#### Monday, March 17

## Halls Prague D + Vienna I

#### 8:00 – 17:45 PUTTING UP OF POSTERS

17:45 – 19:45 POSTER SESSION (chairperson: M. de Loos-Vollebregt, G. Schlemmer, P. Matějka, T. Černohorský, T. Uhlíková)

- MP1: **F.** Čacho Reducing of the interferents in the determination of trace concentrations of selenium, arsenic and mercury with AAS method
- MP2: **I. Hagarová -** Rapidly synergistic cloud point extraction of ultratrace lead combined with electrothermal atomic absorption spectrometry determination
- MP3: **D. Bakircioglu** Separation/preconcentration system based on emulsion induced breaking procedure for determination of cadmium in edible oil samples by flow injection FAAS
- MP4: **Y. Bakircioglu Kurtulus** Comparison of extraction induced by emulsion breaking procedure to other wet digestion and ultrasonic extraction methods for the determination of trace metal in herbal oil samples by ICP-OES
- MP5: **H. Altundag** Quantitative determination of some trace and essential elements by using ICP-OES in plants of the genus *ferula*
- MP6: S. Ružičková Possibilities of the ETV-ICP-OES method at the analysis of Pd/C based catalysts
- MP7: **D. Remeteiová -** Investigation on metal leaching of hydrogenation catalysts by HR-CS AAS method
- MP8: **P. Masson** Imaging of elements in the leaves of tobacco by solid sampling-electrothermal vaporization-inductively coupled plasma-atomic emission spectrometry (SS-ETV-ICP-AES)
- MP9: **E. Zambrzycka** Determination of total sulfur in water, wine and plants samples by high-resolution continuum source flame molecular absorption spectrometry (HR-CS flame MAS)
- MP10: **E. Zambrzycka** A novel Rh(III)-ion imprinted polymer for selective polymer for selective solid phase extraction and determination of rhodium by ETAAS
- MP11: U. Oppermann The determination of metals in the food chain using high speed self reversal method for background compensation
- MP12: **P. Matúš -** Assessment of aluminum bioleaching by the filamentous fungus using flame atomic absorption spectrometry
- MP13: **P. Matúš -** Spectrochemical determination of Mercury in selected plant species and soil from contaminateed locality Rudňany-Stožky (Slovakia)
- MP14: S. Musil A Sapphire tube atomizer for on-line atomization and in situ collection of bismuthine and volatile species of silver
- MP15: **P. Buček** Direct sample introduction for ICP-OES heavy metal determination in honey
- MP16: **E. Vasileva-Veleva -** Marine monitoring studies for toxic elements with the application of fast temperature programs and solid sampling continuous source high resolution atomic absorption spectroscopy
- MP17: **B. Welz** Determination of selenium in soil samples using high-resolution continuum source graphite furnace AAS and direct solid sample analysis
- MP18: M. G. R. Vale A case study for the simultaneous determination of Mo and Ni by HR-CS GF AAS in solid and liquid samples
- MP19: **M. B. Dessuy** Investigation of spectral interferences in the determination of lead in fertilizer samples using high-resolution continuum source graphite furnace atomic absorption spectrometry
- MP20: C. S. Hüber Investigation of chemical modifiers for sulfur determination in diesel fuel using HR-CS GF MAS
- MP21: S. Matějková Sugar tracking in bumblebees based on determination of gadolinium in a nontoxic complex by ICP-OES
- MP22: I. V. Mazepa Content of essential metals in man blood and sperm under sterility

- MP23: **Z. Melichová** Spectrometric assessment of metals pollution in the old mining area Ľubietová (central Slovakia) using the moss water soil system
- MP24: **B. B. F. Filho** Determination of copper in cachaça by ring oven preconcentration and laser induced breakdown spectroscopy
- MP25: Y. Bazel Indirect determination of compounds using atomic absorption spectrometry
- MP26: M. Fišera Determination and speciation of tin compounds in food
- MP27: J. Gałeczka Eco-friendly alloys tin-based spectral certified reference materials
- MP28: **E. Garcia-Ruiz** Direct determination of Palladium, Platinum and Rhodium in car catalysts by means of high-resolution continuum source graphite furnace atomic absorption spectrometry
- MP29: **E. Sedykh** AAS and ICP-AES determination of Au and Ag in composite nanoparticles: From colloidal solutions to biological objects
- MP30: A. Asweisi Determination of selenium by flame atomic absorption spectrometry after preconcentration on polyurethane foam
- MP31: J. Kubová Determination of iodine fractions in soil extracts using different analytical methods
- MP32: M. Horváth Long term evaluation of heavy metal contamination mobility in lake sediments
- MP33: **K. Kovács** Change of heavy metal environmental mobility of the 2000's contamination at upper Tisza river floodplain
- MP34: **M. Svoboda** New cryogenic trap design for speciation analysis of arsenic by hydride generation atomic absorption spectrometry
- MP35: **Y. Bazel** Comparison of AAS and UV-VIS speciation of platinum: various techniques for enhancement of analytical signal
- MP36: **A. Krata** Determination of mercury species in biota samples by applying nonchromatographic separation and isotope dilution inductively coupled plasma mass spectrometry
- MP37: **M. Žemberyová** ET AAS determination of trace chromium in waters after preconcentration and speciation by solid phase extraction using nanometer-sized zirconium oxide
- MP38: **A. Kaňa** Speciation analysis of iodine in animal tissues by size-exclusion chromatography with inductively coupled plasma mass spectrometry
- MP39: M. Vosmanská Speciation analysis of selenium in plant fortification study
- MP40: M. Iglesias Juncà Speciation analysis of arsenic in saliva samples
- MP41: O. Zvěřina Mercury levels and its geographical distribution on James Ross Island, Antarctica
- MP42: **H. Kosárová** The development of the analytical method for determination of platinum in urban dust in Brno's agglomeration
- MP43: J. Sysalová Mercury species in contaminated soils and released soil gases
- MP44: **R. Komendová** Simultaneous preconcentration of platinum group metals (PGMs) on polymer-based sorbent (SDB-L) and their determination by ICP-MS
- MP45: L. Krajcarová Elemental analysis of soils and plants in the town Pyramiden and its surroundings (Svalbard)
- MP46: M. Zeiner Quantitative needle element composition of two pine species and their hybrids
- MP47: J. Száková The analytical aspects of mobile Ca, K, Mg, P determination in soil by using various extraction methods
- MP48: **K. Štěpánková** Acrodont Ankylosis analysis of chameleon yemen (*chamaeleo calyptratus*) by laser induced breakdown spectrometry
- MP49: J. Novotný Interaction chamber for the laser-induced breakdown spectroscopy
- MP50: **G. Vítková** Brick classification by combination of principal component analysis and linear discriminant analysis using laser-induced breakdown spectroscopy
- MP51: **D. Procházka** 3D chemical mapping of selected geological samples using combination of laser-induced breakdown spectroscopy and µCT
- MP52: **T. Vaculovič** Elemental mapping geological samples by means of laser ablation inductively coupled plasma mass spectrometry
- MP53: **P. Procházková** Detection of heavy metals in algae by laser-induced breakdown spectroscopy in liquid jets

- MP54: L. Sládková Enhancement of detection limits on metallic samples in laser-induced breakdown spectroscopy (LIBS) using nanoparticles
- MP55: Z. Zvěřina Laser-induced breakdown spectrometry in analysis of melts
- MP56: **M. Horňáčková** Calibration free laser induced breakdown spectroscopy amorphous thin ribbons using high resolution spectrometer and EM CCD camera
- MP57: **M. Horňáčková** The preparation of calibration standards for analysis of archaeological copper artefacts using laser-induced breakdown spectroscopy (LIBS)
- MP58: **M. Konečná** Utilization of laser-induced breakdown spectroscopy for distribution mapping of trace metals in nanotextiles
- MP59: M. Holá FMPS and SMPS on-line monitoring of nanoparticles formed during laser ablation
- MP60: M. Vaňková LA-ICP-MS in analysis of fossilized skeletal remains and material changes
- MP61: **A. Limbeck** Dispersed particle extraction using magnetic nano-particles for the quantification of rare earth elements from road-dust digests
- MP62: **P. Masson** Three ways to investigate the analytical signal in electrothermal vaporization inductively coupled plasma-atomic emission spectrometry
- MP63: A. Ruszczynska Microwave digestion of sediment and soils for trace metal analysis by ICP- MS
- MP64: E. Kurek Preparation of biological samples in terms of the identification of selenium compounds
- MP65: **M. Šucmanová** Emerging soil contamination by platinum group elements from traffic in the Czech Republic

#### **Tuesday, March 18**

#### Halls Prague D + Vienna I

### 8:00 – 17:00 PUTTING UP OF POSTERS

17:00 – 19:00 POSTER SESSION (chairpersons: M. Sperling, E. Beinrohr, M. Miglierini, I. Němec, B. Vlčková)

- TP1: **A. Detcheva-Tchakarova** Characterization of fly ash samples from Bulgarian coal-burning power plants by means of total reflection X-ray fluorescence analysis
- TP2: P. Puliš Use of X-ray analysis for evaluation of the Pd-catalysts properties
- TP3: **Z. Jakubíková** High temperature volatility of components of glasses for chrompic nuclear waste vitrification XRF and ICP OES study
- TP4: M. Petr Low temperature Mössbauer spectroscopy of frozen iron-bearing solutions
- TP5: **T. Kmjec** The magnetic ordering in Ba(Fe,Nb)O<sub>3</sub> and Pb(Fe,Nb)O<sub>3</sub> studied by Mössbauer spectroscopy
- TP6: J. Kohout Temperature dependence of hyperfine fields in e-Fe<sub>2</sub>O<sub>3</sub> nanoparticles
- TP7: J. Dubrovkin Mathematical analysis of multiplet structure of spectra
- TP8: **D. Hausknechtová Markechová** Comparison of spectroscopic methods for the determination of brandy adulteration
- TP9: J. Sádecká Comparison of spectroscopic methods for Classification of juniper-flavored spirit drinks
- TP10: L. Mišková Spectroscopic approach to the weathering of glasses
- TP11: **M. Linhartová -** Spectroscopic investigation of amber from the Hallstatt Age settlement at Kralice na Hané
- TP12: L. Mišková Spectroscopic study of anomalous uranium enrichment in coal
- TP13: Y. Bazel Structure and properties of cationic Basacryle dyes
- TP14: U. Oppermann "State of the art spectroscopy" using LO-RAY-LIGH® diffraction gratings
- TP15: **P. Paroulek** Study of interaction of benzo[c]phenanthridine alkaloids with DNA
- TP16: M. Rájecký Quaternary benzo[c]phenanthridine alkaloids spectroscopic properties
- TP17: **M. Bilge** A joint theoretical and experimental study of 1-acetylpiperazine: Vibrational spectra
- TP18: C. Parlak DFT, FT-IR and Raman investigations of 1-formylpiperazine
- TP19: Z. Morávková Polypyrrole-silver colloids
- TP20: **M. Zeug** Raman spectroscopic study of the radiation damage in zircon xenocrysts from kimberlites in northern Yakutia
- TP21: M. Bláha Spectroscopic investigation of polyaniline synthesized with the Iron(III)/H<sub>2</sub>O<sub>2</sub> catalyst system
- TP22: N. Kotov Spectroscopic investigation of the interactions of Pluronic® with cellulose dissolved in ionic liquid
- TP23: P. Táborský Fluorescent DNA probes based on phenantridine alkaloids
- TP24: **M. Clupek** SEVS spectroscopic determination of biologically important compounds at physiological concentration level: New achievements and possible pitfalls
- TP25: **M. Chromčíková** UV-VIS-NIR and Raman spectra of glasses for CHROMPIC nuclear waste vitrification
- TP26: P. Lubal Solution study of chemical equibria of adenine-like ligands
- TP27: J. Vaněk Dual sensor for determination of biologically significant anions
- TP28: J. Hegrová Determination of platinum group elements in airborne particles and road dust with ICPMS
- TP29: **K.** Švihlová Study of amorphous thin films of Ge-As-Se system using laser desorption ionisation time-of-flight mass spectrometry
- TP30: L. Bendakovská Use of algae for removing of metals from hospital wastewater elemental analysis of algae

- TP31: A. Zarkov Minor and trace elements in the shells of bivalve *macoma balthica* from Baltic Sea
- TP32: M. Bukáčková Assessment of selected pesticides using gas chromatography/mass spectrometry
- TP33: A. B. P. Leme Effect of cooking in a bioaccessibility of metals in bovine beef by ICP-MS
- TP34: K. Tálos Determination of uranium in human urine samples by ICP-MS
- TP35: L. Prokeš Laser ablation synthesis of new arsenic phosphides from elemental arsenic and red phosphorus. LDI-TOF mass spectrometry
- TP36: F. Amato Fragmentation pattern of shape-persistent macrocycles: a mass spectrometric study
- TP37: L. Kolářová Use of nanomaterials for TOF mass spectrometry of complex biomolecules and for tissue profiling
- TP38: A. Salykin Identification of key regulatory metabolites in HESC by MALDI-TOF-MS
- TP39: **R. Mawale** Generation of Au-Ag-Te clusters *via* laser ablation: Quadrupole ion trap timeof-flight mass spectrometric study
- TP40: V. Štěpánová Laser ablation synthesis of new arsenic tellurides. LDI time of flight mass spectrometry
- TP41: A. Midlik HPLC-MS identification of metabolites of selected benzophenanthridine alkaloids by rat liver microsomes
- TP42: **K. Dlabková** Substrate-assisted laser desorption inductively-coupled plasma mass spectrometry for detection and characterization of gold nanoparticles
- TP43: **M. Šubrt** Polybrominated diphenyl ethers and polycyclic aromatic hydrocarbons in soils from fireplaces
- TP44: M. Štefka Assessment of synthetic musk compounds in waste water
- TP45: T. Pluháček Mass spectrometry as a tool for determination of fungal siderophores
- TP46: N. Čimová In situ laser ablation ICP-MS analyses of gem opals
- TP47: L. Veverková Determination of silver by ICP-MS in animal tissues
- TP48: J. A. Do Study on establishing advanced analytical libraries for illegal food and drug compounds
- TP49: **T. Warchilová** Elemental mapping animal accumulators of heavy metals by means of LA-ICP-MS
- TP50: **M. Kuba** Determination of metals released from articular replacements in clinical samples by ICP-MS
- TP51: **M. Iglesias Juncà** Metal uptake and root growth in potato plants are affected by suberin amount and composition
- TP52: J. Illner Fluorescence products in erythrocytes as a biomarker of early Alzheimer's disease
- TP53: V. Řezáčová Determination of heavy metals in soils from surroundings of the Luhačovice dam
- TP54: **B. Hanulíková** Theoretical study of polaron binding energy in conformationally disrupted oligosilane
- TP55: **B. D. Öztürk** Synthesis and characterization of magnetic nanoparticles and its application for removal of metal ions in water
- TP56: W. Cegiełkowska Zinc distribution in plant tissues interdisciplinary approach
- TP57: **B. Ruttkay-Nedecky** Utilization of spectrophotometric and electrochemical methods for investigation of silver ions effect on DNA enzyme activity
- TP58: L. Nejdl Interaction study of arsenic (v) ions with metallothionein gene (MT2a) fragment assessed by spectrometry
- TP59: J. Kudr The anchor system used as a proof of nanoparticle encapsulation within apoferritin

## **General partners**







# **Main partner**

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