
Programme of the 14th International Students Conference “Modern Analytical Chemistry”

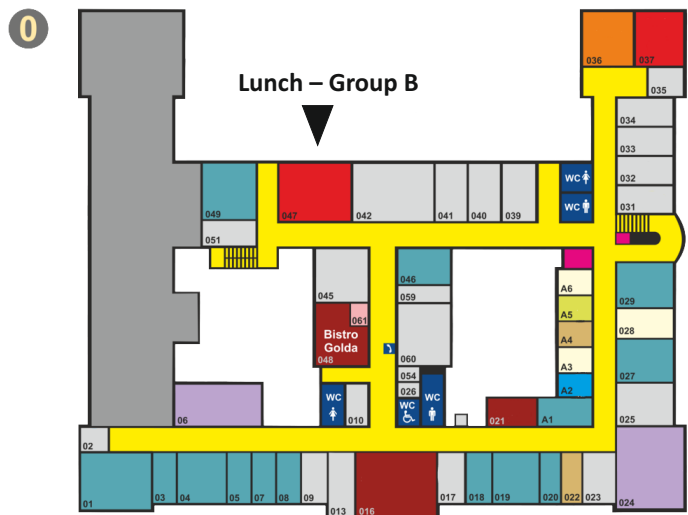
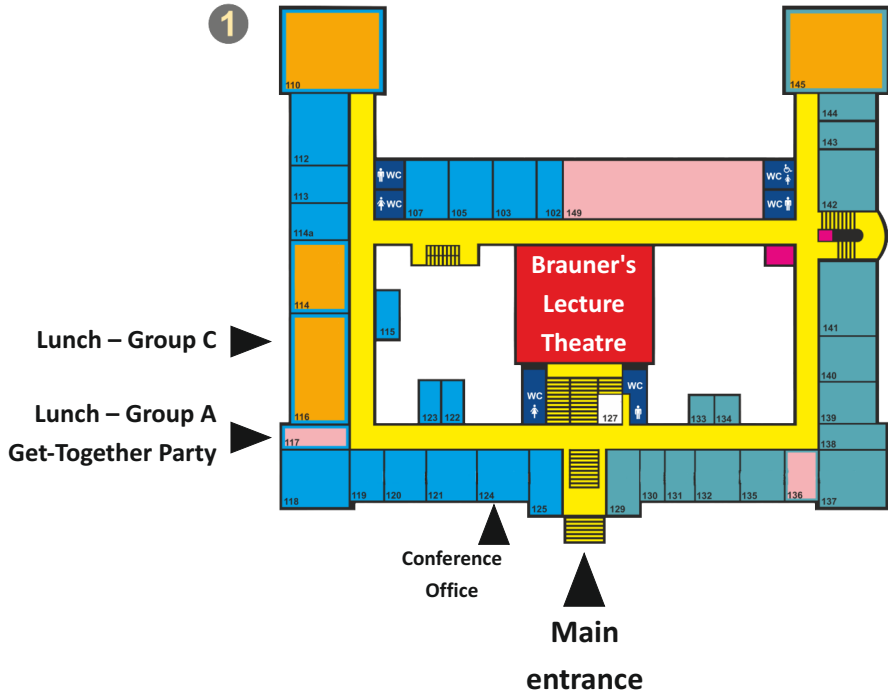
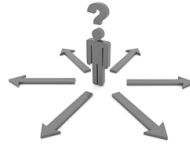
Prague, 20—21 September 2018



FACULTY OF SCIENCE
Charles University

Prague 2018

How to Find?



General Information

The **conference is held** at the Institute of Chemistry, Faculty of Science, Charles University (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 Thursday, September 20 from 8:30 to 9:00. Later, please, contact organizers.

Oral presentations are **15 minutes** including discussion and speakers are asked to download their PowerPoint presentation on the local computer in the lecture hall before the start of the session. The letter "P" and following number denote the page of respective contribution in the Proceedings.

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

The **lunches** are served in rooms number 117, 047 or 116 (please, see details at the page 10).

The **get-together party** will be held in room 117, on Thursday, September 20 from 17:30.

There is **WiFi connection** in the building. You could

- a) use your eduroam connection
- b) connect to network **Konference**, open your web browser and insert login and password, which you will find at the back side of your nameplate.

Programme

Thursday, September 20, 2018

- 8:30–9:00 **Registration of participants**
- 9:00–9:15 **Opening ceremony, welcoming address**
- 9:15–9:30 **Session 1** • chairperson: Karel Kudláček
Paulína Galbavá (Comenius University in Bratislava, Slovakia): *MS/MS analysis of fatty acid methyl esters in diesel* (P-120)
- 9:30–9:45 Anna Gusar (Tomsk Polytechnic University, Russia): *Carbon containing electrodes modified with the iodate salts of aryl-diazonium for electroanalysis* (P-134)
- 9:45–10:00 Marta Glinka (Gdańsk University of Technology, Poland): *Determination of amikacin and ciprofloxacin by liquid chromatography with pre-column derivatization to evaluate sustained delivery of antibiotics from Drug-Eluting Biopsy Needle* (P-218)
- 10:00–10:15 Július Gajdár (Charles University, Czech Republic): *Determination of difenzoquat at a mercury meniscus modified silver solid amalgam electrode by differential pulse voltammetry* (P-51)
- 10:15–10:30 Maria Madej (Jagiellonian University in Kraków, Poland): *Cyclic voltammetry and staircase voltammetry in citalopram determination* (P-37)
- 10:30–10:45 **Coffee Break**
- 10:45–11:00 **Session 2** • chairperson: Július Gajdár
Peter Braun (University of Regensburg, Germany): *Investigations on the electrochemically induced decomposition of AdBlue-urea* (P-55)
- 11:00–11:15 Klaudia Pytel (Gdańsk University of Technology, Poland): *Influence of terpenes on indoor air quality* (P-246)
- 11:15–11:30 Mária Kanášová (Charles University, Czech Republic): *Characterization of the liposomes carrying new immunoadjuvant*
- 11:30–11:45 Inal Bakhytkyzy (Gdansk University of Technology, Poland): *Design of Experiment approach for lipid extraction optimisation in lipidomics* (P-188)
- 11:45–12:00 Anna Makrlíková (Charles University, Czech Republic): *HPLC-ED/UV for determination of vanillylmandelic acid in human urine after solid phase extraction* (P-82)
- 12:00–12:15 Anna Król (Nicolaus Copernicus University in Toruń, Poland): *Determination of Lactococcus lactis modified with zinc ions by capillary electrophoresis* (P-68)

12:15–13:00 Lunch**Session 3** • chairperson: Simona Baluchová

- 13:00–13:15 Cuc Thi Nguyen-Marcinczyk (University of Warsaw, Poland): *Separation of chromium(III) and chromium(VI) by reversed-phase ion-pairing chromatography* (P-19):
- 13:15–13:30 Anton Korban (Belarusian State University, Belarus): *A novel way of establishing the quantitative composition of gravimetrically prepared standard solutions of volatile compounds in water-ethanol matrix* (P-162)
- 13:30–13:45 Marta Bystrzanowska (Gdańsk University of Technology): *Multi-Criteria Decision Analysis for selection of the best procedure for PAHs determination in smoked food* (P-200)
- 13:45–14:00 Jan Patočka (University of Pardubice, Czech Republic): *ICP-MS analysis as a tool for monitoring of the efficiency of the sorption based removal of iodinated contrast agents* (P-87)
- 14:00–14:15 Magdalena Fabjanowicz (Gdańsk University of Technology, Poland): *Metal content in wines of Polish origin* (P-205)

14:15–14:30 Coffee Break**Session 4** • chairperson: Bernhard Durner

- 14:30–14:45 Dorota Garwolińska (Gdańsk University of Technology, Poland): *New sample preparation strategies for comprehensive lipidomics of human breast milk* (P-211)
- 14:45–15:00 Valentina Popova (Tomsk Polytechnic University, Russian Federation): *Development of a voltammetric method for detection of ethyl nitrite* (P-276)
- 15:00–15:15 Maciej Milanowski (Nicolaus Copernicus University in Toruń, Poland): *Determination of volatile organic compounds in headspace above saliva specimens using SPME-GC/MS technique* (P-1)
- 15:15–15:30 Jana Smolejová (Charles University, Prague): *Effect of chaotropic salts addition into mobile phases on separation of model analytes on polar stationary phases in hydrophilic interaction chromatography* (P-285)
- 15:30–15:45 Andrzej Gawor (University of Warsaw, Poland): *Label-free proteomic approach to identification and quantification of proteins in animal tissue samples* (P-25)

15:45–16:00 Coffee Break

- Session 5** • chairperson: Jana Smolejová
- 16:00–16:15 Agata Jagielska (University of Warsaw, Poland):
Elemental analysis of atherosclerotic plaque by ICP-MS and LA-ICP-MS (P-44)
- 16:15–16:30 Diana Karapetian (Samara National Research University, Russian Federation): *Chromato-desorption method for producing gas mixtures of volatile organic compounds* (P-114)
- 16:30–16:42 Kaja Kalinowska (Gdańsk University of Technology, Poland):
Poultry meat freshness assessment based on the biogenic amines index (P-244)
- 16:45–17:00 Marek Dębosz (Jagiellonian University, Poland):
Simple calibration approach to elimination of the additive interference effect (P-14)
- 17:00–17:15 Agnieszka Rogowska (Nicolaus Copernicus University in Toruń, Poland): *The influence of pH on the electrophoretic behaviour of yeast modified by calcium ions* (P-93)
- 17:15–17:30 **Sponsors' Presentations**
- 17:30 **Get-Together Party**

Friday, September 21, 2018

Session 6 • chairperson: Anton Korban

- 9:00–9:15 Bartosz Szulczyński (Gdańsk University of Technology, Poland):
Estimation of the odour intensity of air samples undergoing biofiltration process using electronic nose and artificial neural network (P-263)
- 9:15–9:30 Karel Kudláček (Charles University, Czech Republic):
Analytis of alkaloids and their degradation products in historical pharmaceutical relicts
- 9:30–9:45 Yekaterina Khristunova (Tomsk Polytechnic University, Russia):
Control of electrochemical signal from silver nanoparticles at different modification steps for electrochemical immunosensor development (P-280)
- 9:45–10:00 Martyna Lubinska-Szczygeł (Gdańsk University of Technology, Poland):
Study of the effect of the hybridisation process on the content of terpenes in oroblanco fruit (Citrus paradisi × Citrus grandis) (P-236)
- 10:00–10:15 Simona Baluchová (Charles University, Czech Republic):
Boron-doped diamond electrode fabricated by microwave plasma enhanced chemical vapour deposition process with linear antenna delivery for neurotransmitters sensing (P-140)
- 10:15–10:30 Karolina Starzec (Jagiellonian University in Kraków, Poland):
New biosensor matrices based on carbon nanomaterials for tyrosinase immobilization (P-126)

10:30–10:45 Coffee Break

Session 7 • chairperson: Jan Patočka

- 10:45–11:00 Bernhard Durner (University of Regensburg, Germany):
Separation of cyclic and linear poly(dimethylsiloxanes) with interactive chromatography (P-7)
- 11:00–11:15 Olga M. Wrona (Nicolaus Copernicus University, Poland):
Supercritical carbon dioxide extraction as a crucial step in the enriching sample in desired group of bioactive compounds (P-269)
- 11:15–11:30 Vladimíra Jandovská (Charles University, Czech Republic):
Behavior and fate of pesticides during beer brewing (P-181)
- 11:30–11:45 Kamila Morawska (University of Lodz, Poland):
Electroanalytical and microscopic examination of screen-printed gold electrodes modified with graphene oxide

- 11:45–12:00 Michaela Malečková (Charles University, Czech Republic): *Development of miniaturized extraction method used for GC-NCD screening of non-volatile nitroso compounds in malt* (P-105)
- 12:00–12:15 Ewelina Skowron (University of Lodz, Poland): *Determination of acetaminophen on various paste electrodes*
- 12:15–13:00 **Lunch**
- Session 8** • chairperson: Yekaterina Khristunova
- 13:00–13:15 Mateusz Pegier (University of Warsaw, Poland): *Adsorption of Sc(III) on oxidized carbon nanotubes for separation and preconcentration from aqueous solutions – study of mechanism* (P-175)
- 13:15–13:30 Marina Shikun (Belarusian State University, Belarus): *Method of cyclic voltammograms in the determination of Sn(II) in strongly acid electrolytes for tin electrodeposition* (P-169)
- 13:30–13:45 Lesław Świerczek (Gdansk University of Technology, Poland): *The potential of raw sewage sludge in construction industry* (P-258)
- 13:45–14:00 Aneta Miklosinova (Charles University, Czech Republic): *Determination of nadroparine in fraxiparine injection solution using flow techniques of analysis*
- 14:00–14:15 Anna Różańska (Gdańsk University of Technology, Poland): *Classification of adulterated raspberry juice using ultra-fast gas chromatography* (P-253)
- 14:15–14:30 **Coffee Break**
- Session 9** • chairperson: Ewelina Skowron
- 14:30–14:45 Filip Pawlak (Gdansk University of Technology, Poland): *Correlation between chemical composition and the presence of selected groups of bacteria in freshwater samples collected from Isfjorden and Billefjorde* (P-240)
- 14:45–15:00 Alena Nikolaeva (Tomsk Polytechnic University, Russia): *Simultaneous determination of synthetic dyes Ponceau 4R (E124) and Sunset Yellow (E110) by fluorimetry in soft drinks* (P-161)
- 15:00–15:15 Natalia Festinger (University of Lodz, Poland): *Voltammetric studies of acemetacin* (P-77)
- 15:15–15:30 Jakub Šoukal (Charles University, Czech Republic): *Optimization of photochemical vapor generation of molybdenum as a sample introduction for ICP-MS* (P-100)
- 15:30–15:45 Mateusz Granica (University of Warsaw, Poland): *Distance-based measurements in microfluidic paper-based analytical devices modified with Prussian Blue* (P-31)

15:45–16:00 **Coffee Break**

Session 10 • chairperson: Natalia Festinger

16:00–16:15 Izabela Lewińska (University of Warsaw, Poland):

Fluorometric method of creatinine determination employing 3,5-dinitrobenzoic acid (P145)

16:15–16:30 Astkhik Igitkhanian (Samara National Research University,

Russia): *Chromato-desorption microsystems for determination of biomarkers in the exhaled breath* (P–158)

16:30–16:45 Dagmara Kempieńska (Gdańsk University of Technology):

High resolution liquid chromatography and time of flight mass spectrometry in perfume analysis (P–230)

16:45–17:00 Veronika Zušťáková (Charles University, Czech Republic):

Screening of pesticide in apple ciders by liquid chromatography-high resolution mass spectrometry (P–152)

17:00–17:15 Małgorzata Borowska (Politechnika Gdańska):

Release of active substances from polymeric coatings in medical applications (P–194)

17:15 **Closing Ceremony**

Groups for Lunch

The **lunches** are served in rooms number 117, 047 or 116. Please, respect the following distribution of participants in groups.

Group A (room 117)

Borowska Małgorzata
Braun Peter
Durner Bernhard
Festinger Natalia
Galbavá Paulína
Gusar Anna
Igitkhanian Astkhik
Karapetian Diana
Khristunova Yekaterina
Korban Anton
Kröl Anna
Kudláček Karel
Milanowski Maciej
Morawska Kamila
Nikolaeva Alena
Patočka Jan
Popova Valentina
Rogowska Agnieszka
Shikun Marina
Skowron Ewelina

Group B (room 047)

Bakhytkyzy Inal (veg.)
Baluchová Simona
Bystrzanowska Marta
Dębosz Marek
Fabjanowicz Magdalena
Garwolińska Dorota
Gawor Andrzej
Glinka Marta
Granica Mateusz
Jagielska Agata
Kalinowska Kaja
Kempińska Dagmara
Lewińska Izabela
Lubinska-Szczygeł Martyna
Madej Maria
Nguyen-Marcinczyk C.T.
Pawlak Filip
Pegier Mateusz
Pytel Klaudia (veg.)
Różańska Anna
Starzec Karolina
Świerczek Lesław
Szulczyński Bartosz
Wrona Olga + husband

Group C (room 116)

Gajdár Július
Jandovská Vladimíra
Kanásová Mária
Makrlíková Anna
Malečková Michaela
Miklošinová Aneta
Smolejova Jana
Šoukal Jakub
Zušťáková Veronika

Menu

Thursday, September 20, 2018

- chicken slice with cheese and ham, French fries
- *vegetarian*: vegetable salad with mozzarella

Friday, September 21, 2018

- chicken pieces, baby carrot, American potatoes
- *vegetarian*: breaded cauliflower, potatoes

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