

**EXRS-2014**  
**European Conference on**  
**X-Ray Spectrometry**

**Bologna, Italy, 15-20 June 2014**

# **Program**

**[exrs2014.ing.unibo.it](http://exrs2014.ing.unibo.it)**

## Monday 16

	<b>Lecture Hall B</b>	<b>Lecture Hall A</b>
<b>9:00</b>	<b>Opening Session</b>	
<b>9:30</b>	<b>Keynote Talk: XRF and PIXE on the Mars Science LAB Curiosity Rover</b> John L. (Iain) Campbell	
<b>10:00</b>	<b>JARI Medal Award</b>	
<b>10:15</b>	<b>Session Quantification Methodology and Metrology</b> <b>Invited: Particle-induced X-ray emission as a crucial element of the "Total IBA" technique for traceable accuracy in thin film depth profiling of complex samples</b>  Chris Jeynes	
<b>10:45</b>	<b>High-resolution Laue-type DuMond crystal spectrometer</b>  Jean-Claude Dousse, Monika Szlachetko, Michel Berset, Joanna Hozzowska and Jakub Szlachetko	
<b>11:00</b>	<b>Coffee Break and Poster Session 1</b>	
<b>11:30</b>	<b>Design of a depth-graded sliced multilayer operating as a Laue grating</b>  Karine Le Guen, Jean-Michel André and Philippe Jonnard	<b>Session XRS Application in Life Sciences and Forensics</b> <b>Invited: Transmission Dosimetry via MAPS-based Event Discrimination in a Therapeutic LINAC</b> Richard Hugtenburg, Ryan Page and Jaap Velthuis
<b>11:45</b>	<b>Reference-free, in-depth characterization of nanoscaled systems with advanced grazing incidence X-ray fluorescence analysis</b>  Philipp Hönicke, Matthias Müller, Blanka Detlefs, Claudia Fleischmann and Burkhard Beckhoff	
<b>12:00</b>	<b>A novel sequential quantification approach for elemental depth gradients from GIXRF-measurements</b>  Cornelia Streeck, Christian Herzog, Roland Mainz, Birgit Kanngießner and Burkhard Beckhoff	<b>Sub-micron X-ray imaging of selected chemical elements in human brain cancers</b>  Mateusz Czyzycki, Magdalena Szczerbowska-Boruchowska, Pawel Wrobel, Aleksandra Wandzilak, Edyta Radwanska, Dariusz Adamek and Marek Lankosz
<b>12:15</b>	<b>Laboratory 3D Micro-XRF: experimental possibilities and quantification</b>  Ioanna Mantouvalou, Timo Wolff, Tim Lachmann, Michael Haschke, Ulrich Waldschläger, Wolfgang Malzer and Birgit Kanngießner	<b>X-ray spectroscopy – applications in forensic sciences</b>  Zuzanna Brożek-Mucha
<b>12:30</b>	<b>Quantitative X-ray Microanalysis of Thin Films by Analytical and Monte Carlo Methods</b>  Aldo Armigliato, Stefano Frabboni, Giancarlo Gazzadi, Andrea Parisini and Rodolfo Rosa	<b>Development of heavy mineral and heavy element database of river sediments in Japan for forensic investigation using synchrotron radiation X-ray analyses</b>  Izumi Nakai, Issei Maeda, Yoshinari Abe, Masayoshi Itou, Takuya Matusmoto and Keiichi Osaka
<b>12:45</b>	<b>Towards ultrafast X-ray absorption spectroscopy in the lab: cross-correlation measurement of femtosecond hard X-ray pulses from a laser plasma source</b>  Do-Young Noh, Karol Adam Janulewicz, Mazhar Iqbal, Stiel Holger and Muhammad Ijaz	<b>X-ray fluorescence of archived bone samples: Are raised Pb levels a chance finding or an association with Paget's disease?</b>  Lesley Egden, Khanh Nguyen, David Chettle, Richard Butler, Michael Inskip and Colin Webber
<b>13:00</b>	<b>Lunch Interval</b>	

14:30	<b>Session X-Ray Imaging and Tomography</b> <b>Invited: Scanning Versus Full-Field X-Ray Fluorescence and Absorption Microspectroscopy Using Synchrotron Radiation</b> Laszlo Vincze	<b>Analysis and Characterization of the X-Ray Beam Produced by a PF Device for Radiotherapy Applications</b>  Marco Sumini
14:45		<b>XRF analysis of Henna and Kohl</b> Khulud Al-Muqrin, Simon Barnes, David Bradley and Eman Daar
15:00	<b>X-ray fluorescence computed tomography: how far can we go?</b> Martin de Jonge, Chris Ryan and Chris Jacobsen	<b>Feasibility of measuring arsenic and selenium in skin with XRF: a comparison of two techniques</b> Haya Shehab, Elstan Desouza, Joanne O'meara, Ana Pejović-Milić, David Chettle, David Fleming and Fiona McNeill
15:15	<b>Sub-micrometer elemental imaging with millisecond pixel dwell time: The new Maia XRF detection system at P06</b> Matthias Alfeld, Ulrike Boesenberg, Chris Ryan, Robin Kirkham and Gerald Falkenberg	<b>Improvements in the evaluation of tooth bleaching gel using <math>\mu</math>-X-Ray Fluorescence</b> Joao Silveira, Joao Godinho, Antonio Mata, Luisa Carvalho and Sofia Pessanha
15:30	<b>Metal poisoning of single catalyst particles: Correlating pore network and elemental distribution</b>  Florian Meirer, Sam Kalirai, Joy C. Andrews, Ulrike Boesenberg, Matthias Alfeld, Gerald Falkenberg, David Devilliers, Santosh Soparawalla, J. Gerbrand Mesu and Bert M. Weckhuysen	<b>Determination of the low lead concentration in samples of human biological material using the total reflection X-ray fluorescence analysis</b> Aldona Kubala-Kukuś, Dariusz Banaś, Janusz Braziewicz, Urszula Majewska, Marek Pajek, Jolanta Wudarczyk-Močko, Ilona Stabrawa, Małgorzata Wysocka-Kunisz and Stanisław Góźdź
15:45	<b>XRF and PIXE imaging with few microns resolution using SLcam® – a Color X-Ray Camera</b>  Stanisław H. Nowak, O. Scharf, A. Bjeoumikhov, J. von Borany, J. Buchriegler, F. Munnik, A. D. Renno, R. Ziegenrucker, H. Soltau, L. Strüder and R. Wedell	<b>Kinetic Modeling of Strontium Uptake in Human Subjects Measured with an In-Vivo X-Ray Fluorescence I-125 Based Spectroscopy System</b> Helen Moise, David Chettle and Ana Pejovic-Milic
16:00	<b>Coffee Break and Poster Session 1</b>	
16:30	<b>Industrial Session 1:</b> PNSensor GmbH	
	PNDetector GmbH	
17:00	GNR	
	XGLab SRL	
17:30	Excillum	
	BrightSpec NV/SA	
18:00		
18:30	<b>EXSA Assembly</b>	
19:00		
19:30		
20:00		

## Poster Session 1

### Quantification methodology and metrology

- 1 **The influence of attenuation properties of different materials on the results of X-ray fluorescence analysis**  
*Anna Sidorina, Valentina Trunova, Konstantin Zolotarev and Vladimir Kriventsov*
  - 2 **The application of NORDTEST uncertainty budget in determination of ten major and minor components of rocks by X-ray fluorescence**  
*Yiya Wang, Yingchun Li and Jian Wang*
  - 3 **The xraylib library for X-ray-matter interactions**  
*Tom Schoonjans, Antonio Brunetti, Bruno Golosio, Manuel Sanchez Del Rio, Vicente Armando Solé, Claudio Ferrero and Laszlo Vincze*
  - 4 **XMI-MSIM: A general Monte Carlo simulation of energy-dispersive X-ray fluorescence spectrometers**  
*Tom Schoonjans, Laszlo Vincze, Vicente Armando Solé and Claudio Ferrero*
  - 5 **Quantitative Analysis of CO<sub>2</sub> and Loss on Ignition**  
*Pol De Pape*
  - 6 **Calibration of the WinAXIL and PyMCA Software Tools for a Completely Unknown X-Ray Fluorescence System**  
*Stefano Ridolfi and Zivko Kokolanski*
  - 7 **Combined EDX and micro XRF analysis at SEMs**  
*Ralf Terborg, Birgit Hansen, Roald Tagle and Elena Blokhina*
  - 8 **Iterative Monte Carlo method for identification and quantitative analysis of stratified samples involving the use of K<sub>alpha</sub>/K<sub>beta</sub> ratios**  
*Tomas Trojek*
  - 9 **Low-Z element analysis by confocal micro-XRF instrument**  
*Ryota Yagi and Kouichi Tsuji*
  - 10 **Non-Negative Matrix Factorization for XRF imaging**  
*Matthias Alfeld, Mirwaes Wahabzada, Christian Bauchhage, Kristian Kersting, Gerd Wellenreuther and Gerald Falkenberg*
  - 11 **Development of fundamental parameter model for portable X-ray fluorescence spectrometer**  
*Imre Szalóki, Anita Gerényi and Gábor Radócz*
  - 12 **Evaluation of mixed X-ray and gamma-ray spectra**  
*András Kocsonya and Imre Kovács*
  - 13 **Certified high-quality reference material for XRF applications**  
*Joerg Leske*
  - 14 **Relative L X-ray intensities of Np following Am-241 disintegration using a metallic magnetic calorimeter**  
*Matias Rodrigues, Martin Loidl, Yves Ménesguen and Marie-Christine Lepy*
  - 15 **Calibration strategies for XRF applications using sample preparation by borate fusion – Practical example for chlorine analysis in the cement industry**  
*Anne-Catherine Breton, Mathieu Bouchard and Sébastien Rivard*
- ### TXRF, GIXRF and related techniques
- 16 **Total reflection X ray fluorescence procedure for the direct determination of trace elements in organic matrix**  
*Amedeo Cinosi, Damiano Monticelli, Giacomo Siviero, Luca Seralessandri and Alessandro Torboli*
  - 17 **Low Z TXRF measurements with a new Ketek SDD detector**  
*Mirjam Rauwolf, Dieter Ingerle, Bernhard Pemmer, Peter Wobrauschek, Christina Strelt and Andreas Pahlke*
  - 18 **Investigation of fitness landscapes for GIXRF and XRR**  
*Dieter Ingerle, Johannes Kirschner, Berenger Caby and Christina Strelt*
  - 19 **Analysis of indoor aerosol particles with Total Reflection and Micro X-ray Fluorescence Analysis**  
*Josef Prost, Stephan Smolek, Peter Wobrauschek, Andrzej Markowicz and Christina Strelt*
  - 20 **A TXRF study of Pb and Zn bioaccumulation in zebrafish embryos used to assess inertization technologies**  
*Fabjola Bilo, Sdenka Moscozo, Laura Borgese, Maria Vittoria Delbarba, Annalisa Zacco, Alberto Bosio, Stefania Federici, Michela Guarienti, Marco Presta, Elza Bontempi and Laura Eleonora Depero*
  - 21 **Total reflection X-ray fluorescence analysis of halogen in liquid samples**  
*Yuri Tabuchi, Masaki Yamanashi, Yuichiro Shimizu, Takashi Yamada and Kouichi Tsuji*
  - 22 **Measurement uncertainty in total reflection x-ray fluorescence (TXRF)**  
*Geerke Floor, Eva Margui and Ignasi Queralt*
  - 23 **Grazing incidence X-ray fluorescence analysis for the characterization of Ge<sub>1</sub>-xSn<sub>x</sub> thin films**  
*Philipp Hönicke, Claudia Fleischmann, Peter Hermann and Burkhard Beckhoff*
  - 24 **Reference-free quantification of functional groups on surfaces for bioanalytical applications by total reflection X-ray fluorescence analysis**  
*Cornelia Streeck, Andreas Nutsch, Tobias Fischer, Paul Dietrich, Knut Rurack, Wolfgang Unger and Burkhard Beckhoff*
  - 25 **Multielement Analysis in Serum of Healthy Population of the Metropolitan Region of Rio de Janeiro in Brazil by SRTXRF**  
*Catarine Gondim Leitão Canellas, Silvia Maia Faria Carvalho, Roberta Gama Leitão, Alfredo Victor Bernedo Bellido, Marcelino José Anjos and Ricardo Tadeu Lopes*

- 26 **GIXRF characterization of thin Ge1-xSnx**  
*Fabio Brigidi, Giancarlo Pepponi, Damiano Giubertoni, Maria Secchi and Evgeny Demenev*
- 
- 27 **Grazing incidence x-ray fluorescence modelling of complex surfaces as applied to diffusion barriers for cultural heritage objects**  
*Fabio Brigidi, Amy E. Marquardt, Evgeny Demenev, Damiano Giubertoni, Ray Phaneuf and Giancarlo Pepponi*
- 
- 28 **GIXRF characterization of metal nanoparticles**  
*Fabio Brigidi, Ruben Bartali, Giovanni Paternoster, Francesca Mattedi and Giancarlo Pepponi*
- 
- 29 **GIXRF/XRR Data Analysis based on Differential Evolution Algorithm**  
*Nikita Vakula, Juan José Leani, Alessandro Migliori, Mladen Bogovac, Roman Padilla-Alvarez, Ralf Kaiser and Andreas Karydas*
- 
- 30 **Progress in TXRF spectrometry achieved by modified waveguide-resonator application**  
*Evgeniy Egorov, Michael Afanas'Ev and Vladimir Egorov*
- 
- PIXE and electron induced XRS**
- 
- 31 **Preparing a campaign of experiments to determine nonlinear effects in PIXE**  
*Carlos M. Romo Kröger*
- 
- 32 **Multibody Collision Contribution to the Slowing Down of High Energy Charged Particle through Metals.**  
*Francesco Teodori and Vincenzo Molinari*
- 
- X-ray imaging and tomography**
- 
- 33 **Development of Computational Tools with Computed Microtomography**  
*Julio Oliveira, Joel Sánchez Domínguez, João Flávio Vieira de Vasconcellos and Joaquim Teixeira de Assis*
- 
- 34 **Non-destructive inspection using 3D microtomography of adhesive joints on composite pipes**  
*Ariella Vianna Fontes, Alessandra De Castro Machado, Alessandra Silveira Machado, Ricardo Tadeu Lopes, Inayá Lima and Gabriela Ribeiro Pereira*
- 
- 35 **Mineralogy identification using dual energy microtomography and image processing**  
*Haimon Alves, Joaquim Assis, Ricardo Lopes, Inaya Lima and Aline Neves*
- 
- 36 **X-ray Microfluorescence as a tool to analyze elemental changes in femur head induced by chemotherapy drugs for the treatment of breast cancer**  
*Arisa Pickler, Carla Mota, Andrea Mantuano, Liebert Nogueira, André Almeida, Rita Alessio, Gabriela Sena, Delson Braz, Carlos Eduardo de Almeida and Regina Barroso*
- 
- 37 **Alteration in low-Z elements distribution in heart tissue induced by breast cancer treatments**  
*Marcos Colaço, Andrea Mantuano, Liebert Nogueira, Carla Mota, Arissa Pickler, Delson Braz, Camila Salata, Carlos Eduardo de Alemida and Regina Barroso*
- 
- 38 **Classification of Patterns in Images Using Texture Descriptors**  
*Sandro Fernandes, Weiner Esmerio Batista de Oliveira, Silvana Faceroli and Joaquim Assis*
- 
- 39 **A Cryogenic Sample Environment for X-ray Microscopy of Frozen Hydrated Biological Tissue at the Hard X-ray Microprobe of beamline P06/PETRA III**  
*Walter H. Schroeder, Bjoern Desamber, Thorsten Claussen, Eva Vergucht, Jan Garrevoet, Ulrike Boesenberg, Philipp Alraun, Matthias Alfeld, Mateusz Cyzyzcki, M. Roeb, Preeti Bhargava, Bart Vekemans, Laszlo Vincze and Gerald Falkenberg*
- 
- 40 **Confocal micro 3D-XRF analysis of electrode materials of Li-ion battery**  
*Ryota Yagi, Shintaro Hirano, Mareike Falk, Jurgen Janek, Ursula Fittschen and Kouichi Tsuji*
- 
- 41 **Li-ion battery ageing – 3D imaging of elemental deposition of Mn, Ni and Cu on the graphite anode in cycled LiNi0.5Mn1.5O4 /graphite full cells**  
*Ursula Fittschen, Ulrike Boesenberg, Mareike Falk, Rolf Simon, Birte Jache, Magnus Menzel and Juergen Janek*
- 
- 42 **Polycapillary  $\mu$ XRay Tomography and  $\mu$ XRF Mapping of Synthetic Emeralds**  
*Andrea Liedl, Claudia Polese, Dariush Hampai, Giancarlo Della Ventura, Augusto Marcelli, Sultan Dabagov and Fabio Bellatreccia*
- 
- 43 **Dense spray imaging and tomography by Polycapillary X-ray Technique**  
*Luca Marchitto, Luigi Allocca, Dariush Hampai, Sultan Dabagov, Salvatore Alfuso, Andrea Liedl and Claudia Polese*
- 
- 44 **Fluorescence Tomography with Absorptive Samples at the Australian Synchrotron**  
*Gary Ruben, Martin de Jonge, Victor Streltsov, Sheridan Mayo and Chris Ryan*
- 
- 45 **Optimization of the image quality in carbon dioxide angiography: analytical model and phantom validation.**  
*David Bianchini, Ivan Corazza and Romano Zannoli*
- 
- 46 **Compression Strategies for Scientific Imaging Data from Synchrotron and Free Electron Laser sources**  
*George Kourousias and Fulvio Billè*
- 
- 47 **Comparative study of techniques of image processing using artificial neural networks in digital mammograms**  
*Silvana Faceroli, Sandro Fernandes, Vinícius Martins and Weiner Oliveira*
- 
- 48 **High-Speed Microfocus Computed Tomography for Void Inspection of Through Silicon Via**  
*Kyung-Chan Jin and Yoon-Ho Song*
- 
- 49 **X-ray electron microscopic imaging and microanalysis to control food quality**  
*Margarita Hovnanyan, Kristine Sargsyan, Astghik Pepoyan and Karlen Hovnanyan*
-

- 50 **Instrumentation and applications of projection type X-ray fluorescence and diffraction imaging**  
*Kenji Sakurai, Mari Mizusawa and Hiromi Eba*
- 
- XRS Applications: Life sciences and forensics**
- 51 **An XRF study on human bones interred or buried in coffin.**  
*Giampaolo Piga, Antonio Brunetti, Barbara Lasio, Luca Malfatti, Assumpció Malgosa and Stefano Enzo*
- 
- 52 **X-ray fluorescence analysis of food products: its present and future**  
*Anatoly Revenko*
- 
- 53 **Analysis of Cannabis by Energy dispersive X-ray fluorescence spectrometry: Application in forensic studies**  
*Ignasi Queralt, Helena Gallardo, Eva Margui, Xavier Salcedo and Carles Mitjà*
- 
- 54 **Application of the X-ray spectrometry methods in analysis of the pharmaceutical samples**  
*Aldona Kubala-Kukus, Patrycja Kosmala, Adam Olszewski, Dariusz Banaś, Janusz Braziewicz, Urszula Majewska, Marek Pajek, Jolanta Wudarczyk-Močko, Ilona Stabrawa, Stanisław Góźdz and Aldona Kowalska*
- 
- 55 **Can tissue iron help us distinguish between different brain cancer malignancy grades?**  
*Aleksandra Wandzilak, Pawel Wrobel, Mateusz Czyzycki, Beata Ostachowicz, Edyta Radwanska, Dariusz Adamek and Marek Lankosz*
- 
- 56 **High resolution Scanning Transmission Soft X-ray microscopy for rapid probing of nanoparticle distribution and sufferance features in exposed cells**  
*George Kourousias, Lorella Pascolo, Jessica Ponti, Giacomo Ceccone, Maya Kiskinova and Alessandra Gianoncelli*
- 
- 57 **Intestinal ferruginous bodies resolved by Synchrotron XRF in a case of dog mesothelioma**  
*Alessandra Gianoncelli, Ernesto Pascotto, Carla Calligaro, David Jezersěk and Lorella Pascolo*
- 
- 58 **Altered morphology and iron content in MeT5A mesothelial cells following exposure to carbon nanotubes and crocidolite asbestos**  
*Francesca Cammisuli, Alessandra Gianoncelli, Clara Rizzardi, Silvia Giordani, Mauro Melato and Lorella Pascolo*
- 
- 59 **In-vivo XANES study of As in cucumber hypocotyls**  
*Anita Gerényi, Viktória Czech, Gábor Radócz and Imre Szalóki*
- 
- 60 **Rapid Chemometric X-ray Fluorescence and Scatter Approaches for Spectral Diagnostics of Cancer utilizing Tissue Trace Metals and Speciation Profiles**  
*Justus Okonda, Hudson Kalambuka and Alix Dehayem- Massop*
- 
- 61 **Occurrence of tin in baby diapers**  
*Danijela Smajgl and Jasmina Obhodas*
- 
- 62 **Forensic examination of counterfeit banknotes by using energy dispersive X-ray fluorescence**  
*Martina Skenderević-Božičević, Jasmina Obhodas and Danijela Šmajgl*
- 
- 63 **Biochemical microimaging of human substantia nigra of senile brains using both synchrotron radiation based X-ray fluorescence and infrared microspectroscopy**  
*Magdalena Szczerbowska-Boruchowska, Artur D. Surowka, Pawel Wrobel, Edyta Radwanska, Dariusz Adamek and Ivo Zizak*
- 
- 64 **Secondary excitation of Pb by Sr in the context of a bone Pb determination by X-ray fluorescence spectrometry using the Pb L-series**  
*Eric Da Silva and Ana Pejovic-Milic*
- 
- 65 **Complex Matrix Materials Analysis and Characterization Utilizing Chemometric Energy Dispersive X-Ray Fluorescence and Scattering (EDXRFs) Spectrometry**  
*Hudson Angeyo Kalambuka*
- 
- 66 **Membrane characteristics of Salmonella enterica serovar Derby ("S. derby") in association with bacterial UV- resistance**  
*Astghik Pepoyan and Karlen Hovnanyan*
-

## Tuesday 17

	Lecture Hall B	Lecture Hall A
9:00	<p><b>Session XRS Application in Art and Cultural Heritage</b>  <b>Invited: The use of MA-XRF for better understanding the paint layer buildup in the two donor portraits of 'Adoration of the Mystic Lamb' (1430-1432) by Jan and Hubert Van Eyck</b></p> <p>Koen Janssens, Geert Van der Snickt, Stijn Legrand, Emanuele D'Angelo, Livia Depuydt, Bart De Volder, Helene Dubois, Nathalie Laquière, Claire Mehagnoul, Marie Postec, Francoise Rosier, Jana Sanyova and Griet Steyaert</p>	
9:30	<p><b>Understanding the blue color in ancient Kriab mirror from Temple of the Emerald Buddha, Thailand</b></p> <p>Wantana Klysubun, Prapong Klysubun, Panidtha Sombunchoo, Weeraya Wongtepa, Christoph Hauzenberger, Bruce Ravel and Yuying Huang</p>	
9.45	<p><b>Structure of multilayered objects reconstructed by using EDXRF analysis and internal X-rays ratios</b></p> <p>Roberto Cesareo, Giovanni Buccolieri, Alfredo Castellano, Stefano Ridolfi, Joaquim T. De Assis, Ricardo T. Lopes and Antonio Brunetti</p>	
10:00	<p><b>Macro and micro Full Field X-Ray Fluorescence on painted artworks with a tabletop X-ray Pinhole Camera presenting high energy and high spatial resolution</b></p> <p>Francesco Paolo Romano, Giacomo Biondi, Luigi Cosentino, Giovanni De Luca, David Mascali, Lighea Pappalardo and Francesca Rizzo</p>	
10:15	<p><b>Micro-invasive approach for a non-destructive XRF analysis on light matrix: inside the opus lemovicense</b></p> <p>Anna Galli, Letizia Bonizzoni, Maria Pia Riccardi and Chiara Maggioni</p>	
10:30	<p><b>Synthesis and characterisation of a novel nano gold material for the conservation of cultural heritage</b></p> <p>Maram Naes, Lars Lühl, Ioanna Mantouvalou and Birgit Kanngießner</p>	
10:45	<p><b>Differentiation between original and altered pigments of Pompeian wall paintings by portable ED-XRF</b></p> <p>Anastasia Giakoumaki, Silvia Fdez-Ortiz de Vallejuelo, Maite Maguregui, Kepa Castro, Irantzu Martinez-Arkarazo and Juan Manuel Madariaga</p>	
11:00	<b>Coffee break and Poster Session 2</b>	
11:30	<p><b>Authentication of a set of Reliquary busts by multianalytical techniques</b></p> <p>Agnès Le Gac, Milene Almeida, Sara Fragoso, Manuel Pereira, António Mauricio, Isabel Cardoso, Márcia Vilarigues, Luis Piorro and António Candeias</p>	<p><b>Session XRS Instrumentation (X-Ray Sources, Optics and Detectors)</b>  <b>Invited: Realtime X-ray analysis of buried layers and interfaces</b></p> <p>Kenji Sakurai</p>
11:45	<p><b>The detection of arsenic in textiles and other media in the presence of lead and bromine using portable X-ray analyzers: A statistical approach</b></p> <p>Eric Da Silva, Diana Schwendener Forkel, Alison Matthews David, Ada Hopkins, Elizabeth Semmelhack and Ana Pejovic-Milic</p>	
12:00	<p><b>A portable and full-field large area EDXRF imaging system based on a THCOBRA gaseous detector: characterization and applications</b></p> <p>Ana Luisa Silva, Maria Luisa Carvalho and Joao Veloso</p>	<p><b>A multipurpose experimental facility for advanced X-ray Spectrometry applications at the X-Ray Fluorescence Beamline of Elettra Sincrotrone Trieste</b></p> <p>Andreas Karydas, Burkhard Beckhoff, Mladen Bogovac, Yacouba Diawara, Diane Eichert, Rolf Fliegau, Alessandro Gambitta, Daniel Grötzsch, Werner Jark, Ralf Kaiser, Birgit Kanngießner, Juan José Leani, Lars Lühl, Janin Lubeck, Wolfgang Malzer, Alessandro Migliori, Roman Padilla-Alvarez, Halim Sghaier, Malte Spanier, Nikita Vakula and Jan Weser</p>

12:15	<b>Darkening of chrome yellows and Cr-speciation studies: what illumination system to ensure a safe exposition of light-sensitive paintings?</b> Letizia Monico, Koen Janssens, Costanza Miliani, Aldo Romani, Matthias Alfeld, Marine Cotte, Chiara Grazia and Brunetto Giovanni Brunetti	<b>Novell 2D-3D optical systems for X-ray spectroscopy</b>  Alexei Erko
12:30	<b>X-ray Spectrometry and Imaging for Ancient Handwritten Documents</b> Fauzia Albertin, Alberto Astolfo, Marco Stampanoni, Eva Peccenini, Yeukuang Hwu, Frédéric Kaplan and Giorgio Margaritondo	<b>Silicon Carbide X-Ray Detectors Operating at Room and High Temperature</b> Giuseppe Bertuccio, Donatella Puglisi, Yongbiao Shi and Claudio Lanzieri
12:45	<b>Applications of XRF spectrometry in non-invasive investigations of stone monuments</b>  Vornicu Nicoleta, Cristina Bibire and Virgil Babii	<b>New perspectives at the beamline for radioactive studies at SOLEIL synchrotron. Example of investigations of irradiated material by X ray absorption spectroscopy</b>  Sebastiano Cammelli
13:00	<b>Lunch Interval</b>	
14:30	<b>Session WDXRS</b> <b>Invited: Absolute measurements of X-ray standards and plasma parameters in highly charged ion plasmas with a double crystal spectrometer</b> Mauro Guerra	<b>Session PIXE and electron induced XRS</b> <b>Invited: Ionization of K and L shells by 10-100 keV electrons</b>  José M Fernández-Varea, Marcos N Martins, María Victoria Manso Guevara, Nora L Maidana, Vito R Vanin, Camilo M Correa-Alfonso, Juan A García-Alvarez, Suelen F Barros, Jiro Takahashi, Alexandre A Malafronte, Alfredo L Bonini and Roberto R Lima
15:00	<b>Miniature high resolution X-ray spectrometer for ion microprobe</b>  Iva Bozicevic Mihalic, Stjepko Fazinic, Tonci Tadic and Milko Jaksic	<b>Simultaneous and complementary use of XRF and PIXE techniques at the Rudjer Boskovic Institute external ion beam analysis end-station</b> Stjepko Fazinic, Iva Bozicevic Mihalic, Donny Domagoj Cosic, Milko Jaksic, Andreas Karydas, Alessandro Migliori, Mladen Bogovac, Ralph Kaiser, Vladan Desnica and Domagoj Mudronja
15:15	<b>Double Dispersive X-Ray Fluorescence</b>  Martin Radtke, Uwe Reinholz, Günter Buzanich, Heinrich Riesemeier and Oliver Scharf	<b>PIXE Analysis of Doped SiO<sub>2</sub> Fibres Intended as TL Dosimeters for Radiation Measurements</b> Siti Fairus Abdul Sani, Geoff Grime and David Andrew Bradley
15:30	<b>Improving wavelength-dispersive spectroscopy: the Johansson geometry revisited</b> Mauro Rovezzi, Alain Manceau and Pieter Glatzel	<b>Electron fluorescence effects on X-ray nanostructure analysis and nuclear medicine applications</b> Ana Tabora, Aurélie Desbrée, Alexandra Carvalho, P. Cristina Chaves and Miguel A. Reis
15:45	<b>Characterization of nanoscaled materials by sensitive soft X-ray emission spectrometry</b> Rainer Unterumsberger, Matthias Müller, Beatrix Pollakowski and Burkhard Beckhoff	<b>The "Golden Age" of the Kamares Pottery. Non destructive identification of pigments by the high resolution PIXE-alfa portable system</b> L. Pappalardo, V. La Rosa, F. Rizzo and F.P. Romano
16:00	<b>Coffee break and Poster Session 2</b>	
16:30	<b>Industrial Session 2:</b> HSFoils	
	AMPTEK Inc.	
17:00	KETEK	
	Moxtek	
17:30	Thermo Scientific	
	Spectro	
18:00		
18.30		



## Poster Session 2

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

- 1 **Reconstruction of a photon spectrum from a scattering measurement with the GRAVEL algorithm**  
*François Tondeur, Lara Marwaha, Jonathan Baré and Isabelle Gerardy*
- 2 **Liquid-metal-jet X-ray tube technology and fluorescence application**  
*Emil Espes, Christina Gratorp, Björn Hansson, Oscar Hemberg, Göran Johansson, Johan Kronstedt, Mikael Otendal, Björn Sundman, Per Takman and Tomi Tuohimaa*
- 3 **A laboratory setup for angle resolved X-ray fluorescence analysis – characterization and applications**  
*Malte Spanier, Daniel Grötzsch, Christina Herzog, Felix Kramer, Ioanna Mantouvalou, Janin Lubeck, Jan Weser, Wolfgang Malzer, Burkhard Beckhoff and Birgit Kanngießer*
- 4 **Instrumentation for combined XPS- and XRF-surface analysis**  
*Michael Kolbe, Erik Darlatt, Rolf Fliegau, Philipp Hönicke and Ina Holfelder*
- 5 **Synchrotron radiation based X-ray spectrometry instrumentation and its design transfer to an analytical platform for 450 mm wafer**  
*Janin Lubeck, Ina Holfelder, Burkhard Beckhoff, Rolf Fliegau, Philipp Hönicke, Matthias Müller, Andreas Nutsch, Peter Petrik, Falk Reinhardt, Georg Roeder, Beatrix Pollakowski and Jan Weser*
- 6 **A GIXRF/XRR facility based on X-ray tube monochromatic excitation**  
*Juan José Leani, Burkhard Beckhoff, Mladen Bogovac, Yacouba Diawara, Rolf Fliegau, Daniel Grötzsch, Ralf Kaiser, Birgit Kanngießer, Janin Lubeck, Wolfgang Malzer, Alessandro Migliori, Roman Padilla-Alvarez, Halim Sghaier, Malte Spanier, Nikita Vakula, Jan Weser and Andreas Karydas*
- 7 **TXRF with liquid metal jet tube**  
*Angelika Maderitsch, Stephan Smolek, Peter Wobrauschek, P. Takman and Christina Strelj*
- 8 **Wavelength - dispersive spectrometer based on a scanning electron microscope**  
*Alexei Erko, Alexander Firsov, Renat Gubzhokov, Anjuar Bjeoumikhov, Andreas Günter, Norbert Langhoff, Mario Bretschneider, Aljosa Hafner, Yvonne Höhn and Reiner Wedell*
- 9 **Design of a highly efficient parallel X-ray spectrometer for low signal analysis**  
*Heike Loechel, Christoph Braig, Wilson Quevedo, Panagiotis Loukas, Markus Kubin, Christian Weniger, Alexander Firsov, Jens Rehaneck, Maria Brzhezinskaya, Philippe Wernet, Alexander Foehlich, Alexei Erko and Rolf Mitzner*
- 10 **Absolute calibration of photodetectors using a cryogenic electrical substitution radiometer**  
*Marie-Christine Lépy, Yves Ménesguen, Bruno Boyer, Matias Rodrigues, Philippe Troussel and Gilles Lidove*
- 11 **X-rays detection with superconducting microresonators**  
*Riccardo Nizzolo, Angelo Nucciotti, Andrea Giachero, Marco Faverzani, Elena Ferri and Peter Day*
- 12 **Efficiency simulation of a planar detector with a non-uniform frontal dead layer**  
*Nora Lía Maidana, Vito Roberto Vanin and Lorenzo Brualla*
- 13 **Position resolved large area, high speed spectroscopy with X-rays from 30 eV to 30 keV**  
*Lothar Strueder, Robert Hartmann, Martin Huth, Julia Schmidt, Heike Soltau and Peter Holl*
- 14 **Laboratory-based XAS measurements with a von Hamos curved crystal spectrometer**  
*Faisal Zeeshan, Joanna Hoszowska, Jean-Claude Dousse and Lucie Loperetti*
- 15 **Design of X-Ray Quasi-Monochromatic Facility for Microanalysis and Radiation Biophysics**  
*Mykhailo Zhovner, Aleksei Kalinkevich, Sergii Vershynskyi, Oleksandr Buhay, Vitalii Denysenko and Volodymyr Storizhko*
- 16 **Improvements at FLUO beamline of ANKA synchrotron: Towards faster chemical imaging**  
*Rolf Simon*
- 17 **New X-ray Transparent and Light Tight Windows for Next Generation Radiation Detectors**  
*Markus Bornschlegl, Adrian Niculae, Heike Soltau, Rouven Eckhardt and Kathrin Hermenau*
- 18 **Theoretical consideration of the energy resolution in planar HPGe detectors for low energy X-rays**  
*Victor Samedov*
- 19 **Fluctuations in the processes of charge induction in ionisation type detectors**  
*Victor Samedov*
- 20 **Modeling tool for detector resolution and incomplete charge collection**  
*Jorge E. Fernandez, Lorenzo Sabbatucci and Viviana Scot*
- 21 **Multipurpose X-ray facility at the Institute of Applied Physics of NAS of Ukraine**  
*Mykhailo Drozdenko, Oleksandr Buhay and Volodymyr Storizhko*

### WDXRS

- 22 **Inter-laboratory comparison of a WDS-EDS quantitative x-ray microanalysis of a metallic glass**  
*Philippe Jonnard, François Brisset, Florence Robaut, Guillaume Wille and Jacy Ruste*
- 23 **WDXRF-based metrology of the thickness and composition of PZT thin films**  
*Emmanuel Nolot, Jean Mouchot, François Pierre, Christel Dieppedale, Sylvie Favier, Agathe André, Mathieu Anton and Gwenael Le Rhun*
- 24 **Wavelength-dispersive X-ray fluorescence imaging spectrometer with grazing incidence configuration**  
*Masaki Yamanashi, Seji Emoto, Shunichi Kato, Takashi Yamada, Takashi Shoji and Kouichi Tsuji*

- 25 **Effects of spectrometer's set-up parameters on the measured XRF spectra**  
*Dimitrios Anagnostopoulos, Michael Karakassides and Harris Zoubos*
- 
- XRS Applications: Art and Cultural Heritage**
- 26 **Analysis of Medieval and Post-Medieval glass finds from Dubrovnik region**  
*Nikolina Topić, Iva Bogdanović Radović, Stjepko Fazinić and Željko Skoko*
- 
- 27 **Analysis of Roman Mural Paintings from Wössingen at ANKA**  
*Rafaela Debastiani, Rolf Simon, Andrea Wähning and Tilo Baumbach*
- 
- 28 **Analysis of pigments in Spanish paintings (first half of 20th century) by means of EDXRF portable system**  
*Alejandro Martin Sanchez, Maria Jose Nuevo and Pablo Pajuelo Cabezas*
- 
- 29 **Arsenic Bronze in the antiquity; Multi-analytical approach on metals from Tappah Sofalin (4th millennium BC), Iran**  
*Mohammadamin Emami, Morteza Hessari, Yilmaz Sakali, Pritzel Christian and Reinhard Trettin*
- 
- 30 **Investigation of Organic Materials from the Royal Burials of Xiongnu (Noin-Ula, Mongolia) by SRXRF,  $\mu$ -SRXRF and XAFS Methods**  
*Valentina Zvereva, Valentina Trunova, Natalya Polosmak and Dmitry Sorokoletov*
- 
- 31 **SEM Investigation and microanalysis characterization of samples from Castello delle Rocche, Finale Emilia (Italy)**  
*Stefania Bruni, Haydee Fayos, Anna Ferraresi, Giuseppe Maino, Giuseppe Marghella, Lorenzo Moretti and Ainhoa Quiles*
- 
- 32 **Distinguishing local from imported in archaeology: application of pEDXRF spectrometry in ceramic provenance study of the archaeological site of Kale, southeastern Serbia**  
*Maja Gajic-Kvascev, Velibor Andrić, Ivan Vranić and Vera Krastić*
- 
- 33 **Iron Age gold torcs from the North of Portugal: A comparison of gold alloys, fabrication techniques and conservation assessment**  
*Isabel Tissot, Marta Manso, Mathias Tissot, Maria-Luisa Carvalho and Maria Guerra*
- 
- 34 **New development in Portuguese illuminated Foral Charter of 16th century characterization**  
*Camila Mortari, Sofia Pessanha, Marta Manso, Stéphane Longelin, Mauro Guerra, Sara Pé-Leve Santos, Agnès Le Gac and Luisa Carvalho*
- 
- 35 **Investigation on chemical composition of Clinky pottery from Parthian Period of Iran by comparative study between XRF and PIXE analysis data**  
*Amir Hossien Sanayei, Somayeh Noghani, Feridoun Samavat, Morteza Esmaili-Nojehdehi, Mohammad Lamehi-Rashti and Mohammad Amin Emami*
- 
- 36 **Fast screening of Japanese tsubas from the Bilbao Fine Arts Museum by means of a hand-held ED-XRF spectrometer**  
*Maite Maguregui, Héctor Morillas, Anastasia Giakoumaki, Silvia Fdez-Ortiz de Vallejuelo, África Pitarch, Irantzu Martínez-Arkarazo, Gorka Arana, Jose Luis Merino and Juan Manuel Madariaga*
- 
- 37 **Characterization of Middle Paleolithic flint from the "Abrigo de la Quebrada" site (Chelva, Valencia, Spain) by spectroscopic techniques**  
*Clodoaldo Roldán, Jorgelina Carballo, Sonia Murcia, Aleix Eixeá, Valentín Villaverde and João Zilhão*
- 
- 38 **Measurements of Zn, Sr and Pb in archaeological bone using XRF analysis**  
*Eman Daar, Khulud Al-Muqrin, Sankwasa Chika, Simon Barnes and David Bradley*
- 
- 39 **Composition of gold and silver-alloys from the tomb of the Lady of Cao determined by combining EDXRF-analysis and transmission measurements**  
*Roberto Cesareo, Angel Bustamante, Julio Fabian, Sandra Del Pilar Zambrano Alva, Arabel Fernandez, Regulo Franco and Giovanni Gigante*
- 
- 40 **Composition of gold from ancient Iran determined by EDXRF-analysis**  
*Roberto Cesareo, Maurizio Marabelli and Gabriella Di Flumeri*
- 
- 41 **Test, evaluation and improvement of the fundamental parameter quantification program BGFPIXRF for the PART (Portable ART analyzer) system**  
*Harald Hable, Peter Wobrauschek, Christina Strelj, Bernhard Großmayer, Martina Griesser, Katharina Uhlir, Günter Buzanich and Darius Wegrzynek*
- 
- 42 **Genovino Denarius X-ray microfluorescence analysis**  
*Astriik Gorghinian, Adolfo Eposito and Fiorenzo Catalli*
- 
- 43 **Intercomparison of three confocal micro X-ray fluorescence (CXRF) systems for the non-destructive characterization of experimental paint layers**  
*Laclavetine Kilian, Wrobel Pawel, Ager F.J., Arquillo J., Calligaro T., Eveno M., Lankosz M., Müller K., Reiche I., Respaldiza M.A. and Menu M.*
- 
- 44 **Reconstruction of paint layers thickness and composition by confocal micro X-ray fluorescence**  
*Pawel Wrobel, K. Laclavetine, M. Czyzycki, M. Lankosz, F. J. Ager, J. Arquillo and M.A. Respaldiza*
- 
- 45 **The reconstruction of the lost data on the 19th century painting "La Grande Isa" - characterization of pigments by portable XRF spectrometry**  
*Velibor Andrić, Maja Gajic Kvascev and Daniela Korolija Crkvenjakov*
-

- 46 **Multi-analytical study of six paintings from the 1940's-1960's from the collection of Cà Pesaro**  
*Valentina Capogrosso, Chiara Mazzei, Roberto Alberti, Michele Girona, Tommaso Frizzi, Gianluca Valentini, Daniela Comelli, Elisabetta Zendri, Austin Nevin and Francesca Caterina Izzo*
- 
- 47 **Comparison of x-ray absorption and emission techniques for the investigation of paintings.**  
*Ana Cabal, Olivier Schalm, Peter Eyskens, Peter Willems, Astrid Harth and Piet Van Espen*
- 
- 48 **Microanalytical characterization (SEM/EDX) of art pigments: aerinite study from historic spanish deposits. The collection of the Geomining Museum (IGME)**  
*Isabel Baez, Juan Baldonado, Eleuterio Baeza, Ramón Jimenez and Livia Vidal*
- 
- 49 **Arcimboldo's stained glasses of Milan Cathedral: a survey through XRF analysis**  
*Letizia Bonizzoni, Anna Galli, Mari Pia Riccardi and Laura Morandotti*
- 
- 50 **EDXRF characterization of indoor air samples at Galleria dell'Accademia in Florence**  
*Giovanni Buccolieri, Alessandro Buccolieri, Alfredo Castellano, Susanna Bracci, Franca Falletti and Gianfranco Palamà*
- 
- 51 **Are they fresco paintings? Technical and material study of Casas Pintadas of Vasco da Gama House ( Évora)**  
*Milene Gil, António Candeias, José Mirão and Luisa Carvalho*
- 
- 52 **PIXE analysis of crucibles reveals recycling practices in Iceland 9-13th centuries AD**  
*Thomas Edward Birch, Imre Kovács, Zoltán Szőkefalvi-Nagy, Zsolt Kasztovszky and Boglárka Maróti*
- 
- 53 **X-ray characterization of pigments from the Royal tomb of Philip II, Aigai, Macedonia**  
*Andreas Karydas, Hariklia Brecolouki, Dimosthenis Sokaras, Pawel Wrobel and Ralf Kaiser*
- 
- 54 **Pigments from Palatine hill in Rome: from the palette to the masterpiece? Analysis by X-Ray analytical techniques**  
*Ombretta Tarquini, Elena Lorenzetti, Marcello Colapietro, Augusto Pifferi and Antonio Ferrandez*
- 
- 55 **Quantitative analysis of Portuguese "dinheiros" using micro-XRF- the silver content throughout the first dynasty**  
*Sofia Pessanha, Mário Costa, Maria Inês Oliveira, Maria Estrela Melo Jorge and Maria Luisa Carvalho*
- 
- 56 **Compositional and morphological features of Moroccan Zellij by XRF and SEM/EDX**  
*Ana Guilherme, Sofia Pessanha, Vasile-Dan Hodoroba, Rachida Bendaoud, Abdelouahad Bendaoud, Mohamed Elaamni, João Coroado and Maria Luisa Carvalho*
- 
- 57 **Contribution of non invasive X-ray digital radiography and energy dispersive X-ray fluorescence to the characterization of a 1514-Portuguese codex**  
*Joana Silva, Sara Fragoso, Sofia Pessanha, Marta Manso, Stéphane Longelin, Lília Esteves, Maria José Oliveira, Luis Pereira, Mauro Guerra, Maria Luisa Carvalho and Agnès Le Gac*
- 
- 58 **X-ray Absorption Fine Structure Spectroscopy for fingerprinting Sb-based yellow pigments on Portuguese glazed pottery**  
*Ana Guilherme, Lars Lühl, Günter Buzanich, Ricardo Triães, João Coroado, Birgit Kanngiesser and Maria Luisa Carvalho*
- 
- 59 **Characterization of the Materials Used in the Miniature Painting by Juraj Julije Klović**  
*Dragica Krstic, Stjepko Fazinic, Tonci Tadic and Domagoj Mudronja*
- 
- 60 **Characterization of pottery from Early Neolithic sites in Albania**  
*Erinda Ndrecka, Esmeralda Vataj, Teuta Dilo, Ilir Gjipali and Nikolla Civici*
- 
- 61 **Analysis of olive jars from a shipwreck of the XVII century and fragments found in archaeological excavations in Rio de Janeiro, Brazil**  
*Cristiane Calza, Renato Pereira Freitas, Danielle Dias Carvalho, Maria Dulce Gaspar and Ricardo Tadeu Lopes*
- 
- 62 **Analysis of clay smoking pipes fragments found in archaeological excavations in Rio de Janeiro, Brazil**  
*Renato Pereira Freitas, Cristiane Calza, Filipe André Do Nascimento Coelho, Maria Dulce Gaspar and Ricardo Tadeu Lopes*
- 
- 63 **Analysis of Ancient Egypt artifacts using EDXRF portable system**  
*Laís Nogueira Corrêa Castro, Cristiane Calza, Renato Pereira Freitas, Antonio Brancaglioni Jr. and Ricardo Tadeu Lopes*
- 
- 64 **Investigation of glass mosaic tesserae from Early Christian basilicas in Albania**  
*Esmeralda Vataj, Erinda Ndrecka, Elio Hobdari, Teuta Dilo and Nikolla Civici*
- 
- 65 **Analysis of Lucerne auction paintings by mobile XRF and complementary analytical techniques**  
*Catherine Defeyt and David Strivay*
- 
- 66 **A comparative study of portuguese and sardianian palstaves and socketed axes by using XRF and Monte Carlo simulations**  
*Carlo Bottaini, Antonio Brunetti, Nick Schiavon, Anna de Palmas and Claudio Bulla*
- 
- 67 **A multi-analytical approach for 18th and 19th century pottery provenance studies in Sardinia (Italy)**  
*Antonio Brunetti, Marco Milanese, Nick Schiavon, Stefano Enzo and Sebastiano Garroni*
- 
- 68 **In-situ application of multivariate statistical methods based on portable X-ray fluorescence (pXRF) analysis to classify Syrian archaeological jars**  
*Elias Hanna Bakraji, Rana Abboud and Khaled Sawan*
-

## Wednesday 18

### Lecture Hall B

9:00	<b>Session TXRF, GIXRF and related techniques</b> <b>Invited: Modelling Grazing Incidence X-Ray Fluorescence Analyses</b> Giancarlo Pepponi
9:30	<b>Proficiency test in TXRF water analysis</b> Roman Padilla-Alvarez, Andreas Germanos Karydas, Alessandro Migliori, Yacouba Diawara, Kouichi Tsuji, Laura Eleonora Depero and Laura Borghese
9.45	<b>XRR &amp; GiXRF combined analysis of Plasma Immersion Ion Implantation Ultra-Shallow junctions</b> Bérenger Caby, Dieter Ingerle, Giancarlo Pepponi, Christina Strelí, Emmanuel Nolot, Frédéric Mazon, Magali Morales and Daniel Chateigner
10:00	<b>MARS (Modelling Angle Resolved Spectroscopy), a New Software for GIXRF (Grazing Incidence X-ray Fluorescence Analysis) Data Analysis; MARS (Modelling Angle Resolved Spectroscopy), a New Software for GIXRF (Grazing Incidence X-ray Fluorescence Analysis) Data Analysis</b> Lars Lühl, Christian Herzog, Janis Eilbracht, Beatrix Pollakowski, Werner Jark, Markus Krämer, Burkhard Beckhoff, Birgit Kanngießler and Diane Eichert
10:15	<b>Development of the methodology of fluorescence induced by x-ray standing wave</b> Philippe Jonnard, Yanyan Yuan, Karine Le Guen, Jean-Michel André, Jingtao Zhu, Zhanshan Wang and Françoise Bridou
10:30	<b>Shading Effects in SR-TXRF: Calculations and experimental Visualization Using a Color X-Ray Camera</b> Magnus Menzel, Ursula Fittschen, Oliver Scharf, Stanisław H. Nowak, Martin Radke, Uwe Reinholz, Günter Buzanich, Velma Montoya, Peter Hischenhuber, Christina Strelí, George Havrilla and Katie McIntosh
10:45	<b>A TXRF study of metal release from AISI 304 in simulated food contact</b> Rogerta Dalipi, Laura Borgese, Andrea Casaroli, Marco Boniardi, Ursula Fittschen, Kouichi Tsuji and Laura Eleonora Depero
11:00	<b>Coffee break</b>
11:30	<b>Session Interactions of X-Rays with matter and Fundamental Parameters</b> <b>Invited: X-ray Spectroscopic Advances in Atomic and Condensed Interactions of X-rays with matter</b> Christopher Chantler
12:00	<b>Two-photon absorption and sequential ionization with ultra-intense x-ray free-electron laser radiation</b> Joanna Hoszowska, Jakub Szlachetko, Wojciech Błachucki, Jean-Claude Dousse, Rafael Abela, Christian David, Yves Kayser, Chris M. Milne, Maarten Nachtegaal, Bruce D. Patterson, Jacinto Sá, Grigory Smolentsev, Sébastien Boutet, Marc Messerschmidt, Garth Williams, Marek Pajek and Christopher T. Chantler
12:15	<b>Reliable determination of fundamental parameters for L- and M-subshells</b> Michael Kolbe, Philipp Hönicke, Matthias Müller, Michael Mantler and Burkhard Beckhoff
12:30	<b>Accurate Measurement of fundamental parameters for characterization of nanomaterials</b> Yves Ménesguen, Bruno Boyer and Marie-Christine Lepy
12:45	<b>An analytical planar HPGe detector response function for bremsstrahlung spectra unfolding</b> Juan Alejandro García-Alvarez, Nora Lía Maidana, José María Fernández Varea and Vito Roberto Vanin
13:00	<b>Lunch Interval</b>
14:30	<b>Trip and tour to Ravenna</b>
...	

## Thursday 19

	<b>Lecture Hall B</b>	<b>Lecture Hall A</b>
9:00	<b>Session Microbeam techniques, confocal XRF and XAFS</b> <b>Invited: From synchrotron into the lab - the transfer of modern X-ray methods from synchrotron sources into the BLiX-laboratory</b> Birgit Kanngießer	
9:30	<b>Observation of chemical reactions in solution by confocal micro XRF technique</b> Kouichi Tsuji, Jigi Chin and Shintaro Hirano	
9.45	<b>Self-absorption-free HEROS applied to time-resolved study on single site Ta catalyst</b> Wojciech Blachucki, Jakub Szlachetko, Joanna Hoszowska, Jean-Claude Dousse, Yves Kayser, Maarten Nachtegaal, Jacinto Sa, Mostafa Taoufik, Kai Chung Szeto, Aimery de Mallman and Faisal Zeeshan	
10:00	<b>Elemental imaging of Li-Ion battery electrodes to investigate battery ageing</b> Ursula Fittschen, Ulrike Bösenberg, Mareike Falk, Rolf Simon, Birte Jache, Magnus Menzel and Jürgen Janek	
10:15	<b>XANES-measurements with a laboratory setup in the soft X-ray region using a Laser-Produced Plasma Source</b> Katharina Witte, Ioanna Mantouvalou, Slava Martyanov, Sabrina Günther, Daniel Grötzsch, Michael Neitzel, Robert Jung, Holger Stiel and Birgit Kanngießer	
10:30	<b>3D Micro-XRF Imaging Using A Novel Energy-Dispersive CCD Detector: A New Methodology</b> Jan Garrevoet, Bart Vekemans, Pieter Tack, Sylvia Schmitz, Frank E. Brenker, Bjorn De Samber, Gerald Falkenberg and Laszlo Vincze	
10:45	<b>RXR: a new X-Ray Facility at XLab-Frascati</b> Dariush Hampai, Andrea Liedl, Claudia Polese, Giorgio Cappuccio and Sultan B. Dabagov	
11:00	<b>Coffee Break and Poster Session 3</b>	
11:30	<b>Session XAFS, high resolution XES, synchrotron XRS and RIXS</b> <b>Invited: New promising electrode materials for next generation batteries: a X-ray absorption spectroscopy investigation</b> Wangsheng Chu, Weifeng Huang, Shi Tao, Zhiyun Pan, Dingguo Xia and Ziyu Wu	<b>Session XRS Applications: Advanced materials and nanoscience</b> <b>Invited: Advances in High Energy Resolution X-ray Spectroscopy at SSRL and LCLS</b> Dimosthenis Sokaras, Tsu-Chien Weng, Dennis Nordlund and Roberto Alonso-Mori
12:00	<b>High Resolution X-ray Emission Spectroscopy (XES) with a Novel Laboratory Spectrometer</b> Wolfgang Malzer, Lars Anklamm, Christopher Schlesiger, Sebastian Schuh, Theo Bidu and Birgit Kanngießer	<b>Electrodeposition of Mn-Cu-X/polypyrrole (X=Co, Mg) nanocomposites for ORR electrocatalysis: a study based on soft X-ray absorption and fluorescence microspectroscopy</b> Alessandra Gianoncelli, Benedetto Bozzini, Patrizia Bocchetta, David Jezersěk and Maya Kiskinova
12:15	<b>High-Precision XAFS Analysis: Structural, Thermal, and Electronic Properties from Absolute Accuracy Measurements and Full-Potential Modeling</b> Jay Bourke and Christopher Chantler	<b>Carbon-based nanomaterials in determination of trace and ultratrace metal ions by X-ray fluorescence spectrometry</b> Rafal Sitko, Beata Zawisza, Ewa Malicka, Eva Margui and Ignasi Queralt
12:30	<b>High resolution inelastic x-ray scattering at Ti K-edge to study light – induced plasmonic interactions in Au/TiO2 nanocomposites</b> Lucia Amidani, Federico Boscherini, Vladimiro Dal Santo, Marco Malvestuto and Alberto Naldoni	<b>Polarization-dependent X-ray absorption fine structure analysis of TES pentacene thin films</b> Beatrix Pollakowski, Jessica Wade, Ji-Seon Kim, Fernando Castro, Janin Lubeck, Rainer Unterumsberger, Alina Zoladek-Lemanczyk and Burkhard Beckhoff

12:45	<b>Collective phenomena probed by RIXS on NaFeAs</b> Jonathan Pellicciari, Yaobo Huang, Valentina Bisogni, Paul Olalde Velasco, Marcus Dantz, Chang Qing Jin and Thorsten Schmitt	<b>NEXAFS characterization of inorganic and organic materials for semiconductor application</b> Claudia Fleischmann, Philipp Hönicke, Peter Hermann, Matthias Mueller, Burkhard Beckhoff, Eszter Voroshazi, Thierry Conard and Wilfried Vandervorst
13:00	<b>XRS board meeting (Lecture hall C)</b>	
14:30	<b>Session XRS Applications: Industrial quality and process control</b> <b>Invited: X-Ray Spectrometry - Applications for Nano Electronics and Life science Industry</b> Andreas Nutsch	<b>Operando XAFS analysis of Li-sulfur batteries</b> Iztok Arcon, Giuliana Aquilanti, Manu Patel, Lorenzo Stievano and Robert Dominko
14:45		<b>Absorption fine structure of sulfur in porous Li-S batteries measured under argon atmospheric conditions</b> Matthias Müller, Soumyadip Choudhury, Katharina Gruber, Valene B. Cruz and Burkhard Beckhoff
15:00	<b>Simulated and Experimental Measures for the intensity ratios <math>K\alpha</math> / <math>K\beta</math> peaks by EDXRF</b> Luiz Rosalba, José Humberto Zani, Joaquim Assis, Antonio Brunetti and Roberto Cesareo	<b>Selective formation of copper sulfide thin films and XAFS characterization</b> Shinjiro Hayakawa, Toma Takiguchi, Tomoe Tahara, Naoki Noguchi, Galif Kutluk and Hirofumi Namatame
15:15	<b>Identification of Trace Fluorinated Compounds and XAS Study of Aluminum Phosphate Complexes: A New Development of Defluorination for Zinc Smelting Industry</b> Nirawat Thammajk, Sanjeev Gautam, Wantana Klysubun, Chanida Medhavithayakool and Leenawat Kanda	<b>Multilayer developments for XRF and TXRF applications</b> Markus Krämer, Burkhard Beckhoff, Reiner Dietsch, Ursula Fittschen, Philipp Hönicke, Alex von Bohlen, Maria Becker, Danny Weißbach and Thomas Holz
15:30	<b>Characterization of composition and depth-dependent properties of TiN films for advanced microelectronics</b> Emmanuel Nolot, Patrick Dehaven, Stéphane Minoret, Marc Veillerot and Florian Domengie	<b>Multi-angle spectroscopic EUV reflectometry for analysis of thin films and interfaces</b> Stefan Herbert, Serhiy Danylyuk, Peter Loosen, Maksym Tryus, Larissa Juschkin and Rainer Lebert
15:45	<b>Energy Dispersive X-ray Fluorescence (EDXRF) Analysis of Corrosion Residues Encountered in Cooling Circuits of Nuclear Power Plants</b> Pascal Lemberge and Didier Bonvin	<b>Elemental depth profiling of high-k nanolaminates by combined GIXRF/XRR and AR-XPS</b> Blanka Detlefs, Philipp Hönicke, Matthias Mueller, Emmanuel Nolot, Helen Grampeix and Burkhard Beckhoff
16:00	<b>Fundamental Parameters Initiative (Lecture Hall B), Coffee Break and Poster Session 3</b>	
16:30		

### Poster Session 3

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

- 1 **CASTOR: a new goniometer for grazing incidence X-ray analysis at SOLEIL**  
*Bruno Boyer, Yves Ménesguen and Marie-Christine Lépy*
- 2 **Study of L X-rays of bismuth induced by photoionization and by Pb-210 disintegration**  
*Matias Rodrigues, Marie-Christine Lepy, Yves Ménesguen, Bruno Boyer and Martin Loidl*
- 3 **Determination of atomic fundamental parameters for quantitative X-ray fluorescence analysis**  
*Philipp Hönicke, Martin Gerlach, Michael Kolbe, Matthias Müller, Beatrix Pollakowski, Rainer Unterumsberger and Burkhard Beckhoff*
- 4 **X-ray production cross-section measurements for high-energy alpha particle beam for Si, Fe, Cu, Au and Pb**  
*Thomas Dupuis, Grégoire Chêne and David Strivay*
- 5 **Application of Multivariate Methods to the Analysis of the Fine Structure of Resonant Raman Scattering Spectra**  
*José Ignacio Robledo, Héctor Sánchez, Juan José Leani, Carlos Alberto Pérez and Roberto Daniel Pérez*
- 6 **Bremsstrahlung Contribution to Photon Transport in Coupled Photon-Electron Problems**  
*Jorge E. Fernandez, Eugenio Di Giulio, Viviana Scot and Francesc Salvat*
- 7 **Contribution to XRF intensity from inner shell Compton ionization**  
*Jorge E. Fernandez, Viviana Scot and Eugenio Di Giulio*
- 8 **Alloying Effect on the K X-ray fluorescence parameters of Zn and Cu in Zn-Cu alloys**  
*Muhammet Doğan, Oğuz Kağan Köksal, Erhan Cengiz, Volkan Aylıkci, Gökhan Apaydın, Rasim Özdemir, Engin Tıraşoğlu and İsmail Hakkı Karahan*
- 9 **Atomic parameters of some sodium, magnesium aluminum, calcium and iron compounds at 59.5 keV**  
*Burcu Akça and Salih Erzeneoğlu*

#### Microbeam techniques, confocal XRF and XAFS

- 10 **The differential response to zinc in prostate cell spheroids using synchrotron radiation X-ray microfluorescence technique**  
*Roberta G. Leitão, Carlos A. N. Santos, Antônio Palumbo Jr, Pedro V. R. Souza, Catarine G. L. Canellas, Marcelino J. Anjos, Luiz E. Nasciutti and Ricardo T. Lopes*
- 11 **Comparison of indirect methods for incident spectrum determination in micro-XRF analysis.**  
*Carlos Sosa, Juan José Leani, Martín Poletti, Héctor Jorge Sánchez and Roberto Daniel Perez*
- 12 **Development and applications of a laboratory micro-XRF spectrometer using monochromatic excitation**  
*Jan Garrevoet, Bart Vekemans, Arne Demey, Stephen Bauters and Laszlo Vincze*
- 13 **Characterization and quantification of the beam profile of polycapillary lenses**  
*Marcel Bremekamp, Jörg Leske and Volker Röβiger*
- 14 **Understanding the Improved Corrosion Resistance of Zirconium Alloys with Nb Doping by Synchrotron X-ray Microprobe Techniques**  
*Vallerie Ann Samson, Daniel Grolimund, Annick Froideval, Sousan Abolhassani, Didier Gavillet, Matthias Martin, Julijana Krbanjevic, Claude Degueldre and Johannes Bertsch*
- 15 **Study of the spectral interference phenomena in the bi-elements samples**  
*Abedel Karim Soukhal, Souhila Ouziane, Arezki Amokrane and Idir Toumert*

#### Mobile and portable XRF

- 16 **Fast High Sensitivity Silicon Drift Detector**  
*Shaul Barkan, Valeri Saveliev, Liangyuan Feng, Yen-Nai Wang and Elena Damron*
- 17 **A novel Tool for portable EDXRF spectrometers for the analyses of low Z elements in Cultural Heritage**  
*Stefano Ridolfi*
- 18 **Scanner XRF and Portable XRD Instruments. An Italy-Serbia bilateral project.**  
*Stefano Ridolfi, Maja Gajic Kvascev and Velibor Andric*
- 19 **Energy Dispersive X-Ray Diffraction and Fluorescence Portable System for Archaeometry**  
*Ariadna Mendoza Cuevas, Andres Cicuttini, Maria Liz Crespo Crespo, Mauricio Dos Santos, Alessandra Gianoncelli and Claudio Tuniz*
- 20 **Preliminary evaluation of the suitability of a rhodium-tube based portable X-ray analyzer for the possible in vivo quantification of strontium in bone**  
*Gabriella Tesfay, Eric Da Silva and Ana Pejovic-Milic*
- 21 **X-ray Absorption Spectroscopy for the Determination of Chemical States in the Laboratory**  
*Christopher Schlesiger, Lars Anklamm, Theo Bidu, Sebastian Schuh, Johannes Stark, Wolfgang Malzer and Birgit Kanngießer*
- 22 **Enabling investigations of biomolecular films at liquid-solid interfaces**  
*Daniel Grötzsch, Wolfgang Malzer, Birgit Kanngießer, Cornelia Streeck, Andreas Nutsch, Burkhard Beckhoff, Carolin Nietzold, Paul Dietrich and Wolfgang Unger*
- 23 **X-ray Absorption Spectroscopy with a HAPG von Hamos spectrometer in second-order of reflection**  
*Theo Bidu, Lars Anklamm, Christopher Schlesiger, Sebastian Schuh, Wolfgang Malzer and Birgit Kanngießer*
- 24 **Characterization of a novel von Hamos based HAPG optic**  
*Schuh Sebastian, Lars Anklamm, Theo Bidu, Richard Gnewkow, Wolfgang Malzer, Christopher Schlesiger, Alexander Antonov, Inna Grigorieva and Birgit Kanngießer*

- 25 **Chemical analysis of nano-scaled materials by x-ray spectrometry under grazing incidence condition**  
*Beatrix Pollakowski, Christiane Becker, Marcel Pagels, Carolin Zachäus, Birgit Kanngießer, Burkhard Beckhoff and Bernd Rech*
- 
- 26 **Connection between local and macroscopic properties in dilute GaAsN disclosed by x-ray absorption and emission spectroscopies combined with DFT calculations**  
*Lucia Amidani, Gianluca Ciatto, Federico Boscherini, Francesco Filippone, Giuseppe Mattioli, Paola Alippi, Federica Bondino, Antonio Polimeni, Mario Capizzi and Aldo Amore Bonapasta*
- 
- 27 **High resolution x-ray emission study of 1s4p and 1s3d two-electron photoexcitations in Kr**  
*Matjaz Kavcic, Matjaž Žitnik, Dimosthenis Sokaras, Tsu-Chien Weng, Dennis Nordlund, Roberto Alonso-Mori, Jean-Claude Dousse and Joanna Hozzowska*
- 
- 28 **Critical Applications of High Absolute Accuracy XAFS Measurements to Low-Energy Inelastic Electron Scattering**  
*Jay Bourke and Christopher Chantler*
- 
- 29 **Full-field micro-XANES for 2D and 3D Chemical State Imaging using a Novel Energy Dispersive CCD Detector**  
*Pieter Tack, Jan Garrevoet, Stephen Bauters, Bart Vekemans, Dipanjan Banerjee, Alessandro Longo, Wim Bras and Laszlo Vincze*
- 
- 30 **Radiative Auger decay of doubly excited states**  
*Matjaž Žitnik, Matjaz Kavcic, Klemen Bucar and Andrej Mihelič*
- 
- 31 **Fine structure in XUV reflectivity spectra measured with laboratory plasma sources**  
*Maksym Tryus, Stefan Herbert, Serhiy Danylyuk and Larissa Juschkina*
- 
- 32 **High Rate X-ray Fluorescence Mapping Exploiting Real-Time Pulse Pile-up Recovery**  
*Paul Scoullar, Peter Grudberg and Chris McLean*
- 
- XRS Applications: Advanced materials and nanoscience**
- 
- 33 **Graphene as a new solid sorbent in dispersive micro-solid phase extraction and determination of trace and ultratrace metal ions by energy-dispersive X-ray fluorescence spectrometry**  
*Karina Kocot, Beata Zawisza and Rafal Sitko*
- 
- 34 **Application of ethylenediamine-modified graphene oxide as a new sorbent for the preconcentration of heavy metal ions prior to X-ray fluorescence spectrometry**  
*Beata Zawisza, Paulina Janik, Ewa Malicka and Rafal Sitko*
- 
- 35 **The influence of beam coherence on the GIXRF characterization of nanoparticles**  
*Dieter Ingerle, Peter Wobruschek and Christina Streltsov*
- 
- 36 **Al and Si X-ray transition lineshapes on material characterization**  
*Dimitrios Anagnostopoulos, Panos Patsalas and Siozios Anastasios*
- 
- 37 **Investigation of the thin films properties using X-ray reflectometry**  
*Dariusz Banaś, Agnieszka Markowska, Ilona Stabrawa, Aldona Kubala-Kukus, Janusz Braziewicz, Kazimierz Dworecki, Ewa Tomal, Urszula Majewska, Marek Pajek, Jolanta Wudarczyk-Močko and Stanisław Gózdź*
- 
- 38 **Characterization and application of HAPG mosaic crystals in high-resolution X-ray spectroscopy using synchrotron radiation**  
*Martin Gerlach, Ina Holfelder and Burkhard Beckhoff*
- 
- XRS Applications: Earth and environment sciences**
- 
- 39 **EDXRF and SFICP-MS measurements as screening tool for the simultaneous determination of critical elements (REE, PGM, ...) in solid (waste) materials**  
*Chris Vanhoof, Kristof Tirez, Wilfried Brusten, Filip Beutels, Jeroen Spooren, Luc Debaene and Luk Umans*
- 
- 40 **Determination of the manganese valence state in ores using XRF and XRD techniques**  
*Victor Chubarov, Darya Suvorova and Anastasya Mukhetdinova*
- 
- 41 **Development of techniques for XRF determination of the Ta and Cs contents in rocks of various compositions**  
*Dariya Suvorova, Elena Khudonogova and Anatoly Revenko*
- 
- 42 **Evaluation of labile metal in Capivari river waters (Brazil) using Diffusive Gradient in Thin Films coupled to EDXRF**  
*Júlia Fatuch, Silvana Moreira, Felipe Canteras, Eduardo Almeida and Amauri Menegário*
- 
- 43 **The nuclear e-cology remote laboratory: the lesson on heavy metal levels in roadside plants using XRF technique for school pupils**  
*Punsiri Dam-O*
- 
- 44 **Influence of the sulfur speciation and oxidation state on x-ray emission spectrum lines relative intensities: application for XRF analysis of the Au-containing ores**  
*Victor Chubarov and Alexander Finkelshtein*
- 
- 45 **Overcoming the Analytical Challenges in Rapid Soil Quality Assessment using Chemometric Energy Dispersive X-Ray Fluorescence and Scattering Spectroscopy**  
*Ian Kaniu and Hudson Kalambuka*
- 
- 46 **Reanalysis of 15-Year Archive PM2.5 Samples from Great Smoky Mountains with PANalytical Epsilon 5**  
*Krystyna Trzepla, Sinan Yatkin, Warren White and Nicole Hyslop*
- 
- 47 **Size segregated particulate matter measurement in Nairobi, Kenya**  
*Samuel Mwaniki Gaita, Sara Kluge Jonsson, Johan Boman, Michael James Gatari and Annemarie Wagner*
-



- 48 **Fine aerosol samples analysis in Rijeka, Croatia**  
*Luka Mandić, Ivica Orlić and Tatjana Ivošević*
- 
- 49 **Analysis of the samples with soil and geological matrix using X-ray spectrometry and microtomography techniques**  
*Aldona Kubala-Kukus, Mateusz Dziadowicz, Dariusz Banaś, Janusz Braziewicz, Urszula Majewska, Marek Pajek, Jolanta Wudarczyk-Močko, Ilona Stabrawa and Stanisław Gózdź*
- 
- 50 **EDXRF multielemental analysis as a valuable tool to study the influence of volcanism on the biota**  
*Guillermina A. Bongiovanni, Paula A. Lamela, Verónica Sotomayor, Carlos A. Pérez and Ignasi Queralt Mitjans*
- 
- 51 **Heavy metal pollution in mangrove sediments of the Estero de Urías coastal lagoon, NW Mexico**  
*Jorge Luis Serrato de La Peña, Ignasi Queralt, Ana Carolina Ruiz-Fernandez, Joan Albert Sanchez-Cabeza and Libia Hascibe Perez-Bernal*
- 
- 52 **Elemental characterization of agricultural soils and edible plants by energy dispersive X-ray fluorescence**  
*Helena Gallardo, Sara Quesada, Ignasi Queralt, Eva Margui and Josefina C. Tapias*
- 
- 53 **Toxic Heavy Metals Investigations of Marine Sediments using XRFs**  
*Ilijana Sino and Nikolla Civici*
- 
- 54 **Identification of APM sources using PIXE and multivariate analysis**  
*Manousos-Ioannis Manousakas, Evangelia Diapouli, Helen Papaefthymiou, Alessandro Migliori, Andreas-Germanos Karydas, Roman Padilla-Alvarez, Mladen Bogovac, Ralf Kaiser, Milko Jaksic, Iva Bogdanovic-Radovic and Kostas Eleftheriadis*
- 
- 55 **Feasibility study of ED-XRF analysis of particulate atmospheric matter samples collected with high time resolution**  
*Martina Giannoni, Giulia Calzolari, Massimo Chiari, Franco Lucarelli, Anna Mazzinghi and Silvia Nava*
- 
- 56 **Sequestration of traffic related heavy metals in the leaves of roadside plants in a megacity**  
*Shidharth Ram, S Majumder, P Chaudhuri, S Chanda, S Santra, R Vasant Kumar, A Chakraborty and M Sudarshan*
- 
- 57 **Trace-elements accumulation in Bauhinia blakeana leaves in micro-scale monitoring air pollution studies in São Paulo**  
*Douglas Rocha-Silva, Pamela Almeida, Glauco Bonaldo, Martha Godinho-Netto, Marta Manso, Paulo Saldiva, Regiani Carvalho-Oliveira and Maria-Luisa Carvalho*
- 
- 58 **Establishing a Protocol to Preparation of Sample of Tree Bark for EDXRF Analyses.**  
*Tiana Carla Lopes Moreira, Mitiko Saiki and Regiani Carvalho Oliveira*
- 
- 59 **Trace elements concentration as a tool for predicting tolerance to salinity in rice varieties**  
*Roman Padilla-Alvarez, Souleymane Bado, Andreas Germanos Karydas and Brian Peter Forster*
- 
- 60 **Determination of potentially toxic elements in surface soils in the median of a highway in the city of Campinas (Brazil) using EDXRF**  
*Felippe Canteras, Silvana Moreira and Péricles Siriano*
- 
- 61 **Multielemental analysis of marine sediments from the North Coast of the Gulf of Mexico**  
*Trinidad Martinez, Brenda Estañol, Miguel Angel Zúñiga, Nayeli Balbiaux, Samuel Tejada, Graciela Zarazua and Juan Lartigue*
- 
- 62 **Study of particulate matter composition with hourly resolution by PIXE measurements**  
*Franco Lucarelli, Giulia Calzolari, Massimo Chiari, Martina Giannoni and Silvia Nava*
- 
- XRS Applications: Industrial quality and process control**
- 
- 63 **Development of new and rapid method of analysis of the main constituents in rhenium materials using thin layer XRF technique.**  
*Jacek Anyszkiewicz, Zofia Mzyk and Tadeusz Gorewoda*
- 
- 64 **Determination of Bromine in Selected Polymer Matrixes by the WD XRF Method – Critical Thickness Problem and Solution**  
*Tadeusz Gorewoda, Zofia Mzyk, Jacek Anyszkiewicz and Jadwiga Charasińska*
- 
- 65 **The new pellets containing binder and internal standard – development of the preparation method and application them in technological samples preparation for XRF analysis and preparation equipment control.**  
*Zofia Mzyk, Jacek Anyszkiewicz and Tadeusz Gorewoda*
- 
- 66 **Investigation by SEM and microanalysis characterization of leather samples treated with poultry manure based bating agent in tanning cycle**  
*Stefania Bruni, Alice Dall'Ara, Marco Mazzoni, Paola Pantani, Maria Teresa La Peruta, Haydee Fayos, Ainhua Quiles and Mercedes Roig*
- 
- 67 **Applications of Low power Monochromatic WDXRF in Petroleum Industry**  
*Zewu Chen*
-

## Friday 20

### Lecture Hall B

9:00	<b>Session XRS Applications: Earth and environment sciences</b> <b>Invited: X-ray spectrometry investigation of radionuclide uptake on argillaceous rocks</b> Janos Osan, Szabina Török, Rainer Daehn and Bart Baeyens
9:30	<b>Total element determination and speciation of arsenic in airborne particulate matter by combining ED/WDXRF, HPLC-ICP-MS and XANES analyses</b> Chris Vanhoof, Kristof Tirez, Jan Peters, Patrick Berghmans, Christa Cornelis, Elke Adriaensens, Edward Roekens, Florian Meirer, Stephan Smolek, Angelika Maderitsch, Christina Strelj, Ralph Steiniger and Jörg Göttlicher
9:45	<b>A 850-year record climate in Lake Mountain (East Siberia, Russia) inferred from geochemical proxies of lake sediments (SRXRF-scan)</b> Valentina Trunova, Andrew Fedotov, Valentina Zvereva and Yakov Rakshun
10:00	<b>Characterization of Maumbo Region Soils in Kwale County, Kenya: Application of X-ray Fluorescence</b> David Maina, Douglas Maina, Michael Mangala, Johan Boman, Keith Shepherd and Michael Gatari
10:15	<b>Highly time-resolved ambient trace element concentrations in Paris during the MEGAPOLI summer campaign</b> Markus Furger, Suzanne Visser, Jay G. Slowik, Monica Crippa, Laurent Poulain, Nicolas Marchand, Jean Sciare, Uwe Flechsig, Karen Appel, Urs Baltensperger and Andre S.H. Prevot
10:30	<b>Synchrotron Radiation X-ray Fluorescence Imaging of Biological Model Organisms Manipulated by Laser-Based Optical Tweezers</b> Eva Vergucht, Toon Brans, Filip Beunis, Jan Garrevoet, Maarten De Rijcke, Michiel Vandegehuchte, Stephen Bauters, Colin Janssen, Manfred Burghammer and Laszlo Vincze
10:45	<b>Method research of in-situ measuring H, O, and Hg simultaneously by combining of PGNA and XRF</b> Zhang Yan, Jia Wenbao, Shan Qing, Hei Daqian and Ling Yongsheng
11:00	<b>Coffee break</b>
11:30	<b>Session Mobile and portable XRF</b> <b>Invited: Smaller the Better --- Palm-Top Electron Probe X-Ray Microanalyzer, Portable TXRF, and Portable X-ray Reflectometer</b> Jun Kawai, Issei Ohtani, Kengo Ohira, Tsunemasa Ohnishi, Ying Liu and Susumu Imashuku
12:00	<b>Synthetically-generated Reference Spectra for X-ray Fluorescence Calibration with Application to Online Measurement of Fluorochemical Concentration on Carpet Fibers</b> Rutchanee Gullayanon and Thomas E. Michaels
12:15	<b>Soil Characterization Via Portable X-ray Fluorescence Spectrometry: A New Step Towards Quantitative Pedology</b> David Weindorf, Aakriti Sharma, Abdalsamad Aldabaa, Beatrix Haggard, Noura Bakr, Yuanda Zhu, Titus Man and Somsubhra Chakraborty
12:30	<b>Closing Session</b>