

**EXRS2016**  
European Conference on  
X-ray Spectrometry

**June 19-24, 2016**  
**Gothenburg, Sweden**

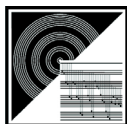
# Scientific program of the European Conference on X-ray Spectrometry

## EXRS2016

June 19 – 24, 2016

Gothenburg, Sweden



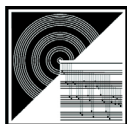


**Monday June 20**

Wallenberg

Europe

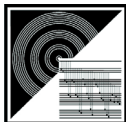
08:15	<b>Registration</b>	
09:00	<b>Opening session</b>	
09:30	<b>Invited 1: Evaluation of huge spectral datasets resulting from x-ray fluorescence imaging.</b> Piet Van Espen and Vicente Osorio	
10:00	<b>Invited 2: Ionomics in plants: An approach using X-ray fluorescence</b> Ursula Fittschen, Ricarda Hoehner, Martin Radtke and Henning Kunz	
10:30	<b>XRF multivariate statistical analysis method for studying Syrian archaeological jars</b> Elias Hanna Bakraji	
10:45	<b>A new full-field XRF imaging system for non-invasive investigation of paintings</b> Pawel Wrobel, Tomasz Fiutowski, Piotr Frączek, Stefan Koperny, Marek Lankosz, Agata Mendys, Bartosz Mindur, Alicja Sikorska, Krzysztof Świentek, Piotr Wiącek and Wladyslaw Dabrowski	
11:00	Coffee break	
11:30	<b>Invited 3: European XFEL: Unique possibilities for X-ray spectrometry research</b> Serguei Molodtsov	<b>What It Takes to Produce a Quantitative Description of NEXAFS and RIXS in Chemical Compounds</b> Terrence Jach, John Vinson, Matthias Müller, Rainer Unterumsberger and Burkhard Beckhoff
11:45		<b>Polarized X-ray Fluorescence Intensity in 3D Geometry</b> Ryohei Tanaka, Shu Akiba, Koretaka Yuge and Jun Kawai
12:00	<b>Confocal micro-XRF imaging and WD-XRF imaging for monitoring of chemical reactions in solutions</b> Kouichi Tsuji, Yuki Takimoto, Tsuyoshi Matsuno, Naoki Kawahara and Jigi Chin	<b>The X-ray characteristic line: different contributions in the framework of the Boltzmann transport equation.</b> Jorge E. Fernandez



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12:15	<b>Correlative 3-dimensional X-ray micro-spectroscopy of a single catalyst particle</b> Florian Meirer, Yijin Liu, Courtney M. Krest, Sam Webb and Bert M. Weckhuysen	<b>Detection of gadolinium in bone using x-ray fluorescence</b> Michelle Lord, Fiona McNeill, James Gräfe, Mike Noseworthy and David Chettle
12:30	Lunch	
13:30	<b>Invited 4: X-ray microscopy at the Hard X-ray Micro/Nano-Probe beamline P06 at PETRA III</b> Gerald Falkenberg	<b>Thickness independent quantification of trace heavy elements in light matrix</b> Elena Blokhina, Franz Keller, Stephanie Hanning and Martin Kreyenschmidt
13:15		
14:00	<b>Challenges of Macro X-ray Fluorescence Imaging for the Investigation of Antique Polychrome Statues</b> Matthias Alfeld, Maud Mulliez, Philippe Martinez, Philippe Jockey and Philippe Walter	<b>Simulation of a planar portable energy dispersive x-ray fluorescence setup with GEANT4</b> P. Amaro, R. Adão, A. Samouco, S. Weber, S. Tashenov, M. L. Carvalho, S. Pessanha
14:15	<b>3D imaging with confocal micro-XRF</b> Ioanna Mantouvalou, Tim Lachmann, Michael Haschke, Geert Van der Snickt, Ulrich Waldschlaeger and Birgit Kanngießner	<b>L3 transition probabilities of the titanium fluorescence lines in dependence of the oxidation state</b> Rainer Unterumsberger, Matthias Müller and Burkhard Beckhoff
14:30	<b>Zinc accumulation in mineralized osteosarcoma tissue determined with confocal SR-<math>\mu</math>XRF</b> Mirjam Rauwolf, Bernhard Pemmer, Andreas Roschger, Anna Turyanskaya, Stephan Smolek, Angelika Maderitsch, Peter Hischenhuber, Christoph Weixelbaumer, Martin Foelser, Rolf Simon, Susanna Lang, Stephan Puchner, Reinhard Windhager, Klaus Klaushofer, Peter Wobrauschek, Paul Roschger, Jochen Hofstaetter and Christina Strelt	<b>New K-shell ionization cross sections for high energy PIXE and comparison with theoretical values of ECPSSR.</b> Mostafa Hazim, Arnaud Guertin, Ferid Haddad, Charbel Koumeir, Nathalie Michel, Vincent Metivier, Adnan Naja and Noel Servagent
14:45	Coffee break	

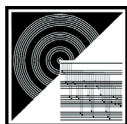


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15:30	<b>Invited 5: Effect of temporal coherence in surface x-ray standing analysis of nano-structured materials</b> Manoj Tiwari	<b>XAFS study of the role of pH-Modulated Chelation in the Zinc Deposition Mechanisms within Microporous Electrodes</b> Alvaro Munoz Noval, Kazuhiro Fukami, Akira Koyama, Kuniaki Murase, Takeshi Abe, Takuya Kuruma and Shinjiro Hayakawa
15:45		<b>Elucidating core-shell atomic exchanges in In(Zn)P/ZnS nanocrystals using X-ray absorption spectroscopy</b> Deok-Yong Cho
16:00	<b>On the effect of dead time correction on the counting statistical error</b> Bruno Vrebos, Charalampos Zarkadas	<b>Identifying Authentic Prehistoric Ban Chiang Pottery with XANES and SR-XRF</b> Prapong Klysubun, Wantana Klysubun, Weeraya Wongtepa, Chanakan Cholsuk and Somchai Na Nakhon Panom
16:15		

Poster session 1



## Monday 20 June, Poster session 1

### **Interactions of X-rays with matter and fundamental parameters**

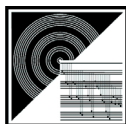
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- Post 1 **Investigation of Photon Induced X-ray Satellite Structure and Chemical effects on Intensity ratios of Chlorine**  
Shatendra Sharma and Jyotsna Sharma
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- Post 2 **Collimator and source contributions to the response function of planar Ge detectors: an analytical approach**  
Juan Alejandro García-Alvarez, Nora Maidana, José María Fernandez Varea and Vito Vanin
- 
- Post 3 **Non-invasive study of ecclesial art, materials and technique**  
Vornicu Nicoleta, Bibire Cristina and Doroftei Florica
- 
- Post 4 **The xraylib library for interactions of X-rays with matter**  
Tom Schoonjans, Antonio Brunetti, Bruno Golosio, Manuel Sanchez Del Rio, Vicente Armando Solé, Claudio Ferrero and Laszlo Vincze
- 
- Post 5 **XMI-MSIM: a general Monte Carlo simulation of energy-dispersive X-ray fluorescence spectrometers**  
Tom Schoonjans, Laszlo Vincze, V. Armando Solé and Claudio Ferrero
- 
- Post 6 **Measurement of K fluorescence yields of Niobium and Rhodium using monochromatic radiation**  
Jonathan Riffaud, Marie-Christine Lépy, Yves Ménesguen and Anastasiia Novikova
- 
- Post 7 **Graphene oxide membranes in adsorption and determination of metal ions by EDXRF**  
Rafal Sitko, Marcin Musielak, Beata Zawisza, Ewa Talik and Anna Gagor
- 
- Post 8 **New measurements of X-ray fundamental parameters**  
Yves Ménesguen, Marie-Christine Lepy, Pollakowski Beatrix, Unterumsberger Rainer and Burkhard Beckhoff

### **XRS Instrumentation (X-ray sources, optics and detectors)**

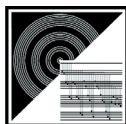
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- Post 9 **Evolutions in cryo-coolers for HPGe-based X-ray detectors.**  
Luc De Baerdemaeker and Jonas Douwen
- 
- Post 10 **Large Area 7-Channel Silicon Drift Detector Array**  
Andreas Pahlke, Reinhard Fojt, Michael Fraczek, Martin Hofmann, Jürgen Knobloch, Edgar Lechner, Natsuki Miyakawa, Steffen Pahlke, Jörg Rumpff, Oliver Scheid, Atakan Simsek and Ralf Stötter
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- Post 11 **Examining the Effects of Collimation on an X-Ray Tube Based Polarized EDXRF Setup**  
Eric Johnston, Soo Hyun Byun and Michael Farquharson
- 
- Post 12 **Determination of Optimal Metallic Secondary Target Thickness and Exposure Parameters for X-Ray Tube Based Polarized EDXRF**  
Eric Johnston, Soo Hyun Byun and Michael Farquharson
- 
- Post 13 **Full-energy peak efficiency of Si drift detectors for photons with energies above the Si K binding energy**  
Suelen Barros, Nora Maidana, José Maria Fernández-Varea and Vito Vanin

### **Quantification methodology and metrology**

- 
- Post 14 **The major rock-forming elements determination in bottom sediments of the lake Baunt core by XRF method**  
Alena Amosova and Victor Chubarov
- 
- Post 15 **Geochemical characteristic of lake Baunt bottom sediments using X-ray fluorescence analysis**  
Alena Amosova and Victor Chubarov
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- Post 16 **XAS measurement with a novel von Hamos laboratory spectrometer for quantitative analysis of Fe species mixtures**  
Sebastian Praetz, Christopher Schlesiger, Wolfgang Malzer and Birgit Kanngießer
- 
- Post 17 **Accurate determination of toxic elements on clams by Energy Dispersive X-Ray Spectrometry**  
A. C. Onofre, R. Aguincha, F. Canhoto, P. Amaro, M. L. Carvalho
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- Post 18 **Improvement of detection limits in portable energy dispersive x-ray fluorescence setup with planar geometry**  
R. Adão, A. Samouco, P. Amaro, S. Pessanha and M. L. Carvalho
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- Post 19 **X-ray fluorescence analysis of carbonatites using S8 TIGER spectrometer**  
Svetlana Shtel'makh, Alena Amosova, Tatyana Cherkashina and Galina Pashkova
- 
- Post 20 **Optimisation of the Epsilon 5 ED-XRF for the determination of a wide range of elements in aerosol samples.**  
Ana Cabal, Gert Nuyts, Bo Van den Bril, Koen Tote, Karolien De Wael and Piet Van Espen
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- TXRF, GIXRF and related techniques**
- 
- Post 21 **Unraveling the Transition Metal Dissolution of Li<sub>1</sub>Ni<sub>1/3</sub>Co<sub>1/3</sub>Mn<sub>1/3</sub>O<sub>2</sub> by Deposition on Graphitic Anodes**  
Marco Evertz, Fabian Horsthemke, Johannes Kasnatscheew, Martin Winter and Sascha Nowak
- 
- Post 22 **Determination of low Z elements in uranium with better analytical results using vacuum sample chamber of a low Z – high Z TXRF Spectrometer**  
Kaushik Sanyal, Sangita Dhara and Nand Lal Misra
- 
- Microbeam techniques, confocal XRF and X-Ray imaging**
- 
- Post 23 **Study of the distribution profile of titanium in rats by micro synchrotron radiation based X-ray fluorescence**  
Magdalena Golasik, Pawel Wrobel, Tadeusz Librowski, Magdalena Olbert, Barbara Nowak, Marek Lankosz and Wojciech Piekoszewski
- 
- Post 24 **X-ray waveguide arrays: tailored near-fields by multi-beam interference**  
Qi Zhong, Tim Salditt, Mingwu Wen and Zhanshan Wang
- 
- Post 25 **Preliminary research on PCA for micro XRF imaging**  
Shota Aida, Takeshi Hasegawa and Kouichi Tsuji
- 
- Post 26 **Deconvolution of Element Depth Profiles of Self-prepared Paint Multilayers Obtained by Tabletop Confocal Micro X-ray Fluorescence Setup**  
Radek Prokes and Tomas Trojek
- 
- Post 27 **XRF Analysis of Pb and Fe Concentrations in Kohl**  
Eman Daar, Abdullah Al Subaie, K.S Al Mugren, S Barnes, A Al Anazi, A Al Yahyawi, S Al Omairi, H Al Sulaiti and D.A Bradley
- 
- Post 28 **The influence of transcranial Direct Current Stimulation on the elemental composition of brain structures in obese rats – the EDXRF study**  
Agata Ziomber, Artur Surowka, Pawel Wrobel and Magdalena Szczerbowska-Boruchowska
- 
- Post 29 **Study of the homogeneity of aerosol filters by scanning MA-XRF.**  
Ana Cabal, Stijn Legrand, Bo Van den Bril, Koen Tote, Koen Janssens and Piet Van Espen
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- Mobile and portable XRF**
- 
- Post 30 **Proof-of-principle scan-free GEXRF measurements in the laboratory using an X-ray tube and a conventional CCD**  
Veronika Szwedowski, Jonas Baumann, Malte Spanier, Ioanna Mantouvalou, Birgit Kanngießer and Leona Bauer
- 
- Post 31 **Elemental analysis of dysprosium in neodymium-iron-boron magnet using portable TXRF spectrometer**  
Susumu Imashuku, Jun Takahashi, Shinsuke Kunimura and Kazuaki Wagatsuma
- 
- Post 32 **Monte Carlo simulation of reference materials obtained with a tri-axial portable EDXRF setup**  
Sofia Pessanha, Maria Luisa Carvalho, Matilde Alves and Jorge Sampaio
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- Post 33 **Spectral data treatment methodology to avoid the use of handheld Energy Dispersive X-ray Fluorescence spectrometers as black boxes**  
Cristina García-Florentino, Maite Maguregui, Héctor Morillas and Juan Manuel Madariaga
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**XRS in Art and Cultural Heritage**

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- Post 34 **Real-time elemental imaging of large area painted artworks with a novel mobile MA-XRF scanner**  
Francesco Paolo Romano, Claudia Caliri, Hellen C. Santos, Lighea Pappalardo and Francesca Rizzo
- 

- Post 35 **Study on antique yellow glass mosaics in Northern Thai architecture using synchrotron XRF and XANES spectroscopy**  
Wantana Klysubun, Prapong Klysubun, Supanun Lapboonrueng, Prae Chirawatkul and Chatree Saiyasombat
- 

- Post 36 **Analytical characterization of Attic Black Gloss and its South Italian Classical period imitations by means of Grazing incidence XANES and XRF analysis**  
Claudia Caliri, Andreas Germanos Karydas, Juan José Leani, Alessandro Migliori, Mateusz Czyzycki, Janos Osan, Lighea Pappalardo, Francesca Rizzo, Hellen Cristine Santos and Francesco Paolo Romano
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- Post 37 **Investigation of pottery from different Neolithic sites in southeast Albania using X-ray techniques**  
Erinda Ndrecka, Nikolla Civici, Filippo Nicolai, Ilir Gjipali and Stefano Ridolfi
- 

- Post 38 **Could a biological patina growing on a building act as a bioindicator of the atmospheric metal pollution? In situ and laboratory X-ray Fluorescence evidences**  
Cristina García-Florentino, Maite Maguregui, Héctor Morillas and Juan Manuel Madariaga
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- Post 39 **Could only X-ray fluorescence be able to differentiate red, yellow and transformed yellow ochre from Pompeii?**  
Iker Marcaida, Maite Maguregui, Silvia Fdez-Ortiz de Vallejuelo, Héctor Morillas, Kepa Castro, Marco Veneranda, Nagore Prieto-Taboada and Juan Manuel Madariaga
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- Post 40  **$\mu$ XRF elemental mapping for technological studies of ancient ceramics**  
Christina Makarona, Ariane Jacobs, Karin Nys and Philippe Claeys
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- Post 41 **Techniques and materials used by the painter José de Escovar in the 17th mural and panel paintings at the chapel of the souls (southern Portugal). A multi-analytical comparative approach.**  
Milene Gil and Teresa Ferreira
- 

- Post 42 **Removal of absorption artefacts on the elemental distribution images of paint layers acquired with tabletop macro-XRF setup**  
Pawel Wrobel, Piotr Frączek and Marek Lankosz
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- Post 43 **The coffee drawings of the Sculptor Lagoa Henriques: non-destructive analysis for conservation purposes**  
R. Simão, F. Pereira, M. L. Carvalho and M. Manso
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**XRS in Advanced Materials and Nanoscience**

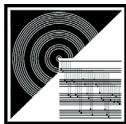
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- Post 44 **Accelerated growth from clusters to metallic nanoparticles observed in electrochemical deposition of platinum within nanocavities in porous silicon, revealed by X-ray absorption fine-structure spectroscopy**  
Alvaro Munoz Noval, Kazuhiro Fukami, Akira Koyama, Dario Gallach, Daniel Hermida-Merino, Giuseppe Portale, Atsushi Kitada, Kuniaki Murase, Takeshi Abe, Shinjiro Hayakawa, Tetsuo Sakka and Ulises Amador-Elizondo
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**XRS in Life Sciences and Forensics**

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- Post 45 **Investigating tissue surrounding multi-channel cochlear implant electrode arrays with x-ray fluorescence microscopy**  
Kathryn Spiers, Tina Cardamone, John Furness, Jonathan Clark, James Patrick and Graeme Clark
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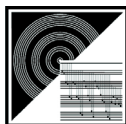
- Post 46 **Energy dispersive X-ray fluorescence spectrometry (EDXRF) for the direct multi-element analysis of dried blood spots**  
Eva Margui, Ignasi Queralt, Martin Resano, Luis Relo and Elena García
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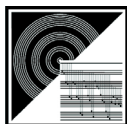
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- Post 47 **Titanium Diffusion in Shinbone of Rats with Osseointegrated Impants**  
Miriam Grenón, José Robledo, Juan Ibañez and Héctor Sánchez
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- Post 48 **Analysis of tooth enamel treated with over-the-counter bleaching gel: surface and in-depth measurements using u-EDXRF and u-Raman**  
Sara Coutinho, João Godinho, João Silveira, António Mata, Maria Luisa Carvahó and Sofia Pessanha
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- Post 49 **Application of XRF to determine the concentration of toxic elements in bivalves from Estuário do Tejo belonging to 7th century BC to 15th century AD**  
Catarina Fonseca, Sofia Pessanha, Maria Luisa Carvalho and António Alberto Dias
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- Post 50 **Study of the concentration of trace-metals in bivalve shellfish along the Portuguese Coastline**  
David Branha, Sofia Pessanha, Maria Luisa Carvalho and António Alberto Dias
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- Post 51 **Multielement analysis of swiss mice brains with Alzheimer's disease induced by  $\beta$ -amyloid oligomers**  
Ricardo Lopes, Danielle Almeida, Ramon Santos, Marcelino Anjos, Amanda Souza and Sergio Ferreira
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- Post 52 **Study of trace elements in canine elbow dysplasia by PIGE and XRF**  
Mauro Guerra, Cátia Santos, Alexandra Silva, Adriana Costa, Maria-Luisa Carvalho, Adelaide Jesus, Martinho Capelão and Micaela Fonseca
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**Tuesday June 21**

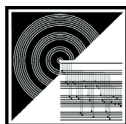
	Wallenberg	Europa
08:30	<b>Invited 6: Fundamental Parameters in Atomic Systems</b> José Paulo Santos	
09:00	<b>Curve fitting regression, a novel way to quantify boron using WD-XRF</b> Philippe Kikongi, Ryan Gosselin, Joanny Salvas, Jean-Sebastien Simard and Sonia Blais	<b>Influence of FP models and data compilations on the accuracy of analytical results</b> Timo Wolff, Dimitrijs Docenko, Fabian Nitsche, Elena Blokhina and Falk Reinhardt
09:15	<b>XMCD as a tool to determine the site occupation of cations in piezoelectric ferromagnetic GaFeO<sub>3</sub>(010) thin films</b> Dong-Hwan Kim and Jae-Young Kim	<b>Two-photon absorption at Angstrom wavelengths using off-resonant excitation by ultrashort XFEL pulses</b> Jean-Claude Dousse, Jakub Szlachetko, Joanna Hoszowska, Wojciech Blachucki, Yves Kayser, Bruce Patterson, Rafael Abela, Marek Pajek and Chris J. Milne
09:30	<b>Characterization of bio-molecular surfaces and liquids by means of reference-free X-ray spectrometry</b> Cornelia Streeck, Andreas Nutsch, Paul Dietrich, Tobias Fischer, Daniel Grötzsch, Carolin Nietzold, Wolfgang Malzer, Knut Rurack, Wolfgang Unger and Burkhard Beckhoff	<b>DT2 fit of a High Resolution EDS PIXE Yb<sub>2</sub>O<sub>3</sub> spectrum</b> Miguel A. Reis and P. Cristina Chaves
09:45	<b>Characterization of Reflection Gratings by GIXRF and Application as Amplitude Beam Splitter for the 4 – 13 keV X-ray Energy Range</b> Diane Eichert and Werner Jark	<b>GIMPy: an analysis software for X ray fluorescence and X ray reflectivity data</b> Fabio Brigidi and Giancarlo Pepponi
10:00		
10:30	<b>Invited 7: Ultra-brigh X ray Beams with Laser Plasma Accelerators</b> Victor Malka	
11:00	<b>XAS and micro-XRF analysis of mono and bi-metallic exopolysaccharide (FePd-EPS) bio-generated by K. oxytoca</b> Iztok Arcon, Stefano Paganelli, Oreste Piccolo, Michele Gallo, Katarina Vogel Mikus and Franco Baldi	<b>Analysis of CuP alloys using XRF spectrometry: elimination or limitation of microstructural effects</b> Jacek Anyszkiewicz, Tadeusz Gorewoda, Zofia Mzyk, Szymon Malara, Katarzyna Bilewska, Andrzej Cybulski, Joanna Gołębiewska-Kurzawska, Justyna Kostrzewa, Magdalena Grzegorzczuk and Magdalena Knapik



**Wallenberg**



**Europe**

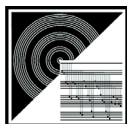
11:15	<p><b>Study of Li-S batteries by S K-edge RIXS spectroscopy</b> Matjaz Kavcic, Matjaž Žitnik, Klemen Bucar, Marko Petric, Iztok Arcon, Robert Dominko and Alen Vizintin</p>	<p><b>XAFS by an X-ray tube based laboratory spectrometer</b> Christopher Schlesiger, Lars Anklamm, Holger Stiel, Sebastian Praetz, Birgit Kanngießner and Wolfgang Malzer</p>
11:30	<p><b>A multi-element Silicon Drift Detector system for Fluorescence Spectroscopy in the soft X-ray regime</b> Jernej Bufon, Alessandra Gianoncelli, Mahdi Ahangarianabhari, Matteo Altissimo, Pierluigi Bellutti, Giuseppe Bertuccio, Roberto Borghes, Sergio Carrato, Giuseppe Cautero, Sergio Fabiani, Massimo Gandola, Gabriele Giacomini, Dario Giuressi, George Kourousias, Ralf Hendrick Menk, Antonino Picciotto, Claudio Piemonte, Alexandre Rachevski, Irina Rashevskaya, Stefano Schillani, Andrea Stolfa, Andrea Vacchi, Gianluigi Zampa, Nicola Zampa and Nicola Zorzi</p>	<p><b>X-ray photoelectron spectroscopy analysis of chemically modified halloysite mineral</b> Ilona Stabrawa, Beata Szczepanik, Dariusz Banaś, Aldona Kubala-Kukuś, Urszula Majewska, Jolanata Wudarczyk-Močko, Janusz Braziewicz, Marek Pajek, Katarzyna Wojtowicz, Piotr Słomkiewicz and Paweł Jagodziński</p>
11:45	<p><b>Optimized single shot NEXAFS in the soft X-ray region in the laboratory</b> Adrian Jonas, Ioanna Mantouvalou, Katharina Witte, Wjatscheslav Martyanov, Daniel Grötzsch, Robert Jung, Holger Stiel and Birgit Kanngießner</p>	<p><b>A new quantitative X-ray system for micro-PIXE analysis</b> Jan Pallon, Nathaly De La Rosa, Mikael Elfman, Per Kristiansson, E.J.Charlotta Nilsson and Linus Ros</p>
12:00	Lunch	
13:00	<p><b>Invited 8: The science of microcalorimeter spectrometers and science with microcalorimeter spectrometers</b> Joel Ullom</p>	
13:30	<p><b>Analytical capabilities and applications developed at the IAEA multi-purpose X-ray spectrometry end-station at the XRF beamline of Elettra Sincrotrone Trieste</b> Mateusz Czyzycki, Juan Leani, Alessandro Migliori, Mladen Bogovac, Paweł Wrobel, Nikita Vakula, Janos Osan, Manoj Tiwari, Das Gangadhar, Ralf Kaiser and Andreas Karydas</p>	<p><b>Complex control of the aluminum bath composition by X-ray fluorescence and X-ray diffraction analysis</b> Oksana Piksina, Eugene Andruschenko, Petr Dubinin, Sergey Kirik, Sergey Ruzhnikov, Alexandr Samoilo, Igor Yakimov and Aleksandr Zaloga</p>



13:45	<b>Manganese distribution in antler and human bone by SR-<math>\mu</math>XRF analysis</b> Anna Turyanskaya, Mirjam Rauwolf, Andreas Roschger, Josef Prost, Peter Hischenhuber, Tomas Landete-Castillejos, Rolf Simon, Peter Wobrauschek, Paul Roschger, Jochen Hofstaetter and Christina Strelt	<b>Qualifying PDMS deposited on silicon wafer surfaces as calibration standard for organic matter by X-ray spectrometry and XPS</b> Beatrix Pollakowski, Gerald Holzlechner, Andreas Lippitz, Burkhard Beckhoff and Wolfgang Unger
14:00	<b>RXR at XLab Frascati: a 3D confocal <math>\mu</math>XRF facility</b> Dariush Hampai, Andrea Liedl, Claudia Polese, Giorgio Cappuccio and Sultan Dabagov	<b>Multi-Element SDD with Advanced Processing for High Count Rate and Mapping Applications</b> Shaul Barkan, Valeri Saveliev, Yen-Nai Wang, Liangyuan Feng, Mengyao Zhang, Elena Damron, Yutaka Tomimatsu and Roger Goldsbrough
14:15	<b>Pigments from fragments of Roman mural paintings analyzed with SR-MA-XRF</b> Rafaela Debastiani, Rolf Simon, Tilo Baumbach and Michael Fiederle	<b>A laboratory setup for angle-resolved XRF spectrometry for the investigation of elemental depth gradients</b> Malte Spanier, Christian Herzog, Daniel Grötsch, Felix Kramer, Janin Lubeck, Jan Weser, Cornela Streeck, Ioanna Mantouvalou, Burkhard Beckhoff and Birgit Kanngießner
14:30	Coffee break	
15:15	Rigaku	
15:30	PN Detector	
15:45	Excillum	
16:00	Panalytical	
16:15	Spectro	
16:30	AmpTek	
16:45	Fundamental parameters initiative	

17:30	Poster session 2
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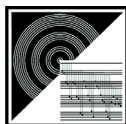
19:00	<b>Welcome Reception</b>
	<p>The City of Gothenburg and the Region Västra Götaland has the pleasure to invite you to attend the Welcome reception!</p> <p>The reception is hosted by the City of Gothenburg and the Region Västra Götaland, finger food and a glass of wine will be served.</p>
	 <p><b>City of Gothenburg</b></p>  <p><b>REGION VÄSTRA GÖTALAND</b></p>



**Tuesday 21 June, Poster session 2**

**Interactions of X-rays with matter and fundamental parameters**

Post 53	<b>Simulation of the NIST vacuum double crystal spectrometer</b> D. Marques, C. I. Szabo, L. Hudson, J. P. Santos, P. Amaro
Post 54	<b>Absence of Chemical Shift of X-ray Fluorescence Spectra of Fe K<math>\alpha</math> in Fe-Si Binary Alloy</b> Ryohei Tanaka, Koretaka Yuge and Jun Kawai
Post 55	<b>Instrumentation for characterization of gases and analysis of the gas metal interface using X-Ray Spectrometry</b> Andreas Nutsch, Jan Weser, Daniel Gröttsch, Wolfgang Malzer and Burkhard Beckhoff
Post 56	<b>Prudent Pick Of Secondary Target to Subdue Spectral Interference for Quantification of Nickel in Ultramafic Rock with Polarized Energy Dispersive X-Ray Fluorescence (ED-XRF) Spectrometry.</b> Md Arif and P.V. Sunder Raju
Post 57	<b>Experimental determination of the Oxygen K-shell fluorescence yield of different Silicon sub-oxides</b> Malte Wansleben, Philipp Hönicke, Rainer Unterumsberger, Michael Kolbe, Beatrix Pollakowski and Burkhard Beckhoff
Post 58	<b>EDXRF analysis of polychromatic gold objects from the Archaeological Museum (MArTA) of Taranto, Italy</b> Giovanni Buccolieri, Alessandro Buccolieri, Eva Degl'Innocenti, Raffaele Casciaro, Roberto Cesareo and Alfredo Castellano
Post 59	<b>Methodology for a fast determination of Si(Li) response function parameters</b> Ana Bertol, P. Cristina Chaves, Miguel A. Reis, Ruth Hinrichs and Marcos Vasconcellos
Post 60	<b>Absolute GIXRF characterisation of Sn depth profiles in Ge</b> Fabio Brigidi, Giancarlo Pepponi, Maria Secchi, Damiano Giubertoni, Diane Madeleine Eichert and Werner Jark
Post 61	<b>Characterization of glass beads found during excavations at the Valongo Wharf (Rio de Janeiro, Brazil) using XRF and SEM-EDS</b> Renato P. Freitas, Cristiane Calza, Ana L. Oliveira, Iohanna M. Ribeiro, Valter S. Felix, Douglas S. Ferreira, Patrícia C. L. Brito, Tania A. Lima, Ricardo T. Lopes
Post 62	<b>Surface characterization of silicon spheres by combined XRF and XPS analysis for determination of the Avogadro constant</b> Michael Kolbe, Rolf Fliegau, Burkhard Beckhoff, Erik Darlatt, Ina Holfelder, Philipp Hönicke and Gerhard Ulm
<b>XRS Instrumentation (X-ray sources, optics and detectors)</b>	
Post 63	<b>Development of EDS system for nanometer scale elemental mapping by STJ array detectors</b> Go Fujii, Masahiro Ukibe, Shigetomo Shiki and Masataka Ohkubo
Post 64	<b>Hermetically closed detector modules for X-ray detection</b> Hartmut Schmidt, Heike Soltau, Adrian Niculae, Robert Lackner, Bechir Talbi, Markus Bornschlegl, Henrik Teuchtl and Armin Schöning
Post 65	<b>Integrated Measuring Head for Micro-spot EDXRF Analyzer optimized for precious alloys</b> Dattatraya Musale
Post 66	<b>Induced charge fluctuations in semiconductor hemispherical detectors</b> Victor Samedov
Post 67	<b>Automation of an EDXRF spectrometer with tri-axial geometry</b> António Barroso, Maria-Luisa Carvalho, José Paulo Santos and Mauro Guerra

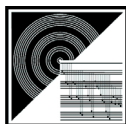


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**Quantification methodology and metrology**

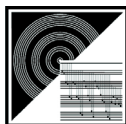
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- Post 68 **Precise determination of contaminants in pharmaceutical iron supplements with energy dispersive X-ray fluorescence technique**  
P. Cardoso, P. Amaro, J. T. Assis, J. P. Santos, L. Carvalho
- 
- Post 69 **Fast x-ray fluorescence determination of elements in vegetable materials**  
B. Oliveira, A. Ensina, P. Amaro, and M. L. Carvalho
- 
- Post 70 **First Results of Quantitative Speciation of Oxide Mixtures by using Resonant Inelastic X-Ray Scattering**  
Juan José Leani, José Robledo, Roberto Daniel Pérez, Carlos Pérez and Héctor Sánchez
- 
- Post 71 **ISO 17025 - conform determination of the measurement quantity "elemental mass per unit area" by means of reference-free XRF**  
Cornelia Streeck, Rainer Unterumsberger, Philipp Hönicke, Matthias Müller, Beatrix Pollakowski, Jan Weser and Burkhard Beckhoff
- 
- Post 72 **Development of liquid and gaseous sample-environments for soft X-ray excitation**  
Daniel Grötzsch, Cornelia Streeck, Wolfgang Malzer, Andreas Nutsch, Andrea Hornemann, Birgit Kanngießner and Burkhard Beckhoff
- 
- Post 73 **Al<sub>2</sub>O<sub>3</sub>-HfO<sub>2</sub> nanolaminate characterization using a combined reference-free grazing incidence X-ray fluorescence and X-ray reflectometry methodology**  
Philipp Hönicke, Blanka Detlefs, Uwe Mühle, Beatrix Pollakowski, Eilbracht Janis and Burkhard Beckhoff
- 
- Post 74 **GIMPYGUI, a graphical user interface for the GIMPY code**  
Damiano Martorelli, Giancarlo Pepponi and Fabio Brigidi
- 
- Post 75 **Bio-inspired wet confinement sample holders for Total Reflection X-Ray Fluorescence Analysis**  
Giancarlo Pepponi, Simone Ghio, Damiano Martorelli, Maurizio Boscardin, Pierluigi Bellutti and Nicola M. Pugno
- 
- Post 76 **Characterization of nano-layers for transparent conductive oxides and power electronics by XRF and NEXAFS**  
Rainer Unterumsberger, Cornelia Streeck, Beatrix Pollakowski, Hélène Rotella, Emmanuel Nolot and Burkhard Beckhoff
- 
- Post 77 **Probing new thin and ultra-thin chalcogenide films with inline WDXRF and XPS metrology**  
Walter Pessoa, Anne Roule, Chiara Sabbione, Marie-Christine Lépy, Philippe Kowalczyk and Emmanuel Nolot
- 
- TXRF, GIXRF and related techniques**
- 
- Post 78 **Sample preparation for TXRF analysis of metal particles in used machine oil**  
Ryohei Hosomi and Kouichi Tsuji
- 
- Post 79 **Multielement analysis of vegetal foodstuff by means of low power total reflection X-ray fluorescence (TXRF) spectrometry**  
Rogerta Dalipi, Eva Margui, Laura Borgese and Laura Eleonora Depero
- 
- Post 80 **Application of TXRF for monitoring level of minerals and trace elements in the urine of the participants of mountain ultra-marathon race**  
Jasna Jablan
- 
- Post 81 **Total X-ray reflection spectrometry analysis of trace elements in tea and herbal infusions**  
Aleksandra Winkler, Mirjam Rauwolf, Anna Turyanskaya, Christina Streli and Johannes Sterba
- 
- Post 82 **Feasibility of Total Reflection X-ray Fluorescence (TXRF) for silver nanoparticles determination in soil adsorption studies**  
Laura Torrent, Eva Margui, Mònica Iglesias and Manuela Hidalgo
- 
- Post 83 **Microbeam techniques, confocal XRF and X-Ray imaging**
- 
- Post 83 **Pigment Characterization by Simultaneous X-ray Fluorescence and Diffraction with the pnCCD Imaging Spectrometer**  
Jeffrey Davis, Julia Schmidt, Martin Huth, Robert Hartmann, Sebastian Ihle, Daniel Steigenhöfer, Peter Holl, Heike Soltau and Lothar Strüder
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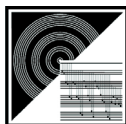
Post 84	<b>X-ray tomography of a human cerebellum tissue</b> Mateusz Czyzycki, Pawel Wrobel, Lukasz Chmura, Walter Schroeder, Gerald Falkenberg, Dariusz Adamek and Marek Lankosz
Post 85	<b>SR-<math>\mu</math>XRF analysis of the zinc distribution in healing osteoporotic fractures</b> Mirjam Rauwolf, Anna Turyanskaya, Andreas Roschger, Josef Prost, Rolf Simon, Ian Pape, Kawal Sawhney, Peter Wobrauschek, Paul Roschger, Jochen Hofstaetter and Christina Strelti
Post 86	<b>MAXI 2D-spectrometer: compact scanning device with variable spot size in the mm range for large area macro-scans</b> Peter Wobrauschek, Peter Allinger, Anna Turyanskaya, Alexander Utz, Stephan Smolek, Dieter Ingerle and Christina Strelti
Post 87	<b>Magnesium-based biodegradable orthopedic implants by <math>\mu</math>XRF</b> Anna Turyanskaya, Mirjam Rauwolf, Andreas Roschger, Josef Prost, Peter Hischenhuber, Tomas Landete-Castillejos, Rolf Simon, Peter Wobrauschek, Paul Roschger, Jochen Hofstaetter and Christina Strelti
Post 88	<b>Towards cryogenic measurements with a confocal micro-XRF setup</b> Tobias Drechsel, Daniel Groetzsch, Ulrich Waldschlager, Ioanna Mantouvalou and Birgit Kanngieer
Post 89	<b>Fast full area crystal domain screening using energy-dispersive micro-XRF</b> Falk Reinhardt, Roald Tagle, Max Buegler and Ulrich Waldschlaeger
<b>Mobile and portable XRF</b>	
Post 90	<b>“Crono”: a fast and reconfigurable MACRO-XRF Scanner for cultural heritage applications</b> Roberto Alberti, Tommaso Frizzi, Luca Bombelli, Michele Gironda, Nicola Aresi, Costanza Miliani, Francesca Rosi and Laura Cartechini
Post 91	<b>Natural radioactivity and elemental composition of sands in the Douala region, Littoral of Cameroon Using Portable XRF and HPGe detector</b> Cebastien Joel Guembou Shouop, Maurice Ndontchueng Moyo, Gregoire Chene and David Strivay
Post 92	<b>Analysis of ancient gold artifacts using X-ray fluorescence</b> Hamilton Gama Filho, Ramon Santos, Davi Oliveira, Luis Fernando Oliveira, Haimon Alves, Claudio Prado, Joaquim Assis and Marcelino Anjos
Post 93	<b>X-ray fluorescence spectrometry reveals the meteoritic origin of Tutankhamun's iron dagger blade</b> Daniela Comelli, Roberto Alberti, Massimo D'Orazio, Luigi Folco, Mahmoud El-Halwagy, Abdelrazek Elnaggar, Austin Nevin, Franco Porcelli and Tommaso Frizzi
Post 94	<b>Polycapillary X-ray Optics to Play a Key Role in NASA Mars2020 Mission</b> Ning Gao, Jared Sachs, George Allen, Genevieve DeMarco, Peng Lu, Igor Ponomarev, Jay Burdett, Larry Wade, Robert Sharrow, Jaime Luna, and Douglas Dawson
<b>Synchrotron XRS, XAFS, high resolution XES, and RIXS</b>	
Post 95	<b>Single shot NEXAFS investigations of biological samples in the soft X-ray region using a Laser Produced Plasma Source</b> Katharina Witte, Ioanna Mantouvalou, Adrian Jonas, Janina Lebendig, Wjatscheslav Martyanov, Daniel Grotzsch, Roco Sanchez-De-Armas, Robert Jung, Holger Stiel and Birgit Kanngieer
Post 96	<b>Electronic structure of third-row elements studied by high energy resolution x-ray emission spectroscopy</b> Marko Petric, Matjaz Kavcic, Matjaz itnik, Klemen Bucar and Rok Bohinc
Post 97	<b>TXRF determinations of interfering elements using profile fitting</b> Sangita Dhara, Ajay Khooha, Ajit Kumar Singh, Mk Tiwari and Nand Lal Misra





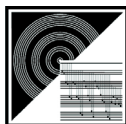
Post 98	<b>Application of the TXRF and XANES method for analysis of ovarian cancer cyst fluids</b> Dariusz Adamek, Lukasz Chmura, Maria Grzelak, Marek Lankosz and Beata Ostachowicz
Post 99	<b>XAFS studies of a CuPd catalyst at the Cu K-edge</b> Antonella Balerna, Claudio Evangelisti, Rinaldo Psaro, Graziano Fusini, Adriano Carpita and Maurizio Benfatto
Post 100	<b>X-ray standing wave assisted depth resolved chemical speciation in periodic multilayer structures</b> Gangadhar Das, A. G. Karydas, Haranath Ghosh, M. Czyzycki, A. Migliori and Manoj Kumar Tiwari
Post 101	<b>A Laboratory Spectrometer for X-ray Emission Spectroscopy (XES) in Catalysis Research</b> Wolfgang Malzer, Daniel Gröttsch, Richard Gnewkow, Christopher Schlesiger, Sven Uwe Urban, Serena Debeer and Birgit Kanngießer
Post 102	<b>A high performance HAPG ring optic for X-ray Emission Spectroscopy</b> Richard Gnewkow, Wolfgang Malzer, Daniel Gröttsch, Christopher Schlesiger, Sven-Uwe Urban, Leon Merfort and Birgit Kanngießer
<b>PIXE instrumentation and applications</b>	
Post 103	<b>Spectroscopy of impact glasses, three methods compared</b> Marina Čalogović, Tihomir Marjanac and Stjepko Fazinic
Post 104	<b>Comparative Analysis of Airborne Particulate Matter Using TXRF and PIXE Techniques</b> Samuel Mwaniki Gaita, Margarete Mages, Josef Probst, Annemarie Wagner, Michael J Gatari, Johan Boman and Christina Strelt
Post 105	<b>Exercise induced effects on a gym atmosphere</b> Matjaž Žitnik and Klemen Bucar
<b>WDXRS</b>	
Post 106	<b>WD- and ED-XRF imaging techniques for industrial and painting samples</b> Shota Aida, Masaki Yamanashi, Yuki Takimoto, Yuta Kitado, Francesco Paolo Romano, Koen Janssens and Kouichi Tsuji
Post 107	<b>Automated remelting as a new sample preparation method for analysis of Sn63Pb37 and SnAg3 solders using WDXRF in the aspect of the microstructural issue</b> Tadeusz Gorewoda, Jacek Anyszkiewicz, Zofia Mzyk, Katarzyna Bilewska, Szymon Malara, Andrzej Cybulski, Joanna Gołębowska-Kurzawska, Justyna Kostrzewa, Magdalena Grzegorzczak and Magdalena Knapik
Post 108	<b>Polychromatic Simultaneous WDXRS for Chemical State Analysis using a Laboratory X-ray Source</b> Kenji Sato, Akihiro Nishimura, Masatomo Kaino and Susumu Adachi
Post 109	<b>C K<math>\alpha</math> X-ray emission spectra for the evaluation of the sp<sup>2</sup>/sp<sup>3</sup> ratio of polymers</b> Dimitrios Anagnostopoulos, Loukas Koutsokeras, Apostolos Avgeropoulos and Panos Patsalas
<b>XRS in Art and Cultural Heritage</b>	
Post 110	<b>An EDXRF portable mapping system for cultural heritage: application on God the Father with Angels panel by Giotto</b> Anna Galli, Roberto Alberti, Nicola Aresi, Tommaso Frizzi, Luca Bombelli, Michele Gironda, Letizia Bonizzoni and Marco Martini
Post 111	<b>ON FORTY-TWO NOSE ORNAMENTS FROM THE TOMB OF THE LADY OF CAO</b> Roberto Cesareo, Angel Bustamante, Regulo Franco, Arabel Fernandez, Soraia Azeredo and Ricardo Lopes
Post 112	<b>Compositional and micro-structural study of joining methods in archaeological gold objects</b> Simona Scrivano, Miguel A. Respaldiza, Blanca Gómez-Tubío, Inés Ortega-Feliú, Francisco J. Ager and Antonio Paúl





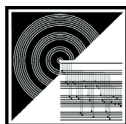
**Wednesday June 22**

	Wallenberg	Europe
08:30	<b>EXRS 30 years (EXRS 1986 - 2016)</b>	
09:00	<p><b>Scanning-Free Grazing Emission XRF setup for Elemental Depth Profiling with nm Resolution</b></p> <p>Jonas Baumann, Chrisitan Herzog, Malte Spanier, Daniel Grötzsch, Lars Lühl, Katharina Witte, Adrian Jonas, Sabrina Günther, Frank Förste, Robert Hartmann, Martin Huth, David Kalok, Daniel Steigenhöfer, Markus Krämer, Thomas Holz, Reiner Dietsch, Lothar Strüder, Birgit Kanngießner and Ioanna Mantouvalou</p>	
09:15	<p><b>Application of TXRF and XRPD techniques for analysis of elemental and chemical composition of human kidney stones</b></p> <p>Aldona Kubala-Kukuś, Michał Arabski, Ilona Stabrawa, Dariusz Banaś, Waldemar Rózański, Urszula Majewska, Jolanta Wudarczyk-Moćko, Janusz Braziewicz, Marek Pajek and Stanisław Gózdź</p>	
09:30	<p><b>Sample preparation for TXRF analysis of teas</b></p> <p>Ryohei Hosomi, Yuri Tabuchi and Kouichi Tsuji</p>	
09:45	<p><b>Analytical capabilities of could point extraction (CPE) in combination with low-power total X-ray fluorescence spectrometry (TXRF) for isolation and quantification of silver nanoparticles (AgNPs) in water extracts</b></p> <p>Eva Margui, Laura Torrent, Manuela Hidalgo and Monica Iglesias</p>	
10:00	Coffee break	
10:30	<p><b>Invited 9: Total reflection X-ray fluorescence analysis using weak white X-rays</b></p> <p>Shinsuke Kunimura</p>	



	Wallenberg	Europe
11:00	<p><b>Development of portable XRD: onsite analysis of paintings at the Rijksmuseum Amsterdam</b> Izumi Nakai, Airi Hirayama, Arisa Izumi, Yoshinari Abe, Kriengkamol Tantrakarn, Kazuo Taniguchi, Annelies Van Loon, Petria Noble, Fredrik Vanmeert and Koen Janssens</p>	<p><b>High resolution EDXRF scanning of sediment cores, a way to look back in time.</b> Anders Rindby</p>
11:15	<p><b>Errors in tabulated X-ray emission intensities limit the accuracy of X-ray Fluorescence analysis</b> Brianna Ganly, Yves Van Haarlem and James Tickner</p>	<p><b>Near-real-time trace element measurements of ambient aerosols at a rural, traffic-influenced site in Switzerland</b> Markus Furger, Jay G. Slowik, María Cruz Minguillón, Christoph Hueglin, Krag Petterson, André S. H. Prévôt and Urs Baltensperger</p>
11:30	<p><b>Development of a portable EDXRF spectrometer with a secondary target in a tri-axial geometry</b> Mauro Guerra, Matilde Alves, Maria Luisa Carvalho and Sofia Pessanha</p>	<p><b>Two years monitoring of fine particulate matter and source apportionment in Rijeka, Croatia</b> Tatjana Ivošević, Marija Čargonja and Ivica Orlić</p>
11:45	<p><b>CASTOR, a new tool for combined XRR-GIXRF analysis at SOLEIL</b> Anastasiia Novikova, Marie-Christine Lépy, Yves Ménesguen, Walter-Wilkener Batista-Pessoa, Hélène Rotella, Jean-Michel André and Philippe Jonnard</p>	<p><b>Evaluation of water hyacinth (Eichhornia crassipes) as feedstock for biogas production: Application of X-ray Fluorescence.</b> David Maina, Christine Matindi, Paul Njogu and Michael Gatari</p>
12:00	<p><b>Lunch followed by Excursion info</b></p>	
13:00		

**Excursion:** Boat through Gothenburg city, visit to The Swedish Ship Götheborg and Älvrummet

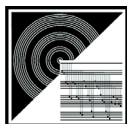


**Thursday June 23**

Wallenberg

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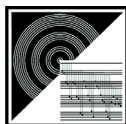
08:30	<b>Invited 10: Core-level RIXS: A versatile Spectroscopic Tool for Chemical State Assessments</b> Juan José Leani	
09:00	<b>Microscale mineral analysis of argillaceous rock thin sections after sorption experiment</b> Felician Gergely, Szabina Török, Rainer Dähn, Margit Fábrián, Daniel Grolimund, Annamária Kéri and Janos Osan	<b>Multi-color inner-shell x-ray lasing using x-ray free electron laser femtosecond pulses</b> Joanna Hozowska, Jakub Szlachetko, Jean-Claude Dousse, Wojciech Błachucki, Yves Kayser, Chris M. Milne, Maarten Nachtegaal, Bruce D. Patterson, Rafael Abela and Marek Pajek
09:15	<b>Confocal X-ray fluorescence spectrometer and commercial 3D printer</b> Imre Szaloki, Gabor Radocz and Anita Gerenyi	<b>What are the correct L-subshell photoionization cross sections for quantitative X-ray spectroscopy?</b> Philipp Hönicke, Michael Kolbe and Burkhard Beckhoff
09:30	<b>Synchrotron X-ray Microprobe Analysis of Crud Deposits in Pressurized Water Reactors</b> Vallerie Ann Samson, Daniel Grolimund, Matthias Martin and Heiko Dirk Potthast	<b>From droplet to layer – PVD for (T)XRF quantification</b> Markus Krämer, Maria Becker, Burkhard Beckhoff, Reiner Dietsch, Gerald Falkenberg, Ursula Fittschen, Thomas Holz, Philipp Hönicke, Bernhard Nensel, Daniela Rogler, Alex von Bohlen and Danny Weissbach
09:45	<b>The XRF scanner of INFN-LABEC for the diagnostics in Cultural Heritage issues</b> Anna Mazzinghi, Chiara Ruberto, Caroline Czelusniak, Lara Palla, Lisa Castelli, Nicla Gelli, Lorenzo Giuntini, Pier Andrea Mandò and Francesco Taccetti	<b>Quantification of Nitrogen in Organic Reference Materials</b> Andreas Nutsch, Cornelia Streeck, Alex Shard and Burkhard Beckhoff
10:00	Coffee break	
10:30	<b>Invited 11: Time resolved studies of ultrafast structural changes in membrane proteins</b> Richard NEUTZE	<b>Cerium (IV) oxide decorated with graphene oxide as a novel nanocomposite in sorption of trace metal ions and speciation of arsenic and selenium determined by X-ray fluorescence spectrometry</b> Beata Zawisza, Anna Baranik, Rafal Sitko, Anna Gagor, Ignasi Queralt and Eva Margui
10:45		<b>Studies on Transylvanian native gold samples from Rosia Montana and Cavnice deposits using micro-PIXE</b> Bogdan Constantinescu, Daniela Stan and Daniele Ceccato



**Wallenberg**

**Europe**

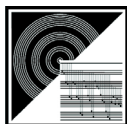
11:00	<p><b>Doubly differential bremsstrahlung cross sections for 20 to 100 keV electrons impinging on various elements between <math>6 &lt; Z &lt; 79</math></b> Juan Alejandro García-Alvarez, Nora Maidana, José María Fernández Varea, Suelen F. Barros, Osvaldo C.B. Santos, Marcos N. Martins, Alessio Mangiarotti, Tiago F. Silva, Alexandre Malafronte, Adirano J. Moraes and Vito Vanin</p>	<p><b>Nanometer-scale surface investigations by means of scanning-free GEXRF</b> Yves Kayser, Jacinto Sa and Jakub Szlachetko</p>
11:15	<p><b>Scanning electron microscope-cathodoluminescence (SEM-CL) analysis of inclusions in metals</b> Susumu Imashuku, Koichiro Ono and Kazuaki Wagatsuma</p>	<p><b>X-ray Absorption Spectroscopy for Gemology Applications</b> Nirawat Thammajak, Rachanon Klondon and Sorapong Pongkrapan</p>
11:30	<p><b>Precise measurements of cross sections for K-shell ionization by electron impact – 35-100 keV Te K as an example</b> Vito Vanin, Marcos Martins, Nora Maidana, Alessio Mangiarotti, Osvaldo Santos, Juan García-Alvarez, Suelen Barros, Manfredo Tabacniks, Cleber Rodrigues, Tiago Silva, Marina Koskinas, José M Fernández-Varea and Michael Pindzola</p>	<p><b>A compact and calibratable von Hamos X-Ray Spectrometer based on cylindrical HAPG mosaic crystals for high-resolution XES</b> Ina Holfelder, Matthias Müller, Jan Weser and Burkhard Beckhoff</p>
11:45	<p><b>Can SQRT(N) be used for the standard uncertainty in x-ray spectroscopy with semiconductor detectors?</b> Tibor Papp and John Maxwell</p>	<p><b>Speciation depth-profiling of nano-structured specimen by combined GIXRF-NEXAFS</b> Beatrix Pollakowski, Peter Hoffmann, Marina Kosinova, Valentina Trunova, Wolfgang Ensinger and Burkhard Beckhoff</p>
12:00	Lunch	
13:00	<p><b>Invited 12: Use of pixellated spectroscopic detectors for quantitative X-ray mammography</b> Silvia Pani</p>	<p><b>A novel methodology based on ED-XRF and TXRF to quantify light and heavy elements present on aqueous and acid liquid extracts related with Cultural Heritage samples</b> Cristina García-Florentino, Maite Maguregui, Eva Marguí, Ignasi Queralt and Juan Manuel Madariaga</p>
13:15	<p><b>A modern multi-excitation concept for TXRF</b> Armin Gross, Hagen Stosnach and Ulrich Waldschläger</p>	



**Wallenberg**

**Europe**

<b>13:30</b>	<b>Evidences of the use of mercury in medicine</b> Sofia Pessanha, Mauro Guerra, Marta Carvalho, Carina Ferreira, Marta Manso, José Paulo Santos, António Alberto Dias, Ana Guilherme Buzanich and Maria Luisa Carvalho	<b>Polycapillary Optics: from Idea to Technology (to the memory of Muradin Kumakhov)</b> Sultan Dabagov
<b>13:45</b>	<b>Assessment of heavy metals and hazardous substances in tattoo inks</b> Marta Manso, Ana Guilherme Buzanich, Sofia Pessanha, Mauro Guerra, Luisa Carvalho, Martin Radtke and Uwe Reinholz	<b>Cryogenic Analysis of Frozen Hydrated Biological Tissue at the Hard X-ray Micro-Probe Beamline at PETRA III</b> Jan Garrevoet, Walter Schroeder, Bjorn de Samber, Thorsten Claussen, Eva Vergucht, Ulrike Boesenberg, Mathias Alfeld, Matteusz Czyzycki, Michael Road, Laszlo Vincze and Gerald Falkenberg
<b>14:00</b>	<b>Elemental accumulation and their interaction with lichens</b> Shamayita Banerjee, Anindita Chakraborty, Sudarshan Mathummal and Nabakanta Jana	<b>Quantitative XRF-Analysis of technical Microstructures</b> Marcel Bremekamp, Joerg Leske and Bernhard Nensel
<b>14:15</b>	<b>Comparison between different quantification methods for the the analysis of precious alloys by ED-XRF</b> Filippo Niccolai, Alessandra Amato, Francesco Bitti, Sandro Gonzi, Dattatraya Musale, Andrea Puggelli, Jason Ravagli and Stefano Ridolfi	<b>Synthetically-generated Reference Spectra for X-ray Fluorescence with Presence of Peak Interference</b> Rutchanee Gullayanon
<b>14:30</b>	Coffee break	
<b>15:15</b>	Bruker	
<b>15:30</b>	Ketek	
<b>15:45</b>	XOS	
<b>16:00</b>	Moxtek	
<b>16:15</b>	Hitachi High-Technology Science	
<b>16:30</b>	EXSA GA	
<b>17:30</b>	Poster session 3	
<b>19:15</b>	Conference dinner	



### Thursday 23 June, Poster session 3

#### **Interactions of X-rays with matter and fundamental parameters**

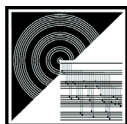
- Post 113 **The natural line widths, asymmetric indices, the visualization of 3d electron, and CK transitions in Ca – Ge elements**  
Y Ito, T Tochio, H Ohashi, S Fukushima, M Polasik, K Słabkowska, Ł Syrocki, E Szymańska, J Rządkiwicz, P Indelicato, J Marques, M Martins, F Parente and J Santos
- Post 114 **Detailed Figures and Tables in “The natural line widths, asymmetric indices, the visualization of 3d electron, and CK transitions in Ca – Ge elements”**  
Y Ito, T Tochio, H Ohashi, S Fukushima, M Polasik, K Słabkowska, E Szymańska, J Rządkiwicz, P Indelicato, J Marques, M Martins, F Parente and J Santos
- Post 115 **Influence of the conversion ratio of hydroxyapatite phantoms on coherent normalization for calibration of in vivo bone strontium measurements**  
Eric Da Silva, Jimmy Ng, Hazra Sokoli, James Grafe and Ana Pejovic-Milic
- Post 116 **Overlying soft tissue correction based on Compton scattering for 125I-based in vivo bone strontium measurements: a simulation study**  
Hazra Sokoli, Ana Pejovic-Milic, David Fleming, James Gräfe and Eric Da Silva
- Post 117 **Characterization of Protein Layers with X-Ray Spectrometry and Ellipsometry**  
Andreas Nutsch, Benjamin Kalas, Judit Nador, Miklos Fried, Peter Petrik and Burkhard Beckhoff
- Post 118 **Recent determinations of x-ray fundamental parameters**  
Philipp Hönicke, Michael Kolbe, Rainer Unterumsberger, Beatrix Pollakowski and Burkhard Beckhoff
- Post 119 **Breast cancer analysis using electron density and effective atomic number determined from measurements of the x-ray linear attenuation coefficient**  
Leonardo D. H. Soares, Roberto Daniel Perez, Juan José Leani, Héctor Jorge Sanchez, Maurício Moralles and Martin E Poletti

#### **Quantification methodology and metrology**

- Post 120 **In vivo measurement of gadolinium in bone using a 241Am based X-ray fluorescence system**  
Zaid Keldani, Joanna Nguyen, Eric Da Silva, Ana Pejovic-Milic, Darrick Heyd and James Gräfe
- Post 121 **Combined use of experimental detector responses with advanced modeling for increased performance of deconvolution algorithms in various applications**  
Charalampos Zarkadas
- Post 122 **Five generations of UHV instrumentation for X-ray spectrometry - technology development and transfer for industrial, metrological and scientific applications -**  
Burkhard Beckhoff, Ina Holfelder, Janin Lubeck and Jan Weser
- Post 123 **WDXRS as Standard Test Method for Determination of Organic Chloride Content in Crude Oil**  
Alexander V. Grigorev

#### **TXRF, GIXRF and related techniques**

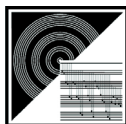
- Post 124 **Chemical analysis of airborne particulate matter collected on filters prepared by SMART STORE™ by means of X-Ray Fluorescence based techniques**  
Laura Borgese, Fabjola Bilo, Annalisa Zacco, Diane Eichert, Werner Jark, Kouichi Tsuji, Elza Bontempi and Laura Eleonora Depero
- Post 125 **Total reflection X-ray fluorescence analysis of directly collected indoor aerosol samples – Preliminary results**



Josef Prost, Andreas Windbichler, Anna Zinkl, Angelika Hable, Andreas G. Karydas, Johannes H. Sterba, Peter Wobrauschek and Christina Strelí

- 
- Post 126 **Refitting an X-ray Diffraction System for combined GIXRF and XRR measurements**  
Dieter Ingerle, Werner Artner, Klaudia Hradil and Christina Strelí
- 
- Microbeam techniques, confocal XRF and X-Ray imaging**
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- Post 127 **Non-Destructive Characterization of Experimental Gold Electroplating on Silver Substrates with Confocal Micro X-Ray Fluorescence (CXRF) for Cultural Heritage Studies**  
Kilian Laclavetine, F.J. Ager, L. Ferrazza, M. Ferretti, D. Juanes, I. Ortega-Feliú, Miguel Ángel Respaldiza, C. Roldán, Simona Scrivano and I. Traver
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- Post 128 **Designing optimal multilayer mirrors for a new generation of X-ray sources**  
Markus Kraemer, Reiner Dietsch, Thomas Holz, Holger Lasser, Bartek Lechowski, Sven Niese, Norman Niewrzella, Daniela Rogler and Danny Weissbach
- 
- Post 129 **Zinc distribution in human prostatic carcinoma cell line using synchrotron X-ray microfluorescence**  
Karolynne Rocha, Roberta Leitão, Eliane Barros, Aparecida Oliveira, Catarine Canellas, Marcelino Anjos, Luiz Nasciutti and Ricardo Lopes
- 
- Post 130 **Synchrotron X-ray microfluorescence mapping of Fe, Cu and Zn in prostate cell spheroids supplemented with Zn**  
Roberta Leitão, Karolynne Rocha, Eliane Barros, Aparecida Oliveira, Catarine Canellas, Marcelino Anjos, Luiz Nasciutti and Ricardo Lopes
- 
- Post 131 **Evaluation of the sensitometric curve of radiographic films through X-Ray fluorescence**  
Davi Oliveira, Elicardo Gonçalves, Marcelino Anjos, Joaquim Assis, Luis Fernando Oliveira and Ricardo Lopes
- 
- Post 132 **MicroXAS Beamline of the Swiss Light Source – a bright, multi-modal microscopic chemical imaging beamline**  
Vallerie Ann Samson, Dario Ferreira, Daniel Grolimund, Mario Birri and Beat Meyer
- 
- Post 133 **Discriminating barium- from titanium-based pigments in modern painting with the XRF-scanner of INFN-LABEC**  
Chiara Ruberto, Anna Mazzinghi, Caroline Czelusniak, Lara Palla, Lorenzo Giuntini, Lisa Castelli, Pier Andrea Mandò and Francesco Taccetti
- 
- Post 134 **Computed Microtomography Methodology to Study Bioturbation in Humid Muddy Sediments**  
Alessandra Silveira Machado, Simone Pennafirme, Alessandra de Castro Machado, Inaya Lima, Mirian Crapez and Ricardo Lopes
- 
- Post 135 **Ceramic materials characterization through computed microtomography and X-ray fluorescence**  
Alessandra Machado, Davi Oliveira, Rose Latini, Hamilton Gama Filho, Marcelino Anjos and Ricardo Lopes
- 
- Post 136 **X-RAY FLUORESCENCE IN ARCHAEOLOGY**  
Taibouni Nabila and Amokrane Arezki
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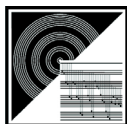


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**Synchrotron XRS, XAFS, high resolution XES, and RIXS**

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- Post 137 **Cr, Cu and Zn K-edge SR-TXRF-XANES of indoor aerosol samples at BESSYII and ELETTRA**  
Josef Probst, Andreas Windbichler, Ana Guilherme Buzanich, Uwe Reinholz, Heinrich Riesemeier, Martin Radtke, Giancarlo Pepponi, Alessandro Migliori, Andreas G. Karydas, Mateusz Czyzycki, Diane M. Eichert, Werner H. Jark, Peter Wobraschek and Christina Strelt
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- Post 138 **Preparation and characterization of organic thin films for NEXAFS investigations in transmission mode**  
Janina Lebendig, Katharina Witte, Ioanna Mantouvalou, Robert Jung, Holger Stiel and Birgit Kanngiesser
- 
- Post 139 **Determination of Chromium and Manganese Species in water samples using X-ray Resonant Raman Scattering and Principal Component Analysis at the IAEA-Elettra synchrotron beamline end-station facility**  
Juan José Leani, José Robledo, Andreas Germanos Karydas, Alessandro Migliori and Héctor Jorge Sánchez
- 
- Post 140 **Changes in Li<sub>4</sub>Ti<sub>5</sub>O<sub>12</sub> (LTO) Structure due to Charge Effects Analyzed by Resonant Inelastic X-Ray Scattering in Combination with Multivariate Methods**  
Juan José Leani, Jose I. Robledo, Fabiana Oliva, Mateusz Czyzycki, Andreas Karydas, Alessandro Migliori and Héctor Sánchez
- 
- Post 141 **Recent Developments of Multi-Element SDD XFR Spectrometers for High Count Rate Applications.**  
Valeri D Saveliev, Shaul Barkan, Liangyuan Feng, Yen-Nai Wang, Elena Damron, Mengyao Zhang and Roger Goldsbrough
- 
- Post 142 **Automated non-linear alignment of XRF spectra**  
George Kourousias, Fulvio Billé and Alessandra Gianoncelli
- 
- Post 143 **Fast X-ray Beam Intensity Stabilization for Absorption Spectroscopy and Spectromicroscopic Imaging**  
Vallerie Ann Samson, Daniel Grolimund, Mario Birri, Beat Meyer and Markus Williman
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- Post 144 **First in situ measurements with a newly developed SR-based 'single-shot' EXAFS set-up**  
Martin Radtke, Ana Guilherme Buzanich, Anke Kabelitz, Simone Rolf, Heinrich Riesemeier, Uwe Reinholz and Franziska Emmerling
- 
- Post 145 **X-ray absorption fine structure of sulfur in a Li-S battery cathode measured under protective atmosphere**  
Claudia Zech, Matthias Müller, Manfred Stamm, Ivan Raguzin, Leonid Ionov, Andreas Bund, Svetlozar-Dimitrov Ivanov and Burkhard Beckhoff
- 
- Post 146 **Emerging application fields: medical device characterisation by combined X-ray and IR spectrometry**  
Beatrix Pollakowski, Andrea Hornemann, Bonnie Tyler, Rory Steven, Peggy Emmer and Burkhard Beckhoff
- 
- PIXE instrumentation and applications**
- 
- Post 147 **Use of high energy PIXE/PIGE experiments to study the influence of moisture on X-rays analysis methods.**  
Alexandre Subercaze, Arnaud Guertin, Ferid Haddad, Mostafa Hazim, Liliane Jean-Soro, Charbel Koumeir, Vincent Métivier, Nathalie Michel, Catherine Neel, Ahmed Rahmani and Noel Servagent
- 
- Post 148 **Evaluation of the X-ray distribution of a syringe-needle type proton-induced X-ray source by Geant4 simulation**



Yuchao Hu, Hitoshi Fukuda and Yoshiyuki Oguri

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- Post 149 **Comparison between XRF and PIXE techniques for the analysis of air particulate matter**  
Gerelmaa Gunchin, Peter Kregsamer, Christina Strel, Massimo Chiari, Silvia Nava, Giulia Calzolari, Shagjjamba Dagva, Lodoysamba Sereeter, Zuzaan Purev and Andreas Germanos Karydas

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**Electron induced XRS**

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- Post 150 **Structural studies of novel perovskite: BaLa<sub>2</sub>/3U<sub>5</sub>+O<sub>5.5</sub>**  
Rohan Phatak, Ashok Yadav, Nimai Pathak, Ruma Gupta, Shambhu Jha, Dibyendu Bhattacharyya, Amitabh Das and Sanjay Sali
- 
- Post 151 **DANTE, A Compact and Low-Power DPP to Exploit CUBE Ultimate Energy-Resolution and Count-Rate Capability**  
Luca Bombelli, Michele Manotti, Roberto Alberti and Tommaso Frizzi

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**X-ray diffraction (XRD)**

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- Post 152 **SAXS Investigation of Porosity and Fractal Properties of the Sintered Niobium**  
Leonid Skatkov and Valeriy Gomozov
- 
- Post 153 **Crystal structures of CoCl<sub>2</sub> and Co(ClO<sub>4</sub>)<sub>2</sub> complexes of 1,3-bis(1H-benzimidazol-2-yl)-2-oxapropane**  
Aydin Tavman, Adem Cinarli and Demet Gürbüz
- 
- Post 154 **Crystal Structures of N-(5-chloro-2-hydroxyphenyl)-5-bromosalicylaldehyde and N-(5-methyl-2-hydroxyphenyl)-3,4-dimethoxybenzaldehyde**  
Adem Cinarli, Demet Gürbüz and Aydın Tavman
- 
- Post 155 **Structural characterization of the diastereomeric complexes formed by dimethylacridino-18-crown-6 ether and the enantiomers of 1-(1-naphthyl)ethylamine hydrogen perchlorate**  
Tamás Németh, Ibolya Leveles, Tünde Tóth, Beáta G. Vértessy and Péter Huszthy

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**XRS in Art and Cultural Heritage**

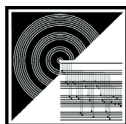
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- Post 156 **Micro-PIXE and micro-SR-XRF – two excellent analytical techniques for History and Art studies**  
Daniela Stan, Bogdan Constantinescu and Angela Vasilescu
- 
- Post 157 **Efficiency of using calcium oxalate for protection of monumental limestone and marble**  
Domagoj Mudronja, Stjepko Fazinić, Iva Bozicevic Mihalic, Allesandro Migliori, Juan Jose Leani and Andreas Karydas

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- Post 158 **Energy dispersive X-ray fluorescence spectrometry (EDXRF) to investigate ancient Moroccan Jewish parchments**  
Latifa Hajji, Jamal Assouik, Sofia Pessanha and Maria Luisa Carvalho

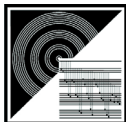
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**XRS in Earth and Environment sciences**

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- Post 159 **Possibilities of low-power X-ray fluorescence spectrometry techniques for rapid multielemental analysis and imaging of vegetal foodstuffs**  
Eva Margui, Helena Gallardo, Ignasi Queralt, Josefina Tapias, Mauro Guerra and Maria Luisa Carvalho
- 
- Post 160 **Assessment of bone calcium and phosphorus content using  $\mu$ -EDXRF: effects of long-term cadmium poisoning**  
Tsz Wing Cheung, Chun Yu Mak, Alan Wing Lun Law, Rafay Ahmed and Condon Lau
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- Post 161 **Developing Single and Multi-element Reference Materials for Evaluating XRF Measurements of Atmospheric Aerosols**  
Krystyna Trzepla, Sinan Yarkin, Warren White and Nicole Hyslop
- 
- Post 162 **Elemental Accumulation Patterns in Freshwater Biota**  
Annemarie Wagner and Margarete Mages
- 
- Post 163 **Silanized cellulose membranes for speciation and determination of selected trace metal ions by EDXRF**  
Rafal Sitko, Ewa Lukojko, Karina Kocot and Beata Zawisza
- 
- Post 164 **Determination of mercury concentration in tissue of Zebrafish (Danio rerio) using  $\mu$ -EDXRF**  
Maria Silva, José Paulo Santos, Mário Diniz and Mauro Guerra
- 
- Post 165 **Black carbon and elemental composition of PM<sub>2.5</sub> in Kingston, Jamaica**  
Sepideh Hedman, Samuel Mwaniki Gaita and Johan Boman
- 
- XRS in Industrial Quality and Process Control**
- 
- Post 166 **The comparative verification of calibration curve and BG-FP methods for impurity analysis in drug materials**  
Hiroaki Furukawa, Naoto Ichimaru, Keijiro Suzuki, Makoto Nishino, Jennifer Broughton, Johan Leinders and Hiroto Ochi
- 
- XRS in Life Sciences and Forensics**
- 
- Post 167 **Monte Carlo calibration for in vivo XRF**  
Mats Isaksson and Eva Forssell-Aronsson
- 
- Post 168 **Nano-imaging of particulate in human lung tissue by Soft X-ray and hard XRF Microscopy**  
Francesca Cammisuli, Alessandra Gianoncelli, Clara Rizzardi, Vincenzo Canzonieri and Lorella Pascolo
- 
- Post 169 **X-ray Spectroscopy in CMX4 Nuclear Forensic Interlaboratory Exercise**  
András Kocsonya
- 
- Post 170 **Study of trace Elements concentration in cancerous tissues by X-ray Fluorescence Spectroscopy (EDXRF)**  
Ana Magalhães, Alexandre Mogárrio, Maria Luísa Carvalho, José Paulo Santos, João O'Neill and Mauro Guerra
- 
- Post 171 **The X-ray Fluorescence Beamline at Elettra – Sincrotrone Trieste: New Characterization Opportunities for Nano-Structured Materials**  
D. Eichert, L. Luehl, F. Brigidi, A. Gambitta and W. Jark
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**Friday June 24**

**Wallenberg**

<b>08:30</b>	<b>Invited 13: Comparison of XRF and PIXE imagings of paintings</b> Thomas Calligaro, Myriam Eveno, Victor Gonzalez, Eric Laval, Laurent Pichon and Elisabeth Ravaud
<b>09:00</b>	<b>MA-XRPD, a non-destructive imaging method capable of highly-specific mapping of degradation products in paintings</b> Frederik Vanmeert, Koen Janssens, Geert Van der Snickt, Lizet Klaassen, Margje Leeuwestein, Annelies Van Loon, Petria Noble and Joris Dik
<b>09:15</b>	<b>TXRF determinations of interfering elements using profile fitting</b> Sangita Dhara, Ajay Khooha, Ajit Kumar Singh, Mk Tiwari and Nand Lal Misra
<b>09:30</b>	<b>Advances in EDXRF technology and applications for environmental laboratories and air filters analysis</b> Pascal Lemberge, Didier Bonvin
<b>09:45</b>	<b>Elementary characterization of environmental samples from pit lakes in Sweden</b> Juan Mantero, Rimon Thomas, Mats Isaksson, Eva Forssell-Aronsson, Elis Holm and Rafael García-Tenorio
<b>10:00</b>	Coffee break
<b>10:30</b>	<b>Invited 14: Developments on full field XRF and PIXE by using an X-ray camera with high-energy and high-spatial resolution</b> Francesco Paolo Romano, Claudia Caliri, Hellen C. Santos, Lighea Pappalardo and Francesca Rizzo
<b>11:00</b>	<b>JGIXA – a software package for the calculation and fitting of grazing incidence X-ray fluorescence and X-ray reflectivity data for the characterization of nanometer-layers and ultra-shallow-implants</b> Dieter Ingerle, Giancarlo Pepponi, Florian Meirer, Peter Wobrauschek and Christina Strelt
<b>11:15</b>	<b>In-fab metrology of depth-dependent properties</b> Emmanuel Nolot, Helene Rotella, Gael Picot and Walter Pessoa
<b>11:30</b>	Closing session
<b>12:00</b>	Take away lunch

