

# **Precious Metals News**

A Publication of the International Precious Metals Institute (850) 476-1156 • Fax (850) 476-1548 • E-mail: mail@ipmi.org • www.ipmi.org

Volume 43, Number 3



## IPMI 2019 Award Winners Announced



The IPMI Award Committee is pleased to announce that the 2019 IPMI Jun-ichiro Tanaka Award, sponsored by The Tanaka Memorial Foundation, has been awarded to Dr Robert lanniello, for his extensive career in the field of heterogeneous catalysis, specifically in new materials R&D, materials characterization, and precious metals analy-

sis, as well as for his many years of dedicated service to IPMI. This includes serving as a member of the board of directors (from 2000-2016), as a member of the Executive Committee, as Technical Chair for the IPMI Conference, as the Chair of the Awards Committee and, in 2012, as President of IPMI.

The Junichiro Tanaka Award Distinguished Achievement Award sponsored by The Tanaka Memorial Foundation recognizes important career contributions to the advancement of the precious metals industry, be it technical, economic or management.

Dr. lanniello received a B. S. in Chemistry (Summa Cum Laude) from St. John's University, in 1976, a M. S. in Chemistry, from St. John's University, in 1979, and a Ph.D. in Chemistry, from Rutgers, The State University of New Jersey, in 1982.

Dr. lanniello has over thirty years of experience in both basic and applied research. His graduate work was concerned with the development of biochemical sensors based on chemically modified thermistors and electrodes using enthalpimetric and electroanalytical techniques. He also worked on the chemical characterization of electrode surfaces using various spectroscopic (FTIR, mass spectrometry, ESCA) and thermal analysis (TGA, DTA, DSC) procedures. Early in his industrial career, Dr. lanniello was responsible for method development and problem solving using gas chromatography, high performance liquid chromatography,

and thin layer chromatography on pharmaceutical raw material and dosage forms. Later, he concentrated his research efforts in the areas of electroanalytical analysis of organic impurities, ion chromatography, microscopy (optical, SEM), and general wet chemical testing. He has developed methods for the determination of organic impurities in water-soluble polymers using square wave voltammetry, inorganic and organic acid content of polar organic solvents using ion chromatography and capillary electrophoresis, and analysis of preservatives in cosmetic formulations using liquid chromatography with electrochemical detection. He has published 33 research papers and holds 10 patents. Dr. lanniello has directed the research activities of a product and formulation research development department in the areas of pharmaceutical, agricultural and beverage science and is knowledgeable in emulsion, microemulsion, tabletting, and beverage treatment technologies. He also has experience in the development of formulations in support of products used in the fields of cytology, histology and hematology. He has led research groups in the general field of heterogeneous catalysis. Specifically, he has led new materials R&D, materials characterization, precious metals analysis / methods development, and new technology discovery in the areas of petroleum refining, chemicals, and polyolefin catalysis. He retired as the Vice President of Analytics and Infrastructure, Catalysis Research, in the global Catalyst Division of BASF Corporation. Dr. lanniello supervised a staff of one hundred people. He supervised the activities of all scientific services (analytical, engineering, technical information, facilities) in the North American region and managed annual operating and capital budgets of \$25MM and \$2MM, respectively. Dr. lanniello has been a member and former President (2004) of the governing board of the Eastern Analytical Symposium since 1994, a corporate representative to the Industrial Research Institute, and President of the International Precious Metals Institute (2012). He also was a member of the advisory board (curriculum) of the College of Arts and Sciences of St. John's University (2004 – 2007). He has been

#### Award Winners, from page 1

a member of the Rutgers University Chemistry Department Industrial Advisory Board since 2009. Dr. Ianniello is Adjunct Professor of Chemistry at both Rutgers University (New Brunswick, New Jersey) and Union County College (Cranford, New Jersey).

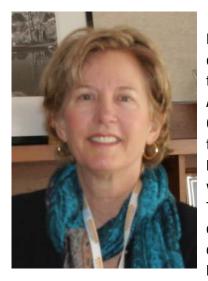
Dr. lanniello is Principal, RMI Consulting LLC where he provides technical consulting services in the areas of industrial heterogeneous catalysis, precious metals sampling, assay, and refining, electrochemistry, and industrial analytical chemistry.

His professional experience includes: Hoechst - Roussel Pharmaceuticals, Quality Assurance Department, Senior Analytical Chemist, 1982-83; GAF Corporation/International Specialty Products, Analytical Department R&D, 1983-93 (Senior Staff Chemist, 1983-85; Group Leader, 1985-89; Section Manager, 1989-93); Pharmaceutical-Agricultural-Beverage Technology Department R&D, Director, 1993-95; Stephens Scientific/Criterion Sciences, Vice President R&D, 1995 - 96; International Specialty Products, PAB Technology Department R&D, Senior Director, 1996 – 1998; Engelhard Corporation, Strategic Technologies, Director, 1998 – 2006, BASF Corporation, Chemicals, Polymerization, and Refining Catalysis R&D, Director, 2006 – 2010, Vice President, Analytics and Infrastructure, 2010 – 2016, RMI Consulting LLC, Principal, 2016 – present.

Dr. Ianiello's memberships include the American Chemical Society, Society for Electroanalytical Chemists, International Precious Metals Institute, Catalysis Society of Metropolitan New York, North American Catalysis Society, and Sigma Xi.

The IPMI Award Committee is pleased to announce that the 2019 IPMI Henry J Albert Award, sponsored by BASF Corporation, has been awarded to Prof. Cynthia Friend, Harvard University, for her outstanding contributions to the scientific understanding of catalysis of precious metals — especially gold. Prof. Friend has performed creative and ground-breaking work in understanding how gold catalyzes selective oxidative coupling reactions. Her work is a great combination of practicality and fundamentals of metal surfaces.

The IPMI Henry J. Albert Award sponsored by BASF Corporation recognizes and encourages outstanding theoretical and experimental contributions to the science and technology of precious metals.



Cynthia Friend is the Director the DOE-funded Energy Frontier Research Center, Integrated Mesoscale Architectures for Sustainable Catalysis (IMASC) and of the Director of the Rowland Institute for Science at Harvard. She is currently the T.W. Richards Professorship of Chemistry and Professor of Materials Science in the Paulson School of Engineer-

ing and Applied Sciences, having joined the Harvard faculty in 1982. She earned her Ph.D. from the University of California, Berkeley in 1981, graduated from the University of California, Davis in 1977 with a degree in Chemistry and was a postdoctoral fellow at Stanford University. Friend's current research is focused on developing solutions to important problems in energy usage and environmental chemistry using heterogeneous catalysis.

Friend has served in in many leadership roles including Director of the IMASC Energy Frontier Research Center at Harvard, Associate Dean of the Faculty of Arts and Sciences at Harvard, as the first and only female Chair of the Harvard Chemistry Dept. and as an Assoc. Director of SLAC National Laboratory at Stanford. Friend has also served on numerous advisory boards, including as Associate Chair of the 2016 DOE Basic Research Needs workshop on Innovation in Instrumentation Science. In addition, she was Sr. Editor of Accounts of Chemical Research and is currently on the Editorial Advisory Boards of ACS Catalysis and ACS Central Science. Due to her involvement in scientific innovation, she was elected to the Board of Directors of Bruker Instruments in 2016.

Professor Friend is the recipient of three national American Chemical Society Awards: the 2017 Award in Surface Chemistry, the 2009 George Olah Award in Hydrocarbon Chemistry and the 1991 Garvan Medal. She is also a fellow of the American Academy of Arts and Sciences, the American Association of the Advancement of Science, and the American Chemical Society and a recipient of a Humboldt Senior Research Fellowship in 2007.

#### Award Winners, from page 2



The IPMI Award Committee is pleased to announce that the 2019 IPMI Carol Tyler Award, sponsored by The BRM Services, has been awarded to Prof. Melanie S. Sanford, University of Michigan, for her pioneer work in the development of unprecedented transformations catalyzed by palladium complexes.

The IPMI Carol Tyler

Award recognizes the achievement of a woman in the field of precious metals be it industry or academia, or it can be presented to a student in precious metals research.

Melanie S. Sanford is currently the Moses Gomberg Distingished University Professor of Chemistry and Arthur F. Thurnau Professor of Chemistry at the University of Michigan, Ann Arbor. She received her B.S. and M.S. degrees at Yale University in 1996

where she carried out undergraduate research in the laboratory of Professor Robert Crabtree. She pursued graduate studies at the California Institute of Technology working with Professor Robert Grubbs. Following postdoctoral work at Princeton University with Professor John Groves, she joined the faculty at the University of Michigan in the summer of 2003 as an Assistant Professor of chemistry. She was promoted to associate professor in 2007, to full professor in 2010, to Arthur F. Thurnau Professor of Chemistry in 2011, and to Moses Gomberg Collegiate Professor of Chemistry in 2012. She has won a number of awards, including the ACS Award in Pure Chemistry, the Sackler Prize, the Blavatnik Award, and a MacArthur Foundation Fellowship. She is a member of the National Academy of Sciences and a Fellow of the ACS. Research in the Sanford group aims to use transition metal catalysis to target new chemical reactions that enable the production of pharmaceuticals, agrochemicals, and fuels in a more efficient and environmentally friendly manner.



Mark your calendars for the...

### International Precious Metals Institute



April 4-5, 2019 Atlanta Airport Marriott Hotel Atlanta, Georgia



## Auto Catalyst & Fuel Cell Seminar

Regulations • Emission Control • Recycling Fuel Cell Technology • PGM Supply & Demand

Sponsorships are still available at all levels. For information please call 850-476-1156

We are proud to name the following sponsor companies as of today:

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Silver Sponsors





## Auto Catalyst & Fuel Cell Seminar Agenda

Wednesday, April 3, 2019

6 pm - 8 pm Welcome Reception / Networking

#### Thursday, April 4, 2019

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|------------------------------|---|--|--|--|
| 7:30 – 8:30 am               | Continental Breakfast   |  |  |  |
| 8:00 am                      | Welcome - Opening Comments Larry Drummond, Executive Director, IPMI   |  |  |  |
| 8:15 am                      | PGM's Market Overview – Setting the Plate for This Year's Conference  |  |  |  |
|                              | Matt Watson - Precious Metals Commodity Management LLC  |  |  |  |
| 9:05 am                      | PGM Mining & Supply Outlook Philip Newman, Metals Focus   |  |  |  |
| 9:55 am                      | Networking Break - 30 Minutes   |  |  |  |
| 10:25 am                     | Future Complexities of Auto Catalyst Configurations, Their Impact on PGM, & the Implications for Collectors     |  |  |  |
|                              | Stewart Brown, Principle Analyst, Johnson Matthey   |  |  |  |
| 11:15 am                     | Trends in Catalyst Technology Innovation & Possible Impacts on PGM Usage Dr. Brad Edgar, 44 Energy Technologies |  |  |  |
| 12:05 pm                     | Lunch Provided - 1 Hour   |  |  |  |
| 1:05 pm                      | Customizing the Pt Recycling, A Future Outlook  A. Semih Sunkar, Purchasing Manager, Dowa / Nippon PGM          |  |  |  |
| 1:55 pm                      | Auto Catalyst Recycle Processing and Challenges Oliver Krestin, MD, Hensel Recycling                            |  |  |  |
| 2:45 pm                      | Networking Break - 30 Minutes   |  |  |  |
| 3:15 pm                      | Recycling of Automotive Catalysts and Fuel Cells  Michelle Lynch, Dir., Enabled Futures                         |  |  |  |
| 4:05 pm                      | Outlook for the use of Precious Metals in Automotive Catalyst and Fuel Cells                                    |  |  |  |
|                              | Jonathan Butler, Precious Metals Strategist & Bus. Dev. Mgr., Mitsubishi  |  |  |  |
| 4:55-5:30 pm                 | Panel: Auto Catalyst Materials & Markets, the Next 5-Years  |  |  |  |
| •                            | Jonathan Butler, Mitsubishi   |  |  |  |
| •                            | Philip Newman, Metals Focus   |  |  |  |
|                              |   |  |  |  |

## Friday, April 5, 2019

5:30-5:40 pm

Dinner

| 7:30-8:30 am | Continental Breakfast  |  |  |
|--------------|--|--|--|
| 8:00 am      | Welcome - Opening Comments   | Larry Drummond, Executive Director, IPMI & Matt Watson, Seminar Chair      |  |
| 8:10 am      | PGMs in the Hydrogen Economy   | Philipp Walter, Sr., VP Product Management & Innovation Chemicals, Heraeus |  |
| 9:00 am      | Precious Metals in Fuel Cells  | Mark Caffarey, Executive VP & N. American Mgr. Recyclables, Umicore        |  |
| 9:50 am      | PGM Markets  | Johann Wiebe, Lead Metals Analyst, Refinitiv                               |  |
| 10:40 am     | Networking Break - 30 Minutes  | PROGRAM  |  |
| 11:10 am     | Fuel Cell Market Research & New Energy Precious Metals Opportunities |  |  |

Matt Watson, Precious Metals Commodity Management LLC

Matt Watson, Seminar Chair

Matt Watson, Seminar Chair

12:00-12:40 pm Panel: Fuel Cell Catalyst & Markets - The Next 5 Years

• Oliver Krestin, Hensel Recycling

• Dr. Brad Edgar, 44 Energy Technologies

Wrap Up Day 1- Closing Comments

Everyone on their own for Dinner

- · Bodo Albrecht, BASF
- Phillipp Walter, Heraeus
- Johann Wiebe, Refinitiv
- Mark Caffarey, Umicore

12:40-12:45pm Wrap Up Day 2 - Closing Comments

12:45 pm Everyone on their own for Lunch

Adjourn – no later than 1pm to allow everyone to get to the airport.

## SECAM Conference a Success

IPMI Security Council Anti Money Laundering Committee met in Fort Lauderdale at the Harbor Beach Marriott March 19-20 with over 50 attendees hearing presentations over a day and half. Presentation topics included Armored Carrier and Logistics Risk Updates, Workplace Violence-Active Shooter, Insurance Industry Update, Crypto Currencies and Financial Crimes Trends, AML Corporate Governance Risk Services Update, and Block Chain Supply

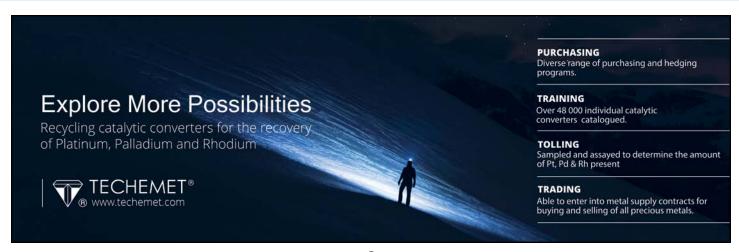
Integrity, and an AML Panel discussion, among others, all very current in today's turbulent socio economic climate. IPMI thanks the SECAM Chairman, Steve Crogan for organizing an informative program. Also many thanks to the attendees, presenters and sponsors: CNT and Metalor for making it a successful event.

Plans are underway for the 2020 Security Council Anti Money Laundering Committee Meeting.









# Register for the 43rd Conference Online!

Be sure and Register for the 43rd Conference before **May 4** to take advantage of the **early bird rate**. You can register online at our website www.ipmi.org

Click on Events Calendar to find 43rd Conference Registration.



Or use this link in your browser

https://www.ipmi.org/events/EventDetails.aspx?id=1207340&group=

## New York Metro IPMI Spring Seminar Wednesday April 17 2:30 PM – 6:00 PM EDT

#### This year's featured speakers and topics:

- Suki Cooper, Standard Chartered Bank Precious Metals Market Overview
- Jeffery Christian, CPM Group PGM Supply and Demand
- Steve Crogan, Blue Water Risk Management *Practical AML Issues and Applications*
- George Ioannidis, Supervisory Special Agent, Financial Investigations, Department of Homeland Security Investigations
- Jennifer Ropiak, Emergent Technologies *Block Chain and Precious Metals*

Location:

#### **Berkeley College**

12 E 41st 2nd Floor New York, NY 2:30 to 4:30 PM

Immediately following:

**Cocktail Hour** at Annie Moore's Bar & Restaurant (upper floor) 22 East 41st, until 6:00 PM

Contact: miguel.perez-santalla@heraeus.com for information on registration.











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Our **Strong Financial Position** and direct relationships with several worldwide market leaders allow us to flawlessly execute your transactions. We offer a variety of settlement options to meet your specific pricing and hedging requirements.

#### Results

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# **INDUSTRY NEWS**

## George Gero Inducted into the FIA Hall of Fame



In recognition of outstanding contributions of members of listed and cleared derivatives, the FIA (Futures Industry Association) established the **FIA Futures Hall of Fame** in 2005.

This year FIA added 13 new members to Hall of Fame. The inductees have earned the respect and gratitude of market participants. Since inception, 144 have been honored for their accomplishments and contributions to the Futures Industry.

**George Gero** is the first IPMI member to be inducted. Congrats George!

## In Memoriam: Scott Smith

On March 6, 2019, Scott Smith, age 63 yrs., of Avalon, NJ and formerly of Abington, PA passed away. He was the beloved husband of Laurie and loving father of Chelsea Hurst, Kylie Bigler, and Quincy Smith.

Scott Smith first and foremost was a husband, father, brother, son and dear friend. He was a leader; he always brought out the best in all those around him. Through vision, discipline, fearlessness, and compassion, Scott led his Pyromet family from 1996 through 2017. His dedication and influence throughout those years has set the tone for our identity today. Scott and Laurie had the vision to purchase Pyromet and elevate a small precious metal refining company to one of the top Photographic & X-Ray film recyclers and suppliers of Silver Anodes for the Electro-Plating Industry. In these most recent years, Scott was able to turn over the reins of the company, which gave him quality time to spend with family and friends to travel, sail, fish and do the things he loved the most.

Scott, we miss you, and you'll always be in our hearts, actions and culture at Pyromet.





We deliver a full range of analytical services to our clients, in addition to providing independent inspection and technical expertise.

The Alfred H Knight North American laboratory is ISO17025 accredited and specialises in analysing precious and platinum group metals in a broad range of commodities.



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In addition to our experienced chemists and technicians, our operations have dedicated teams of knowledgeable support staff committed to assisting our clients in all aspects of precious and platinum group metals inspection and analysis.

AHK North America offers independent inspection, weighing and sampling services to the precious and platinum group metals industry. Our locally based, experienced inspectors cover all major precious metal refineries, producers and re-claimers in the US and Canada.



For more information:



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At the forefront of the **metals** and minerals industry for over 135 years

## ERAC Spring Conference - May 21, 2019

#### Location

**BASF Catalysts Division** 

33 Wood Avenue, Iselin, NJ 08830 Bosch Conference Room #100, 1st Floor

Free shuttle service from hotel to office (5 minute drive by car)

Phone +1 732-205-5000

#### **Accommodations**

Renaissance Woodbridge Marriott

515 US Highway Route 1, South Iselin, NJ 08830

Phone +1 732-634-3600

How to book a room

Please call the Renaissance Woodbridge Hotel and ask for the "BASF rate."

https://www.marriott.com/hotels/travel/ewrwd-renaissance-woodbridge-hotel/

BASF room rate: \$169.00 per night + tax (incl. free wifi)

Total is approx. \$193.00 per night

(2655 Rand, 165 Euro)

Hotel does not provide shuttle service from airports.

Taxis are waiting out the airport or you can pre-book a service:

 GEM Limo – 732-596-0900 (877-GEM-LIMO) http://www.gemlimo.com

• Uber - https://www.uber.com

#### **Directions to Hotel – from Airport by Car**

From Newark Liberty International Airport - EWR

Hotel direction: 13.4 miles South

Take Routes 1 and 9 South to Woodbridge. Follow directions to Route 1 South for approximately 12 miles to the hotel, which is located at 515 Route1 South & Gill Lane. The hotel will be on the right side.

From John F Kennedy International Airport – JFK

Hotel direction: 36.6 miles Southwest

Take Belt Parkway East to Verrazano Bridge towards Staten Island. Continue on RT. Merge to I-278 West to Goethels Bridge.

Follow signs for Route 1&9 towards Woodbridge (12mi). Hotel is on Rt. 1 S on right.

#### **Directions to Hotel – from Airport by Public Transportation**

From Newark Liberty International Airport - EWR

- Alternate transportation: State Shuttle; fee: 35 USD (one way); reservation required
- Bus service, fee: 3.2 USD (one way)
- Train service, fee: 12.00 USD (one way)
- Estimated taxi fare: 40 USD (one way)

#### Visit EWR Airport website

Using the train to get to Hotel Renaissance Woodbridge via Metropark Station

- 1) Take the AirTrain from the Airport Terminals to Newark Liberty International Airport Station to connect to NJ TRANSIT and Amtrak. AirTain makes frequent stops around the airport including airline terminals, parking lots, hotel shuttle areas and rental car facilities.
- 2) From Newark Liberty International Airport Station take the train to Metropark Station in Iselin.
- 3) From Metropark Station take a taxi (6 minutes ride) to Hotel Renaissance Woodbridge

Customers may purchase a ticket to ride on AirTrain from NJ Transit or Amtrak at their train stations and the AirTrain Newark fee (5.50 USD) will be included - one ticket does it all. Payment is made at EWR Airport Station to enter or exit the AirTrain system. More information on the airport train AirTrain here, including maps.

CONNECTIONS Check here NJ TRANSIT train schedule for connections to Metropark.

#### John F Kennedy International Airport – JFK

- Alternate transportation: State Shuttle; fee: 104 USD (one way); reservation required
- Subway service, fee: 8 USD (one way)
- Estimated taxi fare: 125 USD (one way)







# PATRON PROFILE

## The Delaware Depository® Difference

2019 marks **Delaware Depository**'s 20th anniversary. From its inception, Delaware Depository has defined itself on the principles of trust, service and security. These principles, combined with unmatched staff experience, render Delaware Depository unique within the industry.



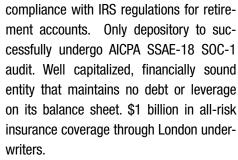
Trust - Customers rely on Delaware Depository for straightforward, honest service from friendly staff, supported by best in class technology. The company prides itself on performing beyond the four corners of its contractual agreements. Highly stringent internal controls, data security, information barriers, counterfeit detection,

weighmaster responsibilities, and unparalleled insurance coverage are just some of the critical factors earning customer trust.

**Service** – The management team alone has over 140 years of cumulative precious metals experience and employee turnover is nearly non-existent. This dedication is demonstrated every day. Customers are confident that depository staff are familiar with their unique account requirements and can handle any service needs, questions or exceptions that may arise.

Security - Security is much more than a strong vault. It comprises physical, electronic, data, information, systems, personnel and financial security. Moreover, internal controls and audit capabilities are the cornerstone of all other systems. Delaware Depository has decades of experience that it has drawn upon to create layer upon layer of customer protections.

**Credentials** – Approved precious metals depository for the CME Group (Nymex and Comex Divisions) and the Intercontinental Exchange (ICE). Qualified depository for mutual fund precious metals assets. Only depository to be a state regulated and examined limited purpose trust company to ensure unquestionable



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offers online access to customers. Non-commercial customers can see their holdings and account activity at any time by logging in at DelawareDepository.com.

Commercial customers can contact us and gain access to reports, statements, data files and submit instructions electronically. Commercial customers can also take advantage of inventory financing through our affiliate, Delaware Finance Company. Retain control of your inventory while making it work for you.

Delaware Depository is one of the nation's largest precious metals IRA sub-custodians. The IRA Gateway enables dealers and IRA custodians to initiate track and settle

IRA transactions electronically. The platform expedites the process and provides transparency and eliminates risk for all parties. These services and more are available at our Delaware and California locations.

We recognize the contributions of industry organizations like IPMI and others while we celebrate our 20th anniversary. gether we are able to better serve the industry as a whole.

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info@delawaredepository.com



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## **IPMI®** Calendar

| 2019 | Apr 4-5   | Auto Catalyst & Fuel Cell Seminar • Atlanta Airport Marriott Hotel, Atlanta, GA   |
|------|-----------|---|
|      | Apr 17    | NY Metro Chapter Spring Seminar • Berkeley College, New York, NY                  |
|      | May 21    | ERAC Spring Conference • BASF Catalysts Division, Iselin, NJ                      |
|      | Jun 15-18 | IPMI Annual Conference ● Peppermill Resort, Reno NV                               |
|      | Sep 12    | 7 <sup>th</sup> Annual IPMI Platinum Dinner ● New York Palace Hotel, New York, NY |
| 2020 | Feb 10-12 | PRC / SAC Meeting • Houston, TX   |
|      |           |   |