

PROGRAM

A Symposium on Biofuels: Measurements and Standards to Facilitate the Transition to a Global Commodity

Cosponsored by the US National Institute of Standards and Technology (NIST), and
Brazil's National Institute of Metrology, Standardization and
Industrial Quality (INMETRO)

Day One: Wednesday, June 27, 2007

7:00-8:00 Breakfast*

8:00-9:00 CEOs/Presidents from Presidential Green Chemistry Challenge Award

9:00-10:00 Keynote: Katie Hunt, President, American Chemical Society

10:00-10:30 Break

Biofuels Symposium Session 1 **Biofuels: R&D Agenda I**

Session Description: Advanced research to produce sustainable biofuel is a high priority on R&D agendas virtually worldwide. National and regional perspectives may vary based on the biomass available as feedstock, existing infrastructure, regulatory issues, as well as the blend and type of biofuel produced. The advantages of biofuels production provide an international commonality such as reduced environmental impact, and slowing the progress of climate change. It also provides a renewable source of energy made from feedstock that is locally or regionally available, and the promise of sustainability and energy independence. For these reasons most countries and regions are investing considerable resources into feedstock research, efficient biomass conversion, as well scaled up production and distribution of biofuels to the end user. The new technologies needed to advance the use of biofuels worldwide provide opportunities for research collaboration internationally. In this session, leaders of biofuels R&D efforts will describe the framework of the R&D agenda in the country/region that they represent.

Session Chair: Hratch Semerjian, NIST

10:30 – 10:50 Hratch Semerjian and Humberto Brandi, Opening Remarks

10:50 – 11:10 Ghassem Asrar, USDA
[USDA Biofuels and Biobased Products Research and Development Priorities](#)

11:10 – 11:30 Brad Barton, US DOE
[Overview of DOE Activities in Biofuels](#)

11:30 – 11:50 Kyriakos Maniatis, EU DG Energy and Transport
[Overview of EU Activities in Biofuels](#)

11:50 – 12:10 Silmara Wolkan, PETROBRAS – CENPES, Brazil
[Renewable Fuels: Challenges, Technology Development and the Brazilian Experience](#)

12:10 – 1:30 Lunch

* Included in Registration

Biofuels Symposium Session 2

Biofuels: R&D Agenda II

Session Chair:	Humberto Brandi, INMETRO & Sociedade Brasileira de Metrologia
1:30 – 1:50	Greg Manuel (Dept of State) and Jonathan Shrier (National Security Council), US <i>International Activities on Biofuels</i>
1:50 – 2:10	Karl Simon, US EPA <u>EPA Perspective on Biofuels</u>
2:10 – 2:30	Rosângela Araujo, ANP (Agência Nacional de Petróleo), Brazil <u>Biofuels Brazilian Regulation - Focus on Quality</u>
2:30 – 2:50	Kinya Sakanishi, Biomass Technology Research Center, AIST, Japan <u>Specification and Production Technologies of Bio-Fuels in Japan</u>
2:50 – 3:10	Isabel Fraga, INMETRO, Brazil <u>pHe Measurements in Anhydrous Ethanol Fuel by Using Commercial Electrodes</u>
3:10 – 3:30	Russell Teall, Biodiesel Industries, Inc., US <u>The Biodiesel Industry: technology and infrastructure issues</u>
3:30 – 4:00	Break

Biofuels Symposium Session 3

Standards Needs: Stakeholder Perspectives I

Session Description: Biofuels have emerged as a viable commodity worldwide, and its use becoming more and more widespread for a variety of political and environmental reasons. This transition impacts the agricultural community, fuel producers, and end use engine and vehicle manufactures. The objective of this session is to understand the issues, concerns and perspectives of each of the stakeholders, particularly with regard to codes, standards and test methods for commodity biofuels.

Session Chair:	Lyn Beary, NIST
4:00 – 4:20	Liisa Kiuru, International Fuel Quality Center <u>International Fuel Quality Developments</u>
4:20 – 4:40	Samantha Slater, Renewable Fuels Association, US <u>Today's U.S. Ethanol Industry</u>
4:40 – 5:00	Ellen Shapiro, Alliance of Automobile Manufacturers <u>Biofuel Quality Needs for Automakers</u>
5:00 – 5:20	David Blatnik, Marathon Oil Corp., US <u>Impact of Biofuels on Gasoline and Distillate Product Quality</u>
5:20 – 5:40	Chuck Corr, Archer Daniels Midland Company, US <u>Increasing Biofuel Utilization while Meeting the Needs of the Marketplace</u>
6:00 – 8:00	Conference Reception and Banquet*

Day Two: Thursday, June 28, 2007

7:00-8:00 Breakfast*
8:00-9:00 Keynote: Tad Davis, US Army
9:00 – 9:30 Break

**Biofuels Symposium Session 4
Standards Needs: Stakeholder Perspectives II**

Session Description: The regional use of natural biomass resources to produce biofuels in every part of the world has the potential to create and open new regional and global markets. As the biofuels market has emerged, a variety of specifications and standards have also emerged mainly in Europe, Brazil and the US. These standards have some common aspects, but also areas of disagreement. This session is designed to discuss regional/international frameworks for addressing this issue, and to continue the review of existing standards world-wide both for bioethanol and biodiesel.

Session Chair: Hratch Semerjian, NIST

9:30 – 9:50 Neil Rossmeyssl, US DOE
[Standards and Codes Needs for Expanded Use of Biofuels](#)

9:50 – 10:10 Jose Félix da Silva, International Ethanol Association, Brazil
[Market Specification and Methods for Ethanol Analysis](#)

10:10 – 10:30 Jacco Woldendorp, Shell/CEN, EU
[European Bioethanol Standards and Regulations](#)

10:30 – 10:50 Ben Bonazza, TI Auto/ASTM, US
[US Bioethanol Standards and Regulations](#)

10:50- 11:10 Break

11:10 – 11:30 Barry Cahill, PSA Peugeot Citroen/CEN, EU
[European Biodiesel Standards and Regulations](#)

11:30 – 11:50 Steve Howell, National Biodiesel Board/ASTM, US
[US Biodiesel Standards and Regulations](#)

11:50 – 12:10 Jeffrey Skeer, US DOE
[Report of the APEC Biofuels Task Force: Initial Findings and Next Steps Forward](#)

12:10 – 1:30 Lunch* - speaker: David Kepler, Senior Vice President,
Chief Sustainability Officer, Dow Chemical Company

Biofuels Symposium Session 5

Reference Materials and Test Methods: Current Activities and Plans

Session Description: Internationally-accepted reference standards and testing methods will be needed to underpin the documentary standards agreed upon by the international community. This session will feature presentations from technical leaders in National Metrology Institutes world-wide, who will describe the relevant competencies as applied to biofuels standards research and to discuss the feasibility of the collaborative production of appropriate Certified Reference Materials (CRMs).

Session Chair: Willie May, NIST

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| 1:30 - 1:50 | João Jornada, INMETRO, Brazil
<u><i>The Brazilian Program for Metrology and Certification of Biofuels</i></u> |
| 1:50 – 2:10 | Ed deLeer, NMi/EURAMET, Netherlands
<u><i>R&D Needs in the Biofuels Area from a European Metrology Perspective</i></u> |
| 2:10 – 2:30 | Sara Prins, Council for Scientific and Industrial Research, S. Africa
<u><i>The Biofuels Initiative in South Africa</i></u> |
| 2:30 – 2:50 | Steve Wise, NIST, US
<u><i>US Reference Materials for Biofuels</i></u> |
| 2:50 – 3:10 | Gina Clapper, AOCS, US
<u><i>Methods of Analysis for Biodiesel Feedstocks</i></u> |
| 3:10 – 3:30 | Romeu Daroda, INMETRO, Brazil
<u><i>Biofuels: Transforming a Product into a Commodity: building a bridge for the transition</i></u> |
| | Li Hongmei, National Institute of Metrology, China (Poster Presentation)
<u><i>“Biofuels in China: Products, Standards and Measurements”</i></u> |
| 3:30 – 4:00 | Break |
| 4:00 – 4:20 | Marcos Eberlin, INMETRO-UNICAMP (Universidade de Campinas), Brazil
<u><i>Fast Biodiesel Typification and Quality Control by Direct Infusion Electrospray Ionization Mass Spectrometry Fingerprinting</i></u> |
| 4:20 – 4:40 | Eduardo Cavalcanti, Instituto Nacional de Tecnologia, Brazil
<u><i>Corrosion Control on Biofuels – the Brazilian Experience</i></u> |
| 4:40 – 5:00 | Carol Hockert, NIST, US
<u><i>Biofuels Impact on the Commercial Infrastructure</i></u> |
| 5:00 – 5:20 | Discussion |
| 6:00 – 8:00 | Conference Reception * |

Day Three: Friday, June 29, 2007

7:00-8:00 Breakfast*
8:00-9:00 Keynote: Eric Beckman, University of Pittsburgh
9:00 – 9:30 Break

Biofuels Symposium Session 6
Biofuels: Measurements and Standards – Next Steps

Session Description: Several bilateral and multilateral initiatives have been launched during the last few months, including the US-Brazil Agreement on Biofuels Cooperation, and the UN International Biofuels Forum, signed by the US, Brazil, China, EU, India and South Africa. These activities reflect the importance of biofuels for energy and economic security, and climate change, and the potential to create and open new markets. As the market for biofuels emerge, issues around fair trade with associated standards and underpinning measurements also emerge. This session will address next steps to support the expansion of biofuels as an international commodity.

Session Chair: João Jornada, INMETRO, Brazil

9:30 – 9:50 Shannon Fraser and Sam Beatty, DOC/ITA, US
[Building Biofuels Infrastructure – A Workshop Summary](#)

9:50 – 10:10 Fran Schrotter, ANSI, US
[Cooperation in Development of Biofuels Standards and Related Infrastructure](#)

10:10 – 10:30 Willie May, NIST, US
[Measurement and Standards Needs for an Advanced Biofuels Economy](#)

10:30 – 10:50 Discussion

10:50 – 11:10 Break

Biofuels Symposium Session 7
Biofuels: Technical Working Group Follow on Meetings

Session Description: Open session to discuss bioethanol and biodiesel standards (US/EU/Brazil and others), and to define an agreed upon framework or path to move forward.

11:10 – 11:50 Next Steps Discussion
11:50 – 12:10 Humberto Brandi and Hratch Semerjian, Closing Remarks
12:10 – 1:30 Lunch
After Lunch Working Group Meetings

Biofuel Standards Roadmap

Proposed Input for the U.S.-E.U. Summit, April 30, 2007

Context: The use of biofuels will promote energy and economic security for the U.S., Brazil, and E.U. International biofuel production, consumption, and trade are expected to undergo significant growth in the coming years. Therefore, accelerating biofuel commoditization and standardization is essential. A compatible set of standards will promote the use and acceptance of biofuels in a global market.

Objective: The U.S., Brazil, and E.U., in consultation with major standards developers such as ASTM International, ABNT, and CEN, will forge an accelerated process to achieve greater compatibility among existing biofuel standards by the end of the year (4Q07).

Strategy: The U.S., Brazil, and E.U. will establish bioethanol and biodiesel working groups (WGs). Each party (U.S., Brazil, and E.U.) is responsible for identifying the appropriate technical experts to serve on the bioethanol and biodiesel WGs. In support of the International Biofuels Forum (IBF), these WGs will be comprised of representatives from the private and public sectors. In order to move the IBF agenda forward, each WG will be charged with the following:

1. Identify areas within existing standards where greater compatibility can be achieved in the short and long term.
2. Identify the need for additional performance data and testing that may be required to justify differences or changes in specifications.
3. Review consistency of test methods to ensure comparability of results.
4. Analyze costs and benefits of modifying existing standards.
5. Make recommendations to develop consistent terminology.

Path Forward: The Working Group members will build on the work initiated in Brussels (February 2007) and ANSI-NIST meeting (March 2007) to identify areas where greater compatibility can be achieved. The WGs will report their progress at the following meetings:

- ANSI Biofuels Standards Panel (May 2007)
- NIST-INMETRO Biofuels Symposium (June 2007)
- IBF Meeting (July 2007) in Brussels



American National Standards Institute

The American National Standards Institute (ANSI) is a private, non-profit organization that administers and coordinates the U.S. voluntary standardization and conformity assessment system.

The Institute oversees the development of thousands of standards that directly impact businesses in nearly every sector. ANSI is also actively engaged in accrediting programs that assess conformance to standards.

The ANSI Federation is comprised of government agencies, organizations, corporations, academic and international bodies, and individuals. In total, the Institute represents the interests of more than 125,000 companies and 3.5 million professionals.

ANSI is the official U.S. representative to the International Organization for Standardization (ISO) and, via the U.S. National Committee, the International Electrotechnical Commission (IEC).

For more information: www.ansi.org.



Biofuels Standards Panel

In early 2007, ANSI established the Biofuels Standards Panel (ANSI-BSP) as a cross-sector coordinating body to promote the development and compatibility of voluntary consensus standards and conformity assessment programs necessary to support the large-scale commoditization of biofuels. By establishing a framework of fundamental issues, the ANSI-BSP will:

- Evaluate the inventory of existing biofuels specifications to determine relevant standards and conformity assessment programs
- Identify gaps where new or revised standards and compliance programs need to be developed; work with the relevant organizations to coordinate, catalog, accelerate and promote the creation of these deliverables
- Identify the need for testing procedures, analytic methods, and reference materials; work with the relevant organizations to satisfy these needs
- Promote positive, cooperative partnerships between the public and private sectors and among stakeholders on the global stage

The ANSI-BSP will provide a neutral venue where interested parties can collaborate to define needs, determine work plans, and establish priorities for updating or creating new voluntary consensus standards and compliance programs.

For more information: www.ansi.org/bsp