1,2}</p> <p>¹Graduate School of Analytical Science and Technology, Chungnam National University, Korea ²Asia-Pacific Glycomics Reference Site, Korea ³Department of Food and Nutrition, Chungnam National University, Korea ⁴Glycan Co., Ltd., Seongnam, Korea ⁵Maeil Dairies Co., Ltd. & Maeil Asia Human Milk Research Center, Korea</p>	<p>P-134 A research of metabolic perturbations of domestic soybeans for characterizing and discriminating regional specificity</p> <p><u>Eun Mi Lee</u> and Do Yup Lee</p> <p>Department of Bio and Fermentation Convergence Technology, Kookmin University, Seoul, Korea</p>
<p>P-129 LiveID™: A new software approach for statistical modeling and real-time recognition for use in direct analysis work flows</p> <p><u>Jessica Han</u>¹, Nathaniel G Martin², Dave Jackson², Chris Lawther², Sara Stead²</p> <p>¹Waters Korea ²Waters Corporation</p>	<p>P-135 Development of Sensitive and Selective Methods for Identification of Marine Toxins by Liquid Chromatography Tandem Mass Spectrometry</p> <p><u>Song Jae-Woo</u>¹, Manami Kobayashi², Junichi Masuda², Yoshihiro Hayakawa³</p> <p>¹Analytical Instrument Division, Dong-il Shimadzu Corporation, Seoul, Korea ²Shimadzu Corporation, Kanagawa, JAPAN ³Shimadzu Corporation, Kyoto, JAPAN</p>
<p>P-130 Serum biomarker and treatment mechanism of Allium Hookeri on hyperlipidemia using UPLC/ESI-Q-TOF mass spectrometry</p> <p>Gwang-Ju Jang, Miyoung Yoo, <u>Sanghee Lee</u>*</p> <p>Korea Food Research Institute, Gyeonggi, South Korea</p>	<p>P-136 Which Chemicals are Generated with Higher Temperature Coffee Roasting?:Molecular Level Analysis of Coffee Extracts by Using Ultrahigh Resolution Mass Spectrometry</p> <p>Eunji Cho¹ and <u>Sunghwan Kim</u>^{1,*}</p> <p>¹Department of Chemistry, Kyungpook National University, 80 Daehak-ro, Buk-gu, Daegu, 702-701, Republic of Korea</p>
<p>P-131 Qualitative determination of steviol and its glycosides in Stevia rebaudiana by liquid chromatography tandem mass spectrometry</p> <p><u>Seongnyeol Kim</u>^a, Moo Sung Kim^b, Heehoon Jung^b, Kun Cho^a</p> <p>^aBiomedical Omics Group, Korea Basic Science Institute, Ochang, Chungbuk, 28119, Korea ^bR&D center, Macrocare Tech Co., Ltd., 32, Gangni 1-gil, Ochang-eup, Cheongwon-gu, Cheongju-si, Chungcheongbuk-do, 28126, South Korea</p>	<p>P-137 Molecular characterization of soil organic matter in the foreland of Midtre Lovénbreen glacier in Svalbard using ultra-high resolution FT-ICR mass spectrometry</p> <p><u>Jung Hoon Choi</u>^{1,2*}, Mincheol Kim³ and Kyoung-Soon Jang^{1,4}</p> <p>¹Biomedical Omics Group, Korea Basic Science Institute, Cheongju 28119, Korea ²Department of Biotechnology and Bioinformatics, Korea University, Sejong 30019, Korea ³Arctic Research Center, Korea Polar Research Institute, KIOST, Incheon 21990, Korea ⁴Division of Bio-Analytical Science, University of Science and Technology, Daejeon 34113, Korea</p>
<p>P-132 Simultaneous determination of preservatives and sweeteners in kimchi using LC-ESI-MS/MS</p> <p><u>Hee Min Lee</u>, In Min Hwang, Su Yeon You, Sung Hyun Kim*</p> <p>Hygienic Safety and Analysis Center, Research and Development Division, World Institute of Kimchi, Gwangju 61755, Republic of Korea</p>	<p>P-138 Determination of fenpyroximate from honey by LC-MS/MS</p> <p><u>JinMun Kim</u>¹, JunSuk Kim², Seung-Woon Myung¹</p> <p>¹Department of Chemistry Kyonggi University, 16227, Korea ²Biomedical Systems Engineering, Campus of Korea Polytechnic, 13590, Korea</p>
<p>P-133 Characterization of polysaccharides extracted from red ginseng by MALDI-TOF MS</p> <p><u>Ye Rin Jin</u>^{1,2}, Myung Jin Oh^{1,2}, Unyong Kim^{1,2}, and Hyun Joo An^{1,2*}</p> <p>¹Graduate School of Analytical Science and Technology, Chungnam National University, 99 Daehak-ro, Daejeon, 34134, Korea ²Asia-Pacific Glycomics Reference Site, 99 Daehak-ro, Daejeon, 34134, Korea</p>	

<p>General : P139 ~P182</p>	<p>P-144 Optimized condition in MALDI-TOF MS analysis of N-glycans</p> <p><u>Sooyeon Chae</u>, Yeoseon Kim, Jangsu Lee, Jihyun Paek, Dabin Lee, Jeongkwon Kim</p> <p><i>Department of Chemistry, Chungnam National University Daejeon, 34134, Republic of Korea</i></p>
<p>P-139 Identification of prostate cancer specific signature in cell lines based on proteomic analysis</p> <p><u>Arum Park</u>^{1†}, Jiyeong Lee^{2†}, Sora Mun¹, YuRim Lee¹, Doo Jin Kim², Byung Heun Cha², Tag Keun Yoo^{3*}, Hee-Gyoo Kang^{1,2*}</p> <p>[†]<i>These authors contributed equally.</i></p> <p>¹<i>Department of Senior Healthcare, BK21 Plus Program, Graduate School, Eulji University, Seongnam 13135, Korea</i> ²<i>Department of Biomedical Laboratory Science, College of Health Sciences, Eulji University, Seongnam 13135, Korea</i> ³<i>Department of Urology, College of Medicine, Eulji University, Daejeon 33824, Korea</i></p>	<p>P-145 Comparison of Desorption Enhancement Methods in the Low Temperature Plasma Ionization Mass Spectrometry for Detecting Fatty Acids in Drosophila</p> <p>Shin Hye Kim^{1,2}, Hyun Jun Jang^{1,3}, Jeong Hyang Park⁴, Hyoung Jun Lee^{5,6}, Jeongkwon Kim², Yong-Hyeon Yim¹, Dan Bee Kim^{1†}, and Sohee Yoon^{1†}</p> <p>¹<i>Korea Research Institute of Standards and Science (KRISS), Daejeon 34113, Republic of Korea</i> ²<i>Department of Chemistry, Chungnam National University, Daejeon 34134, Republic of Korea</i> ³<i>Department of Biochemistry, Chungnam National University, Daejeon 34134, Republic of Korea</i> ⁴<i>Department of Brain & Cognitive Sciences, DGIST, Daegu 42988, Republic of Korea</i> ⁵<i>Department of Biochemistry, Chungnam National University, Daejeon 34134, Republic of Korea</i></p>
<p>P-140 Improvement of rheumatoid arthritis (RA) pre-screening accuracy through liquid chromatography tandem-mass spectrometry</p> <p><u>Ae Eun Seok</u>¹, Sora Mun¹, You-Rim Lee¹, Arum Park¹, Yeon-Tae Chun^{1,4}, Jiyeong Lee^{2†}, and Hee-Gyoo Kang^{1,2*}</p> <p>¹<i>Laboratory of Signal Transduction and Disease Biomarker Discovery, Department of Senior Healthcare, BK21 Plus Program, Graduate School, Eulji University, Daejeon 34824, Korea</i> ²<i>Department of Biomedical Laboratory Science, College of Health Sciences, Eulji University, Seongnam-si, Gyeonggi-do 13135, Korea</i> ³<i>Seongnam Central Hospital, Seongnam-si 13161, Republic of Korea</i> ⁴<i>Integrative Research Support Center, College of Medicine, The Catholic University of Korea, Seoul 06591, Korea</i></p>	<p>P-146 Lipids profiling of <i>Drosophila melanogaster</i> heads using electrospray ionization mass spectrometry (ESI-MS)</p> <p><u>Hyun Jun Jang</u>^{1,2}, Jeong Hyang Park³, Joon Sig Choi², Sohee Yoon^{1†}</p> <p>¹<i>Center for Nano-Bio Measurement, Korea Research Institute of Standards and Science (KRISS), Daejeon, 34113, Republic of Korea</i> ²<i>Department of Biochemistry, Chungnam National University, Daejeon, 34134, Republic of Korea</i> ³<i>Department of Brain & Cognitive Sciences, DGIST, Daegu, 42988, Republic of Korea.</i></p>
<p>P-141 Biomarker Discovery of Rheumatoid Factor-Related Proteins for Rheumatoid Arthritis</p> <p>Doojin Kim^{††}, <u>Sora Mun</u>^{2†}, Jiyeong Lee^{1†}, Arum Park², AeEun Seok², Yeon-Tae Chun¹, Hee-Gyoo Kang^{1,2*}</p> <p>¹<i>Department of Biomedical Laboratory Science, College of Health Sciences, Eulji University, Seongnam, Korea</i> ²<i>Department of Senior Healthcare, BK21 Plus Program, Graduate School, Eulji University, Daejeon, Korea</i></p>	<p>P-147 Optimization of paper spray ionization for sensitive protein analysis</p> <p><u>Taemin Park</u> and Sangwon Cha[*]</p> <p><i>Dept of Chemistry, Hankuk University of Foreign Studies, 81 Oedae-ro, Yongin, 17035, Korea</i></p>
<p>P-142 Effects of acetonitrile amounts on bovine serum albumin and myoglobin tryptic digestion in gentle mixing or microwave</p> <p><u>Yeoseon Kim</u>, Dabin Lee, Sooyeon Chae, Jangsu Lee, JiHyun Paek, and Jeongkwon Kim[*]</p> <p><i>Department of Chemistry, Chungnam National University, Daejeon, 34134, Korea</i></p>	<p>P-148 Investigation of various liquid chromatography mass spectrometry (LC/MS) methods for comprehensive ganglioside profiling</p> <p><u>Soobin Choi</u> and Sangwon Cha[*]</p> <p><i>Dept of Chemistry, Hankuk University of Foreign Studies, 81 Oedae-ro, Yongin, 17035, Korea</i></p>
<p>P-143 Derivatization of myoglobin after microwave-assisted acid hydrolysis</p> <p><u>Dabin Lee</u>, Jihyun Paek, Yeoseon Kim, Jangsu Lee, Sooyeon Chae and Jeongkwon Kim</p> <p><i>Department of Chemistry, Chungnam National University, Daejeon, 34134, Korea</i></p>	<p>P-149 The analysis of discoloration of thermally conductive tape</p> <p>Yoon Young Jang</p> <p><i>Paju Analytical Technology Team, LG Display, 245 LG-ro, Wollong-myeon, Paju-si, Gyeonggi-do, 10845, Korea</i></p>

<p>P-150 A Study of Mechanism for Impurity Generation in Liquid Crystal</p> <p>Yoojin Cheon^{1*}</p> <p>¹Gumi Analytical Technology Team, LG Display, 203 3gongdan 2-ro, Gumi-si, 39394, Korea</p>	<p>P-156 Investigating alpha-synuclein aggregation mediated by calcium ions at a molecular level</p> <p>Jong Yoon Han¹ and Hugh I. Kim¹</p> <p>¹Dept of Chemistry, Korea University, 145 Anam-ro, Seoul, 02481, Republic of Korea</p>
<p>P-151 Glycomics-based Forensic Platform for the Identification of Human Saliva</p> <p>Jinyoung Park^{1,2}, Hantae Moon^{1,2}, Bum Jin Kim^{1,2}, and Hyun Joo An^{1,2,*}</p> <p>¹Graduate School of Analytical Science and Technology, Chungnam National University, Daejeon</p> <p>²Asia-Pacific Glycomics Reference Site, Chungnam National University, Daejeon</p>	<p>P-157 Estimation of Elemental Compositions for Additives in Polymers Using Newly Developed EI/CI Ion Source without Venting MS</p> <p>Lee Dong-kun¹, Kazuhiro Kawamura², Riki Kitano³, Yukihiko Kudo², Yoshiro Hiramatsu², Yuki Sakamoto², Haruhiko Miyagawa², Katsuhiro Nakagawa²</p> <p>¹Analytical Instrument Division, Dong-il Shimadzu Corporation, Seoul, Korea</p> <p>²Shimadzu Corporation, Kyoto, Japan</p> <p>³Shimadzu Scientific Instruments, Inc. USA</p>
<p>P-152 Fragmented monoclonal antibody drug peptide mapping by IdeS proteolytic enzyme</p> <p>Jinyoung Kim*, Hye-min Lee, Jong Suk Lee</p> <p>Biocenter, Gyeonggido Business&Science Accelerator, 147 Gwanggyoro, Suwon, Korea</p>	<p>P-158 Validation of triple quadrupole GC-MS/MS for the analysis of dioxins (PCDD/Fs) in soil</p> <p>Sung-Gil Choi, Seung-Min Lee, Young-Ji Noh, Young Sang Kwon and Jong-su Seo*</p> <p>Environmental Toxicology Research Center, Korea Institute of Toxicology, Jinju 52834, Korea</p>
<p>P-153 Competitive Homo- and Hetero- Self-assembly of Amyloid-β 1-42 and 1-40 in the Early Stage of Fibrillation</p> <p>Chae Eun Heo, Tae Su Choi and Hugh I. Kim</p> <p>Department of Chemistry, Korea University, Seoul 02841, Republic of Korea</p>	<p>P-159 Analysis of tocopherol in spinach using isotope dilution liquid chromatography mass spectrometry</p> <p>Minkyung Sung^{1,2}, Joonhee Lee¹, Byungjoo Kim¹, Jeongkwon Kim²</p> <p>^{1,2}Cneter for Organic Analysis, Division of Metrology for Quality of Life, Korea Research Institute of Standard and Science (KRISS), 267, Gajeong-ro, Yuseong-gu, Daejeon, Korea</p> <p>²Department of Chemistry, Chungnam National University, 99, Daehak-ro, Yuseong-gu, Daejeon, Korea</p>
<p>P-154 In vivo Study of Sulfur Mustard Exposure by LC-MS/MS</p> <p>Suhyeon Kim^{1*}, Yonghan Lee²</p> <p>^{1,2}CBRN directorate, Agency for defense development, Yuseon P.O. Box 35-52, Daejeon, 305-600, South Korea</p>	<p>P-160 Profiling of fragmentation pathway for thiamethoxam</p> <p>Sunwoong Son^{1,2}, Seonghee Ahn¹, Byungjoo Kim¹, Jeongkwon Kim²</p> <p>¹Center for Organic Analysis, Division of Metrology for Quality of Life, Korea Research Institute of Standard and Science (KRISS), Daejeon, 34113 Korea</p> <p>²Department of Chemistry, Chungnam National University, Daejeon, 34134 Korea</p>
<p>P-155 Human serum albumin and amyloid-β complex characterized by mass spectrometry and ion mobility spectrometry</p> <p>Tae Su Choi and Hugh I. Kim</p> <p>Department of Chemistry, Korea University, 145 Anam-ro, Seongbuk-gu, Seoul, 02841, Korea</p>	<p>P-161 Analysis of polycyclic aromatic hydrocarbons in olive oil using isotope dilution-gas chromatography mass spectrometry</p> <p>Hyunjeong Ju^{1,2}, Song-Yee Baek¹, Byungjoo Kim¹, Jeongkwon Kim²</p> <p>¹Center for Organic Analysis, Division of Metrology for Quality of Life, Korea Research Institute of Standard and Science (KRISS), Daejeon, 34113 Korea</p> <p>²Department of Chemistry, Chungnam National University, Daejeon, 34134 Korea</p>

<p>P-162 The Comparison of Volatile Organic Compounds Present in Human's Foot Odor Using SPME-GC/MS</p> <p><u>Seyeon Park</u>, Hyunji Kim, Youngwoong Han, Jisook Min</p> <p>National Forensic Service Daegu Institute, Hogukro 33-14, Chilgokgun, 39872, Korea</p>	<p>P-168 Trifluoroacetylation of ethanol amines using MBTFA for GC-MS analysis</p> <p><u>Hyunsuk Kim*</u>, Changhee Jung, Yonghan Lee</p> <p>Agency for Defense Development, P.O.Box 35-5, Daejeon, 34186, Korea</p>
<p>P-163 Establishing an analysis method of anticancer drugs to study cellular uptake and efficiency of combination therapy</p> <p><u>Areum Hong</u>, Gyeong Seo Min, Hugh I. Kim*</p> <p>Dept of Chemistry, Korea University, 145 Anam-ro, Seongbuk-gu, Seoul, 02841, Korea</p>	<p>P-169 Structure elucidation of alkoxyamine (Flamestab NOR 116) by MALDI-TOF mass spectrometry</p> <p><u>Kyoungjoo Jin</u>, Yeon Hwa Lee, Yeu-Young Youn, Young Hee Lim</p> <p>LG Chem./Research Park, 104-1 Moonji-dong, Yuseong-gu, Daejeon 304-380, Korea</p>
<p>P-164 Development of relative quantification method for lipidome by using $^2\text{H}_2\text{O}$ partial metabolic labeling</p> <p><u>Jonghyun Kim</u>, Tae-Young Kim*</p> <p>School of Earth Sciences and Environmental Engineering, Gwangju Institute of Science and Technology, 123 Cheomdangwagiro, Buk-gu, Gwangju, 61005, Korea</p>	<p>P-170 LC-MS/MS analysis of fucosylated N-glycoproteins in human plasma of liver cancer</p> <p><u>Eun Sun Ji</u>¹, Heeyoun Hwang¹, Gun Wook Park¹, Ju Yeon Lee¹, Hyun Kyoung Lee^{1,2}, Hoi Keun Jeong^{1,2}, Kwang Hoe Kim^{1,2}, Jin Young Kim¹, and Jong Shin Yoo^{1,2}</p> <p>¹Biomedical Omics Group, Korea Basic Science Institute, Ochang, Republic of Korea ²Graduate School of Analytical Science and Technology, Chungnam National University, Daejeon, Republic of Korea</p>
<p>P-165 The characterization of volatile organic compounds present in the headspace of decomposing animal and human remains</p> <p><u>Hyunji Kim</u>, Seyeon Park, Youngwoong Han, Jisook Min</p> <p>National Forensic Service Daegu Institute, Hogukro 33-14, Chilgokgun, 39872, Korea</p>	<p>P-171 Development of liquid chromatography mass spectrometry based on Boc derivatization for analysis of amino compounds</p> <p><u>Peng Lei</u>¹, Li Long^{1,2}, Jinho Cho^{1,2}, Cheol-ho Pan¹, Yongsoo Choi¹</p> <p>¹Systems Biotechnology Research Center, Korea Institute of Science and Technology (KIST), Gangneung 25451, Republic of Korea ²Department of Food and Nutrition, Gangneung-Wonju National University, Gangneung, Gangwon 210-702, Republic of Korea</p>
<p>P-166 Direct identification of polymer additives in manufacturing plastics without sample preparation using pyrolysis gas chromatography mass spectrometry</p> <p>Mikyung Choi*</p> <p>Materials Characterization Team, Materials & Devices Advanced Research Institute, LG Electronics, Yangjae R&D Campus, 38 Baumoe-ro, Seocho-gu, Seoul, 06763, Korea</p>	<p>P-172 Comprehensive lipid profiling of tissue in breast cancer mouse reveals novel biomarkers using MALDI imaging and UPLC/MS</p> <p><u>Geul Bang</u>, Young Hwan Kim*</p> <p>Korea Basic Science Institute, Biomedical Omics Group, Cheongju, Republic of Korea</p>
<p>P-167 Mass analysis of neuropeptides in salty environment using hydrophilic ring-shaped anchors</p> <p><u>Sook Yoon</u>¹, Deukyeon Lee¹, Chang Young Lee^{1,2*}</p> <p>¹School of Energy and Chemical Engineering, and ²School of Life Sciences, Ulsan National Institute of Science and Technology (UNIST), UNIST-gil 50, Ulsan, 44919, Republic of Korea</p>	<p>P-173 Analysis of albumin adduct in rat plasma exposed to nerve agent GB using LC-MS/MS</p> <p><u>Ji-Hyun Kwon</u>^{1*}, Yong Gwan Byun¹, Yong Han Lee¹</p> <p>¹Agency for Defense Development (ADD), PO BOX 35-5, Yuseong-gu Daejeon, 305-600, Republic of Korea</p>

<p>P-174 Fabrication of carbon nanotube membranes for single-molecule mass spectrometry</p> <p><u>Hyeji Min</u>¹, Chang Young Lee^{1,2*}</p> <p>¹<i>School of Energy and Chemical Engineering, Ulsan National Institute of Science and Technology, UNIST-gil 50, Ulsan, 44919, Republic of Korea</i> ²<i>School of Life Sciences, Ulsan National Institute of Science and Technology, UNIST-gil 50, Ulsan, 44919, Republic of Korea</i></p>	<p>P-180 Environmental behavior of water and sediment of benzophenone-based ultraviolet screening agents</p> <p><u>Hee-Kyung Jeon</u>^{1*}, Seungmin Lee¹, Jiwon Je¹</p> <p>¹<i>Energy Plant Group, Offshore Plant Resources R&D Center, Korea Institute of Industrial Technology, Dongnam Regional Division, 30, Gwahaksandan 1-ro 60beon-gil, Gangseo-gu, Busan, 618-230, Republic of Korea</i></p>
<p>P-175 Development of a structural characterization method of lignin oligomers using pseudo-LC-MS3 analysis</p> <p>Woo Young Song¹</p> <p><i>School of Earth Sciences and Environmental Engineering, Gwangju Institute of Science and Technology, Cheomdan-Gwagiro 123, Gwangju, 61005, Korea</i></p>	<p>P-181 Chemical derivatization strategies on analysis of 3-keto-4-ene adrenal steroids using aryl hydrazides and LC-MS</p> <p><u>Byeong-Yun Lim</u>¹, Chaelin Lee¹, Cheon-Gyu Cho², Man Ho Choi¹</p> <p>¹<i>Molecular Recognition Research Center, KIST, Seoul 02792</i> ²<i>Department of Chemistry, Hanyang University, Seoul 04763, Korea</i></p>
<p>P-176 Screening of Skin Lightening Products for the Corticosteroid Clobetasol Propionate using Direct Analysis in Real Time (DART) and Mass Detection</p> <p>Marian Twohig¹, Oliver Burt² and Chris Stumpf¹</p> <p>¹<i>Waters Corporation, 34 Maple Street, Milford, MA 01757 USA</i> ²<i>Waters Corporation, Stamford Avenue, Altrincham Road, Wilmslow, SK9 4AX, UK</i></p>	<p>P-182 Comparative solid-phase extraction methods in GC-MS-based steroidal cytochrome P450 assay</p> <p><u>Soyun Han</u>^{1,2}, Ju-Yeon Moon³, Jae-Hong Kim², Joonseok Lee¹, Man Ho Choi¹</p> <p>¹<i>Molecular Recognition Research Center, KIST, Seoul 02792</i> ²<i>College of Life Sciences and Biotechnology, Korea University, Seoul 02841</i> ³<i>Department of Pharmacy, Catholic University of Korea, Gyeonggi-do 14662, Korea</i></p>
<p>P-177 Quantitative determination of urinary hydrophilic metabolites for non-targeted metabolomic approach by gas chromatography-mass spectrometry</p> <p><u>Yoon Hwan Kim</u>^{1,2}, Kyoung Heon Kim², Bong Chul Chung¹, Jeongae Lee^{1*}</p> <p>¹<i>Molecular Recognition Research Center, Korea Institute of Science and Technology</i> ²<i>Department of Biotechnology, Korea University</i></p>	
<p>P-178 Simultaneous monitoring of environmental chemicals by gas chromatography-mass spectrometry in drinking water</p> <p><u>Minseon Kim</u>^{1,2}, Insook Rhee², Heesoo Pyo¹, Bong Chul Chung¹, Jeongae Lee^{1,*}</p> <p>¹<i>Molecular Recognition Research Center, Korea Institute of Science and Technology</i> ²<i>Department of Chemistry, Seoul Women's University</i></p>	