TENTH INTERNATIONAL SYMPOSIUM ON BIOLOGICAL AND ENVIRONMENTAL REFERENCE MATERIALS
SCHEDULE

30 April – 4 May 2006
Location: *DOUBLETREE GUEST SUITES,* Charleston, South Carolina

Sunday, 30 April

1400 – 1830 Registration – *HAYNE STREET GALLERY*
1500 – 1700 Poster set up
1700 – 1830 Welcome Reception

Monday, 1 May

0700 - 0900 Poster set up – *STONO ROOM*
0730 - 1700 Registration – *HAYNE STREET GALLERY*
0745 Continental Breakfast - *COURTYARD*

0830 - 1230 OPENING PLENARY SESSION – *ANSONBOROUGH /HARLESTON*
Session Co-Chairs – S. Wise and H. Emons

Introduction, Stephen A. Wise, BERM 10 Symposium Chair
Welcome Remarks, Alejandro Herrero, IRMM
Welcome Remarks, Willie E. May, NIST

New Developments in Biological Reference Materials for Human Health, Ross Hawkins, Elaine Gray, and Adrian Bristow, *National Institute for Biological Standards and Control (NIBSC), Potters Bar, United Kingdom*

Reference Materials Used in National Exposure Measurements for Decisions to Protect Public Health from Environmental Exposure, Donald G. Patterson Jr., *National Center for Environmental Health, Centers for Disease Control and Prevention (CDC), Atlanta, GA, USA*

1030 - 1100 REFRESHMENT BREAK - *COURTYARD*

1100 **Reference Material and Speciation Analysis: Lessons to be Learned,** O. F. X Donard, F. Pannier, F. Seby, and D. Amouroux, *Laboratoire de Chimie Analytique Bioinorganique et Environnement, Ultra Traces Analyses Aquitaine CNRS/Université de Pau et des Pays de l'Adour, Pau, France*

Metrological Traceability of Catalytic Enzyme Concentration Measurements, Secondary Reference Materials, and Measurement Uncertainty, Gerhard Schumann and Rainer Klauke, *Medizinische Hochschule Hannover, Klinische Chemie, Hannover, Germany*

Nanomaterials in the Environment: Analytical Measurement Issues, Mark D. Hoover, *National Institute for Occupational Safety and Health (NIOSH), Morgantown, WV, USA*

1230 - 1330 LUNCH – *WRAGGBOROUGH AND COURTYARD*

1330 - 1700 CONCURRENT SESSIONS

1330 – 1500 RMS FOR HUMAN HEALTH – *HARLESTON*

Session Co-Chairs – B. Güttler and D. Patterson

Recent Developments in NIST Clinical SRMs, Michael J. Welch, *Analytical Chemistry Division, National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA*

CDC Biomonitoring of Trace and Toxic Metal Exposures: Analytical Methods, use of Reference Material and Exposure Results, Kathleen L. Caldwell and Robert L. Jones, *Centers for Disease Control and Prevention (CDC), Atlanta, GA, USA*

Protein Quantification by Isotope Dilution Mass Spectrometry of Proteolytic Fragments, Cristian Arsene, André Henrion, William Burkitt, Gavin O'Connor, and David Bunk, *Physikalisch-Technische Bundesanstalt (PTB), Braunschweig, Germany; LGC, Teddington, United Kingdom; National Institute of Standards and Technology (NIST), Analytical Chemistry Division, Gaithersburg, MD, USA*

Candidate Reference Method for Determining Serum Glucose by Gas Chromatography Isotope Dilution-Mass Spectrometry, Can Quan, Bei Xu, Liqing Wu, and Wenqi Cao, *National Research Center for Certified Reference Materials (NRCCRM), Beijing, P.R. China*

1330 – 1500 ADVANCES IN ANALYTICAL TECHNIQUES AND RM DEVELOPMENT – *ANSONBOROUGH*

Session Co-Chairs – G. Turk and O. Donard

Do We Need certified Calibrations Solutions?, F. Ulberth, O. Bercaru, B. Sejeroe-Olsen, M. Ricci, and H. Emons, *European Commission, DG Joint Research Centre, Institute for Reference Materials and Measurements (IRMM), Geel, Belgium*

A High-Performance Method to Establish Traceability of Elemental Calibration Solutions to the NIST SRM 3100 Series, Gregory C. Turk, and Mark L. Salit, *Analytical Chemistry Division and Biochemical Science Division, National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA*

Establishing a Traceability System for Elemental Analysis, Olaf Rienitz, Detlef Schiel, Ralf Matschat, and Heinrich Kipphardt, *Physikalisch-Technische Bundesanstalt (PTB), Braunschweig, Germany* and *Federal Institute for Materials Research and Testing (BAM), Berlin, Germany*

Use of Analytical Methods in the Development of Lyophilized Biological Reference Materials, Paul Matejtschuk, *National Institute for Biological Standards and Control (NIBSC), Hertfordshire, United Kingdom*

1500- 1530 REFRESHMENT BREAK – *WRAGGBOROUGH AND COURTYARD*

1530 - 1700 **RMS AND INTERNATIONAL HARMONIZATION** – *HARLESTON*
Session Co-Chairs – T. Linsinger and P. Jenks

Accreditation of Reference Materials Producers: The Example of IRMM's Reference Materials Unit, Thomas Peter Josef Linsinger, *Institute for Reference Materials and Measurements (IRMM), Geel, Belgium*

JCTLM Database of Higher Order Reference Materials and Measurement Procedures for Laboratory Medicine and in vitro Diagnostic Measurement Systems, Robert Ian Wielgosz, *Bureau International des Poids et Mesures (BIPM), Sevre, France*

Activities of REMCO – ISO Committee on Reference Materials, New Definitions on Reference Materials, Hendrik Emons, Ales Fajgelj, Adriaan M.H. van der Veen, and Robert Watters, *European Commission, Joint Research Centre, Institute for Reference Materials and Measurements (IRMM), Geel, Belgium; International Atomic Energy Agency (IAEA), Agency's Laboratories Seibersdorf, Vienna, Austria; and National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA*

The Heightened Enforcement of International Regulation: a Real Impediment to the Cross Border Transportation of RMs and a Threat to International Harmonization, Peter J Jenks and Steve Wood, *RT Corporation Ltd, Salisbury, United Kingdom, and LGC Ltd, Teddington, United Kingdom*

1530 - 1700 **ADVANCES IN ANALYTICAL TECHNIQUES AND RM DEVELOPMENT** – *ANSONBOROUGH*
Session Co-Chairs – G. Turk and O. Donard

The Use of Liquid Chromatography with Chemiluminescent Nitrogen Detection for the Preparation of Calibration Solution CRMs for Toxins, Michael A. Quilliam, Hughie Fraser, Dominik Wechsler, Yi-Min Chen, Krista Thomas, and Sheila Crain, *Institute for Marine Biosciences, National Research Council of Canada (NRCC), Halifax, Nova Scotia, Canada*

Getting it Right with Fluorescence: Fluorescence Standards at BAM, Ute Resch-Genger, Dietmar Pfeifer, Angelika Hoffmann, Katrin Hoffmann, Christian Monte, Monika Spieles, Wolfram Bremser, and Ulrich Panne, *Federal Institute for Materials Research and Testing (BAM), Berlin, Germany*

ID-SERS: A Novel Primary Ratio Method Based on Raman Spectroscopy for the Quantitative Determination of Analytes in Clinical Matrix-Materials, Rainer Stosch, André Henrion, Detlef Schiel, and Bernd Güttler, *Physikalisch-Technische Bundesanstalt (PTB), Braunschweig, Germany*

Residual Moisture Content and the Stability of Lyophilized Biological Reference Materials, Paul Matejtschuk, Kiran Malik, and Adrian Bristow, *National Institute for Biological Standards and Control (NIBSC), Hertfordshire, United Kingdom*

1700 ADJOURN

1830 SPIRIT LINE DINNER CRUISE – Meet in Hotel Foyer

Tuesday, 2 May

0730 - 1700 Registration – *HAYNE STREET GALLERY*
0745 Continental Breakfast – *COURTYARD*

0830 - 1000 PLENARY SESSION – *ANSONBOROUGH/HARLESTON*
Session Co-Chairs – S. Willie and U. Panne

Emerging Contaminants in the Environment, Susan D. Richardson, *U.S. Environmental Protection Agency, National Exposure Laboratory, Athens, GA, USA*

Botanical Reference Materials for Purposes of Plant Species Authentication, James S. Miller, *William L. Brown Center for Plant Genetic Resources, Missouri Botanical Garden, St. Louis, MO, USA*

1000 – 1030 REFRESHMENT BREAK – *COURTYARD*

1030 – 1230 **RMS FOR ENVIRONMENTAL MONITORING** - *ANSONBOROUGH/HARLESTON*
Session Co-Chairs – S. Willie and U. Panne

Development of NMIJ CRMs for Environmental Monitoring, Takashi Yarita, Kazumi Inagaki, Masahiko Numata, Akiko Takatsu, Kensaku Okamoto, and Koich Chiba, *National Metrology Institute of Japan (NMIJ), AIST, Tsukuba, Ibaraki, Japan*

Development of a Fish Reference Material for Routine Monitoring and Performance Evaluation of Polychlorinated Dibenzo-p-Dioxins, Polychlorinated Dibenzofurans, Dioxin-like PCBs and Polybrominated Diphenyl Ethers, Sathi Selliah, Eric J. Reiner, Terry M. Kolic, Karen A. MacPherson, Dan Toner, Chris H. Marvin, Andre Vaillancourt, Steve Petro, and Brock Chittim, *Ontario Ministry of the Environment, Toronto, Ontario, Canada; Environment Canada, National Water Research Institute, Burlington, Ontario, Canada; Ontario Ministry of the Environment, Toronto, Ontario, Canada; Wellington Laboratories, Guelph, Ontario, Canada*

Brominated Flame Retardants (BFR) – Analytes, Methods and Reference Materials, Roland Becker and Robert Koeppen, *Federal Institute for Materials Research and Testing (BAM), Berlin, Germany*

Expanding Analyte Information for Existing Environmental SRMs, Michele M. Schantz, Jennifer M. Keller, John R. Kucklick, Dianne L. Poster, Katherine E. Sharpless, and Stephen A. Wise, *Analytical Chemistry Division, National Institute of Standards and Technology (NIST), Gaithersburg MD, USA and Hollings Marine Laboratory, Charleston, SC, USA*

Role of a Beryllium Oxide Reference Material in Development and Harmonization of Standard Methods, Michael J. Brisson, Kevin Ashley, Mark D. Hoover, Gregory C. Turk, Thomas J. Oatts, and Aleksandr B. Stefaniak, *Washington Savannah River Company, Savannah River Site, Aiken, SC USA; National Institute for Occupational Safety and Health (NIOSH), Cincinnati, OH and Morgantown, WV USA; Analytical Chemistry Division, National Institute of Standards and Technology (NIST), Gaithersburg, MD USA; National Security Complex, Oak Ridge, TN, USA*

1230 - 1330 LUNCH AND POSTER PRESENTATIONS – *STONO, COOPER, AND ASHLEY*

1330 – 1500 POSTER SESSION – *STONO*

1500 – 1700 CONCURRENT SESSIONS

1500 – 1700 RMS FOR ENVIRONMENTAL MONITORING – *ANSONBOROUGH*
Session Co-Chairs – M. Schantz and T. Yarita

Aqueous Ethanol and Fluoride Certified Reference Materials, Marcellé Archer and Betty-Jayne de Vos, *CSIR-National Metrology Institute, Pretoria, South Africa*

Maintaining Stability of Natural Water CRMs, Harry Alkema, Jayne Simser, and Emily Wilson, *National Water Research Institute, Environment Canada, Burlington, Ontario, Canada*

Elemental Speciation: Measurements of Arsenic, Mercury, and Tin Species in NIST Standard Reference Materials, W. Clay Davis, David Point, Rebecca S. Pugh, Steven J. Christopher, Lee Yu, and Michele M. Schantz, *Analytical Chemistry Division, National Institute of Standards and Technology (NIST), Gaithersburg, MD USA and Hollings Marine Laboratory, Charleston, SC USA*

Development and Application of Environmental Reference Materials in China, Wu Zhongxiang, *Institute for Reference Materials of SEPA, Beijing, P.R. China*

Development of an Ombrotrophic Peat Bog (Low Ash) Reference Material for the Determination of Inorganic Elemental Concentrations, Charun Yafa, John G. Farmer, Margaret C. Graham, and Jeffrey R. Bacon, *University of Edinburgh, Edinburgh, United Kingdom; National Institute of Metrology (Thailand), Pathumthani, Thailand; and Macaulay Institute, Aberdeen, United Kingdom*

1500 – 1700 RMS FOR HEALTH PRODUCTS – *HARLESTON*
Session Co-Chairs – J. Betz and R. Manning

European Pharmacopoeia Reference Standards for Herbal Drugs and Preparations, Ulrich Rose, *European Directorate for the Quality of Medicines (EDQM), Council of Europe, Strasbourg, France*

Assuring Authenticity and Reliability of In-House Reference Materials for Quality Assurance of Phytomedicines, V. Christoffel, M. Dreyer, and B. Spengler, *Bionorica AG, Neumarkt, Germany*

Production of Standard Reference Materials for Dietary Supplements, Katherine E. Sharpless, *Analytical Chemistry Division, National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA*

Reference Materials to Support the EU Traditional Herbal Medicinal Product Directive – Kava Kava certified for Kavain, Emma Warburton and Steve Wood, *LGC, Middlesex, United Kingdom*

Analytical Challenges in the Certification of Botanical Dietary Supplement Standard Reference Materials, Lane C. Sander, Katherine S. Sharpless, Catherine A. Rimmer, Karen Phinney, Jeanice Brown Thomas, Bryant C. Nelson, Karsten Putzbach, Samuel Howerton, Mary B. Satterfield, Michele M. Schantz, and Stephen A. Wise, *Analytical Chemistry Division, National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA*

1700 ADJOURN

Wednesday, 3 May

0730 - 1700 Registration – *HAYNE STREET GALLERY*
0745 Continental Breakfast – *COURTYARD*

0830 - 1000 PLENARY SESSION – *ANSONBOROUGH/HARLESTON*
Session Co-Chairs – W. Wolf and M. Quilliam

Development of Reference Materials for GMO Analysis – Experiences and Future Challenges, Hendrik Emons, Philippe Corbisier, Heinz Schimmel, and Stefanie Trapmann, *European Commission, Joint Research Centre, Institute for Reference Materials and Measurements (IRMM), Geel, Belgium*

Integration of Metrological Concepts into Food and Nutritional Measurements for strengthening Capacity Development Initiatives, Venkatesh Iyengar, *Friedman School of Nutrition Science and Policy, Tufts University, Boston, MA, USA*

Reference Materials as Indicators of Analytical Data Quality for Human and Ecological Risk Assessments, Ann K. Bailey, Peter Kane, and Craig Hutchings, *EcoChem, Inc., Seattle and Olympia, WA, USA; Alpha Woods Hole Labs, Raynham, MA, USA*

1000 – 1030 REFRESHMENT BREAK – COURTYARD

1030 – 1230 **RMS FOR FOOD SAFETY AND QUALITY** - *ANSONBOROUGH/HARLESTON*
Session Co-Chairs – W. Wolf and M. Quilliam

The Development of Reference Materials for Microbiological Analysis, Pierre van Iwaarden and Wolfgang Philipp, *European Commission, Institute for Reference Materials and Measurements (IRMM), Geel, Belgium*

Reference Material in Residue Control: Assessment of Matrix Effects, Petra Gowik, *Federal Office of Consumer Protection and Food Safety (BVL), European and National Reference Laboratory for Residues, Berlin, Germany*

Fit-for-purpose Shellfish Tissue Reference Materials for Phycotoxins in Internal and External Quality Control, Philipp Hess, Pearse McCarron, and Michael A. Quilliam, *Marine Institute, Galway, Ireland; National Research Council Canada (NRCC), Halifax, Nova Scotia, Canada*

Preparation of Reference Materials for Azaspiracid Toxins, Michael A. Quilliam, Kelley Reeves, Shawna MacKinnon, Cheryl Craft, Heather Whyte, John Walter, Lesley Stobo, and Susan Gallacher, *Institute for Marine Biosciences, National Research Council of Canada (NRCC), Halifax, Nova Scotia, Canada, and Marine Laboratory, Fisheries Research Services, Aberdeen, United Kingdom*

Evaluation of Freeze-Drying as a Stabilisation Technique for Mussel (Mytilus edulis) Tissue Reference Materials Containing Hydrophilic and Lipophilic Phycotoxins: Domoic Acid, Okadaic Acid, Dinophysistoxin-2, and Azaspiracid-1, -2 and -3 in Comparison with Wet Frozen Homogenates, Pearse McCarron, Håkan Emteborg, and Philipp Hess, *Marine Institute, Galway, Ireland, and Institute for Reference Materials and Measurements (IRMM), Geel, Belgium*

1230 – 1330 LUNCH – *STONO, ASHLEY, AND COOPER*

1330 – 1500 POSTER SESSION - *STONO*

1500 – 1700 CONCURRENT SESSIONS

1500 – 1700 **RMS FOR FOOD SAFETY AND QUALITY** – *HARLESTON*
Session Co-Chairs – F. Ulberth and A. Lamberty

Certified Reference Materials for Proximate Analysis and Other Method-Defined Parameters in Foods, F. Ulberth, *European Commission, DG Joint Research Centre, Institute for Reference Materials and Measurements (IRMM), Geel, Belgium*

Food Reference Materials in Support of the USDA National Food and Nutrient Analysis Program (NFNAP), Katherine M. Phillips, Wayne R. Wolf, Kristine Y. Patterson, Katherine E. Sharpless, and Joanne M. Holden, *Virginia Polytechnic Institute and State University, Biochemistry Dept., Blacksburg, VA, USA; USDA Beltsville Human Nutrition Research Center, Food Composition Laboratory, Beltsville, MD, USA; USDA Beltsville Human Nutrition Research Center, Nutrient Data Laboratory, Beltsville, MD, USA; Analytical Chemistry Division, National Institute of Standards and Technology, Gaithersburg, MD, USA*

Food Reference Materials for Laboratory Performance Study in ASEAN, Prapasri Puwastien, Kunchit Judprasong, Naruemol Pinprapai, and Pongtorn Sungpuag, *Institute of Nutrition, Mahidol University, Salaya, Nakorn Pathom, Thailand*

Reference Materials for Food in China, Jun Liu, and Can Quan, *National Research Center for Certified Reference Materials, Beijing, P.R. China*

Towards Reference Materials for Allergen Testing, Marta Dabrio, Franz Ulberth, Jean Charoud-Got, Albert Oostra, Paul De Vos, Andrea Bau, and Håkan Emteborg, *Institute for Reference Materials and Measurements (IRMM), EC-JRC, Geel, Belgium*

1500 – 1700 **APPLICATIONS OF RMS** – *ANSONBOROUGH*
Session Co-Chairs – S. Christopher and B.-J. de Vos

Commutability - A Prerequisite for Adequate Applicability of Reference Materials, Hendrik Emons and Heinz Schimmel, *European Commission, Joint Research Centre, Institute for Reference Materials and Measurements (IRMM), Geel, Belgium*

Evaluation of Commutability of Reference Materials in Clinical Laboratory Science, Mary M. Kimberly, Hubert W. Vesper, Samuel P. Caudill, W. Gregory Miller, Robert Rej, Elizabeth Monsell, and Gary L. Myers, *Centers for Disease Control and Prevention, Atlanta, GA, USA; Medical College of Virginia, Richmond, VA, USA; New York State Health Department, Albany, NY, USA*

Matrix Reference Materials for Proficiency Testing: Optimization of Soil Spiking Procedure for Gamma Emitting Radionuclides, Abdulghani Shakhashiro, Adelaide Maria Gondin da Fonseca Azeredo, Umberto Sansone, and Ales Fajgelj, *International Atomic Energy Agency (IAEA), Agency's Laboratories Seibersdorf, Vienna, Austria*

Microheterogeneity Evaluation of Polycyclic Aromatic Hydrocarbons in Particulate Standard Reference Materials, Katrice A. Lippa and Michele M. Schantz, *Analytical Chemistry Division, National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA*

Filling Gaps in the Traceability Chain of Food Composition DataBanks: An EuroFIR Contribution, Isabel Castanheira, Linda Owen, Paul Robb, Amanda Earnshaw, and Maria Antónia Calhau, *Instituto Nacional de Saúde Dr Ricardo Jorge (INSA), Lisbon, Portugal, and Central Science Laboratory (CSL), United Kingdom*

1700 ADJOURN

1800 – 2200 DINNER AT BOONE HALL PLANTATION – Meet in Courtyard for transport

Thursday, 4 May

0730 - 1700 Registration – *HAYNE STREET GALLERY*
0745 Continental Breakfast – *COURTYARD*

0830 - 1000 PLENARY SESSION – *ANSONBOROUGH/HARLESTON*
Session Co-Chairs – H. Emons and R. Zeisler

Challenges and New Developments for RM Production at IRMM, Andrée Lamberty, Håkan Emteborg, and Hendrik Emons, *Institute for Reference Materials and Measurements (IRMM), Geel, Belgium*

Production of Highly Homogeneous SRMs Suitable for Solid Sampling (Small Sample) Analytical Techniques, Rolf Zeisler, Steven J. Christopher, Milko Jakšić, and Cassiana Seimi Nomura, *Analytical Chemistry Division, National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA and Hollings Marine Laboratory, Charleston, SC, USA; Laboratory for Ion Beam Interactions, Rudjer Boskovic Institute, Zagreb, Croatia; and Universidade de São Paulo, Instituto de Química, São Paulo, Brazil*

Reference Materials Stability Issues Revisited, Wolfram Bremser and Ulrich Panne, *Federal Institute for Materials Research and Testing (BAM), Berlin, Germany*

1000 – 1030 REFRESHMENT BREAK – *COURTYARD*

1030 – 1230 **CHALLENGES AND INNOVATIONS IN RM PRODUCTION** - *ANSONBOROUGH/HARLESTON*
Session Co-Chairs – H. Emons and R. Zeisler

Technology for the Production of Precise Reference Materials, Graham Vesey, *BTF Pty Ltd, Sydney, Australia*

Providing SRMs for the Rapidly Evolving Forensic DNA and Human Identity Testing Communities, Margaret C. Kline and John M. Butler, *Biochemical Science Division, National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA*

Reference Materials for Rapid TSE Tests – From Homogenates to Transgenic Mouse Brains, Nadine Kollmorgen, Pierre van Iwaarden, Heinz Schimmel, Pavel Vodrazka, and Wolfgang Philipp, *European Commission, Institute for Reference Materials and Measurements (IRMM), Geel, Belgium*

Development of Reference Materials for Clinical Proteomics, David M. Bunk, *Analytical Chemistry Division, National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA*

Advances in Conductivity Measurement for High Purity Water, Petra Spitzer, Bruno Rossi, Yves Gaignet, Stéphane Mabic, Uwe Sudmeier, Ralf Eberhardt, and Song Xiaoping, *Physikalisch-Technische Bundesanstalt (PTB), Braunschweig, Germany; Bioscience Division, Millipore Corporation, St. Quentin-Yvelines, France; and National Research Center for Certified Reference Materials (NRCCRM), Beijing, China*

1230 – 1330 LUNCH – *WRAGGBOROUGH AND COURTYARD*

1330 – 1450 CONCURRENT SESSIONS

1330 – 1450 **CHALLENGES AND INNOVATIONS IN RM PRODUCTION** – *HARLESTON*
Session Co-Chairs – V. Poncano and P. Becker

Development of the New Standard Reference Material (SRM) 695 Trace Elements in Multi-Nutrient Fertilizer, Elizabeth A. Mackey, Stephen E. Long, Anthony F. Marlow, Karen E. Murphy, Michael S. Rearick, John R. Sieber, Laura J. Wood, and Lee L. Yu, *Analytical Chemistry Division, National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA*

Effects of Particle Size Fractioning on the Homogeneity of the Candidate Organic Green Coffee Reference Material, Fábio S. Tagliaferro and Elisabete A. De Nadai Fernandes, *Centro de Energia Nuclear na Agricultura, Universidade de São Paulo, Piracicaba, SP, Brazil*

Use of Vapor Adsorption/Desorption Testing to Determine How a Reference Standard Should be Labeled and Used, John Esker, Patricia White, Shawn Dressman, Arthur Strohl, Ashley Kable, and Jill LaFavors, *US Pharmacopeia, Rockville, MD, USA*

Tracking Soybean Roundup Ready™ in Raw and Processed Food: The Production of Reference Materials and Design of a New Primer Set for Quantitative Detection, Othon Silva Abrahão, Siu Mui Tsai, and Peter Bode, *Centro de Energia Nuclear na Agricultura, Universidade de São Paulo (CENA/USP), Piracicaba, SP, Brazil, and Delft University of Technology (TUDelft), Delft, The Netherlands*

1330 – 1450 **RMS AND PURITY/STABILITY DETERMINATION** – *ANSONBOROUGH*
Session Co-Chairs – S. Wood and R. Wielgosz

The Development of a Solvent Free Solvent Yellow 124 RM Certified for Purity, Thierry Le Goff, Ben Joseph, and Steve Wood, *LGC, Middlesex, United Kingdom*

The Preparation and Characterization of Analytical Reference Materials, Hongjie Wang, Stephen Davies, and Steven Westwood, *National Measurement Institute, Pymble, Australia*

Purity CRM and the Physical Constraint, Wolfram Bremser and Matthias Koch, *Federal Institute for Materials Research and Testing (BAM), Berlin, Germany*

The Development of a Malachite Green and Leucomalachite Green RM Certified for Purity, Thierry Le Goff, Gill Holcombe, and Steve Wood, *LGC, Middlesex, United Kingdom*

1450 – 1510 REFRESHMENT BREAK – WRAGGBOROUGH AND COURTYARD

1510 – 1630 CLOSING PLENARY SESSION: CHALLENGES AND INNOVATIONS IN RM PRODUCTION - *ANSONBOROUGH/HARLESTON*

Session Chair – H. Emons

Standards in Microarray Gene Expression Experiments, Marc Salit, *Biochemical Science Division, National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA*

CRM Developments at BAM – Status and Future, Ulrich Panne, *Federal Institute for Materials Research and Testing (BAM), Berlin, Germany*

Closing Remarks, Stephen A. Wise, BERM 10 Symposium Chair