Commemorative lectures:

Karol Flórián: Professor Mikuláš Matherny and his Košice Spectroscopy School: History and Scientific Milestones
Hubertus Nickel: In Memory of Prof. Dr. Mikuláš Matherny
Eduard Plško: Memory of Prof. Dr. Matherny

Lectures

1. Jozef Bednarčík: Experimental Possibilities at the High-Resolution Powder Diffraction Beamline P02.1.
2. Markéta Pazderková, Petr Maloň,Václav Profant, Vladimír Baumruk, Lucie Bednárová: Chiroptical Properties of the Antimicrobial Peptide *Lasiocepsin* and of its Analogs
3. Ernest Beinrohr, Lubomir Machyňák, František Čacho: Determination of Trace Concentrations of Chlorine and Fluorine by Continuum Source High Resolution Graphite Furnace Atomic Absorption Spectrometry
4. Ivana Bonková, Marcel Miglierini, Marek Bujdoš: Mössbauer Spectrometry Applied to Biological Samples
5. Ewa Bulska**:** On the Use of Non-Routine Analytical Approaches for Understanding Chemical Speciation in Environmental Samples
6. Jiří Dědina, Jan Kratzer, Marek Talába, Adam Obrusník, Pavel Dvořák: Recent Advances in Hydride Generation for Atomic Absorption Spectrometry: Atomizer Optimization by Two-Photon Absorption Laser-Induced Fluorescence
7. Bohumil Dočekal, Zbyněk Večeřa, Pavel Mikuška, Pavel Šurýn, Michaela Dufka, Pavel Coufalík: Analysis of Mice Organs and Blood from Inhalation Experiments with Selected Metal Oxides Nanoparticles
8. Hana Dočekalová: Prediction of Bioavailability of Metals in Aquatic Systems: Comparison between Diffusive Gradient in Thin Films Technique and Living Organism
9. Eva Duborská, Jana Kubová: Analytical Methods for Iodine Determination in Environmental Samples
10. Ingrid Hagarová: Separation and Preconcentration of Ultratrace Elements by Using New Modes of Cloud Point Extraction: Utilizable in Connection with Spectrometric Methods
11. Heltai György, Flórián Károly, Remeteiova Dagmar, Horváth Márk, Széles Éva, Halász Gábor, Fekete Ilona: Application and Development Sequential Extraction Procedures for Fractionation of Heavy Metal Content of Soils, Sediments, and Gravitation Dusts
12. Michal Hlodák, Martin Urík, Peter Matúš: Evaluation of Mercury Immobilisation and Transformation Processes in the Soil – Plant – Microscopic Filamentous Fungi System Using CV AAS Method
13. Michaela Hložková, Michaela Vašinová Galiová, Renáta Čopjaková, Jindřich Kynický, Viktor Kanický: Application of Laser Ablation Sampling for the Multielemental Analysis of Dinosaur Skeletal Remains a Diagenetic Study

14. Branislav Hruška, Tadeáš Gavenda, Darina Tokarčíková, Andrea Černá, Mária Chromčíková, Marek Liška: Interpretation of Raman Spectra Depth Profile of Weathered Glass Surface by Advanced Statistical Methods
15. Viktor Kanický, Karel Novotný, Markéta Holá, Michaela Vašinová Galiová, Tomáš Vaculovič, Aleš Hrdlička: Recent Developments in Laser Assisted Plasma Spectrometry
16. Marek Bujdoš, Hana Vojtková, Marek Kolenčík, Martin Urík: The Leaching of Zn, Pb, and Cu from Polymetallic Ore using Heterotrophic Bacteria such as *Pseudomonas, Rhodococcus* and *Cupriavidus* Compare to Fungal Strain *Aspregillus niger*
17. Lucia Kořenková, Martin Urík: Application of FTIR Spectroscopy in Soil Water Repellency Assessment
18. Jan Kratzer, Petr Novák, Pavla Zurynková, Ondřej Duben, Michal Albrecht, Milan Svoboda, Jiří Dědina: Dielectric Barrier Discharge Plasma Atomizers of Volatile Compounds in Atomic Absorption Spectrometry: Applications, Mechanisms and Future Perspectives
19. Viliam Krivan: Analysis of High Purity Advanced Materials: the Present-Day Importance of Wet-Chemical and Direct Solid Sampling Spectrometric Methods
20. Adriana Lančok: Temperature Degradation of Vivianite as Related to Historic Paintings
21. Alžběta Jebavá, Lenka Řezáčová, Přemysl Lubal, Karel Novotný: Synthesis and Analytical Applications of CdTe-QD's Nanoparticles
22. Pavel Matějka, Martin Král, Alžběta Kokaislová, Marcela Dendisová, Marie Švecová, Adéla Jeništová, Jiří Janoušek: From Surface-Enhanced Vibrational Spectroscopy to Vibrational Nanoscopy
23. Stanislava Matějková, Luisa Šerá, Jan Mengr, Martin Loula: Inductively coupled plasma optical emission spectroscopy with electrothermal vaporisation: An Effective Tool for Direct Multielemental Analysis of Biological Samples
24. Marcel Miglierini: Hyperfine Interactions of Disordered Alloys Probed by Nuclear Resonances
25. Lukáš Pašteka, Marcel Miglierini: Study of Stainless Steel LC200N by Mössbauer Spectrometry
26. Martin Pavlačka, Karel Ventura, Kateřina Kortánková, Jiří Bláha, Michal Zástěra, Roman Mázl, Petra Bajerová: Analysis of Stimulants Using Differential Mobility Spectrometry
27. Filip Polák: Fungal Accumulation of Selected Metals from Mining Waste
28. Pavel Pořízka, Tomáš Zikmund, Markéta Tesařová, David Prochazka, Jan Novotný, Jozef Kaiser: Utilization of Computed Tomography and Laser Spectroscopy for 3D High Resolution Mapping
29. Michal Rečlo, Erkan Yilmaz, Mustafa Soylak, Vasil Andruch, Yaroslav Bazel: Switchable Hydrophilicity Solvent Based Microextraction of Nickel Prior to Determination by Flame Atomic Absorption Spectrometry
30. Manfred Sager: Sample Preparation for Determination of High Iodine Levels by ICP-OES
31. Jozef Sitek, Dominika Holková, Július Dekan: Radiation Influence on Nanocrystalline Alloys

32. Veronika Sutrová, Ivana Šloufová, Martin Kalbáč, Ewa Pavlova, Martina Nevoralová, Blanka Vlčková: Enhanced Raman Spectra of Ag-ethanethiolate and Graphene from Graphene/Ag-NPs-ethanethiol Hybrids: Interplay between Surface- and Graphene-Enhanced Raman Scattering
33. Martin Šebesta, Martin Urík, Marek Kolenčík, Peter Matúš, Gabriela Kratošová, Ivo Vávra, Andrej Vojtko, Eva Majková: Characterizing ZnO Nanoparticles and their Interaction with Humic Acids
34. Henrieta Šoltýsová, Jarmila Nováková, Augustín Majchrák: Determination of Some Elements in Samples of Emissions by ICP-MS
35. Milan Štefánik, Martin Cesnek, Marcel Miglierini: Neutron Activation Analysis of Steel Samples at the VR-1 Training Reactor and NG-2 Cyclotron-Based Neutron Generator
36. Adriana Šturcová, Nikolay Kotov, Alexander Zhigunov, Vladimír Raus, Jiří Dybal: The Effect of Water on Structural Transitions of 1‑Butyl-3-Methylimidazolium Chloride as Investigated by Vibrational Spectroscopy and WAXS
37. Viera Vojteková, Daniel Kupka, Daniela Sabolová: Multi-element Analysis in Complicated Sample Matrices Utilizing Single-Set Experimental Conditions of ORC-ICP-QMS
38. Martin Urík, Marek Bujdoš, Katarína Boriová, Marcel Miglierini: Application of Spectroscopic Methods for Evaluation of Toxic Metals and Metalloids Mobility in Defined Multicomponent Systems During Static Cultivation of Common Fungal Strains
39. Gyula Záray: Determination of Pharmaceutical Residues in Waste, Surface and Drinking Water by GC-MS/MS

Firm lectures

1. AMEDIS spol. s r.o.: Fabricio Jakubec: PQ MS technological progress
2. ANALYTIKA, spol. s r.o.: Daniela Weisserová, Vladimír Patera: Laboratory reference materials supplied by Analytika s.r.o.
3. CHROMSPEC-SLOVAKIA, spol. s r.o.
4. Merck, spol. s r.o.: Zuzana Antalová: Certified Reference Materials CertiPUR® Merck
5. Messer Tatragas, s.r.o.: Hanisch Michael: Calibration gases – Refrence materials acc. To ISO guide 34 and ISO/IEC 1702
6. PRAGOLAB s.r.o.: Róbert Cibula: Using of Extra Techniques in connection with ICP/MS
7. SHIMADZU-SLOVAKIA, o.z.: Johan Leinders, Uwe Oppermann, Jan Knoop: ICPMS-2030: Peace of Mind for Users and Lab Managers.

Posters

1. Andrea Černá, Branislav Hruška, Darina Tokarčíková, Mária Chromčíková, Marek Liška: AFM and Raman Study of Heavy Weathered Surface of Barium Crystal Glass
2. Marianna Dorková, Dagmar Remeteiová, Silvia Ružičková, Vladislava Mičková: Utilization of MW – Assisted Decomposition and HR-CS FAAS for Evaluation of Heavy Metals Pollution in Sedimentary Ecosystems
3. Miroslav Fišera, Jiří Mlček, Pavel Budinský, Helena Velichová, Lenka Fišerová: Determination of Selenium Species by ICP-MS Method in Biological Samples
4. Ingrid Hagarová: Simplex Method for Optimization of Cloud Point Extraction: Utilizable for Determination of Ultratrace Elements by Using Spectrometric Methods
5. Silvia Ružičková, Mariana Dorková, Dagmar Remeteiová, Vladislava Mičková, Gabriela Holéczyová: Determination of Heavy Metals in the Soil by High-Resolution Continuum Source Flame Atomic Absorption Spectrometry (HR-CS FAAS)
6. Petr Chrást, Michaela Vašinová Galiová, Viktor Kanický: Inductively Coupled Plasma Mass Spectrometry in the Analysis of Geological Materials
7. Adéla Jeništová, Jaroslava Šmolíková, Martin Flegel, Pavel Matějka: Vibrational Spectroscopic Study of Interactions Between Skin and Peptides Based on the Argireline Structure
8. Antonín Kaňa, Jiřina Száková, Oto Mestek: Effect of Dietary Selenium Intake on Inter-Element Interactions in Rat Livers
9. Ľubomír Machyňák, Martin Němeček, František Čacho, Ernest Beinrohr: High-Resolution Continuum Source Electrothermal Absorption Spectrometry of SrF and InCl Molecules
10. Irena Matulková, Ivana Šloufová, Jana Vejpravová, Tim Verhagen, Ivan Němec, Blanka Vlčková, Veronika Sutrová, Miroslav Šlouf, Martin Kalbáč: Raman Spectroscopy Study of Thermal Effects in Graphene on Au Nanoislands
11. Vladislava Mičková, Silvia Ružičková, Marianna Dorková, Dagmar Remeteiová: Temperature Influence on Electrothermal Vaporization Process of Heavy Metals in Different Matrices by Use of ETV-ICP-OES Method
12. Martin Němeček, Ľubomír Machyňák, Ernest Beinrohr, František Čacho: Application of High-Resolution Continuum Source Molecular Absorption for the Determination of Nitrate
13. Eliška Nováková, Václav Červený, Petr Rychlovský: Determination of Se in Dietary Supplements by Photochemical Volatile Species Generation Atomic Absorption Spectrometry
14. Markéta Prusková, Ivana Šloufová, Jiří Vohlídal, Blanka Vlčková, Miroslav Šlouf: SERS Study of Self-Assembled 2D Nanocomposites of Ag and Au Nanoparticles with Terpyridine and its Derivatives

15. Dagmar Remeteiová, Marianna Dorková, Silvia Ružičková, Vladislava Mičková: Evaluation of Heavy Metals Impact from Various Types of Sediments to their Ecosystem by fractionation extractions and High-Resolution Continuum Source Flame Atomic Absorption Spectrometry.
16. Tina Resslerová, Jakub Hraníček: Determination of Tellurium in Flavoured Mineral Waters by Electrochemical HG-AFS
17. Silvia Ružičková, Dagmar Remeteiová, Mariana Dorková, Vladislava Mičková: Optimization of Microwave-Assisted Decomposition for Heavy Metals Determination in Lichens
18. Daniela Sabolová, Viera Vojteková, Daniel Kupka: Inductively Coupled Plasma Mass Spectrometry in Trace Analysis of Sulphur
19. Milan Svoboda, Jan Kratzer, Věra Šindelářová, Marek Straka, Jakub Hraníček, Antje Michels, Joachim Franzke, Jiří Dědina: Novel Dielectric Barrier Discharge Atomizer Designs of Volatile Compounds for AAS and AFS
20. Charles S. Huber, Mária G. R. Vale, Morgana B. Dessuy, Milan Svoboda, Jiří Dědina: Arsenic Speciation in Baby Food by HG-CT-AAS
21. Lucie Šimoníková, Lubomír Prokeš, Vlastimil Kubáň, Viktor Kanický: Elemental Analysis of Wine by Inductively Coupled Plasma Optical Emission Spectroscopy
22. Barbora Svatošová, Michaela Vašinová Galiová, Jitka Míková, Lubomír Prokeš, Hélýne Tabouret, Christophe Pécheyran, Viktor Kanický: Analysis of Antarctic Otoliths by Laser Ablation Inductively Coupled Plasma Mass Spectrometry
23. Éva Cseperke Vizsolyi, Imre Varga, Győző G. Láng, József Varga, Gyula Záray: Case Study of Groundwater Remediation
24. Viera Vojteková, Anna Ballóková, Daniela Sabolová, Daniel Kupka: Optimization of Analytical Method for Determination of the Trace Phosphorus Contents by Using ORC-ICP-QMS
25. Jiřina Vontorová, Václav Dobiáš, Petr Mohyla: Utilization of GDOES for the Study of Friction Layers Formed on the Surface of Brake Discs During the Friction Process