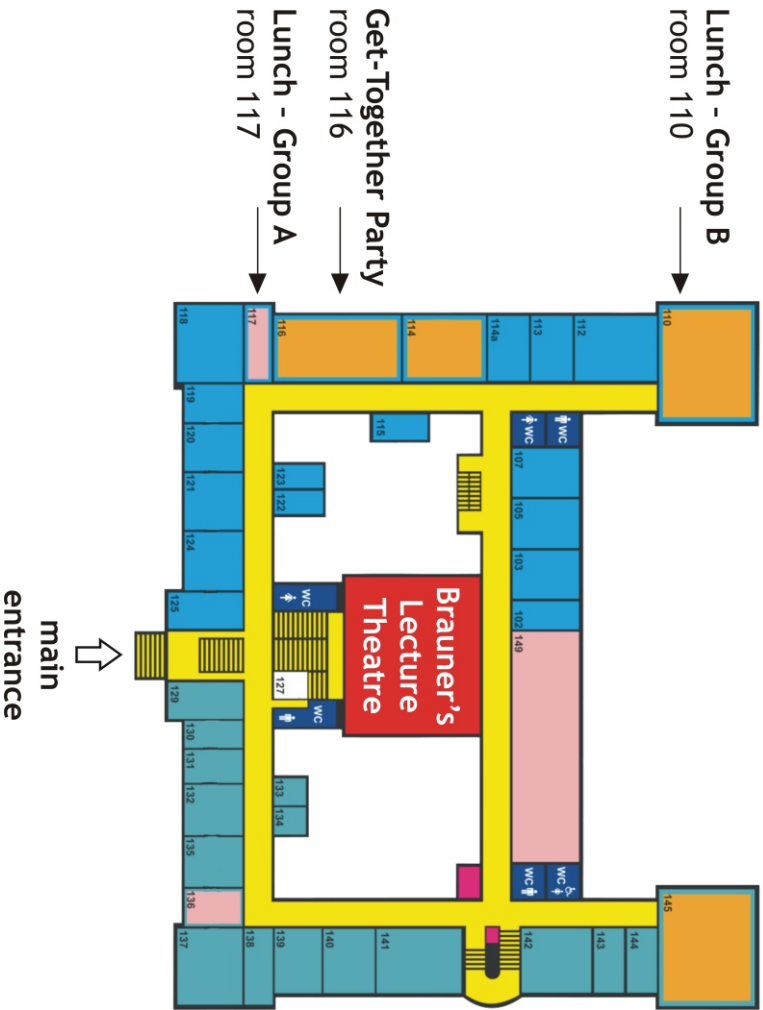

**Programme of the
11th International Students Conference
“Modern Analytical Chemistry”**

Prague, 22—23 September 2015

Charles University in Prague, Faculty of Science
Prague 2015



General Information

The **conference is held** at the Institute of Chemistry, Faculty of Science, Charles University in Prague (Hlavova 8, 128 43 Prague 2) in the main lecture hall (Brauner's Lecture Theatre).

The **registration** is located at the landing of main staircase, across the entrance to the building. It will be open on Tuesday, September 22 from 8.30 to 9.00. Later, please, contact organizers in advance.

Oral presentations are fifteen minutes including discussion and speakers are asked to download their Power Point presentation on the local computer in the lecture hall before the start of the session.

The **coffee breaks** are held in the lecture hall.

The **lunches** are served in rooms no. 117 or 110 (please, see the division of participants at the conference desk).

The **get-together party** will be held in room 116, on Tuesday, September 22 from 17:45.

Programme

Tuesday, September 22, 2015

- 8:30–9:00 **Registration of participants**
- 9:00–9:15 **Opening ceremony, welcoming address**
- 9:15–9:30 **Session 1** • chairperson: Karel Marschner
Aszyk K. (Gdansk University of Technology, Poland):
Development of different methods for drugs and psychoactive substances extraction from hair samples and their identification based on HPLC-ESI-QTOF analysis
- 9:30–9:45 Zlámalová M. (Charles University in Prague, Czech Republic):
Development of the poly(methylene blue) modified graphite electrodes for the electrochemical detection of hydrogen sulphide
- 9:45–10:00 Giersz J.J. (Warsaw University of Technology, Poland):
Miniature plasma-based analyzer – a new tool for trace environmental analysis
- 10:00–10:15 Grzywiński D. (Nicolaus Copernicus University, Poland):
Cholesterol capillary monolithic columns for reversed-phase liquid chromatography
- 10:15–10:30 Hájková A. (Charles University in Prague, Czech Republic):
Simple electrochemical DNA biosensor for detection of DNA damage induced by hydroxyl radicals
- 10:30–10:45 Háková E. (Charles University in Prague, Czech Republic):
Analysis of low abundant lipids in vernix caseosa using chromatographic methods and mass spectrometry
- 10:45–11:00 **Coffee Break**
- 11:00–11:15 **Session 2** • chairperson: Monika J. Wiczerzak
Hudecová D. (Comenius University in Bratislava, Slovakia):
Determination of galactose and galactitol in urine by GC-MS/MS

- 11:15–11:30 Jakubczak W.Ł. (Warsaw University of Technology, Poland):
Investigation of changes in metal homeostasis in cancer cells by ICP MS and SEC/CE ICP MS
- 11:30–11:45 Jakubíková M. (Slovak University of Technology, Slovakia):
Fluorescence spectroscopy for rapid classification of fruit spirits
- 11:45–12:00 Jandová R. (University of Chemistry and Technology Prague, Czech Republic):
Application of high resolution mass spectrometry for assessment of Cannabis sativa quality
- 12:00–12:15 Jarczewska M.M. (Warsaw University of Technology, Poland):
Studies on the application of oligonucleotides as recognition layers for electrochemical detection of metal cations
- 12:15–12:30 Jarošová D. (Slovak University of Technology, Slovakia):
Modification of QuEChERS followed by GC-MS for determination of pesticide residues in textile products
- 12:30–13:15 **Lunch**
- Session 3** • chairperson: Aneta D. Pacyna
- 13:15–13:30 Kaliba D. (Charles University in Prague, Czech Republic):
Kinetic study of rhenium complexes with 1,2,3-tri-hydroxybenzene
- 13:30–13:45 Kiełbasa A. (Nicolaus Copernicus University, Poland):
New Polish reference material for the analysis of PAHs in the soil – determination of certified values and homogeneity
- 13:45–14:00 Moskaľová M. (Pavol Jozef Šafárik University, Slovakia):
HPLC enantioseparation on derivatized cyclofructan chiral stationary phases
- 14:00–14:15 Kocourková L. (University of Chemistry and Technology Prague, Czech Republic):
Chiroptical spectroscopy as a sensitive tool for the conformational analysis of antimicrobial peptides
- 14:15–14:30 Konasová R. (Charles University in Prague, Czech Republic):
Capillary electrophoretic study of solvent effects on complexation of dibenzo-18-crown-6 with potassium ions

14:30–14:45 Coffee Break**Session 4** • chairperson: David Kaliba

14:45–15:00 Konopińska K.K. (Warsaw University of Technology, Poland):

Application of tetraphenylporphyrin derivative as proteins' label in affinity biosensor

15:00–15:15 Kopuncová M. (Comenius University in Bratislava, Slovakia):

Application of accelerated solvent extraction for isolation of polycyclic aromatic hydrocarbons from smoked sausages

15:15–15:30 Kosek K. (Gdansk University of Technology, Poland):

The use of selected analytical techniques for pollutants determination in the environmental samples collected from the Arctic regions

15:30–15:45 Kotasová M. (Charles University in Prague, Czech Republic):

Voltammetric determination of diacetyl and pyruvate by derivatization with o-phenylenediamine

15:45–16:00 Kotora P. (Comenius University in Bratislava, Slovakia):

The use of INCAT device for the analysis of volatile components in urine samples

16:00–16:15 Coffee Break**Session 5** • chairperson: Eliška Nováková

16:15–16:30 Kupcová E. (Pavol Jozef Šafárik University, Slovakia):

Preliminary testing of dispersive liquid-liquid micro-extraction for extraction of estradiol from human urine

16:30–16:45 Kupiec M. (Warsaw University of Technology, Poland):

Investigation of Aurano-fin stability by means electrochemical chamber compound to ESI-MS

16:45–17:00 Lewkowska P. (Gdansk University of Technology, Poland):

Monitoring of odour nuisance on the adjacent areas to the landfill using fast GC and sensory analysis

17:00–17:15 Linhart O. (Charles University in Prague, Czech Republic):

Determination of arsenic by UV-photochemical generation of its volatile specie with AAS detection

- 17:15–17:30 Makrlíková A. (Charles University in Prague, Czech Republic):
Determination of selected components of human urine by electrophoresis in a short capillary with pressure-assisted sampling
- 17:30–17:45 **Sponsors' Presentations**
- 17:45 **Get-Together Party**

Wednesday, September 23, 2015

Session 6 • chairperson: David Kaliba

- 9:00–9:15 Marschner K. (Charles University in Prague, Czech Republic):
Efficient generation of arsanes coupled with HPLC or with cryotrapping for speciation analysis of arsenic
- 9:15–9:30 Matczuk M. (Warsaw University of Technology, Poland):
CE-ICP MS method for determination of the tumor-targeting quantum dots
- 9:30–9:45 Meller K. (Nicolaus Copernicus University, Poland):
Trypsin-based monolithic immobilized enzymatic reactor for proteomic analysis
- 9:45–10:00 Klusáčková M. (Charles University in Prague, Czech Republic):
Influence of electrode preparation on electrocatalytic activity of water-soluble porphyrazine complex to hydrogen
- 10:00–10:15 Nosal N. (Gdansk University of Technology, Poland):
The use of electronic nose for sunflower and rapeseed oil classification
- 10:15–10:30 Nováková E. (Charles University in Prague, Czech Republic):
UV-photochemical volatile compounds generation from selenium species
- 10:30–10:45 Owczarek K. (Gdansk University of Technology, Poland):
Analytical aspects of model compounds toxicity assessment using MTT and Microtox bioanalytical assays

10:45–11:00 Coffee Break

- Session 7** • chairperson: Monika J. Wiczerzak
11:00–11:15 Pacyna A. (Gdansk University of Technology, Poland):
Arctic as a reservoir for polycyclic aromatic hydrocarbons and polychlorinated biphenyls water samples from Foxfonna glacier
- 11:15–11:30 Papajová L. (University of Chemistry and Technology Prague, Czech Republic):
The use of self cleaning ion source in GC-MS for multiresidue pesticide analysis
- 11:30–11:45 Resslerová T. (Charles University in Prague, Czech Republic):
Electrochemical hydride generation of tellurium hydride coupled with QTAAS
- 11:45–12:00 Rumlová T. (Charles University in Prague, Czech Republic):
Anodic voltammetric determination of 2-nitrophenol at a carbon film electrode in model samples of drinking water
- 12:00–12:15 Setyaningsih W. (University of Cadiz, Spain):
Comparison of HPLC and UPLC methods for the determination of melatonin in rice
- 12:15–12:30 Skoczylas M. (Nicolaus Copernicus University, Poland):
Synthesis and characterization of peptide stationary phases for liquid chromatography

12:30–13:15 Lunch

- Session 8** • chairperson: Aneta D. Pacyna
13:15–13:30 Śliwińska M. (Gdansk University of Technology, Poland):
Application of electronic nose based on fast GC for comparison of aroma profiles of homemade cherry spirit beverage Nalewka made with addition of different amount of sugar
- 13:30–13:45 Svítková J. (Slovak University of Technology, Slovakia):
Non-traditional material for the development of electrochemical DNA biosensor in pharmaceutical analysis
- 13:45–14:00 Szczepańska N. (Gdansk University of Technology, Poland):

- 14:00–14:15 *Toxicological assessment of food packages extracts*
Ševčík V. (Charles University in Prague, Czech Republic):
Analysis of suspected fragrance allergens in rinse-off cosmetics by SPE GC-MS
- 14:15–14:30 Švarcová A. (University of Chemistry and Technology Prague, Czech Republic):
Ultratrace analysis of halogenated persistent contaminants in human blood serum
- 14:30–14:45 **Coffee Break**
- Session 9** • chairperson: Karel Marschner
- 14:45–15:00 Uríčková V. (Slovak University of Technology, Slovakia):
Classification of juniper-flavoured spirit drinks according to producers by fluorescence spectroscopy
- 15:00–15:15 Vavrouš A. (Charles University in Prague, Czech Republic):
Solution for simultaneous analysis of phthalates, polycyclic aromatic hydrocarbons, photoinitiators, bisphenols and polyfluorinated compounds in paper-based food packaging
- 15:15–15:30 Viehbeck S. (University of Regensburg, Germany):
Comparison of two direct ion sources coupled to a MS system (DART-MS and DIP-MS)
- 15:30–15:45 Vytejšková S. (University of Chemistry and Technology Prague, Czech Republic):
Profile analysis of cereals by infrared spectrometry
- 15:45–16:00 Waraksa E. (Gdansk University of Technology, Poland):
Examination of excretion of ibuprofen and its metabolites in horses
- 16:00–16:15 **Coffee Break**
- Session 10** • chairperson: Tereza Rumlová
- 16:15–16:30 Wieczerzak M. (Gdansk University of Technology, Poland):
Application of bioassays in studies on the impact of pharmaceuticals on the environment
- 16:30–16:45 Wiśniewska P. (Gdansk University of Technology, Poland):
The comparison of vodka, whisky and moonshine by using the electronic nose based on the technology of ultra-fast gas

chromatography

- 16:45–17:00 Wojcieszek J. (Warsaw University of Technology, Poland):
LC-MS techniques for estimation of the bioaccessibility of metals complexes
- 17:00–17:15 Woźniak M. (Gdansk University of Technology, Poland):
Determination of 3,4-methylenedioxy- α -pyrrolidinobutio-phenone in blood. A case report.
- 17:15–17:30 Ferenczy V. (Comenius University in Bratislava, Slovakia):
Comparison of enzymatic and GC-MS/MS analysis of creatinine in urine samples
- 17:30 **Closing Ceremony**

