

# CONFERENCE PROGRAMME

**Sunday, 30 January 2005**

## **Room 2001**

08.50 – 10.00 *Biomedical ICP-MS Analysis Workshop*  
10.00 – 10.20 *Coffee break*  
10.20 – 11.30 *Biomedical ICP-MS Analysis Workshop (cont.)*  
11.30 – 11.50 *Coffee break*  
11.50 – 13.00 *Biomedical ICP-MS Analysis Workshop (cont.)*

## **LOUNGE**

14.00 – 18.00 Registration

## **AULA**

15.00 Exhibition Opening

## **Room A**

**16.00 – 16.40 Welcome Address**  
Sándor GÖRÖG  
*Head of the Division of Chemistry, Hungarian Academy of Sciences*

**Opening Lecture**  
Péter FÖDÖR  
*Conference Chair*

**16.40 – 18.00 2005 Plasma Award Lecture**

**Plenary** REMAINING CHALLENGES IN ICP-AES  
J. M. MERMET

18.00 – 20.00 Welcome Reception

## Monday, 31 January 2005

### Room A

**08.30 – 09.00 Plasma Fundamentals**  
**Chair: Les EBDON**

**Plenary** STRATEGIES FOR SIMULTANEOUS MEASUREMENT IN PLASMA SPECTROMETRY  
*Gary M. HIEFTJE, Francisco J. ANDRADE, Robert McCRINDLE, Steven J. RAY, Duane A. ROGERS, Gregory D. SCHILLING, Michael R. WEBB, William C. WETZEL, M. Bonner DENTON, Roger P. SPERLINE, David W. KOPPENAAL, Charles J. BARINAGA, Birgit PESCHEL, José A.C. BROEKAERT*

**09.00 – 10.00 Plasma Fundamentals**  
**Chair: Les EBDON**

09.00 – 09.20 FROM ALAN GRAY UNTIL TODAY – 20 YEARS OF LASER ABLATION-ICP-MS  
**Invited** *Detlef GÜNTHER*

09.20 – 09.40 LASER ABLATION PLASMA SPECTROMETRY TECHNIQUES IN DEPTH PROFILE ANALYSIS: LIMITATIONS AND POSSIBILITIES  
**Invited** *Viktor KANICKÝ, Karel NOVOTNÝ, Ales HRDLICKA, Tomas VACULOVIC, Linda ZAORALKOVA, Vitezslav OTRUBA, Detlef GÜNTHER*

09.40 – 10.00 INTERFACING NEEDS AMONG ANALYTICAL CHEMISTRY AND POLICY IN THE CONTEXT OF THE WATER FRAMEWORK DIRECTIVE IMPLEMENTATION  
**Invited** *Philippe QUEVAUVILLER*

10.00 – 10.20 *Coffee break*

### Room A

**10.20 – 12.00 Plasma Application**  
**Chair: Freddy ADAMS**

10.20 – 10.40 APPLICATIONS OF FIELD-FLOW FRACTIONATION - INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY  
**Invited** *Sumattana WORAPANOND, Juwadee SHIOWATANA, Atitaya SIRIPINYANOND, Ramon BARNES*

10.40 – 11.00 USE OF CHEMICAL RESOLUTION IN A DYNAMIC REACTION CELL (DRC) IN LASER ABLATION – ICPMS  
*Frank VANHAECKE, Lieve BALCAEN, Cyrille CHÉRY, Isolde DECONINCK, Martín RESANO, Luc MOENS*

11.00 – 11.20 BIOMONITORING OF HEAVY METAL INTOXICATION AND MOBILIZATION IN HUMAN HAIR BY LA-ICP-MS  
*Thomas PROHASKA, Christina STADLBAUER, Christian REITER, Anna KNAUS, Gerhard STINGEDER*

11.20 – 11.40 NEW INSIGHTS TO PARTICLE FORMATION PROCESSES DURING LASER ABLATION: VAPOUR CONDENSATION VERSUS DROPLET EJECTION  
*Hans-Rudolf KUHN, Detlef GÜNTHER*

11.40 – 12.00 INVESTIGATION OF VAPORIZATION PROCESSES FOR ELECTROTHERMAL VAPORIZATION SAMPLE INTRODUCTION IN INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY  
*M.T.C. de LOOS-VOLLEBREGT, A.B. VOLYNSKY*

**Room B****10.20 – 12.00 Coupled Plasma Techniques**  
**Chair: György HELTAI**

- 10.20 – 10.40 **Invited** DIRECT SOLIDS ANALYSIS OF REFRACTORY POWDERS BY PLASMA ATOMIC SPECTROMETRIC METHODS  
*José A. C. BROEKAERT*
- 10.40 – 11.00 SPECIATION OF ALUMINIUM IN SILICON CARBIDE BY ETV-ICP-AES METHOD  
*Gyula ZÁRAY, Jürgen HASSLER, Karol FLÓRIÁN*
- 11.00 – 11.20 DIRECT DETERMINATION OF MERCURY AT THE SUB-PG/G LEVEL IN POLAR SNOW AND ICE BY ICP-SFMS  
*F.A.M. PLANCHON, P. GABRIELLI, P.A. GAUCHARD, A. DOMMERGUE, C. BARBANTE, W.R.L. CAIRNS, G. COZZI, S.A. NAGORSKI, C.P. FERRARI, C.F. BOUSTRON, G. CAPODAGLIO, P. CESCONE, A. VARGA, E. WOLFF*
- 11.20 – 11.40 INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETRY – INFLUENCE OF THE ICP-FREQUENCIES AND SPECTROMETER TYPE ON THE DETECTION LIMITS IN THE DETERMINATION OF Y, Zr, Nb, Hf, Ta AND Th IN GEOLOGICAL MATERIALS  
*Nikolaya VELITCHKOVA, Nonka DASKALOVA, Elka PENTCHEVA*
- 11.40 – 12.00 PRECISE DETECTION OF U-236 AND PU ISOTOPES IN HUMAN URINE AT PPQ TO SUB-PPQ LEVEL  
*Axel GERDES*

**Room C****10.20 – 12.00 New Instrumentation**  
**Chair: András BARTHA**

- 10.20 – 10.40 BENEFITS AND OPERATING LIMITS OF A QUASI-DIRECT INJECTION NEBULISATION (QDIN) SYSTEM IN USE WITH A THERMO FINNIGAN ELEMENT II ICP-MS  
*Michael BENSIMON, Aurele PARRIAUX, Alan R. EASTGATE*
- 10.40 – 11.00 ANALYSIS OF PBDES BY GC-ICP-MS - THE CHROMATOGRAPHIC ADVANTAGES OF USING ICP-MS AS A GC DETECTOR  
*Steven WILBUR, Emmett SOFFEY*
- 11.00 – 11.20 HELIUM COLLISION MODE – THE ULTIMATE SOLUTION FOR COMPLEX, UNKNOWN SAMPLE MATRICES  
*Ed MCCURDY, Glenn WOODS, Steven M. WILBUR, Emmett SOFFEY*
- 11.20 – 11.40 TRACE ELEMENT DETERMINATION IN THE EARTH SCIENCES: MEETING THE CHALLENGES  
*Janet HERGT, Jon WOODHEAD, Stephen ANDERSON*
- 11.40 – 12.00 ICP-MS WITH COLLISIONAL INTERFACE, ION MIRROR ION OPTICS AND LOW NOISE QUADRUPOLE  
*Iouri KALINITCHENKO*
- 12.00 – 14.00 *Lunch break*

**Room A**

**14.00 – 15.00 Speciation**  
**Chair: Olivier DONARD**

14.00 – 14.30 **Plenary** SERUM TRANSFERRIN: AN INTRIGUING TRANSPORT PROTEIN FOR METALS  
*A. SANZ-MEDEL, M. MONTES, S. ARIZAGA, K.G. FERNANDES, E. BLANCO*

14.30 – 15.00 **Invited** ADVANCES IN ENZYMATIC SAMPLE TREATMENT FOR SPECIATION USING  
ULTRASONIC PROBE  
*C. CÁMARA, A. CABAÑERO, E. SANZ, R. MUÑOZ-OLIVAS, Y. MADRID*

15.00 – 15.30 *Coffee break*

**Room A**

**15.30 – 16.50 Speciation (cont.)**  
**Chair: Olivier DONARD**

15.30 – 15.50 SELENIUM METABOLISM - QUANTIFICATION OF SELENIUM METABOLITES IN  
HUMAN URINE. IS THE TRIMETHYLSELENONIUM ION A CONSTITUENT OF  
HUMAN URINE?  
*Bente GAMMELGAARD, Lars BENDAHL*

15.50 – 16.10 ISSUES AFFECTING THE MASS BALANCE OF ARSENIC AND SELENIUM  
SPECIATION IN COMPLEX INDUSTRIAL PROCESS WATERS  
*Dirk WALLSCHLÄGER, Claudio N. FERRARELLO, Jacqueline LONDON*

16.10 – 16.30 SELENIUM-SPECIFIC DETECTION AND IDENTIFICATION OF METHYL-  
SELECYSTEINE-CONTAINING COMPOUNDS IN YEAST-BASED Se-ENRICHED  
SUPPLEMENTS BY HPLC WITH ICP-MS AND ELECTROSPRAY MS/MS DETECTION  
*Heidi GOENAGA INFANTE, Gavin O'CONNOR, Margaret RAYMAN, Ruth HEARN,  
Tim CATTERIC*

16.30 – 16.50 LC-ICP-MS AND LC-ESI-MS FOR THE CHARACTERIZATION OF  
METALLOPROTEINS IN INTERDISCIPLINARY BIOINORGANIC STUDIES  
*Gunda KOELLENSPERGER, Stephan HANN, Christian OBINGER, Paul  
FURTMUELLER, Gerhard STINGEDER*

**Room B**

**15.30 – 16.50 Isotop Analysis**  
**Chair: Gábor GALBÁCS**

15.30 – 15.50 CHERNOBYL PLUTONIUM AND AMERICIUM IN EASTERN EUROPE: SOURCE  
AND TRANSPORT STUDIES BY SECTOR ICPMS  
*Michael E. KETTERER, Gary D. MACLELLAN, Brigid S. CORCORAN, Kevin M.  
HAFER, Scott C. SZECHENYI, Jerzy W. MIETELSKI, Michael G. BUZINNY, Sergei  
GULIN, Sergei F. BOULYGA*

15.50 – 16.10 RAPID TECHNIQUES FOR THE DETERMINATION OF PU AND AM IN  
ENVIRONMENTAL MATRICES USING MICROWAVE SAMPLE PREPARATION, ON-  
LINE SAMPLE INTRODUCTION WITH APEX HIGH-SENSITIVITY SYSTEM AND  
ICP-DRC-MS DETECTION  
*V.N. EPOV, K. BENKHEDDA, D. BROWNELL, R.D. EVANS, R.J.CORNETT*

16.10 – 16.30 DETERMINATION OF SR-90 AND PU ISOTOPES RATIO MEASUREMENTS IN  
CONTAMINATED GROUND WATER SAMPLES BY INDUCTIVELY COUPLED  
PLASMA MASS SPECTROMETRY  
*Myroslav V. ZORIY, P. OSTAPCZUK, C. PICKHARDT, R. HILLE, J.S.BECKER*

16.30 – 16.50 THE ANALYSIS OF PHARMACEUTICALS BY ICP-MS: A STIFF CHALLENGE  
*Robert CLOUGH, Peter EVANS, E.Hywel EVANS*

**ROOM C****15.30 – 16.50 New Instrumentation  
Chair: András BARTHA**

- 15.30 – 15.50 DETECTOR TECHNOLOGIES FOR ATOMIC EMISSION: A BRIEF REVIEW WITH A FOCUS ON THE CURRENT STATE-OF-THE-ART  
*Peter BROWN, David PFEIL, Bert VAN DER HOEF*
- 15.50 – 16.10 HIGH SPEED HIGH THROUGHPUT ANALYSIS OF ENVIRONMENTAL SAMPLES USING ICP-OES  
*Bert VAN DER HOEF, Peter BROWN, David PFEIL*
- 16.10 – 16.30 LASER ABLATION ICP-OES FOR BULK ANALYSIS OF STEELS AND REFRACTORY GEOLOGICAL SAMPLES  
*Geoff TYLER, Isaac (Joe) BRENNER, Damon GREEN, Lawrence NEUFELD*
- 16.30 – 16.50 CORRELATION ANALYSIS IN ICP-OES: AN EFFICIENT TOOL FOR THE DETERMINATION OF SUITABLE ANALYTE AND BACKGROUND EMISSION REGIONS IN LINE-RICH MATRIX SPECTRA  
*Dirk ARDEL, Lutz NEITSCH, Peter IVANOV*

**LOUNGE****17.00 – 19.00 Poster Session 1****Plasma Application and Development**

- M01 MEASUREMENT OF MERCURY ISOTOPE RATIOS IN ENVIRONMENTAL SAMPLES USING MC-ICP/MS  
*Holger HINTELMANN, Delphine FOUCHER, Mark DZURKO*
- M02 SYNTHESIS, SEPARATION AND QUANTIFICATION OF GOLD-NANOPARTICLES USING ICP-MS HYPHENATION TECHNIQUES  
*Andreas HELFRICH, Wolfram BRÜCHERT, Jörg BETTMER*
- M03 CHEMOMETRIC STUDY OF SURFACE WATERS FROM RÍA DE AROUSA ESTUARY ACCORDING WITH TRACE METALS CONTENT AFTER SOLID PHASE EXTRACTION - ICP-OES DETERMINATION  
*Jacobo OTERO-ROMANÍ, Diana BELLO-CURRÁS, Antonio MOREDA-PINEIRO, Adela BERMEJO-BARRERA, Pilar BERMEJO-BARRERA*
- M04 IMPROVED ANION SPECIES ANALYSIS BY IC-ICP-MS USING ANALYTE-TO-GEO2 SIGNAL RATIOING  
*Thomas EICKHORST, Andreas SEUBERT*
- M05 FROM RSD TO RSE: QUADRUPOLES NEAR THE LIMIT  
*Howard READ, Fadi ABOU SHAKRA, Zenon PALACZ, Simon MEFFAN-MAIN*
- M06 ROUTINE WATER ANALYSIS, ROUTINELY  
*Lucy BUNCE, Howard READ, Fadi ABOU SHAKRA, Simon MEFFAN-MAIN*
- M07 INORGANICS IN ORGANICS: TRACE ELEMENTS IN ORGANIC DAIRY PRODUCE  
*David MITCHELL, Howard READ, Simon MEFFAN-MAIN, Stephen GULLFOYLE*

**Plasma Application and Development (cont.)**

- M08 TRACING THE FOOD CHAIN: TRACE ELEMENTS IN ANIMAL FEEDS  
*David MITCHELL, Lumir NOVOTNÝ, Howard READ, Simon MEFFAN-MAIN*
- M09 DETERMINATION OF THE DISTRIBUTION OF ELEMENTS IN SEDIMENTS COLLECTED IN THE LAKE BALATON  
*Márta WEISZ, Klára POLYÁK, József HLAVAY*
- M10 DETERMINATION OF SULFUR SPECIES IN FOSSIL FUELS BY SPECIES-SPECIFIC AND SPECIES-UNSPECIFIC ISOTOPE DILUTION GC-ICP-MS  
*Jens HEILMANN, Klaus G. HEUMANN*
- M11 CAPILLARY ELECTROSPRAY MASS SPECTROMETRY AND HR-ICP-MS FOR THE DETECTION AND QUANTIFICATION OF BPA FOR BORON NEUTRON CAPTURE THERAPY  
*Laura Aldave de las HERAS, Luca MENICHETTI, Aurelien PITOIS, Ramon CALOS, Antonella ZAMPOLLI, Lorena GAETANO, Guido LAZZERINI, Salvadori PIERO, Maria BETTI*
- M12 DETERMINATION OF <sup>210</sup>Pb AND <sup>210</sup>Po IN LARGE SEDIMENT SAMPLES BY HR-ICP-MS AND RADIOMETRIC METHODS  
*Paula JUNTUNEN, Laura Aldave de las HERAS, Maria BETTI*
- M13 THE REMOVAL OF MATRIX INTERFERENCE FROM PLANT MATERIAL AND FISH TISSUE (RETICULATED & PRICKLY SCULPIN) BY OCTOPOLE REACTION SYSTEM ICP-MS  
*Marshall PATTEE, Kent PATTON*
- M14 INTELLECTUAL PLASMA SPECTROCHEMISTRY  
*E.D. PRUDNIKOV, Y.S. SHAPKINA, E.E. PRUDNIKOV*
- M15 DESCRIPTION OF NONINSTRUMENTAL ERRORS IN ANALYSIS  
*E.D. PRUDNIKOV, Y.S. SHAPKINA, E.E. PRUDNIKOV*
- M16 ICP-MS TECHNIQUE APPLICATION TO SOLVE OF IAEA TASKS  
*N.R STANKOV, O.V. EROCHIN, O.N. KOLESNIKOV, V.A. STEBELKOV*
- M17 RARE EARTH ELEMENT DETERMINATION OF ROCK SAMPLES BY JY ULTIMA 2C-ICP-AES INSTRUMENT  
*A. BARTHA, M. BALLÓK, É. BERTALAN, G. TYLER*
- M18 LOW UNCERTAINTY FE ISOTOPE RATIO MEASUREMENTS IN SEAWATER SAMPLES BY ICP-MS AT MEDIUM MASS RESOLUTION  
*Ivan PETROV, Christophe R. QUÉTEL, Philip D. P. TAYLOR*
- M19 MEASUREMENTS OF GUNSHOT RESIDUES BY SECTOR FIELD INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY - FURTHER STUDIES WITH PISTOLS  
*Jorge E. Souza SARKIS, Osvaldo Negrini NETO, Sonia VIEBIG, Steven F. DURRANT*
- M20 MULTI-ELEMENTAL ANALYSES OF WINE BY INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY AND THEIR POSSIBLE USES  
*Jorge E.S. SARKIS, Elisa Kayo SHIBUYA, Steven F. DURRANT*
- M21 DETERMINATION OF IR AND PT AT SUB-PPQ LEVEL IN POLAR ICE BY ICP-SFMS WITH PRE-CONCENTRATION AND DESOLVATION SYSTEM  
*Giulio COZZI, Paolo GABRIELLI, Anita VARGA, Carlo BARBANTE, Claude BOUTRON, Vania GASPARI, Frédéric PLANCHON, Warren CAIRNS, Sungmin HONG, Christophe FERRARI, Paolo CESCO*

### Plasma Application and Development (cont.)

- M22 DEVELOPMENT AND APPLICATION OF HEADSPACE SPME-GC/ICP-MS FOR ANALYSIS OF PHOSPHORIC ACID TRIESTERS IN HUMAN PLASMA  
*Monika SHAH, Juris MEIJA, Baiba CABOVSKA, Joseph A. CARUSO*
- M23 ROUTINE BIOMEDICAL AND PETROCHEMICAL APPLICATIONS FOR HPLC-ICP-MS & GC-ICP-MS  
*Martin NASH, Bill SPENCE, Simon NELMS, Phil SHAW*
- M24 ICP-MS ANALYSIS OF TRACE ELEMENTS IN THE DIFFERENT REGIONS OF HUMAN BRAINS INFECTED WITH ALZHEIMER DISEASE VS. CONTROL BRAIN  
*Myroslav V. ZORIY, J. Susanne BECKER, Carola PICKHARDT, Michael PRZYBYLSKI, J. Sabine BECKER*
- M25 DETERMINATION OF RADIUM-226 IN MINERAL WATERS AT ULTRATRACE LEVEL BY SECTOR FIELD INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY  
*M.V. ZORIY, Z. VARGA, P. OSTAPCZUK, C. PICKHARDT, R. HILLE, J.S. BECKER*
- M26 SPECIATION OF ALUMINIUM IN TEA INFUSIONS BY THE USE OF SEC AND FPLC CHROMATOGRAPHY WITH ICP-OES AND ES-MS-MS DETECTION  
*Blaž KRALJ, Radmila MILACIC, Igor KRIŽAJ, Peter BUKOVEC*
- M27 ANALYSIS OF ORGANOPHOSPHORUS CHEMICAL WARFARE DEGRADATION PRODUCTS BY HPLC-ICP-MS  
*Douglas D. RICHARDSON, Baki B.M. SADI, Joseph A. CARUSO*
- M28 STRATEGIES FOR RAPID, ROUTINE BIOMEDICAL ANALYSIS USING ICP-MS  
*Simon NELMS*
- M29 DETERMINATION OF INTERFERENCES IN THE ANALYSIS OF ELEMENTS IN FOODSTUFFS WITH ICP-MS USING COLLISION CELL TECHNOLOGY (CCT)  
*Jacqueline VAN DER WIELEN, Walther KLERX, Paul in't VELD*
- M30 INVESTIGATION OF ANALYTICAL CAPABILITY IMPROVEMENT OF ARGON STABILIZED DC ARC BY CURRENT SQUARE MODULATION  
*Miroslav KUZMANOVIC, Jelena SAVOVIC, Mirjana PAVLOVIC, Milovan STOILJKOVIC, Momir MARINKOVIC*
- M31 DETERMINATION OF TRACE ELEMENTS IN HUMAN LIVER BIOPSY SAMPLES BY ICP-MS AND TXRF  
*Imre VARGA, Ágnes SZEBENI, Béla KOVÁCS*
- M32 SECTOR FIELD ICP-MS FOR THE DIRECT DETERMINATION OF SEMICONDUCTOR RELEVANT INORGANIC CONTAMINANTS AND MATRICES  
*Meike HAMESTER, Julian WILLS, Joachim HINRICHS*
- M33 RELATIONSHIPS BETWEEN AERODYNAMIC PARTICLE SIZE AND METAL CONCENTRATIONS IN URBAN DUST SAMPLES USING INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY, X-RAY FLUORESCENCE, AND A MICRO-ORIFICE UNIFORM DEPOS  
*Nouri HASSAN, Patricia E. RASMUSSEN, Ewa DABEK-ZLOTORZYNSKA, Heidi CHEN, Monique LANOUILLE, Valbona CELO, David MATHIEU, Renaud VINCENT*

### Plasma Application and Development (cont.)

- M34 THE SIMULTANEOUS ANALYSIS OF ARSENIC, SELENIUM AND MERCURY IN FOODSTUFFS USING ICP-OES  
*Bert VAN DER HOEF, Peter BROWN, David PFEIL*
- M35 MINERALIZATION OF ANCIENT BONES AND HAIR AND THEIR ANALYSIS BY PLASMA SPECTROMETRY METHODS  
*Jitka HEGROVÁ, Lubomír PROKEŠ, Viktor KANICKÝ, Vítězslav OTRUBA*
- M36 INVESTIGATION OF THE SIMILARITY OF GROUND WATER SAMPLES BASED ON MULTIVARIATE STATISTICAL EVALUATION OF TRACE ELEMENT CHEMISTRY DATA OBTAINED BY ICP-TOFMS  
*László ABRANKÓ, Péter FODOR*
- M37 ICP-MS DETERMINATION OF EXTREME URANIUM ISOTOPE RATIOS USING A NEW MICROFLOW NEBULIZER SYSTEM  
*Sergei F. BOULYGA, Patrick KLEMENS, Helmut FEUERBACHER, Klaus G. HEUMANN*

### Speciation

- M38 IDENTIFICATION OF VOLATILE ORGANOTIN COMPOUNDS IN LANDFILL GAS BY GC-ICP-MS  
*Daniel KREMER, Sanjay MITRA, Jörg FELDMANN*
- M39 SIMULTANEOUS DETERMINATION OF TRIMETHYLEAD, MONOMETHYLMERCURY AND BUTYLTHINS BY SPECIES-SPECIFIC ISOTOPE DILUTION GC-ICP-MS IN BIOLOGICAL SAMPLES  
*Nataliya POPERECHNA, Klaus G. HEUMANN*
- M40 USE OF LANTHANUM HYDROXIDE AS A TRAPPING AGENT IN THE As AND Sb DETERMINATION BY HG-ICPOES  
*Elena PEÑA-VAZQUEZ, Adela BERMEJO-BARRERA, Pilar BERMEJO-BARRERA*
- M41 SPECIATION OF EUROPIUM AND GADOLINIUM COMPLEXES WITH HUMIC ACID BY CE-ICP-MS  
*Karsten NOWOTKA, Ralf KAUTENBURGER, Horst P. BECK*
- M42 ACCUMULATION AND SPECIATION STUDIES OF BASED-Pt ANTITUMORAL DRUGS IN RAT ORGANS  
*D. ESTEBAN, M. GÓMEZ, J.M. VERDAGUER, R. RAMÍREZ, M.A. PALACIOS*
- M43 IODINE SPECIATION STUDIES IN COMMERCIALY AVAILABLE SEAWEED BY COUPLING DIFFERENT CHROMATOGRAPHIC TECHNIQUES WITH UV AND ICP-MS DETECTION  
*Monika SHAH, Rodolfo G. WUILLLOUD, Sasi S. KANNAMKUMARATH, Joseph A. CARUSO*
- M44 CHEMICAL VAPOUR GENERATION USING HALIDES OF Sb(III)/Sb(V), AND Ti (IV)  
*A. LOPEZ-MOLINERO, D. SIPIERA, P. CALATAYUD, R. FALCON, D. LIÑAN, J.R.CASTILLO*
- M45 SEASONAL VARIATIONS IN SEAWATER TRACE METAL FRACTIONATION AND COLLOIDAL SIZE DISTRIBUTION STUDIED BY FLFFF-HR ICPMS  
*Björn STOLPE, Martin HASSELLÖV*



**Speciation (cont.)**

- M46 MULTIELEMENTAL CHARACTERIZATION OF COMPOST LEACHATES BY SEC AND FIFFF COUPLED TO ICP-MS  
*E. BOLEA, M. BOUBY, M.P. GORRIZ, F. LABORDA, J.R. CASTILLO, H. GECKEIS*
- M47 DETERMINATION OF SULPHUR COMPOUNDS IN LIQUID FUELS BY GC-ICP-MS  
*Alejandro SARMIENTO-GONZÁLEZ, Juan Manuel MARCHANTE-GAYÓN, José Ignacio GARCÍA-ALONSO*
- M48 VAPOUR GENERATION – INDUCTIVELY COUPLED PLASMA OPTICAL EMISSION SPECTROMETRY IN DETERMINATION OF FREE AND TOTAL SULPHUR DIOXIDE IN WINE  
*Jirí CMELÍK, Jirí MACHÁT, Eva NIEDOBOVÁ, Vítězslav OTRUBA, Viktor KANICKÝ*
- M49 FRACTIONATION OF IODINE IN IODINE-ENRICHED ALGAE CHLORELLA  
*Jirí MACHÁT, Iveta HAVELKOVÁ, Eva NIEDOBOVÁ, Jirí DOUCHA, Viktor KANICKÝ*
- M50 IN VIVO STUDIES OF THE DISTRIBUTION AND DEGRADATION OF BUTYLTIN COMPOUNDS USING A “TRIPLE SPIKE” ISOTOPE DILUTION GC-ICP-MS APPROACH  
*Pablo RODRÍGUEZ-GONZÁLEZ, Andrés RODRÍGUEZ-CEA, J. Ignacio García ALONSO, Alfredo SANZ-MEDEL*
- M51 SPECIATION OF CANCEROSTATIC PLATINUM COMPOUNDS IN HOSPITAL WASTEWATER FOR DEVELOPMENT OF ELIMINATION PROCEDURES  
*Katharina LENZ, Stephan HANN, Gunda KOELLENSBERGER, Zsolt STEFANKA, Gerhard STINGEDER, Norbert WEISSENBACHER, Susanne N. MAHNIK, Maria FUERHACKER*
- M52 NICKEL SPECIES ANALYSIS OF HUMAN COLONIC TISSUE USING LIQUID CHROMATOGRAPHY, GEL-ELECTROPHORESIS AND MASS-SPECTROMETRY  
*Tina KNISPEL, M. KÜHBACHER, Evelin DENKHAUS, Andreas PRANGE, A. KYRIAKOPOULOS, D. BEHNE*
- M53 ON-SITE FRACTIONATION OF TRACE ELEMENTS IN KARSTIC GROUNDWATER BY MEMBRANE FILTRATION AND CHELATING EXCHANGE  
*Katalin ZIH-PERÉNYI, Alexandra LÁSZTITY, Éva SUGÁR*
- M54 COUPLING OF A MICRO-FLOW IONIC CHROMATOGRAPHY WITH A HIGH RESOLUTION SECTOR FIELD ICPMS  
*Valerie GEERTSEN, Frederic CHARTIER*
- M55 LEAD SPECIATION IN ARABIDOPSIS THALIANA BY HYPHENATED TECHNIQUES  
*Rafa RUŽIK, Ela LIPIEC, Monika CIURZYŃSKA, Halina GAWROŃSKA, Kasia POLEA-PAWLAK*
- M56 DETERMINATION OF METHYLMERCURY IN FISH SAMPLES USING ISOTOPE DILUTION GAS CHROMATOGRAPHY WITH MASS SPECTROMETRIC DETECTION: COMPARISON OF EI GC-MS AND ICP-MS  
*Giuseppe CENTINEO, Elisa BLANCO GONZÁLEZ, J. Ignacio GARCÍA ALONSO, Alfredo SANZ-MEDEL*

### Speciation (cont.)

- M57 VALIDATION OF TOTAL ORGANIC CARBON (TOC) ANALYSIS WITH ICPMS  
*Björn STOLPE, Tobias LARSSON, Martin HASSELLÖV, Jonas GUSTAVSSON, Irène WÄHLSTRÖM, David TURNER*
- M58 SPECIES-SPECIFIC ISOTOPE DILUTION ANALYSIS FOR DETERMINATION OF IONIC ORGANOLEAD COMPOUNDS WITH GAS CHROMATOGRAPHY INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY  
*Tomoki YABUTANI, Junko MOTONAKA, Kazumi INAGAKI, Akiko TAKATSU, Koichi CHIBA*
- M59 SPECIATION ANALYSIS OF INORGANIC AND ORGANIC TIN USING BAKER'S YEAST AND INDUCTIVELY COUPLED PLASMA OPTICAL EMISSION SPECTROMETRY DETERMINATION  
*Rogério CALDORIN, Amauri A. MENEÁRIO*
- M60 THE DETERMINATION OF METAL CONTENT IN HERPES SIMPLEX VIRUS WITH INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY  
*Katie DENICOLA, Richard L. THOMPSON, Douglas D. RICHARDSON, Joseph A. CARUSO*
- M61 DEVELOPMENT OF A HIGH-THROUGHPUT METHOD FOR LEAD SPECIATION IN NATURAL SOIL AND GROUNDWATER SAMPLES BY GC-ICP-MS  
*John J. KOZLOWSKI, Jane B. RAMSEY, Raimund WAHLEN*
- M62 HPLC-ICP-MS AND HPLC-ESI-Q-TOF STRATEGIES FOR THE ANALYSIS AND CHARACTERIZATION OF IODINE SPECIES IN MILK  
*J. L. GÓMEZ-ARIZA, R. IZARRA*
- M63 HIGH-PRESSURE ELECTROSPRAY IONIZATION SOURCE (HPESI) FOR ELEMENTAL SPECIATION  
*Steven J. RAY, Gary M. HIEFTJE*
- M64 RAPID SIMULTANEOUS SPECIATION OF MULTIPLE METALS USING ION CHROMATOGRAPHY COUPLED TO ICP-MS  
*Steve WILBUR, Tetsushi SAKAI, Ed McCURDY*
- M65 ANALYSIS OF PHOSPHORUS CONTAINING MICRO POLLUTANTS IN AQUATIC SAMPLES BY LC-ICP-SFMS AND LC-ICP-DRCMS  
*Zs. STEFÁNKA, S. HANN, M. SULYOK, G. STINGEDER, C. LESUEUR, Maria FÜRHACKER, G. KOELLENSPERGER*
- M66 METHOD VALIDATION FOR SPECIATION ANALYSIS  
*Erwin ROSENBERG, Eva FERNÁNDEZ-DIEZ*
- M67 CERTIFIED REFERENCE MATERIALS FOR SPECIATION ANALYSIS  
*Eva FERNÁNDEZ-DIEZ, Erwin ROSENBERG*

### Instrumentation Development

- M68 SOLID STATE DETECTOR OR CLASSICAL HIGH RESOLUTION ICP-OES?  
*Geoff TYLER, Agnès COSNIER, Sébastien VELASQUEZ, Nathalie LE CORRE*
- M69 IMPROVED SENSITIVITY OF THE NEW SHIP TORCH FOR ICP-OES  
*Carsten ENGELHARD, Stephan EVERS, Wolfgang BUSCHER*

**Instrumentation Development (cont.)**

- M70 PERFORMANCE OF A TUNABLE CONCENTRIC PFA NEBULIZER FOR ICP-MS SPECTROMETRY  
*Fred SMITH, Joe BRADY, Sabine MANN*
- M71 THE STUDY OF MAGNETICALLY TAILORED DIRECT CURRENT ARC PLASMA WITH AEROSOL SUPPLY FOR ANALYTICAL APPLICATION  
*M. Milovan STOILJKOVIC, Mirjana PAVLOVIC, Jelena SAVOVIC, Miroslav KUZMANOVIC, Momir MARINKOVIC*
- M72 TRACE IDMS BY MULTIPLE ION COUNTING AND MC-ICPMS  
*Peter EVANS, Ruth HEARN, Lorna SIMPSON*
- M73 COUPLING OF LIQUID CHROMATOGRAPHY (LC) TO A 90 DEGREE ION OPTICS ICP-MS (LC-ICP-MS)  
*Michael LEIST*
- M74 CHARACTERIZATION OF A VERY LOW POWER ARGON CAPACITIVELY COUPLED PLASMA  
*Sorin Dan ANGHEL, Alpar SIMON, Tiberiu FRENTIU*
- M75 DIRECT INJECTION MULTI-GAS INDUCTIVELY COUPLED PLASMA SOURCE FOR MS AND AES  
*Hidekazu MIYAHARA, Takayuki DOI, Yoichi MIZUSAWA, Eiki HOTTA, Akitoshi OKINO*
- M76 ADAPTION OF THE SHIP-OES-TORCH TO A CONVENTIONAL ICP-MS  
*Andy SCHEFFER, Wolfgang BUSCHER, Rolf BRANDT, Norbert JAKUBOWSKI*
- M77 CHARACTERIZATION OF A NEW ORTHOGONAL ICP-TOFMS SYSTEM  
*Nicolas H. BINGS, Jochen SKOLE*
- M78 DEVELOPMENT AND APPLICATIONS OF MULTIPLE ION COUNTING – ICPMS AND –TIMS  
*Johannes B. SCHWIETERS, Claudia BOUMAN, Michael WIESER*
- M79 THE ONLINE COUPLING OF GEL ELECTROPHORESIS WITH ICP-MS - METHOD DEVELOPMENT AND FIRST APPLICATIONS  
*Wolfram BRÜCHERT, Jörg BETTMER*

**KözGáz CLUB**

20.30

Young Scientists' Evening

**Tuesday, 1 February 2005**

**Room A**

**08.30 – 09.00 Speciation**  
**Chair: Ramon BARNES**

**Plenary** ELEMENTAL SPECIATION: FROM SMALL ATOMS TO BIG MOLECULES  
*Joseph A. CARUSO*

**09.00 – 10.00 Speciation**  
**Chair: Ramon BARNES**

09.00 – 09.20 THE USE AND MISUSE OF HPLC/ICPMS IN SPECIATION ANALYSIS  
**Invited** *Kevin A. FRANCESCONI*

09.20 – 09.40 SPECIATION OF SELENIUM IN YEAST  
**Invited** *Shona MCSHEEHY, Lu YANG, Ralph STURGEON, Zoltan MESTER*

09.40 – 10.00 ISOTOPE DILUTION ANALYSIS FOR TRACE ELEMENT SPECIATION  
**Invited** *J. Ignacio GARCIA ALONSO*

10.00 – 10.20 *Coffee break*

**Room A**

**10.20 – 12.00 Quality Control and Quality Management in EU**  
**Chair: József HLAVAY**

10.20 – 10.40 INCREASING THE QUALITY OF ENVIRONMENTAL MEASUREMENTS: THE  
**Invited** VIRTUAL INSTITUTE FOR REFERENCE MATERIALS (VIRM ASBL).  
*Roberto MORABITO*

10.40 – 11.00 ENVIRONMENTAL ANALYSIS BY ICP-AES / ICP-MS: OBTAINING MORE  
**Invited** INFORMATION FROM THE SAME DATA  
*Steve HILL*

11.00 – 11.20 IMEP - PLASMA SPECTROMETRY BASED MEASUREMENT CAPABILITIES  
DEMONSTRATED ON ENVIRONMENTAL, CLINICAL AND FOOD SAMPLES  
ACROSS THE INTERNATIONAL MEASUREMENT INFRASTRUCTURE  
*Y. AREGBE, C. R. QUÉTEL, L. VAN NEVEL, P.D.P. TAYLOR*

11.20 – 11.40 THE 1ST SWIFT-WFD PROFICIENCY TESTING IN SUPPORT OF THE  
IMPLEMENTATION OF THE WATER FRAMEWORK DIRECTIVE IN THE  
EUROPEAN LABORATORIES  
*Ildiko IPOLYI, Claudia BRUNORI, Roberto MORABITO*

11.40 – 12.00 METHYLMERCURY IN TUNA: DEMONSTRATING MEASUREMENT CAPABILITIES  
AND EVALUATING COMPARABILITY OF RESULTS WORLDWIDE FROM THE  
CCQM P-39 COMPARISON  
*C. R. QUÉTEL, J. SNELL, Y. AREGBE*

**Room B**

**10.20 – 12.00 Solid Sampling  
Chair: Klaus HEUMANN**

- 10.20 – 10.40 **Invited** MULTIELEMENT MAPPING OF MICROTOMED TISSUE VIA LASER ABLATION ICP-MS  
*C.W. MCLEOD, A.G. COX, R. HUTCHINSON, J. DENTON*
- 10.40 – 11.00 SOLID SAMPLING-ELECTROTHERMAL VAPORIZATION-INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY FOR THE DIRECT DETERMINATION OF TRACES OF IODINE  
*M. RESANO, E. GARCÍA-RUIZ, L. MOENS, F. VANHAECKE*
- 11.00 – 11.20 COMPARATIVE ANALYSIS OF PROTEIN BOUND METAL(LOID)S USING NATIVE AND SDS GE-LA-ICP-MS AND SEC- ICP-MS  
*Roland DIAZ-BONE, Joachim FELIX, Sebastian MÜLLER, Frank HASENAECKER, Alfred V. HIRNER*
- 11.20 – 11.40 HIGH-PRECISION IN-SITU SULPHUR ISOTOPE MEASUREMENTS BY LASER ABLATION MC ICP-MS  
*Jan KOSLER, Paul R.D. MASON, Paul J. SYLVESTER*
- 11.40 – 12.00 ON THE PRODUCTION OF LASER GENERATED AEROSOL PARTICLES  
*Roland HERGENRÖDER*

**Room C**

**10.20 – 12.00 Instrumentation, Sample Introduction  
Chair: Béla KOVÁCS**

- 10.20 – 10.40 FRACTIONATION OF PRIMARY AEROSOLS PRODUCED BY NEAR-INFRARED FEMTOSECOND LASER ABLATION OF SILICATE GLASSES  
*Joachim KOCH, Helmut LINDNER, Alex VON BOHLEN, Kay NIEMAX*
- 10.40 – 11.00 DEVELOPMENT AND CHARACTERIZATION OF BATTERY-OPERATED MICRO PLASMA DEVICES (MPDs) BY ATOMIC EMISSION SPECTROMETRY AND MASS SPECTROMETRY  
*Andrea SMITH, Kara JOHNSON, Vassili KARANASSIOS*
- 11.00 – 11.20 MICRO-COLUMN OFF-LINE MATRIX SEPARATION FOR PGE DETERMINATION IN ENVIRONMENTAL SAMPLES  
*Anita VARGA, Warren CAIRNS, Andreas LIMBECK, Gabriele CAPODAGLIO, Carlo BARBANTE*
- 11.20 – 11.40 INVESTIGATION OF A MEDIUM POWER RADIOFREQUENCY CAPACITIVELY COUPLED PLASMA AND IT'S APPLICATION TO HIGH-TEMPERATURE SUPERCONDUCTOR ANALYSIS VIA ATOMIC EMISSION SPECTROMETRY  
*Alpar SIMON, Tiberiu FRENTIU, Sorin Dan ANGHEL, Simion SIMON*
- 11.40 – 12.00 AN INDUCTIVELY-COUPLED PLASMA/ELECTROSPRAY IONIZATION DUAL-SOURCE TIME-OF-FLIGHT MASS ANALYZER FOR COMPREHENSIVE ELEMENTAL SPECIATION  
*Steven J. RAY, Duane A. ROGERS, Gary M. HIEFTJE*

12.00 – 14.00

*Lunch break*

**Room A**

**14.00 – 15.00** **Speciation**  
**Chair: Ryszard LOBINSKY**

14.00 – 14.30 **Plenary** SPECIATION ANALYSIS: ERRORS, SUCCESS, EVOLUTIONS, MATURITY AND TRENDS OR “DO WE STILL NEED A PLASMA?”  
*Olivier F.X. DONARD*

14.30 – 15.00 **Invited** NEW HORIZON IN BRAIN RESEARCH USING LA-ICP-MS: PROTEOM ANALYSIS BY COMBINATION WITH MALDI-FTICR-MS AND IMAGING OF BRAIN TISSUES  
*J. Sabine BECKER, Miroslav ZORIY, J. Susanne BECKER, Carola PICKHARDT, Michael PRZYBYLSKI, Nicola PALOMERO-GALLAGHER, Karl ZILLES*

15.00 – 15.30 *Coffee break*

**Room A**

**15.30 – 16.50** **Speciation (cont.)**  
**Chair: Ryszard LOBINSKY**

15.30 – 15.50 **Invited** SPECIES-SPECIFIC AND SPECIES-UNSPECIFIC MULTI-SPECIES ISOTOPE DILUTION ANALYSIS OF ORGANO-ELEMENTAL COMPOUNDS BY ICP-MS  
*K.G. HEUMANN, J. HEILMANN, N. POPERECHNA, A. SCHWARZ, J. WINTERLIK*

15.50 – 16.10 INITIAL STUDIES ON VANADIUM METABOLISM IN MAMMALIANS BY MASS SPECTROMETRIC TECHNIQUES  
*Maria MONTES-BAYÓN, Kelly das GRAÇAS FERNANDES, Jesus ALVAREZ-PIÑERA, Alfredo SANZ-MEDEL*

16.10 – 16.30 GEL-ELECTROPHORESIS-ICP-OES HYPHENATED SYSTEM FOR SEPARATION OF CHROMIUM(III)-COMPLEXES  
*József PROKISCH, Béla KOVÁCS, Éva SZÉLES, Ákos ZUBOR, Zoltán GYORI*

16.30 – 16.50 THE DIRECT DETERMINATION OF ARSENOLIPIDS IN BIOLOGICAL SAMPLES WITH HPLC-ICPMS  
*Ernst SCHMEISSER, Walter GOESSLER, Kevin A. FRANCESCONI*

**Room B**

**15.30 – 16.50** **Quality Control**  
**Chair: Roberto MORABITO**

15.30 – 15.50 THE USE OF SPECTRUM, A STELLAR SYNTHESIS CODE, FOR LABORATORY CARBON PLASMAS ELICITED BY A ND: YAG LASER  
*Laszlo NEMES, Richard O. GRAY*

15.50 – 16.10 SI-TRACEABILITY AND UNCERTAINTY ESTIMATION AS TOOLS TOWARDS VALIDATION OF SPECIATION MEASUREMENTS  
*J. SNELL, C. R. QUÉTE*

16.10 – 16.30 FACTORS TO BE CONSIDERED IN THE PREPARATION OF CERTIFIED REFERENCE MATERIALS, AND THE REPORTING OF CERTIFIED VALUES, FOR ICPMS ANALYSIS  
*Nimi KOCHERLAKOTA, Ralph H. OBENAU*

16.30 – 16.50 DETERMINATION OF SULFUR IN DIESEL FUEL BY ISOTOPE DILUTION ICP-MS: CONTRIBUTION TO THE KEY-COMPARISON 35 AND PILOT STUDY 26.1 OF THE COMITÉ CONSULTATIF POUR LA QUANTITÉ DE MATIÈRE  
*Ivan TREŠL, Christophe R. QUÉTEL*

**ROOM C****15.30 – 16.50 New Instrumentation  
Chair: József PROKISCH**

- 15.30 – 15.50 INVESTIGATIONS ON THE ELEMENT DEPENDENCY OF SPUTTERING PROCESS IN THE ELECTROLYTE CATHODE ATMOSPHERIC GLOW DISCHARGE (ELCAD)  
*T. CSERFALVI, P. MEZEI*
- 15.50 – 16.10 GDOES ANALYSIS FROM THICK TO THIN LAYERS  
*Roland DORKA, Ruediger MEHSNER, Michael ANALYTIS*
- 16.10 – 16.30 INCREASING THE LINEAR DYNAMIC RANGE OF SECTOR FIELD ICP-MS  
*Julian WILLS, Lothar ROTTMANN, Meike HAMESTER*
- 16.30 – 16.50 A NEW GLOW DISCHARGE SECTOR FIELD MASS SPECTROMETER FOR THE ANALYSIS OF HIGH PURITY METALS  
*Lothar ROTTMANN, Joachim HINRICHS, Wolfgang SHOETTKER*

**LOUNGE****17.00 – 19.00 Poster Session 2****Plasma Application and Development**

- T01 SIMULTANEOUS DETERMINATION OF THE METALS POTENTIALLY RELEASED FROM METALLIC PROSTHESIS IN BIOLOGICAL FLUIDS BY HR-ICP-MS  
*Alejandro SARMIENTO-GONZÁLEZ, Juan Manuel MARCHANTE-GAYÓN, Alfredo SANZ-MEDEL*
- T02 EXPERIMENTAL INVESTIGATIONS ON ICP-INDUCED VAPORIZATION OF SOLID PARTICULATE  
*D. BLEINER, R. FIGI*
- T03 DIETARY EXPOSURE ESTIMATES OF SEVERAL ELEMENTS FROM THE 1ST FRENCH TOTAL DIET STUDY  
*Thierry GUÉRIN, Laurent NOËL, Jean-Charles LEBLANC, Gloria CALAMASSI-TRAN, Jean-Luc VOLATIER, Philippe VERGER*
- T04 REACTIVE CHEMISTRY OF URANIUM ION WITH AMMONIA IN THE BANDPASS REACTION CELL  
*Vladimir VAIS, Chunsheng LI, Jack CORNETT*
- T05 IDENTIFICATION OF CARBON-BASED SPECTRAL INTERFERENCES ON PROMINENT EMISSION LINES IN VACUUM ULTRAVIOLET REGION  
*Eva NIEDOBOVÁ, Jirí MACHÁT, Viktor KANICKÝ, Vítězslav OTRUBA*
- T06 ANALYSIS OF Pt, Pd AND Rh IN BIOLOGICAL SAMPLES VIA MATRIX SEPARATION AND ON-LINE PRECONCENTRATION COUPLED TO ICP-SFMS  
*Elisabeth RUDOLPH, Stephan HANN, Andreas LIMBECK, Gerhard STINGEDER*
- T07 SIMULTANEOUS DETERMINATION OF ARSENIC, MERCURY AND SELENIUM IN FOODSTUFFS BY HG-ICP-OES  
*Marco GROTTI, Cristina LAGOMARSINO, Francesco SOGGIA, Emanuele MAGI, Roberto FRACHE*

**Plasma Application and Development (cont.)**

- T08 A COMPARISON OF THE PERFORMANCE OF KINETIC ENERGY DISCRIMINATION AND REACTIVE INTERFERENCE REMOVAL FOR THE DETERMINATION OF TRACE AND ULTRATRACE ELEMENTS IN SEAWATER BY COLLISION/REACTION CELL ICP-MS  
*Bill SPENCE, Simon NELMS, Martin NASH, Phil SHAW*
- T09 THE USE OF COLLISION CELL ICP-MS FOR THE DETERMINATION OF A SUITE OF ELEMENTS IN CLINICAL FLUIDS  
*Ruth HEAN, Raimund WAHLEN, Linda EVANS*
- T10 MEASUREMENT OF CELLULAR ASSOCIATION OF NICKEL AND CHROMIUM IN KERATINOCYTES USING ICP-MS  
*J. MORTON, A. JONES, C. BALAFA, S. MACNEIL, D. GAWKRODGER, G. EVANS*
- T11 COPPER, CHROMIUM AND ARSENIC LEVELS IN URINE SAMPLES FROM TIMBER TREATMENT WORKERS  
*J. MORTON, B. SMITH, R. HANDLEY, N. WARREN, J. COCKER*
- T12 ANALYSIS OF STABLE ISOTOPES AND LONG-LIVED RADIOACTIVE ISOTOPES IN CONCRETE SAMPLES FROM A NUCLEAR REACTOR  
*Michael METZLER, Lars FRØSIG ØSTERGAARD*
- T13 DETERMINATION OF REFERENCE VALUES OF BA, CS, SB AND W IN URINE BY MEANS OF HR AND DRC ICP-MS INSTRUMENTATION. COMPARISON OF ANALYTICAL PERFORMANCES AND MEASUREMENT UNCERTAINTIES  
*Sandro SPEZIA, Giovanni FORTE, Beatrice BOCCA, Anna GATTI, Giovanna MINCIONE, Anna RONCHI, Paolo BAVAZZANO, Alessandro ALIMONTI, Claudio MINOIA*
- T14 THE STUDY OF HEAVY METAL ENVIRONMENTAL POLLUTION USING THE INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY METHOD  
*Vasile VIMAN, Mariana DOBRA*
- T15 IS ICP-MS AN OPTION FOR QUALITY CHECKS IN FOOD PRODUCTS?  
*Daniel HAMMER, Bee Leng TEO, Kwoh Wah MAK, Ching Tung YONG*
- T16 DUTCH STUDY ABOUT "DUPLICATE 24 h - DIET" IN 2004 – ANALYTICAL STUDY ABOUT METALS IN DAILY FOOD –  
*Petra KRYSTEK, Wilbert VAN DEN BELD, Hans VAN LOON, Rob RITSEMA*
- T17 RAPID AND PRECISE PB ISOTOPIC ANALYSIS WITH MULTIPLE COLLECTOR ICP-MS AND ITS APPLICATIONS TO GSJ REFERENCE ROCKS AND ARCHEOLOGICAL BRONZES  
*Masaharu TANIMIZU, Tsuyoshi ISHIKAWA*
- T18 PLUTONIUM ATOM RATIOS IN SEDIMENTS FROM BALLSTON LAKE, NEW YORK: CONTINENTAL TRANSPORT OF 1950's NEVADA TEST SITE DEBRIS?  
*Paul T. GREMILLION, Jamie L. TONEY, Michael E. KETTERER, Donald T. RODBELL*
- T19 DETERMINATION OF LOW LEVELS OF U AND TH ISOTOPES IN HUMAN URINE  
*K. BENKHEDDA, V.N. EPOV, R.D. EVANS*



**Plasma Application and Development (cont.)**

- T20 EVALUATION OF STRONTIUM ISOTOPE ABUNDANCE RATIOS AND STRONTIUM AMOUNT CONTENT BY MC-ICP-MS IN CIDERS FOR FOOD AUTHENTICATION  
*Silvia GARCÍA RUIZ, Giuseppino FORTUNATO, Samuel WUNDERLI, J. Ignacio GARCÍA ALONSO, Alfredo SANZ-MEDEL*
- T21 NUCLEIC ACID DETERMINATIONS IN FLOWING STREAMS VIA CARBON AND PHOSPHOROUS ATOMIC EMISSION  
*Beatriz FERNÁNDEZ, Tim M.BREWER, Fuxia JIN, R. Kenneth MARCUS*
- T22 USE OF N<sub>2</sub>-AR MIXED GAS PLASMA FOR THE DETERMINATION OF AS AND SE IN SEDIMENT AND BIOLOGICAL SAMPLES BY ICP-MS WITH A COLLISION/REACTION CELL  
*Kazumi INAGAKI, Akiko TAKATSU, Masaki OHATA, Tomohiro NARUKAWA, Sakae EYAMA, Atsuko NAKAMA, Koichi CHIBA, Kensaku OKAMOTO*
- T23 SIMPLE ELIMINATION OF MEMORY EFFECT ON THE DETERMINATION OF TOTAL MERCURY IN SEDIMENT AND MARINE BIOLOGICAL SAMPLES BY ISOTOPE DILUTION ICP-MS  
*Kazumi INAGAKI, Akiko TAKATSU, Takayoshi KUROIWA, Atsuko NAKAMA, Sakae EYAMA, Koichi CHIBA, Kensaku OKAMOTO*
- T24 IMPROVEMENT OF THE ABUNDANCE SENSITIVITY OF A DOUBLE-FOCUSING SECTOR-FIELD ICP-MS TO MEASURE LOW 236U/238U ISOTOPIC RATIOS  
*Fabien POINTURIER, Nicolas BAGLAN, Philippe HEMET, Stéphane BAUDE*
- T25 POSSIBILITY OF THE VIRTUAL STANDARDS APPLICATION IN ATOMIC-EMISSION SPECTRAL ANALYSIS  
*A. A. KUZNETSOV*
- T26 DIRECT INTRODUCTION OF ORGANIC MODIFIERS TO ICPMS: ENHANCEMENT OF DETECTION LIMIT FOR SELENIUM IN AQUEOUS SOLUTIONS  
*Miroslav KOVACEVIC, Walter GOESSLER*
- T27 DETERMINATION OF 239+240Pu ACTIVITIES AND Pu ATOM RATIOS IN SOILS AND SEDIMENTS USING SECTOR ICPMS AND A RAPID FUSION TOTAL DISSOLUTION PROCEDURE  
*Michael E. KETTERER, Celeste M. BILES, Gary D. MACLELLAN, Brigid S. CORCORAN*
- T28 DETERMINATION OF TRACE ELEMENTS IN COW MILK BY Q-ICP-MS  
*Eva SUGAR, Barnabas SAS, Gyula ZARAY*
- T29 DEVELOPPEMENT OF A ROUTINE TO ANALYZE IMPURITIES IN ALKALINE MATERIALS  
*Marie-Helene POINSON, Dominique LACROIX, Hervé CHOLLET*
- T30 DETERMINATION OF LITHIUM IN BRAIN SAMPLES  
*Csilla BÉLAVÁRI, Erzsébet ANDRÁSI, Noémi PÁLI, Roger COTTIER, Alain CHEVALLIER, György KOCH, Thierry LAURIOUX, Roger JEANNOT, Jean-Philippe GHESTEM, Thibault CONTE*
- T31 APPLICATIONS USING A NEW CCD SIMULTANEOUS ICP SPECTROMETER  
*Geoff TYLER, Agnès COSNIER, Sébastien VELASQUEZ, Cendrine DUBUISSON*

#### Plasma Application and Development (cont.)

- T32 CHEMICAL ANALYSIS OF ARCHAEOLOGICAL POTTERY: PREPARATION OF THE LABORATORY STANDARD  
*Milko NOVIC, Borut KRIZ, Detlef GÜNTHER*
- T33 MEASURED PERFORMANCE OF SPETEC LAMINAR FLOW-BOX SYSTEMS  
*Christian GRÜNER, Friedhelm RICKERT, Knut OHLS*
- T34 EFFECT OF TEMPERATURE AND PRECIPITATION RATE ON THE ISOTOPIC COMPOSITION OF LITHIUM IN MARINE CARBONATE  
*Jitka LIBERTINOVA, Jan KOSLER*
- T35 SIMULTANEOUS ANALYSIS OF CADMIUM, LEAD, MERCURY AND ARSENIC IN FOODSTUFFS BY ICP-MS AFTER CLOSED VESSEL MICROWAVE DIGESTION: METHOD VALIDATION  
*L. NOËL, V. DUFALLY, N. LEMAHIEU, C. VASTEL, T. GUÉRIN*
- T36 DETERMINATION OF <sup>135</sup>CS AND <sup>137</sup>CS IN SOIL AND SEDIMENT BY DYNAMIC REACTION CELL ICP-MS  
*Vivien TAYLOR, Vladimir EPOV, Douglas EVANS, Jack CORNETT*
- T37 NEW INTERFACE DESIGN FOR COUPLING CAPILLARY-LC AND COLLISION-CELL ICP-MS AND ITS COMPLEMENTARY APPLICATION FOR THE DETECTION OF PHOSPHORYLATED PROTEINS  
*Daniel PRÖFROCK, Peter LEONHARD, Rudi GRIMM, Andreas PRANGE*
- T38 EFFECT OF DIFFERENT CHEMICALS ON THE SIGNAL OF DIFFERENT ELEMENTS USING ICP-MS INSTRUMENT  
*Béla KOVÁCS, Éva SZÉLES, József PROKISCH, Zoltán GYORI*
- T39 TRACE ELEMENT ANALYSIS OF BLACK AND GREEN TEA BY INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY (ICP-MS)  
*Steven F. DURRANT, Andrea L. MARCILLA, Neil I. WARD*

#### As-Hg- Cr Speciation

- T40 INVESTIGATION OF THE STABILITY OF AN ARSENOUSUGAR IN MOUSE CECUM SAMPLES USING IC-ICP-MS AND LC-ESI-MS/MS DETECTION  
*Sean CONKLIN, Michael FRICKE, Amanda ACKERMAN, Patricia CREED, John CREED, Michael KOHAN, Karen HERBIN-DAVIS, David THOMAS*
- T41 A NEW THIOARSENOUSUGAR IDENTIFIED WITH HPLC-ICPMS AS A SIGNIFICANT COMPOUND IN THE KIDNEY OF THE CLAM TRIDACNA DERASA  
*Markus KAHN, Reingard RAML, Walter GOESSLER, Ernst SCHMEISSER, Kevin A. FRANCESCONI*
- T42 APPLICATION OF HPLC-ICPMS TO METABOLIC STUDIES OF AN ARSENOUSUGAR IN HUMANS  
*Reingard RAML, Walter GOESSLER, Kevin A. FRANCESCONI*
- T43 COMBINATION OF HPLC-ES-MS/MS AND HPLC-ICP-MS FOR THE IDENTIFICATION AND QUANTIFICATION OF MORE THAN 20 ORGANOARSENIC SPECIES IN STANDARD SOLUTIONS AND EXTRACTS OF MARINE REFERENCE MATERIALS  
*Volker NISCHWITZ, Katerina KANAKI, Spiros A. PERGANTIS*
- T44 HIGH PERFORMANCE LIQUID CHROMATOGRAPHY WITH INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY DETECTION FOR THE DETERMINATION OF NOVEL THIO ARSENOUSUGARS  
*K. KANAKI, V. NISCHWITZ, S.A. PERGANTIS*

**As-Hg- Cr Speciation (cont.)**

- T45 COMPLEMENTARY HPLC-ICP-MS AND ESI-Q-TOF FOR THE ELUCIDATION OF As AND Cd METABOLITES PRODUCED IN EXPOSED PLANT TISSUES  
*Ana PEREIRA NAVAZA, María MONTES-BAYÓN, Alfredo SANZ-MEDEL*
- T46 THE DETERMINATION OF FIVE ARSENIC SPECIES IN URINE SAMPLES FROM OCCUPATIONALLY EXPOSED AND UNEXPOSED PERSONS IN THE UK BY LC-ICP-MS  
*J. MORTON*
- T47 IDENTIFICATION OF DIMETHYLTHIOARSINIC ACID BY IC-ICP-MS AND IC-ESI-MS/MS IN RICE SAMPLES  
*Michael FRICKE, Amanda ACKERMAN, Patricia CREED, Carol SCHWEGEL, John CREED*
- T48 DETERMINATION OF THE HEXAFLUOROARSENATE ION IN INDUSTRIAL PROCESS WATERS  
*Dirk WALLSCHLÄGER, Jacqueline LONDON*
- T49 ARSENIC SPECIATIONS OF MARINE SAMPLES BY HPLC-ICPMS  
*Shizuko HIRATA, Hideki TOSHIMITSU*
- T50 ARSENIC SPECIATION IN CUCUMBER PLANTS BY HPLC-ICP-MS  
*Victor G. MIHUCZ, Eniko TATÁR, István VIRÁG, Gyula ZÁRAY, Edit CSEH, Ferenc FODOR*
- T51 DETERMINATION OF TOTAL MERCURY AND MONOMETHYLMERCURY IN BIOLOGICAL TISSUE USING DIFFERENT ANALYTICAL TECHNIQUES: RESULTS FROM THE MERCYMS INTERLABORATORY COMPARATIVE STUDY  
*Nives OGRINC, Martina LOGAR, Mathilde MONPERRUS, Emmanuel TESSIER, David AMOUROUX, Milena HORVAT, Olivier DONARD*
- T52 DEVELOPMENT OF EXTRACTION PROCEDURES FOR THE DETERMINATION OF ARSENIC IN TWO IN-HOUSE PEAT REFERENCE MATERIALS  
*Jutta FRANK, Michael KRACHLER, William SHOTYK*
- T53 CERTIFICATION MEASUREMENT OF THE CADMIUM, MERCURY AND LEAD MASS FRACTIONS IN SEWAGE SLUDGE USING ISOTOPE DILUTION INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY  
*Emilia VASSILEVA, Christophe R. QUÉTEL*
- T54 MULTI-ELEMENTAL SPECIATION IN ENVIRONMENTAL WATERS  
*Kenneth R. NEUBAUER, Wilhad M. REUTER, Pamela A. PERRONE, Steven A. BERES*
- T55 DETERMINATION OF HEXAVALENT CHROMIUM IN CEMENT BY THE USE OF HPLC-ICP-MS, FPLC-ETAAS, SPECTROPHOTOMETRY AND SELECTIVE EXTRACTION TECHNIQUES  
*Janez ŠCANCAR, Radmila MILACIC, Fabienne SÉBY, Olivier F.X. DONARD*
- T56 DETERMINATION OF Cr(VI) IN COMPOST BY ION CHROMATOGRAPHY-ICP-MS: TROUBLES AND SOLUTIONS  
*M.P. GÓRRIZ, E. BOLEA, F. LABORDA, J.R. CASTILLO*
- T57 SIMULTANEOUS DETERMINATION OF CR(III) AND CR(VI) WITH ION CHROMATOGRAPHY AND AN INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER AS ELEMENT-SELECTIVE DETECTOR  
*Harald HAGENDORFER, Norbert KIENZL, Walter GOESSLER*

#### **As-Hg- Cr Speciation (cont.)**

- T58 SAMPLING AND DETERMINATION OF CHROMIUM(VI) AS WELL AS OF OTHER METALS IN AIR SURROUNDING OF A FOUNDRY  
*Petra KRYSTEK, Sjoerd PISO, Rens VAN VEEN, Rob RITSEMA*
- T59 ON-LINE DESALTER-ICPMS SYSTEM FOR THE DIFFERENTIATION OF CR(III,VI) IN NATURAL WATERS  
*S. F. WU, Y.C. SUN*
- T60 DETERMINATION OF METHYLMERCURY IN TUNA FISH IN THE FRAMEWORK OF CCQM P-39 INTERCOMPARISON AND INVESTIGATION OF THE LIMITATIONS OF ETHYLMERCURY AS INTERNAL STANDARD  
*Zsuzsa JÓKAI, László ABRANKÓ, Péter FODOR*
- T61 ARSENIC SPECIES IN FRESHWATER ORGANISMS FROM THE RIVER DANUBE  
*Richard SCHAEFFER, Csilla SOEROES, Péter FODOR, Laszlo VARADI, Kevin A. FRANCESCONI, Walter GOESSLER, Reingard RAML, Norbert KIENZL, Doris KUEHNELT*
- T62 ARSENOSUGARS AND OTHER ARSENIC COMPOUNDS IN LITTORAL ZONE ALGAE FROM THE ADRIATIC SEA  
*Emese KÁPOLNA, Zdenka ŠLEJKOVEC, Johannes T. van ELTEREN, Ildi IPOLYI, Péter FODOR*
- T63 DETERMINATION, PRESERVATION AND STABILITY OF METHYLARSENIC SPECIES IN SALINE GROUND WATERS  
*Dirk WALLSCHLÄGER, Jacqueline LONDON*

#### **Se Speciation**

- T64 DISTRIBUTION OF SELENO SPECIES IN VEGETAL TISSUES BY SIZE EXCLUSION MOLECULAR AND CATION EXCHANGE CHROMATOGRAPHY HYPHENATED INDUCTIVE COUPLED PLASMA MASS SPECTROMETRY  
*Zoyne PEDRERO, Yolanda MADRID, Carmen CÁMARA*
- T65 STUDY OF MERCURY-SELENIUM INTERACTION IN ANIMAL TISSUE BY ION EXCHANGE AND SIZE EXCLUSION CHROMATOGRAPHY INDUCTIVELY COUPLED PLASMA-MASS SPECTROMETRY  
*Ana I. CABAÑERO, Yolanda MADRID, Carmen CÁMARA*
- T66 SPECIATION OF SELENIUM-CONTAINING PROTEINS IN SELENIUM-ENRICHED AGARICUS BISPORUS AND LENTINULA EDODES MUSHROOMS BY VARIOUS CHROMATOGRAPHIC TECHNIQUES COUPLED TO ICPMS  
*Valeria GERGELY, Kevin M. KUBACHKA, Péter FODOR, Joseph A. CARUSO*
- T67 THE DETERMINATION OF SELENIUM IN ICE SAMPLES FROM ANTARCTICA BY HG-ICP-QMS AND ICP-SFMS  
*Warren RL CAIRNS, Frederic AM PLANCHON, Clara TURETTA, Gabrielle CAPODAGLIO, Paolo CESCO, Carlo BARBANTE*
- T68 SPECIATION OF CATIONIC SELENIUM COMPOUNDS IN LEAVES OF BRASSICA JUNCEA BY SCX-ICP-MS  
*Santha YATHAVAKILLA, Monika SHAH, Sandra MOUNICOU, Joseph CARUSO*

**Se Speciation (cont.)**

- T69 SELENIUM AND MERCURY SPECIATION IN PLANTS BY HYPHENATED TECHNIQUES  
*Sandra MOUNICOU, Anne P. VONDERHEIDE, Juris MEIJA, Jodi SHANN, Joseph A. CARUSO*
- T70 CHARACTERISATION OF SELENIUM ENRICHED YEAST AS A CANDIDATE CRM  
*Shona McSHEEHY, Zoltan MESTER*
- T71 A MULTIDIMENSIONAL HYPHENATION APPROACH FOR STUDYING SPECIATION OF SELENOPROTEINS IN SELENIUM ENRICHED YEAST AND SUN FLOWER ROOTS  
*Baki B. M. SADI, Joseph A. CARUSO*
- T72 MAYOR AND TRACE ELEMENTS ANALYSIS IN MILK FORMULAE BY ICP-OES USING MICROWAVE DIGESTION  
*Liliana SALDÍVAR, Nadia MUNGUÍA, Ciro MÁRQUEZ*
- T73 CHARACTERISATION OF SELENIZED YEAST SUPPLEMENTS FOLLOWING IN VITRO GASTROINTESTINAL DIGESTION  
*Laura HINOJOSA REYES, Jorge RUIZ ENCINAR, Juan Manuel MARCHANTE GAYÓN, José Ignacio GARCÍA ALONSO, Alfredo SANZ-MEDEL*
- T74 COMPARISON OF QUANTITATIVE SELENIUM SPECIATION IN COMMERCIAL AND SELENISED AGARICUS MUSHROOMS  
*Vanesa DÍAZ HUERTA, María Luisa FERNÁNDEZ SÁNCHEZ, Alfredo SANZ-MEDEL*
- T75 THE ASSESSMENT OF NORMAL ELEMENTAL CONTENTS IN HUMAN HAIR  
*Olga SHUVAEVA, Evgeniya POLAYKOVA, Ella GLADKIKH*
- T76 A NEW APPROACH FOR QUANTITATIVE SELENOPROTEOMICS BY NANOHPIC – ICP-MS WITH ON-LINE ISOTOPE DILUTION ANALYSIS  
*Pierre GIUSTI, Dirk SCHAUMLÖFFEL, Joanna SZPUNAR*
- T77 SIMULTANEOUS SPECIATION OF MERCURY AND SELENIUM BY HPLC-MAD-AFS/AFS AND HPLC-MAD-ICP-MS  
*JL GÓMEZ-ARIZA, F. LORENZO, T. GARCÍA-BARRERA*
- T78 COMBINED USE OF ICP-Q-MS AND MASS SPECTROMETRY (Q-TOF-MS) FOR SELENOPROTEINS IDENTIFICATION AND CHARACTERIZATION IN FORMULA AND COW MILK AFTER SEPARATION BY 2-D PAGE  
*J. L. GÓMEZ-ARIZA, V. BERNAL-DAZA, M. J. VILLEGAS-PORTERO*
- T79 SELENIUM METABOLISM – ELUCIDATION OF SELENIUM METABOLIC PATHWAYS BY LC-ICP MS AND ESI-MS  
*Charlotte GABEL-JENSEN, Lars BENDAHL, Bente GAMMELGAARD*
- T80 QUANTIFICATION OF A SELENIUM-CONTAINING PROTEIN IN YEAST EXTRACT VIA AN ACCURATE DETERMINATION OF A TRYPTIC PEPTIDE BY SPECIES-SPECIFIC ISOTOPE DILUTION CAPILLARY HPLC - ICP MS  
*Aleksandra POLATAJKO, Jorge RUIZ ENCINAR, Dirk SCHAUMLÖFFEL, Joanna SZPUNAR*
- T81 HUMAN URINARY METABOLITES AFTER INGESTION OF PURE SELENIUM COMPOUNDS  
*Doris KUEHNELT, Norbert KIENZL, Pedro TRAAAR, Hoang NAM LE, Kevin A. FRANCESCO*

## Wednesday, 2 February 2005

### Room A

**08.30 – 09.00** GD-OES, GD-MS  
Chair: József PALLÓSI

**Plenary** ALTERNATIVE PLASMA SOURCES FOR ATOMIC SPECTROSCOPY  
*Norbert JAKUBOWSKI, Joachim FRANZKE, Andy SCHEFFER, Wolfgang BUSCHER, Ken SHIMIZU*

### Room A

**09.00 – 10.00** Payling Memorial Session  
Chair: József PALLÓSI

09.00 – 09.20 RICHARD PAYLING IN HUNGARY  
*József PALLÓSI*

09.20 – 09.40 RICHARD PAYLING MEMORIAL LECTURE : EMISSION YIELDS IN RF GLOW DISCHARGE  
**Invited** *Thomas NELIS*

09.40 – 10.00 CONSTANT PRESSURE OR CONSTANT IMPEDANCE – A BRIEF HISTORY OF THE EMISSION YIELD CONTROVERSY IN GD-OES  
*Arne BENGTON*

### Room B

**09.00 – 10.00** Plasma Application  
Chair: Ignacio ALONSO

09.00 – 09.20 CLS-ICP-MS: COINCIDENCE LASER SPECTROSCOPY FOR ION DETECTION IN ICP-MS – WILL IT WORK?  
**Invited** *Barry L. SHARP, Phillip S. GOODALL, Ljubinko IGNJATOVIC, Huaguo TENG*

09.20 – 09.40 LA-ICP-IDMS USING HIGH PULSE ENERGY LASER RADIATION: CROSSING THE BORDERS IN DIRECT TRACE ELEMENT ANALYSIS IN SOLID SAMPLES  
*Sergei F. BOULYGA, Klaus G. HEUMANN*

09.40 – 10.00 DEPTH PROFILING OF ION IMPLANTS USING LASER ABLATION AS ION SOURCE AND CHARACTERIZATION MICROPROBE  
*D. BLEINER, F. BELLONI, D. DORIA, P. LIENEMANN, V. NASSISI, H. VONMONT*

10.00 – 10.20 *Coffee break*

### Room C

**09.00 – 10.00** Sample Introduction  
Chair: Viktor KANICKÝ

09.00 – 09.20 SIMULTANEOUS ANALYSIS BY TIME-OF-FLIGHT MASS SPECTROMETRY AND ATOMIC EMISSION SPECTROSCOPY TO STUDY DIFFERENCES IN LASER FLUENCE THRESHOLDS FOR IONIZATION AND PLASMA FORMATION PROCESSES IN METALS  
*Jose Miguel VADILLO, Carmen Cecilia GARCIA, Javier LASERNA*

09.20 – 09.40 NOVEL ARRANGEMENT FOR ON-LINE ISOTOPE DILUTION IN LASER ABLATION ICP-MS VIA MICROFLOW NEBULIZATION  
*C. PICKHARDT, D. SCHAUMLÖFFEL, M. ZORIY, J.S. BECKER*

09.40 – 10.00 IDENTIFICATION AND CONTROL OF METAL POLLUTANT SPIKES IN WASTE TO ENERGY PLANTS – A NOVEL APPLICATION FOR ICP-OES  
*David POOLE, Vida SHARIFI, Jim SWITHENBANK, Dirk ARDEL*

**Room A**

**10.20 – 12.00 Payling Memorial Session (cont.)**  
**Chair: Arne BENGSTON**

- 10.20 – 10.40 EMISSION YIELD RELATED RESEARCH AT IFW DRESDEN  
*Volker HOFFMANN, Ludger WILKEN, Young-Sang KIM, Diego Martínez MARTÍNEZ*
- 10.40 – 11.00 FURTHER EXPERIMENTAL DATA CONCERNING THE CONCEPT OF 'ABSOLUTE'  
EMISSION YIELDS IN GD-OES  
*Zdenek WEISS, Petr ŠMÍD, Edward B.M. STEERS*
- 11.00 – 11.20 ANOMALOUS PROFILES OF HYDROGEN SPECTRAL LINES AND THE  
IMPLICATIONS FOR ANALYSIS  
*Edward STEERS, Petr ŠMÍD*
- 11.20 – 11.40 RELATIVE SPUTTERING RATES AND EMISSION YIELDS FOR GD: A  
THEORETICAL POINT OF VIEW  
*Leanne PITCHFORD*
- 11.40 – 12.00 APPLICATIONS OF RF-GD-OES TO THERMAL SENSITIVE MATERIALS<sub>e</sub> WITH A  
PULSE RF SOURCE AND COUPLING A RF-GD-OES TO A DC ARC FOR THE  
ANALYSIS OF POWDERED MATERIALS  
*P. CHAPON, P. PERZL, J. HASSLER*

**Room B**

**10.20 – 12.00 Speciation**  
**Chair: Ignacio ALONSO**

- 10.20 – 10.40 RECENT ADVANCES IN ARSENIC SPECIATION ANALYSIS USING HPLC-ICPMS  
**Invited**  
*Walter GOESSLER*
- 10.40 – 11.00 DO PLANTS FORM ARSENIC-PHYTOCHELATIN COMPLEXES? AN APPLICATION  
OF THE PARALLEL AND SIMULTANEOUS USE OF ICP-MS AND ES-MS FOR  
HPLC  
*Andrea RAAB, Jörg FELDMANN*
- 11.00 – 11.20 ARSENIC SPECIES IN HAIR AND SKIN OF PRE-COLUMBIAN MUMMIES USING  
XANES/EXAFS AND HPLC-ICP-MS  
*Andrea RAAB, J. CHANNOCK, F. BAHRAMI, Jörg FELDMANN*
- 11.20 – 11.40 SPECIATION OF SELENIUM AT THE NG(SE) L-1 LEVEL WITH ICPMS EQUIPPED  
WITH COLLISION/REACTION CELL SYSTEM: ADVANTAGES, DRAWBACKS AND  
HOW TO OVERCOME THEM....  
*Jérôme DARROUZES, Stéphane SIMON, Maité BUENO, Florence PANNIER, Martine  
POTIN-GAUTIER*
- 11.40 – 12.00 COMPARING A SELENIUM ACCUMULATOR PLANT (*Brassica juncea*) TO A NON-  
ACCUMULATOR PLANT (*Helianthus annuus*) TO INVESTIGATE SELENIUM-  
CONTAINING PROTEINS  
*Sandra MOUNICOU, Anne P. VONDERHEIDE, Jodi SHANN, Joseph A. CARUSO*

**Room C**

**10.20 – 12.00** **Sample Introduction (cont.)**  
**Chair: Viktor KANICKÝ**

10.20 – 10.40 AIRBORNE PARTICLES BY ITV-ICP-AES (IN-TORCH VAPORIZATION-INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY) AND ITV-GC-MS (ITV-GAS CHROMATOGRAPHY-MASS SPECTROMETRY)  
*Greg SPRAH, Cathy ZHAO, Vassili KARANASSIOS*

10.40 – 11.00 DOWNSCALING SAMPLE INTRODUCTION TECHNIQUES FOR INTERFACING NANO-VOLUME FLOW INJECTION AND CAPILLARY LIQUID SEPARATION TO ICP-MS  
*Dirk SCHAUMLÖFFEL, Ryszard LOBINSKY*

11.00 – 11.20 ELEMENTAL ANALYSIS OF MICRO- AND NAN-SIZE SAMPLES BY RHENIUM COIL-FILAMENT IN-TORCH VAPORIZATION (ITV) SAMPLE INTRODUCTION AND AN AXIALLY-VIEWED ICP-AES SYSTEM  
*Hamid BADIEI, Vassili KARANASSIOS*

11.20 – 11.40 MECHANISM AND EFFICIENCY OF CHEMICAL VAPOUR GENERATION OF SILVER  
*Tomas MATOUSEK*

11.40 – 12.00 ANALYSIS OF SIZE DISTRIBUTION OF OXIDES IN STEEL BY OPTICAL EMISSION SPECTROSCOPY  
*Tomohiro MATSUSHIMA, Wataru TANIMOTO, Hisao YASUHARA, Yoshinori YOMURA*

12.00 – 14.00 *Lunch break*

**Room A**

**14.00 – 15.00** **GD-OES, GD-MS**  
**Chair: Edward STEERS**

14.00 – 14.20 ***Invited*** THE ROLE OF PLASMA MASS SPECTROMETRY FOR THE CHARACTERIZATION OF NUCLEAR SAMPLES AS WELL AS FOR THE DETECTION AND SURVEILLANCE OF RADIOACTIVITY IN THE ENVIRONMENT  
*Maria BETTI*

14.20 – 14.40 DEVELOPMENT OF HELIUM RADIO-FREQUENCY GLOW DISCHARGE PLASMA SOURCE ASSOCIATED WITH LASER ABLATION SAMPLING  
*Kazuaki WAGATSUMA, Yohei USHIROZAWA, Hideyuki MATSUTA*

14.40 – 15.00 LASER-SCATTERING PLASMA DIAGNOSTICS FOR THE TIME AND SPATIALLY RESOLVED CHARACTERIZATION OF A MILLISECOND-PULSED GLOW DISCHARGE  
*Gerardo GAMEZ, Gary M. HIEFTJE*



**Room B****14.00 – 15.00****Speciation****Chair: Eric LARSEN**

14.00 – 14.20

**Invited**

ICP-MS FOR ENVIRONMENTAL AND BIOMEDICAL ANALYSIS OF PLATINUM GROUP ELEMENTS

*Stephan HANN, Gunda KOELLENSPERGER*

14.20 – 14.40

**Invited**

CE-ICP-MS – AN EFFICIENT TOOL FOR THE INVESTIGATION OF ANTICANCER METALLODRUG ACTION

*Kasia POLEC-PAWLAK, Rafal RUZIK, Svetlana ALEKSENKO, Andrei TIMERBAEV, Christian HARTINGER, Bernhard KEPPLER, Maciej JAROSZ*

14.40 – 15.00

DEVELOPMENT OF A NOVEL PASSIVE SAMPLING SYSTEM FOR THE TIME-AVERAGED MEASUREMENT OF ORGANOTIN COMPOUNDS IN AQUATIC ENVIRONMENTS

*R. AGUILAR, M. GÓMEZ, M.A. PALACIOS***Room C****14.00 – 15.00****Plasma Application, LA-ICP-MS****Chair: József POSTA**

14.00 – 14.20

**Invited**

CAN INTERNAL STANDARDISATION IN PLASMA SPECTROCHEMISTRY ASSIST IN IMPROVING CLINICAL AND ENVIRONMENTAL MEASUREMENTS OF TOXIC ELEMENTS?

*Yngvar THOMASSEN*

14.20 – 14.40

FRACTIONATION OF ELEMENTS FROM AEROSOL, SEDIMENT AND FLY ASH SAMPLES

*Zoltán AUGUSZTINY, Klára POLYÁK, József HLA VAY*

14.40 – 15.00

A LASER ABLATION ICP-MS SYSTEM FOR THE ANALYSIS OF RADIO-ACTIVE SAMPLES

*Marcel GUILLONG, Peter HEIMGARTNER, Ines GÜNTHER-LEOPOLD, Matthias HORVAT, Zlatan KOPAJTIC*

15.00 – 15.30

*Coffee break***Room A****15.30 – 16.50****GD-OES, GD-MS****Chair: Zdenek WEISS**

15.30 – 15.50

INVESTIGATIONS ON THE SPATIAL DISTRIBUTION OF GAS AND ELECTRON TEMPERATURES TOGETHER WITH ATOMIC AND MOLECULAR EMISSION IN THE ELECTROLYTE CATHODE ATMOSPHERIC GLOW DISCHARGE (ELCAD)

*P. MEZEI, T. CSERFALVI, L. CSILLAG*

15.50 – 16.10

ANALYSIS OF OXIDE LAYERS BY GLOW DISCHARGE OPTICAL EMISSION SPECTROMETRY USING AN ARGON HYDROGEN MIXTURE AS PLASMA GAS

*Michael KOESTER*

16.10 – 16.30

ELEMENTAL ANALYSIS OF SOLUTION BASED ON PULSED GLOW DISCHARGE - TOFMS. INFLUENCE OF GAS FLOW RATE, POSITIVE DC CATHODE VOLTAGE DISPLACEMENT AND SAMPLER VOLTAGE ON ANALYTICAL PARAMETERS OF THE TECHNIQUE

*Alexander GANEEV, Sergey POTAPOV, Maxim VORONOV, Anatoly DROBISHEV, Roman TJUKALTZEV, Michail KUZMENKOV*

16.30 – 16.50

THE EFFECT OF AR/H<sub>2</sub> MIXTURES AS PLASMA GAS ON DIRECT CURRENT AND RADIOFREQUENCY GLOW DISCHARGE - MASS SPECTROMETRY. ANALYSIS OF CONDUCTING AND INSULATING MATERIALS*Armando MENÉNDEZ, Nerea BORDEL, Rosario PEREIRO, Alfredo SANZ-MEDEL*

**Room B****15.30 – 16.50 Food Analysis  
Chair: Eric LARSEN**

- 15.30 – 15.50 THE USE OF ICP-HIGH RESOLUTION-MS, AS PART OF A MULTI-TECHNIQUE 'METABOLOMIC' APPROACH, TO INVESTIGATE FOOD PRODUCTION-RELATED PHENOMENA  
*John LEWIS*
- 15.50 – 16.10 DISTRIBUTION ELEMENTAL PATTERNS AND PROTEIN CHARACTERIZATION IN HUMAN AND FORMULA MILK WHEY AT DIFFERENT LACTATION STAGES OF THE NEWBORN  
*R. R. de la Flor St. REMY, M. L. FERNÁNDEZ SÁNCHEZ, J. B. LÓPEZ SASTRE, A. SANZ-MEDEL*
- 16.10 – 16.30 DETERMINATION OF IODINE-129 IN MILK BY ICP-MS: PROBLEMS AND SOLUTIONS  
*Helen J. REID, Mark R. LANDON, Ciaran J. P. O'CONNOR, Barry L. SHARP*
- 16.30 – 16.50 THE ANALYSIS OF DNA BY COLLISION CELL ICP-MS  
*Peter D. WINSHIP, Barry L. SHARP*

**Room C****15.30 – 16.30 LA-ICP-MS  
Chair: József POSTA**

- 15.30 – 15.50 MODIFIED PRESSED POWDER SAMPLE PREPARATION FOR LASER ABLATION INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY  
*Mark LANDON, Helen REID, Barry SHARP*
- 15.50 – 16.10 "SOLUTIONS" FOR CALIBRATING LASER ABLATION-ICP-MS  
*Ciaran O'CONNOR, Barry L. SHARP*
- 16.10 – 16.30 LASER ABLATION ICP-MS U-TH-PB DATING OF COMPLEX ZIRCON: APPLICATION AND LIMITS  
*Axel GERDES*

**LOUNGE****17.00 – 19.00 Poster Session 3****GD**

- W01 THE USE OF DOPPLER BROADENING TO DETERMINE GAS TEMPERATURES IN A GLOW DISCHARGE SOURCE  
*Petr ŠMÍD, Edward STEERS*
- W02 SUITABILITY OF COATINGS CONTAINING HYDROGEN AS CRM FOR GDS  
*Vasile-Dan HODOROABA, Volker HOFFMANN, Wolfgang PAATSCH, Wolfgang BOHNE, Jörg RÖHRICH, Erik STRUB*
- W03 PERFORMANCE CHARACTERISTICS AND APPLICATIONS OF A NEW GLOW DISCHARGE SECTOR FIELD MASS SPECTROMETER  
*Joachim HINRICHS, Lothar ROTTMANN, Wolfgang SCHOETTGER, Nicole FRERICHS*

**GD (cont.)**

- W04 ANALYSIS OF GEL ELECTROPHEROGRAMS AND BLOTTING MEMBRANES VIA SPATIALLY RESOLVED GLOW DISCHARGE OPTICAL EMISSION SPECTROMETRY  
*Gerardo GAMEZ, Steven J. RAY, Francisco ANDRADE, Michael WEBB, Gary M. HIEFTJE*
- W05 AN ORIGINAL NUCLEARISATION of a GD/OES  
*Hervé CHOLLET, Vincent LAVOINE, Jean Charles HUBINOIS, Marie Hélène POINSO*
- W06 ANALYTICAL APPROACH FOR RESOLVING OF MASS INTERFERENCES IN GDMS  
*Alexander PIVOVAROV, Karol PUTYERA, Martin KASIK*
- W07 DIRECT SOLID ANALYSIS OF GLASSES BY RADIOFREQUENCY GLOW DISCHARGE TIME OF FLIGHT MASS SPECTROMETRY  
*Jorge PISONERO, Beatriz FERNÁNDEZ, Armando MENENDEZ, Nerea BORDEL, Rosario PEREIRO, Alfredo SANZ-MEDEL*
- W08 A HIGH RESOLUTION CCD DETECTOR SYSTEM FOR GDOES  
*Roland DORKA, Ruediger MEIHSNER, Michael ANALYTIS*
- W09 AN ORIGINAL GLOW DISCHARGE HIGH RESOLUTION MASS SPECTROMETER TO ANALYSE ULTRA PURE CONDUCTING AND NO CONDUCTING SOLID MATERIALS  
*Hugues PREUD'HOMME, Nick McKINNON, Peter ROBINSON*
- W10 HYDROGEN NEGATIVE ION FORMATION IN HOLLOW CATHODE GLOW DISCHARGE  
*Veselina GENCHEVA, Renna DJULGEROVA, Valentin MIHAILOV*
- W11 QUANTITATION OF QUENCHING EFFECTS ON ARGON METASTABLES IN PULSED GLOW DISCHARGE MASS SPECTROMETRY  
*Daniel FLIEGEL, Dettel GÜNTHER*
- W12 GLOW DISCHARGE SOURCE ASSOCIATED WITH OPTIC AND MASS SPECTROMETRY  
*Michel TABARANT, Denis MENUT*
- W13 PULSED GLOW-DISCHARGE TIME-OF-FLIGHT MASS SPECTROMETRY FOR ELEMENTAL AND MOLECULAR ANALYSIS  
*M. HOHL, J. MICHLER, T. NELIS, K. FUHRER, M. GONIN, P. WURZ*
- W14 LAYER-BY-LAYER ANALYSIS OF SEVERAL NEW MATERIALS IN HOLLOW CATHODE DISCHARGE  
*Renna DJULGEROVA, Valentin MIHAILOV, Veselina GENCHEVA, Zoran Lj. PETROVIC*
- W15 CATHODE AND ANODE MATERIAL INFLUENCE ON THE ELECTRICAL AND OPTICAL PROPERTIES OF A RADIOFREQUENCY GLOW DISCHARGE USED FOR OPTICAL EMISSION SPECTROSCOPY  
*Zoheir GHALEM, Laurent THERESE, Philippe GUILLOT, Philippe BELENGUER*
- W16 SPECTROSCOPIC CHARACTERIZATION BY OPTICAL EMISSION SPECTROMETRY OF LASER INDUCED PLASMAS ASSISTED BY GLOW DISCHARGE SPUTTERING IN CONTINUOUS AND PULSED REGIME  
*Keith TERESZCHUK, Jose Miguel VADILLO, Javier LASERNA*

**GD (cont.)**

- W17 ANALYSIS OF ARRAYS OF NI NANOWIRES INTO SELF-ALIGNED TITANIA NANOTUBES BY RADIOFREQUENCY GLOW DISCHARGE-OPTICAL EMISSION SPECTROMETRY  
*A. MENÉNDEZ, R. PEREIRO, N. BORDEL, V.M. PRIDA, B. HERNANDO, M. HERNÁNDEZ-VÉLEZ, K. PIROTA, M. VÁZQUEZ, A. SANZ-MEDEL*
- W18 STUDIES ABOUT THE IN-DEPTH PROFILE QUANTIFICATION OF THIN FILMS ON GLASSES BY RADIOFREQUENCY GLOW DISCHARGE-OPTICAL EMISSION SPECTROMETRY  
*Beatriz FERNÁNDEZ, Nerea BORDEL, Rosario PEREIRO, Alfredo SANZ-MEDEL*
- W19 MULTIMETAL DETECTOR BASED ON ELCAD OPTICAL EMISSION SPECTROMETRY PRINCIPLE FOR CAPILLARY ANALYTICAL SYSTEMS  
*T. CSERFALVI, P. MEZEI*
- W20 RF-GD-OES FOR NON CONDUCTIVE MATERIALS: SOME FEATURES  
*Philippe LE COUSTOMER, Patrick CHAPON, Celia OLIVERO, Mikael MOTELICA, Fouad AMIN, Arnaud GAUTHIER, Hugues FRANCOIS SAINT-CYR, Cédric LOPEZ*
- W21 FURTHER INVESTIGATIONS OF THE EFFECT OF MOLECULAR SPECIES ON THE ANALYSIS OF ORGANICS WITH GD\_OES  
*Arne BENGTSOEN, James OLIVER*
- W22 USE OF NEW ELECTRICAL SIGNALS FOR QUANTITATIVE MEASUREMENTS OF INSULATING SAMPLES BY RF-GD-OES  
*L. WILKEN, V. HOFFMANN, K. WETZIG*
- W23 INTERFACIAL EFFECTS ON THE DEPTH RESOLUTION DURING THE ANALYSIS OF MULTILAYERS METAL COATINGS BY RADIO FREQUENCY GLOW DISCHARGE OPTICAL EMISSION SPECTROSCOPY DEPTH PROFILING  
*Ramón ESCOBAR GALINDO, Eduardo FORNIES, José María ALBELLA*
- W24 PULSED HOLLOW CATHODE AS ION SOURCE FOR SOLID STATE SAMPLES - TOFMS ANALYSIS  
*A. GANEEV, A. DROBYSHEV, S. POTAPOV, M. VORONOV, R. TJUKALTZEV, M. KUZMENKOV*
- W25 HOLLOW CATHODE ION SOURCE FOR THE ELEMENTAL ANALYSIS OF SOLIDS  
*George SIKHARULIDZE*
- W26 A NEW HIGH PRESSURE GLOW DISCHARGE PULSED ATOMIZER FOR ZEEMAN SPECTROMETRY  
*Alexander GANEEV, Atis SKUDRA, Stanislav SUPRUNOVICH, Natalja ZORINA*
- W27 ORGANOTIN SPECIATION USING FAST FLOW GLOW DISCHARGE MASS SPECTROMETRY  
*Karla NEWMAN, Rod S. MASON*
- W28 CHARACTERIZATION OF SURFACES AND THIN FILMS DOWN TO THE NANOMETER SCALE OF CONDUCTIVE AND NON-CONDUCTIVE MATERIALS BY RF-GD-OES  
*P. CHAPON, C. OLIVERO*

## Proteomics

- W29 ION PAIRING-REVERSED PHASE CHROMATOGRAPHY COUPLED TO SECTOR FIELD ICP-MS (IP-RPC-ICP-SFMS) FOR THE DETERMINATION OF METAL-BOUND PHYTOCHELATINES (ME-PC) IN SILENE VULGARIS EXTRACTS  
*Valeria LORETI, Jörg BETTMER*
- W30 PROTEOMICS WITH SEC-ICP-MS: INCREASING THE CHROMATOGRAPHIC RESOLUTION BY SIGNAL POST-PROCESSING  
*Alexei PLOTNIKOV, Christian WOLF, Holger BERTELSMANN, Antonios KYRIAKOPOULOS*
- W31 IDENTIFICATION OF WATER SOLUBLE PROTEINS IN AGARICUS BISPORUS AND LENTINULA EDODES MUSHROOMS BY VARIOUS CHROMATOGRAPHIC AND MASS SPECTROMETRIC METHODS  
*Kevin M. KUBACHKA, Valeria GERGELY, Péter FODOR, Joseph A. CARUSO*
- W32 PHOSPHO- AND METALLOPROTEOMICS BY COMBINATION OF MALDI-FTICR-MS AND LA-ICP-MS AFTER 2D GEL ELECTROPHORESIS  
*J. Susanne BECKER, Miroslav V. ZORIY, Udo KRAUSE-BUCHOLZ, Carola PICKHARDT, Gerhard RÖDEL, Michael PRZYBYLSKI, J. Sabine BECKER*
- W33 SIMULTANEOUS PHOSPHOR, SULPHUR AND METAL ION SPECIATION IN PROTEINS USING HPLC / SECTOR FIELD ICP-MS  
*Torsten LINDEMANN, Meike HAMESTER, Lothar ROTTMANN*
- W34 MULTI-ELEMENT SPECIATION OF PROTEIN-BOUND METAL(LOID)S IN HUMAN BLOOD BY SEC-ICP-MS  
*Frank HASENAECKER, Roland DIAZ-BONE, Alfred V. HIRNER*
- W35 RELATIVE QUANTITATION OF PEPTIDES BY DIFFERENTIAL ISOTOPIC TAGGING USING ISOTOPE DILUTION MASS SPECTROMETRY  
*Pritesh PATEL, E. Hywel EVANS, Richard HANDY, Phil JONES, Peter MARSHALL, Bill LEAVENS*
- W36 TWO DIMENSIONAL SEPARATION SCHEMES FOR INVESTIGATION OF THE INTERACTION OF AN ANTICANCER RUTHENIUM (III) COMPOUND WITH PLASMA AND CYTOSOL PROTEINS  
*Michael SULYOK, Stephan HANN, Christian G. HARTINGER, Bernhard K. KEPPLER, Gerhard STINGEDER, Gunda KOELLENSPERGER*
- W37 DETERMINATION OF PROTEIN PHOSPHORYLATION DEGREE WITH LC-ICP-MS AND LA-ICP-MS: A COMPARISON  
*Ralf KRUEGER, Wolf D. LEHMANN*
- W38 HPLC-ICP-MS AND MALDI-TOF / ESI-Q-TOF FOR CHARACTERIZATION OF THE DIFFERENT HUMAN SERUM TRANSFERRIN GLYCOFORMS  
*M. Estela del CASTILLO BUSTO, María MONTES-BAYÓN, Elisa BLANCO-GONZÁLEZ, Alfredo SANZ-MEDEL*
- W39 DERIVATISATION OF PEPTIDES WITH A BROMINATED PHOSPHONIUM DERIVATISING REAGENT TO DETERMINE THE EXTENT OF PHOSPHORYLATION USING BROMINE AND PHOSPHORUS ISOTOPE RATIOS  
*Andrew CARTWRIGHT, E. Hywel EVANS, Phil JONES, Jean-Claude WOLFF*

### **Proteomics (cont.)**

- W40 PARALLEL ICP-MS AND EI-MS DETECTION AFTER GC SEPARATION AS AN UNIQUE TOOL FOR SPECIATION OF ORGANOMETAL(LOID)S IN BIOLOGICAL SAMPLES  
*Jan KOESTERS, Joerg HIPPLER, Alfred V. HIRNER*
- W41 METALLOPROTEIN IDENTIFICATION AND CHARACTERIZATION IN ORANGE JUICE BY 2D-PAGE, ICP-Q-MS AND MASS SPECTROMETRY (Q-TOF-MS)  
*J.L. GÓMEZ-ARIZA, M<sup>a</sup>.J. VILLEGAS-PORTERO, V. BERNAL-DAZA*
- W42 COMPARATIVE DETERMINATION OF PROTEIN BOUND METAL(OID)S IN HUMAN SERUM AND BLOOD SAMPLES BY NATIVE VS. SDS GEL ELECTROPHORESIS COUPLED WITH LA-ICP-MS  
*Joachim FELIX, Roland DIAZ-BONE, Alfred V. HIRNER*
- W43 CHARACTERISATION OF A NEW ANALYTICAL HYPHENATED TECHNIQUE: GC-SPLITTED EFFLUENT-FID/ICP-MS FOR THE DETERMINATION OF PESTICIDES  
*Márta ÜVEGES, László ABRANKÓ, Péter FODOR*
- W44 TOWARDS HIGH SENSITIVITY MEASUREMENT OF PHOSPHORYLATED PROTEINS – GEL ELECTROPHORESIS AND FLOW INJECTION–INDUCTIVELY COUPLED PLASMA-MASS SPECTROMETRY  
*Victoria L. ELLIOTT, Cameron W. McLEOD and Peter S. MARSHALL*
- W45 QUANTITATIVE METALLOMICS AND TRACER STUDIES ON METALLOPROTEINS IN HUMAN BRAIN SAMPLES BY LA-ICP-MS AND MALDI-FTICR-MS AFTER 2D GEL ELECTROPHORESIS  
*J. Sabine BECKER, J. Susanne BECKER, Miroslav V. ZORIY, Carola PICKHARDT, Michael PRZYBYLSKI*

### **Laser Ablation**

- W46 MULTI-PULSE LIPS SPECTROSCOPY USING A PASSIVE Q-SWITCHED ND LASER  
*Gabor GALBACS, Viktoria BUDAvari*
- W47 SAMPLE PREPARATION AND CALIBRATION STRATEGY ON MULTI-ELEMENTAL ANALYSIS OF ORGANIC SAMPLES BY LASER ABLATION-ICP-MS  
*J.R. CASTILLO, M.S. JIMÉNEZ, M.T. GÓMEZ*
- W48 MICROLOCAL (15-50 µm) ISOTOPE RATIO MEASUREMENTS OF URANIUM ON BIOLOGICAL SURFACE BY LA-ICP-MS WITH A COOLED LASER ABLATION CHAMBER  
*Myroslav V. ZORIY, M. KAYSER, A. IZMER, C. PICKHARDT, P. OSTAPCZUK, J.S. BECKER*
- W49 PREPARATION OF POWDERED SAMPLES FOR LA-ICP-OES  
*Markéta HOLÁ, Pavel KRÁSENSKÝ, Vítězslav OTRUBA, Viktor KANICKÝ*
- W50 CHARGE AND TRANSPORT PROPERTIES OF PARTICLES DURING LASER ABLATION SAMPLING  
*Jitka MIKOVA, Jan HOVORKA, Jan KOSLER*
- W51 SIGNIFICANCE OF ISOBARIC INTERFERENCES IN HF ISOTOPIC ANALYSIS OF GEOLOGICAL SAMPLES  
*Jirí SLÁMA, Jan KOSLER*

### Laser Ablation (cont.)

- W52 A NEW METHOD FOR THE DETECTION OF PROTEINS BY LA-ICP-MS USING GOLDCLUSTER LABELED ANTIBODIES  
*Sebastian MUELLER, Roland DIAZ-BONE, Wolfgang GOEDECKE, Alfred V. HIRNER*
- W53 STUDIES ON ANALYTE RESPONSE AND POLYATOMIC ION FORMATION IN DEPENDENCE ON OPERATING PARAMETERS IN LA-ICPMS  
*Zhongke WANG, Bodo HATTENDORF, Detlef GÜNTHER*
- W54 ANALYSIS OF POWDERED TUNGSTEN CARBIDE BY LASER INDUCED BREAKDOWN SPECTROMETRY  
*Karel NOVOTNÝ, Alice STANKOVA, Vítězslav OTRUBA, Viktor KANICKÝ*
- W55 DEPTH PROFILING OF ZINC-COATED SHEET USING LASER-INDUCED BREAKDOWN SPECTROSCOPY  
*Tomas VACULOVIC, Michaela GALIOVA, Karel NOVOTNÝ, Vítězslav OTRUBA, Viktor KANICKÝ*
- W56 COMPARISONS OF LIBS AND ICP / AES TECHNIQUES  
*Pascal FICHET, Michel TABARANT*
- W57 ABLATION STUDIES ON TITANIUM DIOXIDE POWDER SAMPLES WITH TWO DIFFERENT LASER SYSTEMS (193 nm AND 266 nm)  
*Christian FREI, Detlef GÜNTHER*
- W58 DEVELOPMENT AND EVALUATION OF LOW PRESSURE LASER ABLATION COUPLED TO ICP-MS  
*Daniel FLIEGEL, Detlef GÜNTHER*
- W59 LASER ABLATION ICP-MS IN FORENSIC GLASS ANALYSIS: WAVELENGTH DEPENDENT CHANGES OF REFRACTIVE INDEX OF GLASS FRAGMENTS AFTER LASER ABLATION  
*S. BECKER, M. DÜCKING, Ch. LATKOCZY, D. GÜNTHER*
- W60 LA-ICP-MS STUDIES IN NICKEL-BASED COATINGS ON HIGH TEMPERATURE ALLOYS  
*Andrei V. IZMER, Miroslav V. ZORIY, Carola PICKHARDT, W.J. QUADAKKERS, J. Sabine BECKER*
- W61 THERMAL IN-LINE SEPARATION OF ELEMENTS IN LASER ABLATION ICPMS – A Rb-Sr CASE STUDY  
*Bodo HATTENDORF, Marcel GUILLONG, Detlef GÜNTHER*
- W62 ELEMENTAL MAPPINGS IN MATERIAL SCIENCES - FROM IMAGES TO QUANTITATIVE INFORMATION BY LA-ICP-SF-MS  
*Christopher LATKOCZY, Yves MÜLLER, Patrik SCHMUTZ, Detlef GÜNTHER*
- W63 DETERMINATION OF RARE EARTH ELEMENTS IN BONES USING LA-ICP-MS  
*Susan GRUHL, Abdelouahed DARAOU, Frank WITTE, Carla VOGT*
- W64 IN SITU LASER ABLATION SAMPLING FOR INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY  
*Martin TANNER, Detlef GÜNTHER*
- W65 ANALYSIS OF ALUMINA-BASED CATALYSTS BY LA-ICP-AES  
*C. DUBOIS, N. GILON, C-P. LIENEMANN, J. M. MERMET*

### Laser Ablation (cont.)

- W66 LASER ABLATION-INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY FOR THE DIRECT ANALYSIS OF DIFFERENT PLASTIC MATERIALS  
*Esperanza GARCIA-RUIZ, Martin RESANO, Frank VANHAECKE*
- W67 DEVELOPMENTS IN BIOLOGICAL AND ENVIRONMENTAL APPLICATIONS OF LASER ABLATION INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY (LA-ICP-MS)  
*Steven F. DURRANT, Neil I. WARD*
- W68 ELEMENTAL MAPPING OF GUNSHOT RESIDUES VIA LA-ICP-MS  
*Song Cai WANG, D. TALIB, R. MA, A. COX, C.W. McLEOD, Ruo Kui XING, C. PARK*
- W69 INTERROGATION OF LASER CAPTURE MICRODISSECTION TISSUE AND MICROTOMED TISSUE SAMPLES BY LA-ICP-MS – A COMPARATIVE STUDY  
*R.W. HUTCHINSON, A.G. COX, C.W. McLEOD, D.R. HOWLETT, P.S. MARSHALL*
- W70 GEL ELECTROPHORESIS AND FEMTOSECOND LASER ABLATION – ICP/MS  
*J.R. CASTILLO, J. GONZALEZ, R.E. RUSSO*

### Sample Introduction

- W71 DIRECT DETERMINATION OF TRACE ELEMENTS IN ALUMINA CERAMIC POWDERS BY INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY USING ELECTROTHERMAL VAPORIZATION  
*Birgit U. PESCHEL, Gary M. HIEFTJE, José A.C. BROEKAERT*
- W72 DETERMINATION OF TRACE METALS IN COAL BY INDUCTIVELY COUPLED PLASMA SPECTROMETRY WITH MICROWAVE-ASSISTED DIGESTION NOT USING A 'TROUBLE MAKER'; HYDROFLUORIC ACID  
*Tetsuya NAKAZATO, Jie WANG, Kinya SAKANISHI, Osamu YAMADA, Hiroaki TAO, Ikuo SAITO*
- W73 DIRECT ATOMIC SPECTROMETRIC ANALYSIS OF METAL OXIDE SAMPLES BY CONTINUOUS POWDER INTRODUCTION INTO MICROWAVE INDUCED PLASMA  
*Krzysztof JANKOWSKI, Adrianna JACKOWSKA, Pawel LUKASIAK*
- W74 SPECTROSCOPIC DIAGNOSTICS OF A CONTINUOUS POWDER INTRODUCTION MICROWAVE INDUCED PLASMA ATOMIC EMISSION SPECTROMETRY SYSTEM  
*Adrianna JACKOWSKA, Krzysztof JANKOWSKI*
- W75 EVALUATION OF CONTINUOUS HYDRIDE GENERATION MICROWAVE INDUCED PLASMA ATOMIC EMISSION SPECTROMETRY SYSTEM FOR SIMULTANEOUS DETERMINATION OF TRACE ELEMENTS IN SOILS  
*Krzysztof JANKOWSKI, Adrianna JACKOWSKA, Anna FLADER, Katarzyna HAR*
- W76 A SENSITIVE METHOD FOR ANALYSIS OF HALOANISLES IN WINES BY ON-LINE EXTRACTION USING PERVAPOARATION AND DETERMINATION BY GAS CHROMATOGRAPHY COUPLED TO ICP-MS  
*J.L. GÓMEZ-ARIZA, T. GARCÍA-BARRERA, F. LORENZO*
- W77 A NEW FILTRATION DEVICE FOR WATER SUITABLE FOR ULTRA TRACE ELEMENTAL ANALYSIS  
*Ichiro KANO, Masanori KANAZAWA, Yukio HASHIMOTO*



**Sample Introduction (cont.)**

- W78 COMPARISON OF SOLID-PHASE MICROEXTRACTION COUPLED WITH GC-MS AND GC-ICP-MS FOR THE DETERMINATION OF ORGANOPHOSPHORUS PESTICIDES IN WATER SAMPLES  
*Natalia FIDALGO-USED, Elisa BLANCO-GONZÁLEZ, Alfredo SANZ-MEDEL*
- W79 COMPARISON OF DIGESTION TECHNIQUES FOR DETERMINATION OF IODINE IN MILK BY VAPOUR-GENERATION INDUCTIVELY COUPLED PLASMA - OPTICAL EMISSION SPECTROMETRY  
*Eva NIEDOBOVÁ, Jirí MACHÁT, Viktor KANICKÝ, Vítězslav OTRUBA*
- W80 DESIGN AND DEVELOPMENT OF ELECTRODEPOSITION TECHNIQUE FOR SEPARATION AND PRECONCENTRATION OF Co, Ni, Au, Pt, In, Pt IN ENVIRONMENTAL SAMPLES PRIOR TO FAAS AND ICP-AES MEASUREMENTS  
*Nahid MASHKOURI NAJAFI, Parmiss SHAKERI*
- W81 USE OF A NOVEL SEQUENTIAL EXTRACTION PROCEDURE WITH CHEMOMETRIC DATA TREATMENT AND ICP-AES ANALYSIS TO ASSESS THE METAL DISTRIBUTION WITHIN THE PHYSICO-CHEMICAL COMPONENTS IN SEDIMENTS FROM THE GALICI  
*Rebeca SANTAMARÍA-FERNÁNDEZ, Mark R. CAVE, Steve J. HILL*
- W82 A NOVEL ON-LINE SEQUENTIAL EXTRACTION PROCEDURE FOR METAL PARTITIONING IN SOILS AND SEDIMENTS  
*Steve J. HILL, Rebeca SANTAMARÍA-FERNÁNDEZ, Mark R. CAVE*

**EUROPA BOAT**

20.00 – 23.00 Banquet (*optional, ticket required*)

**Thursday, 3 February 2005**

**Room A**

**09.00 – 10.00 Metallomics**  
**Chair: Zoltán MESTER**

09.00 – 09.30 PLASMA SOURCE TECHNIQUES: FROM SPECIATION ANALYSIS TO  
**Plenary** METALLOMICS  
*Ryszard LOBINSKY, Joanna SZPUNAR*

09.30 – 10.00 HETEROELEMENT SPECIFIC DETECTION OF BIO-MOLECULES USING ICP-MS  
**Invited** *Andreas PRANGE*

10.00 – 10.20 *Coffee break*

**Room A**

**10.20 – 11.40 Speciation-Application**  
**Chair: Zoltán MESTER**

10.20 – 10.40 DEVELOPMENT AND APPLICATION OF ISOTOPIC TAGS FOR INVESTIGATION  
OF PROTEIN EXPRESSION AND PHOSPHORYLATION USING LC-ICP-MS  
*E. Hywel EVANS, Andrew J. CARTWRIGHT, Pritesh PATEL, Pete MARSHALL, Jean-  
Claude WOLFF*

10.40 – 11.00 THE ON-LINE COUPLING OF GEL ELECTROPHORESIS (GE) AND INDUCTIVELY  
COUPLED PLASMA-MASS SPECTROMETRY (ICP-MS)  
*Wolfram BRÜCHERT, Andreas HELFRICH, Jörg BETTMER*

11.00 – 11.20 ACCURATE MEASUREMENT OF ISOTOPE RATIOS FROM MOLECULAR  
CLUSTERS IN BUTYLTIN MASS SPECTRA  
*Juris MEIJA, Giuseppe CENTINEO, J. Ignacio GARCIA ALONSO, Alfredo SANZ-  
MEDEL, Joseph A. CARUSO*

11.20 – 11.40 VALIDATION OF SPECTROMETRIC METHODS IN THE FOOD SECTOR  
**Invited** *S. CAROLI, R. CAMMARONE, S. CIARDULLO, A. COLABUCCI, M. D'AMATO,  
C. FRAZZOLI*

**Room B**

**10.20 – 11.20 Instrumentation**  
**Chair: Steve HILL**

10.20 – 10.40 COMPARISON OF DRC AND HR ICP-MS TECHNIQUES IN THE DETERMINATION  
OF PLATINUM IN URINE  
*Sandro SPEZIA, Giovanni FORTE, Beatrice BOCCA, Anna GATTI, Giovanna  
MINCIONE, Anna RONCHI, Paolo BAVAZZANO, Alessandro ALIMONTI, Claudio  
MINOIA*

10.40 – 11.00 EXPLOITING THE BENEFITS OF MULTI-COLLECTOR ICP-MS FOR NOVEL  
ISOTOPE DILUTION TECHNIQUES  
*Ruth HEARN, Peter EVANS*

11.00 – 11.20 PLASMA MASS SPECTROMETRY VERSUS THE WORLD  
*Mike CAMPBELL*

**Room C**

**10.20 – 11.20 MIP-AES**

**Chair: Cameron MCLEOD**

10.20 – 10.40 INVESTIGATION OF INTERFERENCES CAUSED BY MATRIX ELEMENTS WITH LOW SECOND IONIZATION POTENTIAL IN INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY

*George CHAN, Gary HIEFTJE*

10.40 – 11.00 IMPROVING THE PERFORMANCE OF ICP-MS FOR DIFFICULT MATRICES

*Mark LANDON, Helen REID, Barry SHARP*

11.00 – 11.20 APPLICATION OF MICROWAVE INDUCED PLASMA ATOMIC EMISSION SPECTROMETRY AS ELEMENT SPECIFIC DETECTOR FOR Cr(III)/Cr(VI) SPECATION ANALYSIS

*György HELTAI, Balázs FEHÉR, Tibor JÓZSA, Kálmán PERCSICH*

**Room A**

**11.40 – 12.00 Closing Ceremony**