

FACSS PRESENTS

SCIX2017

National Meeting of:
Society for Applied Spectroscopy (SAS)
and

North American Society for
Laser-Induced Breakdown Spectroscopy
(NASLIBS)



FINAL PROGRAM

OCTOBER 8 - 13

Grand Sierra Resort - Reno, NV

SciXconference.org

TECHNICAL PROGRAM – THURSDAY

Orals 1:30 – 3:10 pm

Innovation Award Symposium 3:50 – 5:10 pm, *Tahoe Ballroom*

2:10 PM (829) **Photoelectrochemistry of Colloidal TiO₂ Nanoparticles: From Aggregates to Single Crystals**; Mario Alpuche-Aviles¹, Krishna Barakoti¹, Pushpa Chhetri¹, Rezvan Kazemi¹, Nelum Karunathilake¹, Ganesh Rana¹; ¹University of Nevada, Reno, Department of Chemistr

2:30 PM TBA

2:50 PM (831) **Near Infrared ElectroChemiluminescence of Gold Nanoclusters for Redox and Metal Ion Sensing**; Gangli Wang¹; ¹Georgia State University

Thursday Afternoon, Carson 3

17RAM03: RAMAN IMAGING & MICROSCOPY II

Organizers and Presiders: Pavel Matousek, Ian Lewis, Duncan Graham

1:30 PM (832) **Innovative Applications of Raman Microscopy**; Peng Wang¹, Thomas Tague¹, Juergen Sawatzki², Sergey Shilov¹; ¹Bruker Optics Inc., Billerica, MA; ²Bruker Optik GmbH, Ettlingen, Germany

1:50 PM (833) **2D and 3D Micro-Raman Imaging of Crystal Transformation due to Indentation of ZrO₂ Ceramic and ZrO₂ Containing Glass Ceramic Materials**; Galan Moore¹, Charlene Smith¹, Benjamin Hanson¹, Sara Cole¹; ¹Corning Incorporated

2:10 PM (834) **A Novel Wide-Field Raman System for Fast Chemical Imaging**; Haithem Mustafa, Ozan Akkus; ¹Case Western Reserve University

2:30 PM (835) **Raman Chemical Imaging Based Cell Cytometry: Differentiation and Quantification of viable and Gamma Deactivated B. Anthracis Sterne Spore**; Jason Guicheteau¹, Ashish Tripathi¹, Erik Emmons¹, Michael Kim¹, Phillip Wilcox¹; ¹USA Army RDECOM Edgewood Chemical Biological Center

2:50 PM (836) **Dynamic Sampling in Raman Microscopy**; Garth Simpson¹, Shijie Zhang¹, Zhengtian Song¹, Azhad U. Chowdhury¹, G. M. Dilshan P. Godaliyaddab¹, Dong Hye Ye¹, Atanu Sengupta², Gregery T. Buzzard¹, Charles A. Bouman¹; ¹Purdue University; ²Dr. Reddy's Laboratory

Thursday Afternoon, Carson 4

17RAM16: PHARMACEUTICAL RAMAN

Organizer and Presider: Ian Lewis

1:30 PM (837) **Method Development for the Classification of Drugs with Identical API Content Using Raman Spectroscopy**; Md. Naveem Hossain, Carl Anderson¹, James Drennen¹; ¹Duquesne University

1:50 PM (838) **Low-Frequency Raman Spectroscopy Can Improve Quantitative Solid-State Analysis of Solid-State Form Mixtures of Pharmaceuticals**; Tiina Lipiäinen¹, Sara J. Fraser-Miller², Keith C. Gordon², Clare J. Strachan¹; ¹University of Helsinki, Finland; ²University of Otago, New Zealand

2:10 PM (839) **Monitoring Form Conversion of Pharmaceutical Drug Using In-line and At-line Raman Spectroscopy**; Ming Huang¹, John Wasyluk¹, Robert Wethman¹; ¹Bristol-Myers Squibb

2:30 PM (840) **Monitoring API Concentration by Raman Spectroscopy**; Zachary Harms¹, Zhenqi Shi¹, Rajesh Kulkarni¹, James Hermler¹, David Myers¹; ¹Eli Lilly and Company

2:50 PM (841) **Quantitative Raman Assays for On-Site Analysis of Stockpiled Drugs**; Daniel Willett¹, Jason Rodriguez¹; ¹U.S. Food and Drug Administration

Thursday Afternoon, Crystal 4

17SPECIAL04: CELEBRATING THE FACSS MEMBERSHIP OF THE AUSTRIAN SOCIETY OF ANALYTICAL CHEMISTRY (ASAC)

Organizer and Presider: Bernhard Lendl

1:30 PM (842) **Fabry-Pérot Photothermal Interferometry (FP-PTI) for Trace Gas Sensing in Small Sample Volumes**; Bernhard Lendl^{1,2}, Jakob Hayden¹, Johannes Paul Waclawek¹; ¹Technische Universität Wien

1:50 PM (843) **Analysis of Oxides in Steel Slag and of Trace Elements in Steel by Laser-Induced Breakdown Spectroscopy**; Johannes D. Pedarnig¹, Simon Eschlböck-Fuchs^{1,2}, Ludwig Birkbauer¹, Christoph M. Ahamer¹, Wolfgang Gaderbauer¹, Hubert Duchaczek², Josef Hofstadler^{1,2}, Andreas Pissenberger², Roman Rössler², Norbert Huber¹; ¹Johannes Kepler University Linz / Austria; ²voestalpine Stahl GmbH, Linz / Austria

2:10 PM (844) **Investigating Li₇-3xAlxLa₃Zr₂O₁₂ Garnets Using Laser Based Spectroscopic Analysis Techniques**; Stefan Smetaczek¹, Maximilian Bonta¹, Andreas Wachter-Welzl¹, Stefanie Taibl¹, Reinhard Wagner², Daniel Rettenwander³, Jürgen Fleig¹, Andreas Limbeck¹; ¹TU Wien; ²University of Salzburg; ³Massachusetts Institute of Technology

2:30 PM (845) **Mid-Infrared Spectroscopy with Supercontinuum Laser Sources**; Markus Brandstetter¹, Jakob Kilgus¹, Christoph Gasser², Bernhard Lendl², Kristina Duswald¹; ¹Research Center for Non-Destructive Testing; ²Vienna University of Technology

2:50 PM (846) **Recent Advances of Vibrational Spectroscopy in Phytomics**; Christian Huck¹; ¹Leopold-Franzens University, Innsbruck, Austria

3:10 PM Poster Session and Coffee Break, Grand Salon

Thursday Afternoon, Tahoe Ballroom

17AWD08: FACSS INNOVATION AWARD SYMPOSIUM

Organizer and Presider: Karen Esmonde-White

3:45 PM Presentation of the FACSS Distinguished Service Award to Diane Parry

3:50 PM (847) **Probing Cancer by Exploiting Spontaneous and Stimulated Raman Scattering**; Ji-Xin Cheng¹, Chien Sheng Liao¹; ¹Boston University

4:10 PM (848) **Effective Light Directed Assembly of Building Blocks with Microscale Control**; Chia-Hung Chen¹; ¹National University of Singapore

4:30 PM (849) **Optical Reflection and Waveguiding of Sound in Free Space**; Daniel Kazal¹, Ellen Holthoff², Brian Cullum¹; ¹University of Maryland, Baltimore County; ²Army Research Laboratory, Adelphi, MD

4:50 PM (850) **Dried Blood Spheroids: A Versatile Paper-Based Biofluid Sample Collection Platform for Improved Analyte Stability**; Abraham Badu-Tawiah¹, Deidre Damon¹; ¹The Ohio State University