NEW LOCATION!

CALL FOR PAPERS

63rd Annual Conference on Applications of X-ray Analysis

Denver X-ray Conference

28 July - 1 August 2014

Big Sky Resort, Big Sky, Montana, U.S.A.

Plenary Session: X-rays on Mars

Sponsored by International Centre for Diffraction Data

The DXC invites papers in all areas of X-ray analysis. The size and congeniality of the conference make it ideal for presenting your work, interacting with colleagues, and seeking the advice of experts.

Abstracts are hereby solicited for oral presentations in any of the special sessions listed, or the XRD & XRF general sessions. Abstracts are also being solicited for 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**.
Please also monitor our web site regularly for updates to the Technical Program.

Deadline for submission of abstracts: 28 February 2014

www.dxcicdd.com

PLENARY SESSION*

X-rays on Mars

Chairs: W. Tim Elam, University of Washington, APL, Seattle, WA
Tom Blanton, International Centre for Diffraction Data,
Newtown Square, PA

Invited talks:

The First X-ray Diffraction Results from Mars
Dave Bish, Indiana University, Department of Geological Sciences, Bloomington, IN

XRF Combines with PIXE in Curiosity's Alpha Particle X-ray Spectrometer
John L. (Iain) Campbell, University of Guelph,
Department of Physics, Guelph, Ontario, Canada

Exploring Mars with ChemCam on the Curiosity Rover
Sam Clegg, Los Alamos National Laboratory, Physical Chemistry
and Applied Spectroscopy Group, Los Alamos, NM

**Contributed abstracts not accepted for Plenary Session*

SPECIAL SESSIONS

Wednesday, Thursday & Friday 30 July–1 August.

The exact date and time of each session will not be determined until April 2014.
Session titles, Chairs and invited talks listed below:

Special Topics in X-ray Analysis

Rechargeable Battery Characterization

Chair: M.A. Rodriguez, Sandia National Laboratory, Albuquerque, NM, marodri@sandia.gov

Neutron Reflectometry: A Unique Probe for the In Situ Study of Interfacial Reactions on Thin Film Electrical Energy Storage Materials
J. Browning, Oak Ridge National Laboratory, Oak Ridge, TN

Ex Situ XRD Characterization of Cycled Metal Oxide Electrodes for Lithium-Ion Batteries
N. Hudak, Sandia National Laboratories, Albuquerque, NM

New Developments in XRD & XRF Instrumentation

Chairs: T. Fawcett, T.N. Blanton, International Centre for Diffraction Data, Newtown Square, PA,
fawcett@icdd.com; tblanton@icdd.com

Abstracts should be submitted by technical representatives of a manufacturer or scientific group. 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.

GENERAL SESSIONS

Welcomes abstracts in all areas of X-ray Analysis.

General XRF

Chair: D. Burns, Dow Chemical Company, Freeport, TX, dwburns1@dow.com

General XRD

Chair: C. Murray, IBM T.J. Watson Research Center, Yorktown Heights, NY, Conal@us.ibm.com

XRD

Stress Analysis

Chair: T.R. Watkins, Oak Ridge National Laboratory, Oak Ridge, TN, watkinstr@ornl.gov

Combined X-ray Diffraction with Biaxial Cruciform Testing at the NIST Center for Automotive Lightweighting

M. Iadicola, National Institute of Standards and Technology, Gaithersburg, MD

Pinhole Imaging in Neutron Diffraction

A.D. Stoica, Oak Ridge National Laboratory, Oak Ridge, TN

Texture Measurement with X-rays & Electrons

Chair: B. Wheaton, Corning, Inc., Corning, NY, wheatonbr@corning.com

The Characterization of Texture and Microstructure by Electron Backscatter Diffraction

S.I. Wright, EDAX-TSL, Draper, UT

In-situ Synchrotron Texture and Strain Analysis at High Pressures and Temperatures

L. Miyagi, University of Utah, Salt Lake City, UT

Nuclear Materials

Chairs: D. Brown, T. Sisneros, Los Alamos National Laboratory, Los Alamos, NM, dbrown@lanl.gov, tsisneros@lanl.gov

Title to be Announced

J. Terry, Illinois Institute of Technology, Chicago, IL

Title to be announced"

J. Stubbins, University of Illinois Urbana Champain, Urbana, IL

Small Angle X-ray Scattering for Nanomaterials Characterization

Chair: P. Høghøj, Xenocs, Sassenage, France, peter.hoghoj@xenocs.com

Co-chair: M. Krumrey, Physikalisch-Technische Bundesanstalt, Berlin, Germany michael.krumrey@ptb.de

Traceable Size Determination of Nanoparticles with SAXS

M. Krumrey, Physikalisch-Technische Bundesanstalt, Berlin, Germany

It's a Small World: Applications of Advanced SAXS

B.R. Pauw, National Institute for Materials Science, Tsukuba, Japan

Line Profile Analysis

Chairs: T. Ungár, Eotvos University, Budapest, Hungary, ungar@ludens.elte.hu

I. Cernatescu, Pratt and Whitney, East Hartford, CT, Iuliana.Cernatescu@pw.utc.com

Exploring Material Evolution due to Creep using High Energy X-rays

J.C. Schuren, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH

Beyond the 3D Periodicity Limits in Modern Whole Pattern Line Profile Analysis

M. Leoni, University of Trento, Trento, Italy

Title to be Announced

L. Balogh, Queen's University, Kingston ON, Canada

Amazing, Shrinking XRD

Chairs: I.C. Noyan, Columbia University, New York, NY, icn2@columbia.edu

S.T. Misture, NYS College of Ceramics at Alfred University, Alfred, NY, misture@alfred.edu

Invited speaker(s) to be announced

Applied Material Analysis

Chairs: T. Fawcett, T.N. Blanton, International Centre for Diffraction Data, Newtown Square, PA, fawcett@icdd.com; tblanton@icdd.com

Invited speaker(s) to be announced

Rietveld Analysis

Chair and invited speaker(s) to be announced

XRF

Industrial & Handheld Applications of XRF

Chair: J.A. Anzelmo, Anzelmo & Associates, Inc., Madison, WI, jaanzelmo@aol.com
Co-chair: A. Seyfarth, Bruker Elemental, Kennewick, WA, alexander.seyfarth@bruker-axs.com

The Use of XRF in Cultural Heritage: Special Considerations for Special Objects
K. Trentelman, Getty Conservation Institute, Los Angeles, CA

XRF Analysis of Uneven and/or Thin Glaze Chinese Porcelain Samples: A Comparison of Bench-top XRF, HH-XRF, and Micro-XRF
Y. Xiong, Shanghai Museum, Shanghai, China

Quantitative Analysis

Chair: L.L. Brehm, Dow Chemical Company, Midland, MI, llbrehm@dow.com

TXRF Analysis of Ocular Tissue and Fluids
M. Schmeling, Loyola University Chicago, Chicago, IL

Gravimetric Preparation of Calibration Standards for XRF Analyses of Polyvinyl Chloride
J.R. Sieber, National Institute of Standards and Technology, Gaithersburg, Maryland

XRF Analysis of Advanced Automotive Materials
A.R. Drews, Ford Research and Advanced Engineering, Dearborn, MI

Trace Analysis

Chair: M.A. Zaitz, IBM, Hopewell Junction, NY, zaitz@us.ibm.com

Portable TXRF Analysis with Low Wattage X-ray Tube
J. Kawai, Kyoto University, Kyoto, Japan

Environmental & Geological Applications

Chairs: J. Miranda, Universidad Nacional Autonoma de Mexico, Mexico City, Mexico, miranda@fisica.unam.mx
R. Van Grieken, University of Antwerp, Antwerp, Belgium, rene.vangrieken@uantwerpen.be

TXRF and GIXRF Analysis of NASA Genesis Mission Samples
M. Schmeling, Loyola University Chicago, Chicago, IL

Handheld XRF Applications to Mudrock Chemostratigraphy: Methods, Pitfalls and Examples
H. Rowe, The University of Texas at Austin, Austin, TX

The Use of XRF Instrumentation in Environmental Impact Assessment Studies
I. Queralt, Institute of Earth Sciences "Jaume Almera" – CSIC, Barcelona, Spain

Micro XRF

Chair: G.J. Havrilla, Los Alamos National Laboratory, Los Alamos, NM, havrilla@lanl.gov

State-of-the-art Quantification Methodology for 3D Micro-XRF
I. Mantouvalou, Technical University of Berlin, Berlin, Germany

Full Field XRF with High Energy and High Spatial Resolution
F.P. Romano, IBAM-CNR & LNS-INFN, Catania, Italy

Confocal X-ray Fluorescence and Absorption Spectroscopic Micro-imaging Using Conventional and Full-field Detection Systems
L. Vincze, Ghent University, Ghent, Belgium

Fast Elemental and Species-specific Imaging

Chairs: K. Janssens, University of Antwerp, Antwerp, Belgium, koen.janssens@ua.ac.be
G.J. Havrilla, Los Alamos National Laboratory, Los Alamos, NM, havrilla@lanl.gov

3D and Beyond – Basics and Applications of the Color X-ray Camera
M. Radtke, BAM Federal Institute for Materials Research & Testing, Berlin, Germany

Improved Tools and Procedures for Elemental and Chemical Imaging of Highly Heterogeneous Materials”
K. Janssens, University of Antwerp, Antwerp, Belgium

The Maia Detector, Past Present and Future
D.P. Siddons, Brookhaven National Laboratory, Upton, NY

WORKSHOPS

Monday & Tuesday 28 & 29 July 2014

The exact date and time of each workshop will not be determined until April 2014. Please visit our website for information on workshop instructors and a description for each workshop.

XRD

Electron Backscatter Diffraction
Texture
Introduction to Modulated Structures
Line Profile Analysis
Rietveld
Quantifying Crystalline and Amorphous Phases - Full Day
Two-dimensional Detectors

XRF

Sample Preparation
Micro XRF
Basic XRF
Energy Dispersive XRF
Trace Analysis
Quantitative Analysis - Full Day
XRF Imaging

DATES TO REMEMBER

Exhibit Space Opens	**3 February**
Deadline for Submission of Abstracts	**28 February**
Conference Program Available Online	**May**
Deadline to Submit for Cohen Student Award	**1 June**
Deadline to Apply for a Student Room	**25 June**
Deadline to Book Host Hotel Room at Conference Rate	**25 June**
Deadline for Pre-registration Discount Fee	**1 July**
Deadline for Submission of Manuscripts	**5 September**

REGISTRATION FEES

Please see our website for registration and cancellation policies.

	by July 1	**after July 1**
Full week: Exhibits, Workshops and Sessions*	$625	$700
Monday & Tuesday: Exhibits, Workshops*	$575	$650
Wednesday, Thursday & Friday: Exhibits, Sessions*	$575	$650
Session Organizer, Invited Speaker or Workshop Instructor*	$200	$200
Student (I.D. required), Unemployed, 65 and older	$250	$325

**Includes a copy of Volume 58, Advances in X-ray Analysis, on CD-ROM.*

Also on our website: Hotel and Travel Details; Student Housing, Awards & Grants; Exhibits/Sponsorships; Conference Proceedings and Registration.

WWW.DXCICDD.COM

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NEW LOCATION! Big Sky, Montana *(www.bigskyresort.com)*