



## 61<sup>st</sup> Annual Conference on Applications of X-ray Analysis

DENVER X-RAY CONFERENCE

# CALL *for* PAPERS

6 - 10 AUGUST / DENVER MARRIOTT TECH CENTER HOTEL,  
DENVER, COLORADO, U.S.A.

### PLENARY SESSION:

*“New Frontiers in X-ray Analysis –  
Dedicated to the Life and Work of  
Robert L. Snyder”*

### CONFERENCE FEATURES:

- Training & Applications
- Techniques & Instrumentation
- Exhibits, Workshops, Sessions
- Free CD of the Proceedings



Sponsored by



## WORKSHOPS MONDAY & TUESDAY, 6 & 7 AUGUST

*The exact date & time of each workshop will not be determined until April 2012; please visit our website for updates.*

X-RAY REFLECTIVITY	RIETVELD ANALYSIS – Full Day	BASIC XRF	TRACE/TXRF ANALYSIS
CULTURAL HERITAGE	TWO-DIMENSIONAL DETECTORS	ENERGY DISPERSIVE XRF	XRF SAMPLE PREPARATION
3D IMAGING (sponsored by Xradia)	NANOSTRUCTURES – FULL DAY	QUANTITATIVE ANALYSIS – Full Day	
RESIDUAL STRESS	PHASE IDENTIFICATION		

## DATES TO REMEMBER

<b>1 FEBRUARY</b>	Exhibit space opens
<b>15 FEBRUARY</b>	Deadline for submission of abstracts
<b>MAY</b>	Conference Program available online
<b>2 JULY</b>	Deadline for Pre-registration discount fee
<b>2 JULY</b>	Deadline to submit Cohen Student Award
<b>2 JULY</b>	Deadline to apply for a Student Room
<b>20 JULY</b>	Deadline to book host hotel room at conference rate
<b>3 SEPTEMBER</b>	Deadline for submission of manuscripts

## REGISTRATION FEES

*Please see our website for registration and cancellation policies.*

	by July 2	after July 2
Full week: Exhibits, Workshops, Sessions*	\$575	\$650
Monday & Tuesday: Exhibits, Workshops*	\$525	\$600
Wednesday, Thursday & Friday: Exhibits, Sessions*	\$525	\$600
Session Organizer, Invited Speaker & Workshop Instructor*	\$100	\$100
Student (I.D. required), Unemployed, 65 and older	\$200	\$275

*\*Includes a copy of Volume 56, Advances in X-ray Analysis, on CD.*

**ALSO ON OUR WEBSITE:** Hotel and Transportation details; Student Housing; Awards & Grants; Exhibits & Sponsorships; Conference Proceedings and Registration.

# DEADLINE FOR SUBMISSION OF ABSTRACTS: 15 FEBRUARY

[www.DXCICDD.com](http://www.DXCICDD.com)

Abstracts are hereby solicited for oral presentations in any of the special sessions listed, or the XRD and XRF poster sessions. Poster sessions will be held on Monday (XRD) and Tuesday (XRF) evening of conference week, in conjunction with the evening receptions.

Abstracts are submitted online. Please visit our website for Abstract preparation guidelines and submission instructions, [www.dxcicdd.com](http://www.dxcicdd.com). Please also monitor our website regularly for updates on the Technical Program.

## SPECIAL SESSIONS

**WEDNESDAY, THURSDAY & FRIDAY 8-10 AUGUST** *The exact date and time of each session will not be determined until April 2012.*

**PLENARY SESSION** *(Please note that all Plenary talks are invited; contributed abstracts are not accepted for the Plenary Session).*

***New Frontiers in X-ray Analysis—Dedicated to the Life and Work of Robert L. Snyder***

Chair: **S.T. Misture**, NYS College of Ceramics at Alfred University, Alfred, NY

***Diffraction Analysis and Atomistic Modeling of the Real Structure of Nanocrystalline Materials***

**Paolo Scardi**, University of Trento, Trento, Italy

***Milestones that gave Momentum to XRPD***

**Herbert Goebel**, Muenchen, Germany

***New Dimensions in X-ray Microscopy***

**Janos Kirz**, Advanced Light Source—Lawrence Berkeley National Laboratory, Berkeley, CA

## XRD AND XRF

### NEW DEVELOPMENTS IN XRD & XRF INSTRUMENTATION

Chairs: **T. Fawcett**, International Centre for Diffraction Data, Newtown Square, PA, [fawcett@icdd.com](mailto:fawcett@icdd.com)

**T.N. Blanton**, Eastman Kodak Co. Research Labs, Rochester, NY, [thomas.blanton@kodak.com](mailto:thomas.blanton@kodak.com)

Abstracts should be submitted by technical representatives of a manufacturer. They should discuss specifications and applications concerning one of their newest and most important products. Talks should include comments about software, XRD and XRF equipment, and accessories. No mention of prices or a comparison with competitors' products can be included.

### X-RAY IMAGING

Chair: **B. Patterson**, Los Alamos National Laboratory, Los Alamos, NM, [bpatterson@lanl.gov](mailto:bpatterson@lanl.gov)

***X-ray Fluorescence Elemental Imaging Using Micro, Confocal and DCC Instrumentation***

**G.J. Havrilla**, Los Alamos National Laboratory, Los Alamos, NM

***Nanoscale Chemical Imaging of Energy Materials with Full-Field Transmission X-ray Microscopy***

**J. Andrews Hayter**, SSRL and CSU East Bay, Menlo Park, CA

***Title to be announced***

**L. Vincze**, Ghent University, Ghent, Belgium

### ENERGY MATERIALS

Chair: **M. Rodriguez**, Sandia National Laboratories, Albuquerque, NM, [marodri@sandia.gov](mailto:marodri@sandia.gov)

**Invited speakers to be announced**

### IMPROVED FUNDAMENTAL PARAMETERS

Chair: **T. Jach**, National Institute of Standards & Technology, Gaithersburg, MD, [terrence.jach@nist.gov](mailto:terrence.jach@nist.gov)

Co-chair: **W.T. Elam**, University of Washington, Seattle, WA

***High-Resolution X-ray Emission Spectroscopy: A Powerful Technique for Inner-Shell Atomic Physics and Fundamental Parameters Determination***

**J.-C. Dousse**, University of Fribourg, Fribourg, Switzerland

***Comparing Existing MAC Tables—Hints to Possible Developments***

**P. Caussin**, Bruker-AXS, Champs sur Marne, France

### CULTURAL HERITAGE

Chairs: **A. Karydas**, International Atomic Energy Agency, Vienna, Austria, [a.karydas@iaea.org](mailto:a.karydas@iaea.org)

**M.K. Donais**, Saint Anselm College, Manchester, NH, [mdonais@anselm.edu](mailto:mdonais@anselm.edu)

***X-ray Fluorescence Integrated by Molecular Spectroscopies for the Non Invasive Studies of Paintings***

**C. Miliani**, CNR-ISTM, Università degli Studi di Perugia, Perugia, Italy

***PXRF and Archaeological Obsidian: Calibration, Quantification, and the Analysis of Small Samples***

**J.R. Ferguson**, University of Missouri Research Reactor Center, Columbia, MO

***Seeing What Others Cannot See: X-ray Based Imaging and Spectroscopy of Paintings and Painters Materials***

**K. Janssens**, University of Antwerp, Antwerp, Belgium

## XRD

### STRESS ANALYSIS

Chair: **D. Brown**, Los Alamos National Laboratory, Los Alamos, NM, [dbrown@lanl.gov](mailto:dbrown@lanl.gov)

***Stresses in Mineralized Tissues***

**S. Stock**, Northwestern University, Chicago, IL

***Comparing Residual Stress Measurements using Diffraction and Mechanical Techniques***

**A. Dewald**, Hill Engineering, LLC, Rancho Cordova, CA

### INDUSTRIAL APPLICATIONS

Chairs: **E.A. Payzant**, Oak Ridge National Laboratory, Oak Ridge, TN, [payzanta@ornl.gov](mailto:payzanta@ornl.gov)

**T.R. Watkins**, Oak Ridge National Laboratory, Oak Ridge, TN, [watkinstr@ornl.gov](mailto:watkinstr@ornl.gov)

***Size Matters: In this New Realm of Nanotechnology the Industrial X-ray Characterization Market Still Requires Macro Solutions***

**P.J. LaPuma**, Bruker AXS, Inc., Madison, WI

### RIETVELD ANALYSIS

Chair: **Q. Huang**, National Institute of Standards & Technology, Gaithersburg, MD, [qing.huang@nist.gov](mailto:qing.huang@nist.gov)

***X-ray Powder Diffraction Structural Studies of Novel Hydrogen Storage Materials***

**H. Wu**, National Institute of Standards & Technology, Gaithersburg, MD

***Harnessing the Power of High-Resolution Synchrotron Powder Diffraction for (Your) Rietveld Analysis***

**M. Suchomel**, APS, Argonne National Laboratory, Argonne, IL

### LINE PROFILE ANALYSIS

Chairs: **I. Cernatescu**, Pratt and Whitney, East Hartford, CT, [iuliana.cernatescu@pw.utc.com](mailto:iuliana.cernatescu@pw.utc.com)

**T. Ungár**, Eotvos University, Budapest, Hungary, [ungar@ludens.elte.hu](mailto:ungar@ludens.elte.hu)

***Beyond X-ray Line Profiles: Perceiving Dislocation Structures from High Resolution Reciprocal Space Mapping***

**W. Pantleon**, Technical University of Denmark, Risø Natl. Lab., Roskilde, Denmark

***Characterizing Twinning and Stacking Fault Activity by X-ray and Neutron Diffraction Line Profile Analysis***

**L. Balogh**, Los Alamos National Laboratory, Los Alamos, NM

***Extending Line-Profile-Analysis to Textured Materials and Neutron-Diffraction***

**T. Ungár**, Eotvos University, Budapest, Hungary

## XRF

### MICRO XRF

Chair: **G.J. Havrilla**, Los Alamos National Laboratory, Los Alamos, NM, [havrilla@lanl.gov](mailto:havrilla@lanl.gov)

***Development of a Vacuum Confocal Micro-XRF Instrument and Its Applications***

**K. Tsuji**, Osaka City University, Osaka, Japan

### HANDHELD XRF APPLICATIONS

Chair: **K.A. Russell**, Olympus Innov-X, Woburn, MA, [kimberley.russell@olympusndt.com](mailto:kimberley.russell@olympusndt.com)

***Overview of Handheld XRF Applications in Soil Science***

**D. Weindorf**, LSU AgCenter, Baton Rouge, LA

***Use of Handheld XRF for Consumer Product Testing in the Undergraduate Chemistry Curriculum***

**P.T. Palmer**, San Francisco State University, San Francisco, CA

### FUSION & INDUSTRIAL APPLICATIONS OF XRF

Chair: **J.A. Anzelmo**, Anzelmo & Associates, Inc., Madison, WI, [jaanzelmo@aol.com](mailto:jaanzelmo@aol.com)

***Applications of XRF in the Specialty Glass/Ceramics Industry***

**E.M. Fanning**, Corning Incorporated, Corning, NY

### QUANTITATIVE ANALYSIS

Chair: **L.L. Brehm**, Dow Chemical Company, Midland, MI, [llbrehm@dow.com](mailto:llbrehm@dow.com)

***Quantitative XRF Analysis at Trace Level: Concepts and Approaches***

**W.-Lung Shen**, The Dow Chemical Company, Freeport, TX

***Residual Metals Analysis in the Pharmaceutical Industry: A Comparison of ICP-MS, AA and XRF***

**A.J. Jensen**, Pfizer, Inc., Groton, CT

### TRACE ANALYSIS

Chair: **M.A. Zaitz**, IBM, Hopewell Junction, NY, [Zaitz@us.ibm.com](mailto:Zaitz@us.ibm.com)

***TXRF Analysis of Environmental and Biological Samples***

**K. Tsuji**, Osaka City University, Osaka, Japan

**DEADLINE FOR SUBMISSION  
OF ABSTRACTS: 15 FEBRUARY**