European Conference on X-Ray Spectrometry

Programme & General Information

Organized by
Ruđer Bošković Institute

16 - 20 June 2008,
Cavtat, Dubrovnik, CROATIA

EXRS 2008

European Conference on X-Ray Spectrometry

Organized by:

Ruđer Bošković Institute, Zagreb, Croatia

In cooperation with:

Ministry of Science, Education and Sports, Croatia

International Atomic Energy Agency

European X-ray Spectrometry Association

Programme & General Information

16th – 20th June 2008

Cavtat, Dubrovnik, Croatia

Welcome

The Local Organizing Committee of the 13th European Conference on X-ray Spectrometry (EXRS 2008) is pleased to welcome all participants of this conference. About 280 delegates from 41 countries will share opportunity to exchange ideas and knowledge related to X-ray Spectrometry, including fundamental aspects, technological developments, traditional and novel areas of applications and interdisciplinary research.

We are greatefull to our sponsors and all people that helped us in the organisation of this event. We hope that you will enjoj in stimulating and friendly environment and that you will benefit from your participation at EXRS 2008.

Stjepko Fazinić and Milko Jakšić
EXRS Co-chairs, on behalf of the Local Organizing Comittee

Conference organization

The EXRS 2008 has been organized by the Ruđer Bošković Institute, Zagreb, Croatia, in cooperation with the Ministry of science, education and sports of Croatia, International Atomic Energy Agency and European X-ray Spectrometry Association.

Local Organising Committee

Co-chairs:
Stjepko Fazinić* and Milko Jakšić*

Members:
Mladen Bogovac*
Iva Božičević*
Vladan Desnica***
Deša Jelavić*
Marko Karlušić*
Luka Mandić**
Ivo Orlić**
Željko Pastuović*
Iva Bogdanović Radović*
Mira Ristić*
Zdravko Siketić*
Natko Skukan*
Darek Wegrzynek ****
Ivana Zamboni*

* Ruđer Bošković Institute, Zagreb
** University of Rijeka
*** University of Zagreb
**** International Atomic Energy Agency

International Advisory Committee

Burkhard Beckhoff, Germany
Maria Luisa Carvalho, Portugal
Roberto Cesareo, Italy
Jorge E. Fernandez, Italy
Yohichi Gohshi, Japan
Marie-Christine Lepy, France
Marcelo Rubio, Argentina
Eva Selin-Lindgren, Sweden
Szabina Török, Hungary
René Van Grieken, Belgium
Peter Wobrauschek, Austria

Conference Secretariat

Rudjer Bošković Institute
Laboratory for Ion Beam Interactions
Bijenička cesta 54
P.O. Box 180
HR-10002 Zagreb
Croatia

Tel: +385 1 4571 254
Fax: +385 1 4680 239
E-mail: exrs2008@irb.hr

Scientific programme

The EXRS 2008 international conference will be 13th in a series of biennial conferences which bring together scientists from the various research fields of X-ray spectrometry, using photon beams, electrons or other energetic particles. The conference programme will consist of 11 invited lectures (30 min) from distinguished scientists, 98 oral presentations (20 min) and about 150 poster contributions, all divided among 14 sessions.

Conference Sessions

Session 1: Applications of XRS in archaeometry
Session 2: Quantification methodology
Session 3: Synchrotron XRS
Session 4: PIXE and electron induced XRS
Session 5: X-ray sources, optics and detectors
Session 6: X-ray imaging and tomography
Session 7: Applications – materials and nanoscience
Session 8: X-ray absorption (EXAFS, XANES)
Session 9: Applications – earth and environment sciences
Session 10: WDXRS
Session 11: Applications – life sciences
Session 12: Interactions of X-rays with matter
Session 13: Microbeam techniques
Session 14: TXRF and related techniques

Conference sponsors

We are grateful to the following institutions for supporting the conference:

Ministry of Science, Education and Sports, Croatia	http://www.mzos.hr/
International Atomic Energy Agency	http://www.iaea.org/
European X-ray Spectrometry Association	http://www.exsa.hu/

Invited speakers

David Cohen, Australia *The latest directions and trends in ion beam analysis of fine particle air pollution*	Tuesday 08:30 Hall 2 (Orlando, Ground floor)
Jean Claude Dousse, Switzerland *Photo induced atomic inner-shell processes investigated by means of high-resolution XRS*	Thursday 11:00 Hall 2 (Orlando, Ground floor)
Terrence Jach, USA *The effect of chemical bonding on high-resolution X-ray spectroscopy*	Thursday 09:00 Hall 1 (Bobara, First Floor)
Frank de Groot, The Netherlands *The nature of X-ray absorption spectra: Novel theoretical and experimental tools*	Wednesday 09:00 Hall 1 (Bobara, First Floor)
Maria Filomena Guerra, France *Tracking gold forgeries with X-rays*	Monday 10:00 Hall Ragusa (Ground Floor)
Wolfgang Malzer, Germany *Quantification in XRF micro-analysis*	Monday 14:00 Hall 2 (Orlando, Ground floor)
Philippe Moretto, France *Biomedical applications of μ-PIXE*	Thursday 14:00 Hall 1 (Bobara, First Floor)
Gyorgy Vanko, Hungary *Spin-state studies with X-ray spectroscopy, and applications to Earth's lower mantle constituents*	Wednesday 11:00 Hall 2 (Orlando, Ground floor)
Alex von Bohlen, Germany *Nanoparticles observed under X-ray grazing incidence*	Friday 11:00 Hall 2 (Orlando, Ground floor)
Kazuto Yamauchi, Japan *Synchrotron-radiation-based hard X-ray nanobeam by Kirkpatrick-Baez mirrors*	Friday 09:00 Hall 1 (Bobara, First Floor)
Darek Wegrzynek, IAEA *X-ray phase contrast imaging and tomography of malaria transmitting mosquitoes*	Tuesday 14:00 Hall 1 (Bobara, First Floor)

Activities

Oral sessions will be held from Monday until Friday noon. During the three poster sessions organised on Monday, Tuesday and Thursday between 17:00 and 18:30, authors will have opportunity to discuss posters. Industrial exhibition will be held on Monday afternoon, Tuesday, Wednesday and Thursday.

Sunday, 15 June. Registration 18:00-20:00. Welcome reception 20:00.
Monday, 16 June. Registration. Opening at 9:00. Oral sessions. Poster session A. Industrial exhibition.
Tuesday, 17 June. Oral sessions from 08:30. EXSA Meeting. Poster Session B.
Wednesday, 18 June. Oral sessions from 09:00. Conference excursion.
Thursday, 19 June. Oral sessions from 09:00. Poster session C. Conference dinner.
Friday, 20 June. Oral sessions from 09:00. Concluding remarks.

Industrial exhibitors and sponsors

The industrial exhibition will play a key role by presenting equipment and books related to X-ray spectroscopy and applications. The exhibition starts on Monday afternoon at 14:00. It will be opened until Thursday afternoon,18:30. The list of exhibitors and sponsors is as follows:

Amptek Inc.	http://www.amptek.com/
Australian X-Ray Tubes Pty Limited, AXT	http://www.axt.com.au/
Bruker AXS	http://www.bruker-axs.de/
Cambridge Scientific	http://www.cambridgescientific.net/
Canberra NV/SA	http://www.canberra.com/
E2V Scientific Instruments	http://www.e2vsi.com//
Horiba Jobin Yvon	http://www.jobinyvon.fr/
IFG	http://www.ifg-adlershof.de/
KETEK GmbH	http://www.ketek.net/
Moxtek, Inc.	http://www.moxtek.com/
PNDetector GmbH	http://www.pndetector.de/
PNSensor GmbH	http://www.pnsensor.de/
Pulse Tor LLC	http://www.pulsetor.com/
Rigaku	http://www.rigaku.com/
Seiko Instruments GmbH Nano Technology	http://www.seiko-instruments.de/
Spectro/Edax	http://www.spectro.com/ http://www.edax.com/
Spex Certiprep Ltd.	http://www.spexcertiprep.co.uk/
The European Physical Journal, Applied Physics	http://www.epjap.org/
Thermo Fisher Scientific - Niton	http://www.niton.com/Default.aspx
Toivel	http://www.toivel.com/
Wiley Blackwell	http://eu.wiley.com/
XIA LLC	http://www.xia.com/
XOS	http://www.xos.com/index.php

Proceedings

The conference proceedings will be published on a CD-ROM for distribution among the participants after the conference. The conference proceedings will contain the submitted manuscripts and submitted presentations in pdf format. Contributions transmitted to the Conference Secretariat before July 4, 2008 will be automatically included, without any reviewing procedure. Here there are no specific instructions about size and shape: the manuscript will be included such as the authors will have prepared it, under their own responsibility.

Authors of accepted contributions are invited to submit a manuscript for publication in a special issue of X-Ray Spectrometry (Wiley Intescience). Manuscripts should be prepared in a strict format of the XRS and will be reviewed in the normal review procedure of the Journal. **Manuscripts can only be submitted online (http://www3.interscience.wiley.com/journal/1870/home/ForAuthors.html)**, mentioning the manuscript is intended for the special issue on EXRS2008. **The on-line submission must be done before June 30**, and a hard copy should preferably be left at the conference desk during EXRS2008.

Oral presentations

Time attributed to each oral presentation is 15 minutes + 5 min for questions. Presenters will have on disposal a digital projector and a PC running Microsoft Powerpoint.

Speakers are kindly asked to prepare Power Point presentations in the format compatible with the Microsoft Office 2003, and to load their file onto presentation PCs at least one session prior to the one in which they will make their presentation.

Speakers should be present at least 15 minutes before the beginning of the Session in which they will give their presentation in order to introduce themselves to the Session Chair.

Posters

The size of the display area for a poster is 90 cm in width and 120 cm in height. Posters will be on display during one of the three poster sessions, planned for Monday, Tuesday and Thursday.

Contributors to the Poster Session A are kindly asked to place their posters on Monday 16 June during the Lunch break (12:00 – 14:00), to keep them on display until Tuesday 17 June 13:00, and to be present and available for discussions during the Poster Session A (Monday 17:00 – 18:30).

Contributors to the Poster Session B are kindly asked to place their posters on Tuesday 17 June between 13:00 and 14:00, to keep them on display until Thursday 19 June 13:00, and to be present and available for discussions during the Poster Session B (Tuesday 17:10 – 18:40).

Contributors to the Poster Session C are kindly asked to place their posters on Thursday 19 June between 13:00 and 14:00, to keep them on display until Friday 10:30, and to be present and available for discussions during the Poster Session C (Thursday 17:00 – 18:30).

Awards

Award for young X-ray spectrometrist

The award for young X-ray spectrometists will be delivered by the European X-ray Spectrometry Association (EXSA). The award ceremony will take place during the conference.

Best poster awards

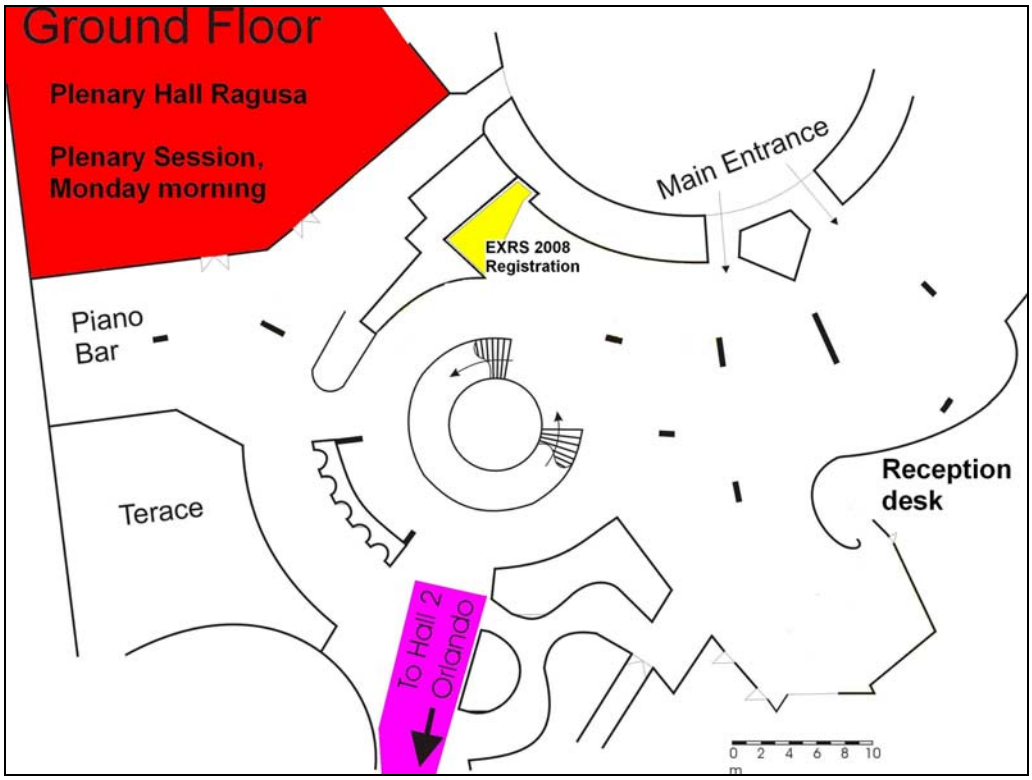
The best poster award prize at EXRS 2008 will be a selection of Wiley-Blackwell books up to the value of 300 Euros. The award ceremony will take place during the conference dinner.

Conference venue

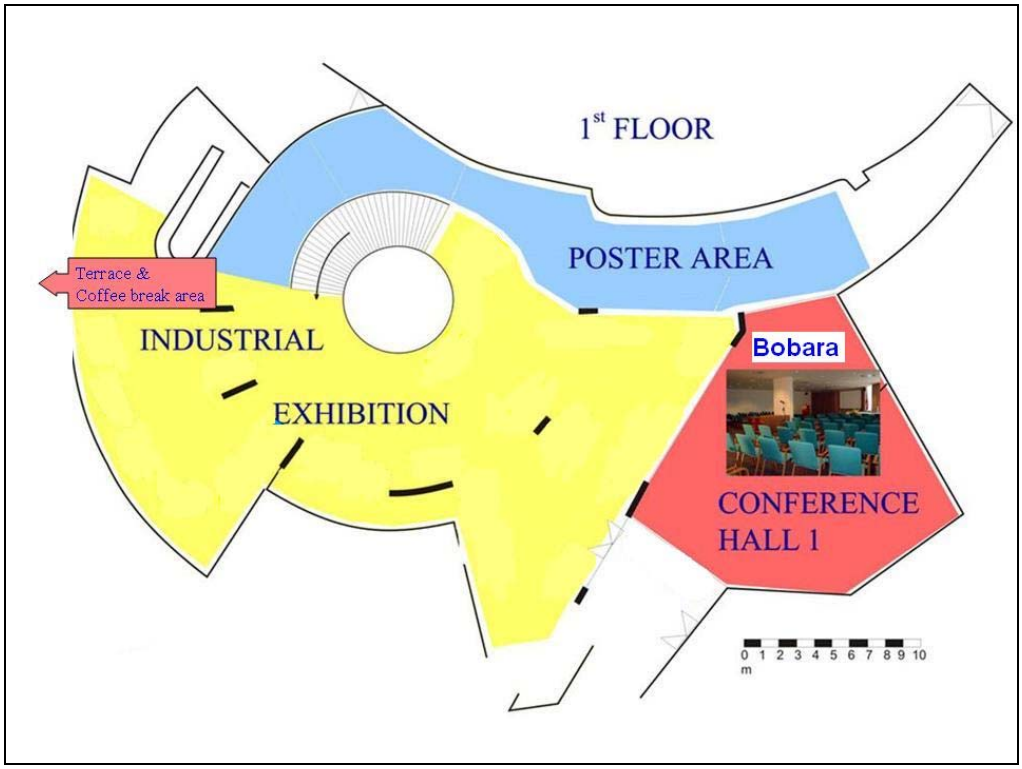
The EXRS-2008 conference will be held in hotel Croatia, which is a five star hotel that lies on a peninsula overlooking the Adriatic on one side and the picturesque bay and the old town of Cavtat on the other.

The meeting will take place in a large meeting hall 'Ragusa' (Monday morning) and two smaller halls (hall 1 'Bobara' and hall 2 'Orlando').

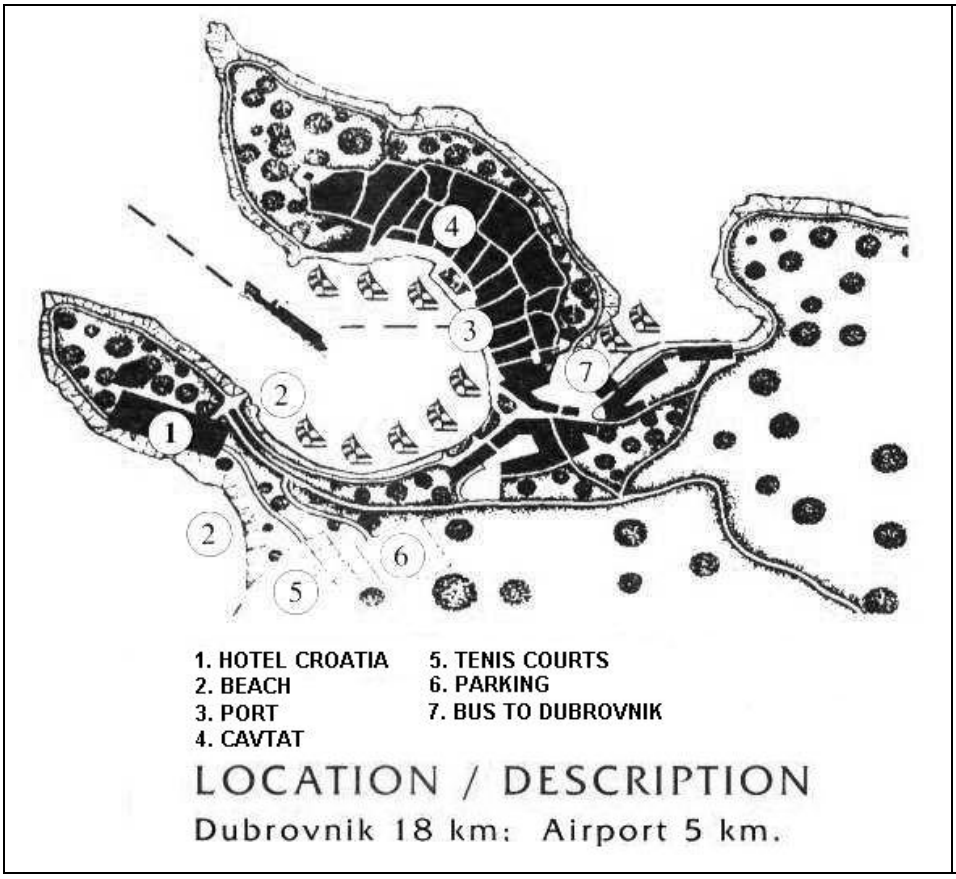
Poster sessions and industrial exhibition will be organized in the vicinity of meeting hall 1 'Bobara' and terrace for coffee break time.



Ground floor of the hotel Croatia. EXRS2008 locations are hall 'Ragusa' and hall 2 'Orlando'.



First floor of the hotel Croatia. EXRS 2008 locations are hall 1 ‘Bobara’ and the area marked at the figure for industrial exhibition, poster sessions and coffee breaks.



10 DUBROVNIK - CAVTAT

Pol./Dep. Dubrovnik		Pol./Dep. Cavtat	
05	15	05	00M
06	15M	06	00M
07	00M	07	00
08	00, 30	08	00
09	00, 30	09	00, 30
10	00, 30	10	00, 30
11	00, 30	11	00, 30
12	00	12	00M, 30
13	00, 30	13	00
14	15	14	00, 30
15	00, 20	15	15
16	15, 50	16	00, 15
17	15	17	15, 45
18	00, 30	18	15, 30
19	00, 30	19	00, 30
20	30	20	00, 30
21	30M	21	30
22	20M	22	30
23	30	23	15
24	00M	00	15
01	30 samo subotom i nedjeljom		

M prometuje preko Mljekare. *M via Župa Dairy.*

Timetable of the local bus 10 which drives between the Dubrovnik centre and Cavtat (01:30 only Saturday and Sunday).
Taken from the web site: www.libertasdubrovnik.hr

Cavtat is a small resort coastal town located between Dubrovnik and its international airport, very convenient for all types of meetings and events. The town belongs to the southeast pearl of the Dubrovnik Riviera and has a population of some 1500 inhabitants. In ancient times it was a Greek settlement known as Epidaurum. In the vicinity of Dubrovnik, Cavtat has grown to be a cultural and tourist centre of Konavle, the southernmost region of Croatia. The area is most attractive due to the Mediterranean vegetation, clear sea and a mixture of old and new architecture.

Dubrovnik, the medieval pearl of South Dalmatia is listed in the UNESCO register of 'World Heritage Sites'. This is a city with a long-standing tradition of welcoming tourists. A city of museums and festivals, of cafés and restaurants, Dubrovnik enjoys a mild Mediterranean climate and is set in a wonderful landscape.

Social events

Welcome reception

Sunday 15th June, 20:00. Welcome reception will be held at the terrace by the swimming pool of Hotel Croatia. All participants and accompanying persons are cordially invited. Before the reception, between 18:00 and 20:00 registration formalities will be performed.

Conference excursion

Wednesday 18th June, 14:30. Conference excursion. Two oldtimer boats depart Cavtat at 14:30 for a cruise along Dubrovnik Riviera. Upon disembarkation in old Dubrovnik port small groups would have guided walking tour. Free time before returning to the hotel by buses (return at 21:30 from Dubrovnik, busses will wait in front of the Pile gate which is the main entrance to the Old town of Dubrovnik). The cost of the excursion is included in the conference fee for all registered participants.

Conference dinner
Thursday 19th June, 20:30. Conference dinner at the Hotel Croatia. The cost of the conference dinner is not included in the registration fee.

Lunches
Monday 16th at 12:00, and Tuesday 17th June at 12:30. Monday and Tuesday lunches are organised for all registered conference participants at the conference hotel during lunch breaks. The cost is included in the registration fee.

Accompanying persons

The accompanying persons fee includes welcome reception on Sunday, conference excursion on Wednesday and lunches at the conference hotel on Monday and Tuesday.

Hotel Croatia and our official agent ATLAS offer various sightseeing tours on request. Please consult ATLAS representative on the spot or the hotel reception for details.

Official photograph

The conference photo will be taken on terrace of hotel Croatia on Wednesday 18 June at 12:45.

Conference Schedule

Short conference programme overview

Sunday	18:00 20:00	Registration Welcome reception	
Monday	08:00	Registration	
	09:00	*Plenary Hall Ragusa (Ground floor)* Welcome and opening	
	09:30	Plenary lecture	
	10:00	Session 1: Applications of XRS in archaeometry	
	12:00	Lunch	
	14:00	*Hall 1 Bobara (First floor)* Session 1: XRS in archaeometry	*Hall 2 Orlando (Ground floor)* Session 2: Quantification methodology
	17:00	Poster Session A	
Tuesday	08:30	Session 3: Synchrotron XRS	Session 4: PIXE and electron induced XRS
	11:10	Session 5 (Part 1): X-ray sources, optics and detectors	Session 4: PIXE and electron induced XRS
	12:30	Lunch	
	14:00	Session 6: X-ray imaging and tomography	Session 7: Materials and nanoscience
	17:00	Poster Session B	
Wednesday	09:00	Session 8: X-Ray absorption	Session 9: Earth and environment sciences
	14:30	Conference excursion	
Thursday	09:00	Session 10: WDXRS	Session 5 (Part 2) : X-ray sources, optics and detectors
	12:30	Lunch break	
	14:00	Session 11: Life sciences	Session 12: Interactions of X-rays with matter
	17:00	Poster session C	
	20:30	Conference dinner	
Friday	09:00	Session 13: Microbeam techniques	Session 14: TXRF and related techniques
	12:10	Conference closing	

Oral sessions: Monday morning: hall Ragusa (ground floor). Monday afternoon and the other days, parallel sessions will run in the hall 1 'Bobara' (first floor), and the hall 2 'Orlando' (ground floor).
Poster Sessions: First floor. Area in front of the hall 1 'Bobara'.
Industrial exhibition: First floor. Monday 14:00 – 18:30, Tuesday and Thursday 9:00 - 18:30; Wednesday 9:00 - 12:30.
Coffee breaks: First floor, near the industrial exhibition area, terrace.

EXRS2008 Conference Programme

SUNDAY – JUNE 15, 2008

18:00 – 20:00 Registration
20:00 – 21:00 Welcome reception

MONDAY – JUNE 16, 2008 – MORNING – Plenary hall (ground floor)

08:00 – 09:00 Registration

09:00 – 09:30 Welcome and Opening

09:30 – 10:00 Plenary lecture (PL): Andrea Šimunić, The Croatian Apoxyomenos

Session 1: Applications of XRS in archaeometry
Chair: Maria Luisa Carvalho

10:00 – 10:30 (I-1) Invited lecture: Maria Filomena Guerra, Tracking gold forgeries with X-rays

10:30 – 11:00 Coffee break

11:00 – 11:20 (O1-1) Investigations on ancient Artemision gold objects using portable μ-XRF
M. Melcher, B. Bühler, Manfred Schreiner, U. Muss.

11:20 – 11:40 (O1-2) Discovery of a hidden Van Gogh painting by means of high-energy XRF mapping
Koen Janssens, J. Dik, G. Van der Snickt, L. Van der Loeff, K. Rickers

11:40 – 12:00 (O1-3) Archaeological analysis of Roman glass excavated from Zadar, Croatia, by a newly developed portable XRF spectrometer for glass
Kriengkamol Tantrakarn, N. Kato, A. Hokura, Y. Fujii, S. Gluščević, I. Nakai

12:00 – 14:00 Lunch break

MONDAY – JUNE 16, 2008 - AFTERNOON

Hall 1 'Bobara' (first floor)

Session 1: Applications of XRS in archaeometry (cont.)
Chair: Koen Janssens

14:10 – 14:30 (O1-4) Physical and chemical analysis of a 16th century manuscript
M. Costa, M. Manso, Maria Luisa Carvalho

Hall 2 'Orlando' (ground floor)

Session 2: Quantification methodology
Chair: Jorge E. Fernandez

14:00 – 14:30 Invited Lecture (I-2)
Wolfgang Malzer
Quantification in XRF micro-analysis

14:30 – 14:50 (O1-5) Non-destructive determination of the silver content in Roman coins dated to 308-310 a.d. by combined use of the alpha PIXE, XRF, and DPAA techniques
Francesco Romano, A. Esposito, S. Garaffo, G. Pappalardo, L. Pappalardo, F. Rizzo

14:50 – 15:10 (O1-6) μ-XRF analysis of museum metal collections across the Mediterranean basin
Vasiliki Kantarelou *et al.*

15:10 -15:30 (O1-7) Provenance characterisation of iron age ceramics from archaeological salvage excavations of Baku-Tbilisi-Ceyhan crude oil pipeline: Case of Erzurum and Erzincan sites
Pervin Arikan, B. Ender, S.Y. Şenyurt, R. Kasap

15:30 – 16:00 Coffee break

16:00 – 16:20 (O1-8) Estimation of the inter-element effects in applying the X-ray fluorescence method to the study of cultural heritage materials
A. G. Revenko

16:20 – 16:40 (O1-9) Portable EDXRF/UV-vis spectrometer, two complementary techniques on a mobile system used for Archaeometry research on the noble tomb of Menna TT-69, Gourna, Egypt
François-Philippe Hocquet, F. Mathis, R. Garcia-Moreno, S. Raakka, M. Hartwig, D. Laboury, K. Leterme, P. Vandenabeele, E. Van Elslande, H.-P. Garnir, A. Marchal, M. Clar, D. Strivay

16:40 – 17:00 (O1-10) Analysis of paintings from XIX century Brazilian painter Radolfo Amoedo using EDXRF portable system
Cristiane Calza, M.J. Anjos, A. Pedreira, R.T. Lopes

14:30 – 14:50 (O2-1) Reference-free XRF including K- and L-lines by synchrotron radiation at multiple energy settings
Michael Mantler, B. Beckhoff

14:50 – 15:10 (O2-2) Quantitative analysis of individual particles on TEM grids
M. Choël, H. Hwang, Chul-Un Ro

15:10 – 15:30 (O2-3) The necessity of maximum information utilization in X-ray analysis
Tibor Papp, J.A. Maxwell, A.T. Papp

15:30 – 16:00 Coffee break

16:00 – 16:20 (O2-4) The quest for a fundamental algorithm in XRF analysis and calibration
Richard Rousseau

16:20 – 16:40 (O2-5) Micro X-ray fluorescence spectroscopy – Validation of the three dimensional model and scattering
Ioanna Mantouvalou, W. Malzer, I. Shaumann, M. Pagels, L. Lühl, C. Vogt, B. Kanngießer

16:40 – 17:00 (O2-6) Confocal XRF quantification procedures applied to the cometary matter returned by NASA's STARDUST mission
Tom Schoonjans, B. Vekemans, G. Silversmit, S. Schmitz, F. Brenker, L. Vincze

17:00 – 18:30 **POSTER SESSION A**

Applications of XRS in archaeometry
Quantification methodology
Synchrotron XRS
PIXE and electron induced XRS

14:00 – 18:30 **INDUSTRIAL EXHIBITION**

TUESDAY – JUNE 17, 2008 - MORNING

Hall 1 'Bobara' (first floor)

Session 3: Synchrotron XRS
Chair: Szabina Török

08:40 – 09:00 (O3-1) Synchrotron radiation induced Total Reflection X-ray Fluorescence Analysis- absorption spectroscopy (SRTXRF-XAS)
Christina Streli, F. Meirer, G. Pepponi, P. Wobrauschek, U. Fittschen, J. Broekaert, Gy. Zaray, G. Falkenberg, M.A. Zaitz

09:00 – 09:20 (O3-2) High speed 2-dim. X-ray imaging spectroscopy at BESSY and FLASH
Lothar Strüder, U. Pietsch, R. Hartmann, C. Boestedt

09:20 – 09:40 (O3-3) Measuring and interpreting X-ray fluorescence from planetary surfaces
A. Owens, Burkhard Beckhoff, G. Fraser, M. Kolbe, M. Krumrey, A. Mantero, Michael Mantler, A. Peacock, M.-G. Pia, D. Pullan, G. Ulm

09:40 – 10:00 (O3-4) Development of a low energy X-ray fluorescence system with high spatial resolution
Antonio Longoni, R. Alberti, T. Klatka, A. Gianoncelli, D. Bacescu, A. Marcello, B. Kaulich

10:00 – 10:20 (O3-5) High resolution X-ray absorption and X-ray emission spectroscopy of titanium compounds
Falk Reinhardt, B. Beckhoff, B. Kanngießer, M. Müller, B. Pollakowski, G. Ulm

10:20 – 10:50 Coffee break

10:50 – 11:10 (O3-6) Reference free quantification of multielemental nanolayered systems
Michael Kolbe, B. Beckhoff

Session 5 (Part 1): X-ray sources, optics and detectors
Chair: Marie-Christine Lepy

11:10 – 11:20 (O5-1) Large area silicon drift detectors
Andreas Pahlke, T. Eggert, S. Pahlke, R. Stötter, F. Wiest

Hall 2 'Orlando' (ground floor)

Session 4: PIXE and electron induced XRS
Chair: Ivo Orlić

08:30 – 09:00 Invited Lecture (I-4)
David Cohen
The latest directions and trends in ion beam analysis of fine particle air pollution

09:00 – 09:20 (O4-1) Depth investigation of aerosols in PM10-filter with 3D μ-PIXE
R. Schütz, B. Kanngießer, A.G. Karydas, D. Sokaras, P. Pelicon, N. Grlj, M. Žitnik

09:20 – 09:40 (O4-2) Theoretical description of 3D μ-PIXE intensities, Case 1. Layered materials
Dimosthenis Sokaras, A.G. Karydas, W. Malzer, B. Kannigiesser

09:40 – 10:00 (O4-3) Lapis lazuli characterization at the LABEC external microbeam
Silvia Calusi, E. Colombo, L. Giutini, A. Lo Guidice, C. Manfredotti, M. Massi, G. Pratesi, E. Vittone

10:00 – 10:20 (O4-4) Multiparameter and digital pulse processing for μ-PIXE applications
Mladen Bogovac

10:20 – 10:50 Coffee break

10:50 – 11:10 (O4-5) Trace element profiling of gunshot residues by PIXE and SEM-EDS: A comparative study
Melanie Webb, D. Cox, C. Jeynes

11:10 -11:30 (O4-6) EPMA investigations of soil cover in lake Baikal region
Olga Belozerova

11:20 – 11:30 (O5-2) Advances in the technology of silicon drift detectors (SDD) and multiple element SDD
Ralf Terborg, M. Rohde

11:30 – 11:40 (O5-3) Silicon drift detector spectrometers for high count rate XRF applications
Shaul Barkan, V.D. Saveliev, P. Pianetta, S. Brennan, C.R. Tull, L. Feng, M. Takahashi, H. Ishii

11:40 – 11:50 (O5-4) High througput digital pulse processing hardware
Paul A.B. Scoullar, Robin J. Evans

11:50 – 12:00 (O5-5) Enhanced detection sensitivity of μ-XRF by using advanced X-ray optic chain
Ning Gao, Z. Chen, I. Ponomarev

12:00 – 12:10 (O5-6) Detection of heavy metal inclusion in the tissue with the use of ED XRF approach
V.I. Koudryashov, A.P. Moroz, Alexander S. Serebryakov, V. Yu. Toropov

12:10 – 12:20 (O5-7) The difficult way to excelent analytical results
Pol De Pape

12:30 – 14:00 Lunch break

11:30 – 11:50 (O4-7) Application of XRS to study of alkali-silicate glasses irradiated with electrons
Ondrej Gedeon, K. Jurek, I. Drbohlav

11:50 – 12:10 (O4-8) Measurement of a certified standard of hydroxyapatite by PIXE, EDS and simultaneous PIXE and RBS – a comparative study
M. Webb, S. Coe, G. Grime, Chris Jeynes

12:30 – 14:00 Lunch break

08:30 – 12:30 **INDUSTRIAL EXHIBITION**

TUESDAY – JUNE 17, 2008 - AFTERNOON

Hall 1 'Bobara' (first floor)

Session 6: X-ray imaging and tomography
Chair: Wojciech Przybylowicz

14:00 – 14:30 Invited Lecture (I-6)
Darek Wegrzynek, E. Chinea-Cano, A. Markowicz, A. Malcolm, M. Helinski, P. Wobrauschek, Ch. Streli, N. Zoeger, R. Simon, T. Weitkamp, Ch. Frieh
X-ray phase contrast imaging and tomography of malaria transmitting mosquitoes

Hall 2 'Orlando' (ground floor)

Session 7: Applications – materials and nanoscience
Chair: Yohichi Gohshi

14:10 – 14:30 (O7-1) High-energy polarized-beam EDXRF for the determination of palladium residues arising from catalysis used in the synthesis of active pharmaceutical ingredients
Eva Margui Grabulosa, K. Van Meel, R. Van Grieken, C. Fontás, M. Hidalgo, I. Queralt

14:30 – 14:50 (O6-1) Combined μ-XRF/XRPD tomography on historical and modern paint multilayer samples
Wout de Nolf, J. Jaroszewicz, G. Van der Snickt, K. Janssens, S. Farnell, L. Klaassen

14:50 – 15:10 3D (O6-2) SR-Confocal μ-XRF combined with absorption microtomography on Daphnia magna: Instrumental developments and recent advances in data-processing
Björn De Samber, R. Evens, T. Schoonjans, G. Silversmit, B. Vekemans, K. De Schamphelaere, C. Janssen, B. Masschaele, L. Van Hoorebeke, K. Rickers, G. Falkenberg, L. Vincze

15:10 -15:30 (O6-3) Quantitative elemental imaging of fragments of the Dead Sea scrolls with a combination of μ-XRF and 3D μ-XRF
Birgit Kanngießer, I. Mantouvalou, T. Wolff, O. Hahn, I. Rabin, W. Malzer

15:30 – 15:50 Coffee break

15:50 – 16:10 (O6-4) X-ray fluorescence micro-tomography analysis under various excitation conditions
Gabriela Pereira, H.S. Rocha, M.J. Anjos, C.A. Pérez, R.T. Lopes

16:10 – EXSA Meeting

14:30 – 14:50 (O7-2) Chemical character of BC_xN_y Nanolayers
O. Baake, Peter Hoffmann, A. Klein, B. Pollakowski, B. Beckhoff, W. Ensinger, M. Kosinova, N. Fainer, V. Sulyaeva, V. Trunova

14:50 – 15:10 (O7-3) A XUV diffraction from a self-assembled 2D array of close-packed 200 nm diameter PMMA spheres
Ben Mills, C.F. Chau, E.T.F. Rogers, J. Grant-Jacob, S.L. Stebbings, M. Praeger, C.A. Froud, R.T. Chapman, T.J. Butcher, D.C. Hanna, J.J. Baumberg, W.S. Brocklesby, J.G. Frey

15:10 – 15:30 (O7-4) An EDXRF method for determination of uranium and thorium in AHWR fuel after dissolution
Sangita Dhara, S. Sanjay Kumar, N.L. Misra, S.K. Aggarwal

15:30 – 15:50 Coffee break

15:50 – 16:10 (O7-5) Crystallinity measurement of modified SiO_2 samples by laser produced plasma
A. Lorusso, Vincenzo Nassisi, A. Rainó, L. Velardi

16:10 – 16:30 (O7-6) Getting an insight into soft polymeric systems properties by X-ray techniques
S. Boeykens, Cristina Vazquez

16:30 – 16:50 (O7-7) Nanoresolution interface studies in thin films by synchrotron X-ray diffraction and by using X-ray waveguide structure
Zoltán Erdely, C. Cserhéti, A. Csik, G.A. Langer, Z. Balogh, D.L. Beke

16:50 – 17:10 (O7-8) XANES and EXAFS analyses of manganese local environment in porous silicate catalysts
Nataša Novak Tušar, I. Arčon, V. Kaučič

16:10 – **EXSA Meeting** ***(Conference hall 1 – first floor)***

17:10 – 18:40 **POSTER SESSION B** **X-ray sources, optics and detectors**
X-ray imaging and tomography
Applications – earth and environment

14:00 – 18:40 **INDUSTRIAL EXHIBITION**

WEDNESDAY – JUNE 18, 2008 - MORNING

Hall 1 'Bobara' (first floor)

Session 8: X-ray absorption (EXAFS, XANES)
Chair: Jun Kawai

09:00 – 09:30 Invited Lecture (I-8)
Frank de Groot
The nature of X-ray absorption spectra: Novel theoretical and experimental tools

09:30 – 09:50 (O8-1) EXAFS measurements at the mictometer-scale spatial resolution using achromatic multilayer-based focusing optics
Eric Ziegler, G. Aquilanti, O. Mathon, S. de Panfilis, P. Van Vaerenbergh

09:50 – 10:10 (O8-2) XAS analysis of Cd coordination in Cd hyper accumulating plants
Iztok Arčon, K. Vogel-Mikuš, M. Regvar, P. Kump, M. Nečemer, A. Kodre

10:10 – 10:30 (O8-3) Possibilities of polycapillary based μ-EXAFS at DUBBLE, a non-fixed exit monocromator bending magnet beam line
Geert Silversmit, B. Vekemans, S. Nikitenko, W. Bras, L. Vincze

10:30 – 11:10 Coffee break

11:10 – 11:30 (O8-4) In situ defect microscopy during the electric-field-driven insulator-to-metal transition in Cr:$SrTiO_3$
Pererik P. Andreasson, M. Janousch, U. Staub, G.I. Meijer

11:30 – 11:50 (O8-5) Non-destructive probing of the chemical state of buried TiO_x nanolayers
Beatrix Pollakowski, B. Beckhoff, S. Braun, P. Gawlitza, F. Reinhardt, G. Ulm

11:50 – 12:10 (O8-6) Microstructure of quantum dots ensembles by EXAFS spectroscopy
Simon Erenburg, N.V. Bausk, S.V. Trubina, A.I. nikiforov, A.V. Dvurechenskii, V.G. Mansurov, K.S. Zhuraviev, S.G. Nikitenko

Hall 2 'Orlando' (ground floor)

Session 9: Applications – earth and environment sciences
Chair: Eva Selin-Lindgren

09:10 – 09:30 (O9-1) In-situ X-ray analytical methods in applied earth sciences – advantages and shortcomings
Antje Wittenberg, A. Scheibner, D. Rammlamir

09:30 – 09:50 (O9-2) Analysis of different U and Pu particles by means of μ-XRF, μ-XANES and μ-XRD
Jakub Jaroszewicz, W. De Nolf, K. Janssens, O.C. Lind, B. Salbu

09:50 – 10:10 (O9-3) Heavy metals in soils and their biogeochemistry significance
Liqiang Luo, B. Chu, Y. Liu, X. Wang, Y. Li

10:10 – 10:30 (O9-4) EDXRF for fingerprinting fine-grained sediment sources in the Demer basin, Belgium
Katleen Van Meel, E. Vanlierde, A.L. Collins, W. De Cooman, Y. Makarovska, F. Mostaert, P. Jacobs, R. Van Grieken

10:30 – 11:00 Coffee break

11:00 – 11:30 Invited Lecture (I-9)
Gyorgy Vanko
Spin-state studies with X-ray spectroscopy, and applications to Earth's lower mantle constituents

11:30 – 11:50 (O9-5) External estimation of the quality of content determinations of a number of elements in GeoPT geological samples by X-ray fluorescence method
Tatiana Cherkashina, E. V. Khudonogova

11:50 -12:10 (O9-6) Elemental analysis of ambient aerosol samples with synchrotron XRF
Agnes Richard, M. Furger, N. Bukowiecki, P. Lienemann, D. Grolimund, A.S.H. Prévôt, U. Baltensperger

12:10 – 12:30 (O8-7) Electronic structure of copper films in aqueous solutions
Sergei Butorin

09:00 – 12:30 **INDUSTRIAL EXHIBITION**

WEDNESDAY – JUNE 18, 2008 – AFTERNOON

14:30 **Conference excursion**, departure for old town of Dubrovnik by boat

THURSDAY – JUNE 19, 2008 - MORNING

Hall 1 'Bobara' (first floor)

Session 10: WDXRS
Chair: Tonči Tadić

09:00 – 09:30 Invited Lecture (I-10)
Terrence Jach
The effect of chemical bonding on high-resolution X-ray spectroscopy

09:30 – 09:50 (O10-1) High resolution soft X-ray emission spectrometry for the determination of atomic fundamental parameters related to the Ni-L fluorescence process
Matthias Müller, B. Beckhoff, B. Kanngeißer, R. Fliegauf

09:50 – 10:10 (O10-2) Spectroscopic analysis of the water-window range with Cr/Sc multilayers
K. Le Guen, J.-M. André, Philippe Jonnard, A. Hardouin, F. Delmotte, M.-F. Ravet-Krill

10:10 – 10:30 (O10-3) Micro spot analysis using polycapillary lens in standard WDXRF
Yoshiyuki Kataoka, Y. Yamada, H. Homma, H. Kohno

10:30 – 11:10 Coffee break

11:10 – 11:30 (O10-4) High resolution X -ray fluorescence study of sulphur in various compounds
Matjaž Kavčič, M. Žitnik, K. Bučar, A. Mihelčič, R.A. Mori, P. Glatzel

Hall 2 'Orlando' (ground floor)

Session 5 (Part 2) : X-ray sources, optics and detectors
Chair: Burkhard Beckhoff

09:10 – 09:30 (O5-8) Response function of semiconductor detectors: comparison between experimental measurements and Monte Carlo simulation
Marie-Christine Lépy, J. Plagnard

09:30 – 09:50 (O5-9) A new X-ray astronomy spectro-imaging detector based on a micro-calorimeters array using tantalum absorbers
Fabrice de Moro, A. Aliane, A. Gasse, P. Agnese, H. Ribot, C. Pigot, J.-L.Sauvageot, V. Szeflinski

09:50 – 10:10 (O5-10) X-ray microanalysis by a transition-edge sensor micro-calorimeter mounted on a low voltage FE-SEM
Izumi Nakai, Y. Ono, Q. Li, A. Hokura, Y. Homma, K. Tanaka, Y. Baba, S. Nakayama

10:10 – 10:30 (O5-11) High resolution XRS with the TES micro-calorimeter X-ray detector
Terrence Jach, N. Ritchie, J. Ullom

10:30 – 11:00 Coffee break

11:00 – 11:30 Invited Lecture (I-5)
Jean Claude Dousse
Photo induced atomic inner-shell processes investigated by means of high-resolution XRS

11:30 – 11:50 (O10-5) The use of WDXRS and XRD to prepare a series of reference materials of geological samples
María Fernanda Gazulla, M.P. Gómez, M. Orduña, E. Zumaquero, M. Rodrigo

11:50 – 12:10 (O10-6) Absolute X-ray wavelength standards to determine the wavelength of important X-ray lines with double reflection in single crystal X-ray spectroscopy
Benjamin S. Fraenkel, Zwi H. Kalman

12:30 – 14:00 Lunch break

11:30 – 11:50 (O5-12) Calculation of scattering spectra for the determination of the actual transmission of an X-ray mini-lens for μXRF
Vasile-Dan Hodoroaba, M. Procop

11:50 -12:10 (O5-13) X-Ray plasma source for fs-pulses
Michael Haschke, M. Bargheer, W. Mathis, A. Günther, W. Mackowiak, F. Tretner, F. Oesker

12:30 – 14:00 Lunch break

09:00 – 12:30 **INDUSTRIAL EXHIBITION**

THURSDAY – JUNE 19, 2008 - AFTERNOON

Hall 1 'Bobara' (first floor)

Session 11: Applications – life sciences
Chair: René Van Grieken

14:00 – 14:30 Invited Lecture (I-11)
Philippe Moretto
Biomedical applications of μ-PIXE

14:30 – 14:50 (O11-1) Trace element mapping using hard X-ray nanobeam focused by a Kirkpatrick Baez mirror system
Satoshi Matsuyama, M. Shimura, H. Mimura, M. Fujii, H. Yumoto, S. Handa, T. Kimura, Y. Sano, M. Yabashi, Y. Nishino, K. Tamasaku, T. Ishikawa, K. Yamauchi

14:50 – 15:10 (O11-2) μ-XRF imaging and μ-XANES of cadmium hyper-accumulating plant, Arabidopsis halleri ssp. gemmifera, using high-energy synchrotron radiation
Akiko Hokura, N. Fukuda, N. Kitajima, Y. Terada, T. Abe, I. Nakai

15:10 -15:30 (O11-3) Quantification of manganese in teeth via wavelength dispersive X-ray fluorescence spectrometry
Eric Da Silva, A. Pejović-Milić, D. V. Heyd

Hall 2 'Orlando' (ground floor)

Session 12: Interactions of X-rays with matter
Chair: Iztok Arčon

14:10 – 14:30 (O12-1) Double 1s ionization of Al and Si by photon and electron impact
Joanna Hoszowska, M. Berset, W. Cao, J.-Cl. Dousse, K. fennane, Y. Kayser, J.-L. Schenker, J. Szlachetko, M. Szlachetko, M. Kavčič

14:30 – 14:50 (O12-2) Effect of excitation energy on the Pb Lα/Lβ intensity ratio
Nobuharu Sasaki, J. Kawai

14:50 – 15:10 (O12-3) Helium induced L X-ray production cross-section in Pt and Bi
S. Ouziane, Arezki Amokrane, I. Toumert, A. Nourreddine

15:10 – 15:30 (O12-4) On features of extreme X-ray focusing
Sultan B. Dabagov

15:30 – 16:00 Coffee break

16:00 – 16:20 (O11-4) Human prostate cancer – is zinc prime suspect?
Magdalena Podgórczyk, W.M. Kwiatek, J. Dulińska-Litewka, P.M. Laidler, E. Welter

16:20 – 16:40 (O11-5) The role of chemical elements in the formation of aneurism of aorta (SRXRF)
Valentina Trunova, V.V. Zvereva, G.N. Okuneva, E.N. Levicheva, I. Yu. Loginova

15:30 – 16:00 Coffee break

16:00 – 16:20 (O12-5) Self enhancement effects on XRF K-lines due to natural width
Jorge E. Fernandez, V.Scot

16:20 – 16:40 (O12-6) A method for measuring K, L and higher shell photo ionisation cross sections at 59.5 keV
H. Erdogan, Mehmet Ertugrul

16:40 – 17:00 (O12-7) Intensity distribution of Compton scattered gamma rays from K-shell electrons using coincidence technique
Bhajan Singh, B.B. Sandhu

17:00 – 18:30 **POSTER SESSION C**

Applications – materials and nanoscience
X-ray absorption (EXAFS, XANES)
WDXRS
Applications – life sciences
Interactions of X-rays with matter
Microbeam techniques
TXRF and related techniques

14:00 – 18:30 **INDUSTRIAL EXHIBITION**

20:30 – **Conference Dinner**

FRIDAY – JUNE 20, 2008 - MORNING

Hall 1 'Bobara' (first floor)

Session 13: : Microbeam techniques
Chair: Birgit Kanngießer

09:00 – 09:30 Invited Lecture (I-13)
Kazuto Yamauchi
Synchrotron-radiation-based hard X-ray nanobeam by Kirkpatrick-Baez mirrors

Hall 2 'Orlando' (ground floor)

Session 14: TXRF and related techniques
Chair: Christina Streli

09:00 – 09:10 Present status of ISO TC201 WG2 TXRF (Short announcement)
Yohichi Gohshi

09:10 – 09:30 (O14-1) Reference-free TXRF analysis of semiconductor surfaces with synchrotron radiation
Burkhard Beckhoff, R. Fliegauf, M. Kolbe, M. Müller, J. Weser, G. Ulm

09:30 – 09:50 (O13-1) SR-XRF analysis of fluid inclusions in cloudy diamonds from Koffiefontein, South Africa
Bart Vekemans, T. Pisternick, T. Schoonjans, F.E. Brenker, A. Szymanski, W. De Nolf, K. Janssens, J. Harris, R. Tucoulou, L. Vincze

09:50 – 10:10 (O13-2) Applications of the remote operation of PIXE and micro-PIXE measurements
Milko Jakšić, M. Bogovac, N. Skukan, I. Bogdanović Radović, S. Fazinić

10:10 – 10:30 (O13-3) Micro-XRF from Carbon upwards with a laboratory X-ray source
S. Sasamori, Peter Wobrauschek, C. Streli, N. Zoeger, S. Smolek, F. Meier

10:30 – 11:10 Coffee break

11:10 – 11:30 (O13-4) 3D analysis of biological samples by confocal μXRF
Roberto Daniel Perez, H. J. Sánchez, C.A. Perez, M. Rubio

11:30 – 11:50 (O13-5) X-ray fluorescence analysis of liquid/solid samples
Kouichi Tsuji, Y. Nishida

11:50 – 12:10 (O13-6) Microbeam X-ray fluorescence analysis of individual particles
M. Czyzycki, M. Bielewski, D. Wegrzynek, A. Markowicz, R. Simon, Marek Lankosz

12:10 – 12:40 Conference closing

09:30 – 09:50 (O14-2) Grazing incidence XRF characterization of ultra shallow junctions in the ANNA consortium
Giancarlo Pepponi, D. Giubertoni, M. Bersani, N. Zoeger, C. Streli, B. Beckhoff, P. Hoenicke, M. Kolbe, M. Müller

09:50 – 10:10 (O14-3) Trace element analysis and zinc speciation in size-fractionated aerosol samples using SR-TXRF and XANES
Janos Osán, V. Groma, F. Meier, E. Börcsök, S. Torok, C. Streli, P. Wobrauschek, G. Falkenberg

10:10 – 10:30 (O14-4) TXRF cation analysis by anionic membrane collection
V. Hatzistavros, Nikolaos Kallithrakas-Kontos

10:30 – 11:00 Coffee break

11:00 – 11:30 Invited Lecture (I-14)
Alex Von Bohlen
Nanoparticles observed under X-ray grazing incidence

11:30 – 11:50 (O14-5) Application of high-resolution grazing emission X-ray fluorescence (GEXRF) spectroscopy for detection of low level impurities on Si-wafer
Jakub Szlachetko, M. Pajek, A. Kubala-Kukus, D. Banas, W. Cao, J.-Cl. Dousse, J. Hoszowska, M. Kavčič, Y. Kayser, M. Salome, J. Susini

11:50 – 12:10 (O14-6) A novel approach for chlorine determination in acidic medium by TXRF
N.L. Misra, I. Varga, S. Dhara, Suresh Aggarwal

POSTER SESSION A – Monday 16 June, 17:00 – 18:30

Applications of XRS in archaeometry
Quantification methodology
Synchrotron XRS
PIXE and electron induced XRS

PA-1 M.I. Báez, J. Ramírez-Castellanos, M.D. Gayo, J.L. Baldonedo, L. Vidal and M.J. García. *Analytical characterization of the ground layer in paint section of Rubens' paintings at "El Prado" National Museum*

PA-2 Geert Van der Snickt, J. Jaroszewicz, W. De Nolf, K. Janssens, J. Dik, L. Van der Loeff and L. Klaassen. *SR micro-XRD, SR micro-XRF and SR micro-XANES analyses on degraded cadmium sulphide paint samples*

PA-3 S. Caglio, G. Poldi. *EDXRF coupled with vis-RS to study iron-gall inks: laboratory tests and in situ analysis on Palladio's drawings* (*WITHDRAWN)*

PA-4 D. Mudronja, S. Fazinić, Ž. Pastuović, M. Jakšić, M. Braun, and M. Pustić. *Analysis of pigments on paintings from two churches in Dubrovnik*

PA-5 E. Da Silva, M. Robinson, A. Pejović-Milić, C. Evans, D. V. Heyd. *Monitoring the process of gilding, tarnishing and restoration of 21st century daguerreotypes by wavelength-dispersive X-ray fluorescence spectrometry*

PA-6 C. Calza, D.F. Oliveira, H.S. Rocha, A. Pedreira, R.T. Lopes. *Computed radiography of XIX century Brazilian paintings*

PA-7 V. Desnica, K. Skaric, D. Mudronja, M. Bošnjak, S. Fazinić, Z. Pastuović. *XRF and PIXE analysis of the wooden polychrome altars from the northern Croatian region*

PA-8 D. Šatović, V. Desnica, L. Valek, S. Martinez, S. Fazinić, Ž. Pastuović. *Homogeneity study of modern bronzes for artistic castings using PIXE and PLP*

PA-9 D. Šatović, L.Valek, V. Desnica, S. Martinez, S. Fazinić, Ž. Pastuović. *Contribution of tin compounds to protective properties of patina layers on statuary bronzes*

PA-10 V. Andrić, M. Stojanović, S. Čupić, D. Jovanović. *Physicochemical investigation of late bronze age artifacts using EDXRF Spectrometry*

PA-11 K. Uhlir, M. Griesser, H. Hanzer, P. Wobrauschek, C. Streli, G. Buzanich, D. Wegrzynek, A. Markowicz, E. Chinea-Cano. *Analysis of the enamel of Benvenuto Cellini's "Saliera" using XRF, confocal XRF and SEM/EDX*

PA-12 S. Varvara, B. Fabbri, S. Gualtieri, M. Gligor. *Chemical and structural features of the neolithic pottery from Alba Iulia-Lumea Noua (Romania) archaeological settlement*

PA-13 D. Krstić, M. Jakšić, I. Božičević, D. Mudronja. *PIXE characterization of particle modified consolidant applied to quarried limestones*

PA-14 W. Tanthanuch, W. Pattanasiriwisawa, W. Somphon, S. Srilomsak, Ban Chiang. *Pottery from archaeological site of Thailand: study of firing technique in ancient periods*

PA-15 Lin Cheng, Xunliang Ding, Rongwu Li, Guoxia Li. *Micro-X-ray fluorescence and 3D confocal Micro-X-ray fluorescence analysis of Chinese ancient cultural heritages*

PA-16 A. Kriznar, M.V. Muñoz, F. de la Paz, M. A. Respaldiza and M. Vega. *XRF Analysis of two terracotta polychromated sculptures by Pietro Torrigiano*

PA-17 L. Bonizzoni, A. Galli, M. Milazzo. *Possibility of punctual XRF analysis for archaeological pottery classification* (WITHDRAWN)

PA-18 V. Virgili, M.L. Vitobello, M.F. Guerra. *Wires and granulation in gold jewellery pastiches*

PA-19 I. Queralt, A.M. Jurado-Roldán, J.Pujol. *The use of EDXRF in gold alloys analysis: Instrumental set-up and evaluation*

PA-20 C. Vázquez, D. Elkin, S. Boeykens. *TXRF and underwater archaeology: revealing the liquid into the bottle*

PA-21 S. Cagno, V. Van der Linden, O. Schalm, K. Janssens, P. Cosyns, K. Nys. *SEM-EDX analysis of black-appearing Roman glass*

PA-22 I. Mantouvalou, T. Wolff, W. Malzer, M. Pagels, L. Lühl , O. Hahn, B. Kanngießer. *Non-destructive, depth resolved investigation of corrosion layers of historical glass objects by 3D Micro X-Ray Fluorescence Analysis*

PA-23 N. Kato, Y. Shindo, I. Nakai. *Nondestructive on site analyses of Islamic glass in Egypt by using a portable X-ray Fluorescence Spectrometer*

PA-24 V. Kantarelou, D. Sokaras, A. G. Karydas. *A quantification approach for portable μ-XRF spectrometers*

PA-25 T.Wolff, W. Malzer, I. Mantouvalou, O. Hahn, B. Kanngießer. *Extended calibration procedure for the determination of Micro-XRF excitation spectra*

PA-26 E. Cherkashin, M. Granin, T. Cherkashina. *Intelligent computational infrastructure for XRF-based investigations*

PA-27 R. Simon, G. Falkenberg, R. Dietsch, U. Fittschen, D. Weissbach. *Thin film samples as reference samples for micro XRF*

PA-28 D. Sokaras, M. Kolbe, M. Gerlach, A.G Karydas, B. Beckhoff, C. Zarkadas. *X-ray fluorescence enhancement induced by Photo-Electrons Secondary Excitation*

PA-29 R. M. Rousseau. *New XRF software packages for the application of the fundamental algorithm in practice*

PA-30 T. Trojek, D. Wegrzynek. *Measurements and Monte Carlo calculations of X-ray fluorescence Kα/Kβ ratios for layered specimens*

PA-31 K. Streib, T. Alford, J. Mayer. *An algorithm to for calculation of atomic density factors used in facilitating calculation of x-ray production cross sections from raw data* (WITHDRAWN)

PA-32 G. W. W. Wepukhulu, H. K. Angeyo, O. A. Mustapha, M. Mangala. *Simulation of environmental aerosol loaded filters for ED-XRF analysis by partial least squares*

PA-33 V. Rößiger, M. Hofmann, B. Nensel. *Standardless material identification*

PA-34 M.J. Farquharson, A. Al-Ebraheem, R.Leek, A.L.Harris, G. Falkenberg, R.Simon, D.A.Bradley, K.Rickers. *Micro distribution of biologically important metals in primary invasive ductal carcinoma of breast*

PA-35 I.Lima, M.J.Anjos, J.T.Assis, T.U.Pantaleão, V.M.Correa da Costa, M.L.Farias, E.Sales, R.T.Lopes. *Biological study using X-Ray Micro-fluorescence image*

PA-36 M. Radtke, H. Riesemeier, I. Reiche, M.F. Guerra. *SR-XRF analysis of trace amounts of Pt in gold alloys*

PA-37 M. Müller, M. Kolbe, B. Beckhoff, K. Feldrapp, S. Storm, A.-D. Weber. *Absolute determination of cross sections for resonant Raman scattering on silicon carbide*

PA-38 Koteswara Rao Veeranki, M. V. R. Murti, L. Mombasawala, S. S. Raju, B. Seetharami Reddy. *A study of low energy Kα X – Ray satellites of Phosphorous and its compounds*

PA-39 D. Sokaras, Ch. Zarkadas, R. Fliegauf, B. Beckhoff, A.G. Karydas. *A novel multi-purpose PIXE induced XRF chamber*

PA-40 T. Papp. *On the accuracy of L-shell ionization cross sections II. The choice between experimental or theoretical*

PA-41 M. Roumié, B. Nsouli. *PIXE protocols for cluster analysis of archeological samples: the funny filter case*

PA-42 M. Roumié, B. Nsouli, N. Saliba. *PIXE identification of fine and coarse particles of aerosol samples from Beirut*

PA-43 T. Tada, H. Fukuda, J. Hasegawa, Y. Oguri. *In-situ observation of chemical state change of sulfur in solid targets during MeV-proton irradiation*

PA-44 C. Figueroa, N. Nieva, S. P. Heluani. *Approximate solution for the fraction of backscattered electrons using invariant imbedding method*

PA-45 L.A. Pavlova, R.G. Kravtsova. *EPMA determination of modes of gold and silver occurrence in litho chemical stream sediments exemplified by the Ducat gold-silver deposit in northeastern Russia*

PA-46 L. Suvorova, N. Nemchinova. *Investigation of phase composition of metallurgical silicon by EPMA*

PA-47 V.P. Petukhov. *X-Ray and electron emission during transporting of slow energy electrons through glass capillary optics*

PA-48 R. Alberti, A. Bjeoumikhov, N. Grassi, C. Guazzoni, T. Klatka, A. Longoni, A. Quattrone. *X-ray detection system for PIXE measurements based on a SDD coupled to polycapillary optics*

PA-49 I. Orlić and M Bogovac. *Sim-IBA - Computer software for simulation of PIXE and RBS spectra and elemental mapping*

PA-50 C. M. Romo-Kröger. *A methodology based on thickness dependent sample irradiation to evaluate the enhancement in K-shell ionization cross sections due to vacancies in the projectile*

POSTER SESSION B – Tuesday 17 June, 17:10 – 18:40

X-ray sources, optics and detectors
X-ray imaging and tomography
Applications – materials and nanoscience

PB-1 A. Pahlke, T. Eggert, S. Pahlke, R. Stötter, F. Wiest. *Large area silicon drift detectors*

PB-2 N. Gao, Z. Chen, I. Ponomarev. *Enhanced detection sensitivity of Micro X-ray Fluorescence by using advanced X-ray optic chain*

PB-3 H. Stosnach. *Ultratrace total reflection X-ray fluorescence (TXRF) analysis of platinum group elements applying nickel sulfide melt enrichment*

PB-4 M. Procop, V.-D. Hodoroaba, A. Bjeoumikhov, R. Wedell, A. Warrikhoff. *Improvements of the low-energy performance of a micro-focus X-ray source for XRF analysis with the SEM*

PB-5 Y. Nose, N.Kawada, S.Maeo, T.Utaka, K.Taniguchi. *Development of the analyzer for thickness and trace elements in multilayer using multi excitation sources*

PB-6 A. Lorusso, V. Nassisi, M.V. Siciliano. *Short soft X-Ray sources*

PB-7 S. Maeo, M. Krämer, T.Utaka, K. Taniguchi. *Development of laboratory μ-XRF spectrometer using multi monochromatic X-Ray sources*

PB-8 R. Havlikova, V. Semencova, L. Sveda, L. Pina, A. Inneman, R. Hudec. *Usability of industrial grade Si wafers for x-ray optical instruments*

PB-9 T. Wolff, I. Mantouvalou, W. Malzer, J. Nissen, D. Berger, B. Kanngießer. *Characterization of polycapillary half lenses in two directions*

PB-10 S. Bjeoumikhova, A. Bjeoumikhov. *X-Ray capillary optics: status and perspective*

PB-11 A. Bjeoumikhov, S. Bjeoumikhova. *New applications of capillary optics for XRF and XRD*

PB-12 L. Luehl, C. Seim, T. Holz, R. Dietsch, B. Kanngießer. *Characterisation of the Multilayer optic Astix 100*

PB-13 Z.W. Chen, D. Li, S. Kemtekar, W. M. Gibson. *Monochromatic X-beam for micro-beam EDXRF*

PB-14 V.K. Egorov, E.V. Egorov, M.S. Afanas'ev. *Comparative characterization of x-ray beams formed by complicated waveguide-resonance compositions*

PB-15 C. Seim, L. Luehl, B. Kanngießer. *The Performance of micro focus X-Ray Tubes: The influence of X- Ray Tube- settings*

PB-16 A. Glushkov, O. Khetselius, Yu. Dubrovskaya. *Discharge of meta-stable nuclei during muon capture and realization of the high power monochromatic γ radiation source*

PB-17 O. Khetselius, A. Loboda. *Search of the optimal plasma parameters for X-ray lasing on the basis of modeling the elementary processes in a collisionally pumped plasma*

PB-18 A. Glushkov, O. Khetselius, E. Gurnitskaya, A. Loboda. *Generation of ultra-short X-ray pulses in cluster system during ionization by femto-second optical pulse*

PB-19 A. Tartari, G. Di Domenico, C. Bonifazzi, C. Baraldi. *New measurements and observations on aged NaI detectors*

PB-20 A.G. Touriyanski, R.A. Khmelnitski, M.A. Negodaev, T. Tschentscher. *X-Ray prism spectrometer for ultra-fast single pulse spectral measurements*

PB-21 W. De Nolf, J. Jaroszewicz, R. Terzano, O.C. Lind, B. Salbu, G. Falkenberg, K. Janssens. *2θ-resolution in synchrotron micro-XRPD: instrumental comparison at HASYLAB beam line L*

PB-22 R. Alberti, L. Bombelli, C. Fiorini, T. Frizzi, A. Gola, C. Guazzoni, T. Klatka, A. Longoni, G. Membretti. *High performance read-out electronics for silicon drift detectors*

PB-23 G. Georgiev, I.Peev. *The advantages of digital adaptive filtering in fast pulse processing*

PB-24 F. Scholze, M. Procop. *Modelling the response function of an EDS with a silicon detector*

PB-25 S. Pahlke, C. Dietzinger, T. Eggert, A. Pahlke, R. Stötter, F. Wiest. *Modular analytical X-Ray acquisition system (AXAS-M)*

PB-26 I. Gomez-Morilla, H. Rahn, A. Waske, J. Herzen, S. Weise, S. Odenbach. *Fast tomography for the study of time-dependent processes*

PB-27 I. Gomez-Morilla, M.D. Ynsa, J.C. Millán, L.C. Alves, H. Rahn, S. Odenbach, T. Pinheiro. *Tomography analysis of femoral bones from rats under osteoporosis preventive treatments*

PB-28 W.J. Przybylowicz, T. Tyliszczak, A. Barnabas, J. Mesjasz-Przybylowicz. *Ni mapping in Berkheya coddii by Micro-PIXE and NEXAFS*

PB-29 M. Haschke, D. Grötzsch, A. Günther, I. Reiche, I. Mantouvalou, K. Lange, B. Kanngießer. *A compact 3D Micro-XRF laboratory spectrometer for archeometric applications*

PB-30 A. Dyszkiewicz, P. Połeć, Jakub Zajdel, D. Chachulski, B. Pawlus, Jan Szczegielniak. *Collimation of non-axial x-rays spectrum by means of steering ferrofluid - way of reducing geometrical faults in x-ray-pictures*

PB-31 A. Tartari, M. De Felici, M. Gambaccini, P. Querzoli, C. Bonifazzi, R Felici. *X ray scattering tissue characterization in micro-beams based techniques*

PB-32 T. Martinez, J. Lartigue, G. Zarazua, L. Carapio, P. Avila-Perez, S. Tejeda. *Metals in aerosol particulate matter from the Metropolitan Zone of the Valley of Mexico*

PB-33 I. J. Kwame Aboh, D. Henriksson, J. Laursen, M. Lundin, F. G. Ofosu, N. Pind, E. S. Lindgren, T. Wahnström. *Identification of aerosol particle sources in semi-rural area of Kwabenya, near Accra, Ghana*

PB-34 Y. Makarovska, A. Krata, R. Van Grieken, K. Van Meel, J. Vercauteren, E. Roekens. *Determination of elements in PM10 by EDXRF in the air in 2006-2007 over Flanders, Belgium*

PB-35 L. Samek, M. Lankosz. *Study of the elemental concentration of air particulate matter by EDXRF method collected in Poland*

PB-36 J. Boman, J. Lindén, S. Thorsson, B. Holmer, I. Eliasson. *Analysis of urban and sub-urban fine particles (PM2.5) collected in Ouagadougou, Burkina Faso*

PB-37 J. Boman, M. L. de Carvalho, M. B. Alizadeh, P. Rezaievar, A. Wagner. *Elemental content of aerosol particles in an underground tram station*

PB-38 M. Furger, A. Richard, N. Bukowiecki, P. Lienemann, D. Grolimund, A.S.H. Prévôt, U. Baltensperger. *Trace elements in hourly ambient aerosol samples determined with synchrotron XRF*

PB-39 S. Bamford, M. Jakšić, S. Fazinić, D. Wegrzynek, E. Chinea-Cano, K. Šega, I. Bešlić, A. Markowicz, P. Wobrauschek. *PIXE and XRF analysis of Suspended particulates in an urban residential area of Zagreb, Croatia*

PB-40 S. Bamford, K. Šega, I. Bešlić, R. Godec, P. Wobrauschek. *Seasonal variations in particulate mass concentrations and elemental composition of urban aerosols in Zagreb, Croatia, using ED(P)XRF Analysis*

PB-41 R. Moschochoritou, N. Kallithrakas-Kontos. *Analysis of methyl bromide ozone depleting substance*

PB-42 B. B. Naziriwo, S. O. Wandiga, M. J. G. Gatari, O. V. Madadi, P. J. Ssebuwufu. *Determination of trace metal concentrations in waters of Nakivubo channel and Lake Victoria using Energy Dispersive X-ray Fluorescence Analysis*

PB-43 O. Gonzalez-Fernandez, I. Queralt. *Analysis of major and trace elements content of mining waters by means of wavelength dispersive X-ray fluorescence of dried residues*

PB-44 N. Alov, R. Bulgachev, S. Dmitrienko. *XRF Determination of metals in water using polyurethane foams*

PB-45 D. Zaichick, V. Zaichick, S. Lyapunov, E. Schevchenko. *WDXRS of minor and trace element contents in the soil of Moscow's park*

PB-46 N. Civici, A. Tashko. *Application of a Portable EDXRF Spectrometer for in-situ measurement of pollutants in overbank sediments of Mati river (northern Albania)*

PB-47 E.V. Khudonogova, T.Yu. Cherkashina. *Determination of Mo, Nb, Zr, Y, Sr, Rb, U, Th, Pb in different rocks by X-ray fluorescence analysis*

PB-48 E. Marguí, K.Van Meel, R.Van Grieken, C.Fontàs, M.Hidalgo, I.Queralt. *Application of high-energy polarised-beam EDXRF for the study of metal burden in mining waste samples*

PB-49 B. Kovacevik, A. Wagner, J. Boman, J. Laursen and J. B. C. Pettersson. *The seasonal variation of the elemental composition of particulate matter in Skopje, FYR of Macedonia*

PB-50 M.J. G. Gatari and J. Boman. *Design and development of an energy-dispersive X-ray spectrometer: A tool for environmental research in Kenya*

POSTER SESSION C – Thursday 19 June, 17:00 – 18:30

Applications – materials and nanoscience
X-ray absorption (EXAFS, XANES)
WDXRS
Applications – life sciences
Interactions of X-rays with matter
Microbeam techniques
TXRF and related techniques

PC-1 I. N. Orbulov, Á. Németh, J. Dobránszky. *XRD and EDS investigations of metal matrix composites and syntactic foams*

PC-2 O. Adiguzel. *X-Ray diffraction studies on crystallography of Martensite in two Copper based shape memory alloys*

PC-3 G. Puchkovska, T. Bezrodna, A. Tolochko, E. Kotelnikova, N. Platonova. *X-ray study of composite materials based on montmorillonite organoclay*

PC-4 P. Hönicke, B. Beckhoff, M. Kolbe, T. Conard, S. List, H. Struyff. *Depth dependant nanolayer analysis of vertical sidewalls on structured wafers*

PC-5 J. Petrů, M. Hubičková, P.Sajdl. *Corrosion layers on steel and their XPS analysis*

PC-6 A. Styervoyedov, V. Farenik. *XPS investigations of nanoscale Ti-O-N films on silicon*

PC-7 M. Hubičková, P. Kučera, J. Petrů, P. Sajdl. *Analysis of XPS spectra of metal oxides on corrosion surface*

PC-8 U. Burkhardt, I. Veremchuk, R. Gumeniuk, A. Leithe-Jasper, Yu. Prots, W.Schnelle,Yu. Grin. *Eu L3 XANES investigations of the valence instability of $Eu_4Pd_{29}B_8$*

PC-9 A. Alsecz, J. Osán, I. Sajó, S. Török, G. Falkenberg, K. Rickers. *Chemical speciation of unknown uranium ore and mine tailings particles with μ-XANES and μ-XRD methods*

PC-10 W. Pattanasiriwisawa, J. Siritapetawee, O. Patarapaiboolchai, W. Klysubun. *Structural characterization of Sulfur vulcanized natural rubber using X-ray Absorption Near-Edge Spectroscopy*

PC-11 S .B. Erenburg, N. V. Bausk, S. V. Trubina, B. L. Moroz, A. V. Kalinkin, V. I. Bukhtiyarov, S. G. Nikitenko. *Structure peculiarities of catalytically active gold nanoparticles by EXAFS and XANES spectroscopy*

PC-12 M.A.Kareem, Phanisree K.D. TImmaraju, N.V.Sitamahalakshmi, K.PremaChand. *EXAFS effects around K-edge in Lanthanum*

PC-13 B. Beckhoff, O. Hahn, M. Kolbe, J. Weser, M. Wilke. *Environmental analyses by TXRF - NEXAFS and IR-Spectroscopy: Speciation of Bromine in organics and characterization of the organic matrix*

PC-14 A. Cremonesi, G. Calestani, G. Antonioli, D. Bersani, P. P. Lottici. *XAS on surfactant-based nanostructured V_2O_5 thin films: monitoring short and long range order from mesophase residual to crystalline network*

PC-15 V.M. Chubarov, A.L. Finkelshtein. *X-ray fluorescence determination of FeO/Fe_2O_3 total ratio in rocks*

PC-16 T. Tadić, M. Jakšić, I. Božičević. *X-ray tracing study of crystal spectrometers for WDXRS application*

PC-17 L. Mandić, S. Fazinić, M. Jakšić, J. Dobrinić. *Spectrum modeling and influence on chemical state analysis using WDS-PIXE system*

PC-18 V. Starý, R. Havel, J. Kadlec, K. Jurek, V. Peřina, J. Fencl. *DLC layers on biocompatible Ti alloys*

PC-19 K. Watanabe, H. Homma, Y. Kataoka, Y. Yamada, K. Kansai, H. Kohno. *Cement analysis for ASTM C114 by using bench-top WDXRF*

PC-20 V. Zaichick, T. Sviridova, S. Zaichick. *XRF application in the early prostate cancer diagnosis*

PC-21 M. Simon, H. Seznec, P. Barberet, D. Bacqueville, A. Mavon, P. Moretto. *The skin barrier function: a micro-PIXE study*

PC-22 E. Da Silva, C. Heirwegh, A. Pejović-Milić, D. V. Heyd. *Use of hydroxyapatite bone composites for the calibration of in vivo EDXRF-based systems for bone strontium quantification*

PC-23 N. Uzunov, C. Furlan, S. Galassini, G.B. Girardello, P. Passi, G. Moschini, A. Zadro. *Micro-PIXE and SEM study of endosseous implants surface and the implant material release in the surrounding bone tissue*

PC-24 E.A. Preoteasa, E. Preoteasa, D.D. Marin, D. Gurban, A. Scafes. *PIXE and PIGE assessment of in vivo elemental and physical changes of a composite from a dental filling*

PC-25 E.A. Preoteasa, D.D. Marin, D. Gurban, A. Scafes, M. Gugiu, E. Preoteasa. *Single detector PIGE and PIXE analysis of dental composites*

PC-26 A. Brunetti, G. Piga, A. Santos Cubedo, A. Malgosa, S. Enzo. *A study by XRF and XRD of fossilized dinosaur bones from Spain*

PC-27 D. Guimarães, J. P. Santos, M. L. Carvalho, V. Geraldes, L. Silva-Carvalho, I. Rocha. *Elemental concentration in lead contaminated rat kidneys by EDXRF analysis*

PC-28 M. Pagels, W. Malzer, G. Weseloh, L. Lühl, B. Kanngießer. *3D Micro-XRF under cryogenic conditions: A pilot experiment for elemental imaging in biological specimens*

PC-29 S.O. Olabanji, G.A. Osinkolua, D.A. Pelemoa, A.A. Abionaa, A.T. Oladeleb. *EDXRF Analysis of Thaumatococcus Danielli in Osun State of Nigeria*

PC-30 Jun Kawai, Ryosuke Shioi, Nobuharu Sasaki, Kenji Okada, Goro Kinugawa, Shinsuke Kunimura, Takashi Yamamoto. *Why Lα:Lβ=1:1 in spite that the quantum mechanical intensity ratio is 2:1?*

PC-31 Y. Ménesguen, M.-C. Lépy. *New approach for measuring fluorescence yields using tunable monochromatic radiation*

PC-32 P. Jonnard, K. Le Guen, J.-M. André. *High-resolution X-ray analysis with multilayer gratings*

PC-33 B.R. Kerur, Sharanabasappa, S. B. Kaginelli, S. Anilkumar. *Post edge structure effects on mass attenuation coefficients*

PC-34 J. Lartigue, A. Ramírez. *Some cases of mineralogical effect due to the presence of crystals different from that one containing the fluorescent element*

PC-35 O. Khetselius. *On population dynamics of the atomic ensembles in a X-ray laser pulse: Optical bi-stability effect*

PC-36 S. Pessanha, M.L. Carvalho, A. Guilherme. *Study of the performance of two x-ray spectrometers in different matrix samples*

PC-37 J. Bielecki, S. Bożek, J. Lekki, Z. Stachura, W.M. Kwiatek. *Construction and applications of the Cracow X-ray microprobe*

PC-38 S. Smolek, C. Streli, N. Zoeger, P. Wobrauschek, F. Meirer. *Micro X-ray Fluorescence Spectrometer with low power tube for light element analysis*

PC-39 S. Kunimura, J. Kawai. *Portable TXRF spectrometer with a 40 kV X-ray tube*

PC-40 N. Zoeger, D. Ingerle, C. Streli, F. Meirer, P. Wobrauschek, G. Pepponi. *Tabletop spectrometer for grazing incidence XRF*

PC-41 F. Meirer, G. Pepponi, C. Streli, P. Wobrauschek, N. Zoeger. *A new grazing-exit-XRF setup at HASYLAB beam-line L*

PC-42 C. Horntrich, F. Meirer, C. Streli, P. Kregsamer, G. Pepponi, N. Zoeger, P. Wobrauschek. *Influence of the sample morphology on Total Reflection X-Ray Fluorescence Analysis*

PC-43 K. Tsuji, S. Kawamata. *Micro TXRF analyses of multiple residues on a flat substrate*

PC-44 K. Tsuji, K. Nakano, K. Okubo, Y. Nishida. *X-ray Fluorecenece analysis using X-ray transparent thin films for sample support*

PC-45 C.L. Mota, N.G.V. Pinto, C.J.G. Pinheiro, D. Braz, R.C. Barroso, A.S. Melo Junior, S. Moreira. *Study of alteration of elemental contents in human whole blood and Hemocomponents following irradiation injury by SR-TXRF*

PC-46 J. Osán, S. Török, B. Beckhoff, F. Reinhardt. *TXRF-NEXAFS study of carbon and nitrogen compounds in fine particulate matter deposited on silicon wafers*

PC-47 L. A. Marins, R.F. Barbosa, E. F. O. de Jesus, M. J. Anjos, M. G. T. do Carmo, M. S. Rocha, R. T. Lopes. *Effect of ethanol intake during lactation on brain mineral status of pup and young rats using X-ray total reflection spectrometry*

PC-48 Y. Kayser, J-Cl. Dousse, J. Hoszowska, W. Cao, J.-L. Schenker, M. Pajek, A. Kubala-Kukus, P. Jagodzinski, M. Kavčič, J. Szlachetko. *Depth profiling of Al-implanted Si by means of synchrotron radiation based high resolution grazing emission x-ray fluorescence*

PC-49 M. J. G. Gatari, D. M. Maina, S. Bartilol, S. M. Gaita. *Determination of trace metals in bottled commercial drinking water using TXRF in Nairobi, Kenya*

PC-50 N. Alov, A. Volkov, A. Sokolov, E. Ishmetyev, A. Usherov. *On-line X-Ray fluorescence analysis of iron-ore mixtures on a conveyor belt*

PC-51 B. Nensel, V. Rößiger, M. Hofmann, S. Dill. *The Application of Standardless Material Identification for the Analysis of precious Metal Alloys and RoHS Samples*

PC-52 E. Blokhina, X. Dreißigacker, W. Klöck. *Quality improvement of FP quantification for thickness and composition of alloy layers by XRF method*

PC-53 C. Simons, C. Mans, S. Hanning, A. Janßen, D. Alber, M. Radtke, U. Reinholz, M. Kreyenschmidt. *Development and characterization of new polymeric reference materials with the aid of XRF, LA-ICP-MS and Sy-XRF*

PC-54 N. Vér, L. Matus, M. Kunstár, J. Osán, Z. Hózer. *Delay of ruthenium escape in the presence of some fission product elements*

PC-55 G. Wellenreuther, U.E.A. Fittschen, M. Achard, M. Salomone Stagni, A. Faust, X. Kreplin and W. Meyer-Klaucke. *Total reflection X-ray fluorescence (TXRF): A future routine analysis tool in structural biology?*