



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 42, Number 11

November 2018



IPMI Attends LBMA Conference in Boston

The IPMI was well represented in Boston at the LBMA Conference. For the first time IPMI had a booth in the Exhibit Hall where IPMI Executive Director Larry Drummond and Administrative Manager Sandra Arrants greeted early attendees. Many of the 600 delegates who stopped by learned more about IPMI and watched an informative video that highlighted its origins, membership, interest groups and its overall education mission. IPMI members also attended the event, including IPMI Board members Oliver Krestin and Becky Berube, who took the initiative to promote the Institute, sharing their own membership experience and its positive and beneficial impact on their businesses.



PATRON PROFILE



TRANSPORTATION OF VALUABLES

MORE THAN **27 YEARS** OF
EXPERIENCE IN THE INDUSTRY



Transvalue, Inc. is aware of the importance of security and time efficiency in this industry. Our services provide peace of mind to our clients, as we offer management of the entire logistical process including:

- Coordination of your shipments customized to fit your business
- Transport of commodity from mining sector to refineries
- Submission of customs clearances
- Secure storage

www.TRANSVALUE inc.net

7421 N.W. 7th Street
Miami, Florida 33126
Phone: 305.592.0997
Fax: 305.263.3211

Focus on Precious Metals: IPMI at Glasstec, Germany

Glasstec 2018, the world largest trade fair for the glass industry, took place in Duesseldorf, Germany from October 23rd through October 26th. 1,162 exhibitors featured their state-of-the-art manufacturing technology, introduced new products, and presented new developments and applications.

Due to the special nature of the glass production, high-temperature and corrosion-resistant materials are needed, which brings us to precious metals, more specifically platinum. Its use ranges from bushings for extrusion of fiber glass to tubes and stirrers used in melting processes. Platinum or platinum-alloy thermocouple wires provide accurate temperature readings in extremely hot environments. Silver finds its application in antimicrobial coatings on smart phone screens.

Because of these uses a number of members of the International Precious Metals Institute (IPMI) attended or exhibited at Glasstec. Zbigniew (Zibi) Milkiewicz of Refinery Group, Poland, and member of IPMI's Marketing Committee took the opportunity

to promote the Institute and shared the many benefits with attendees. He particularly mentioned our 2019 Annual Conference in Reno, Nevada starting on June 15th until June 19th. Mark your calendars, it will be an interesting event with people attending from all over the world.

Thanks to all the exhibiting member companies who displayed IPMI business cards inviting visitors to learn more about the Institute.

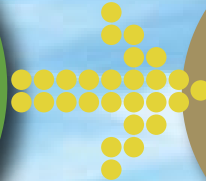
Would you like to learn more? Please visit our website www.ipmi.org or call Sandra Arrants at +1 (850) 476-1156. She will be happy to answer all your questions.

glasstec

INTERNATIONAL TRADE FAIR FOR GLASS
PRODUCTION • PROCESSING • PRODUCTS

23-26 OCTOBER 2018
DÜSSELDORF, GERMANY





Refine Your Assets With the Leader For Maximum Value



Capabilities

The combination of state-of-the-art equipment using leading edge technology and our highly trained, knowledgeable staff allows us to process material for **Diverse** industries.



Environmental Footprint

We are committed, responsible stewards of the environment. Our facilities are **Zero Discharge** and feature the most sophisticated pollution control systems in the industry.



Financial Strength

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

A singular focus on your bottom line drives us to use the **Optimal** refining processes every time. Partner with us for transparent, timely and accurate settlements, coupled with superior customer service.



GANNON & SCOTT
Advancing Precious Metals Refining & Assaying Since 1919



East Coast/Corporate Offices - 33 Kenney Drive, Cranston, RI 02920
 West Coast - 2113 East Sky Harbor Circle South, Phoenix, AZ 85034
 800.556.7296 - www.Gannon-Scott.com

IPMI's 43rd Conference Update

IPMI's 43rd Conference will be held June 15-18 at the Peppermill Resort in Reno Nevada. After years of being associated with the Marriott brand, IPMI is going for a change in 2019. A downtown venue that is a resort itself, the Peppermill will offer the delegates spacious sleeping rooms, five restaurants, a spa, and a luxurious pool area. In addition, golf is nearby.

The Conference will begin on Saturday June 15 with a Welcome Reception, this year Sponsored by Gannon & Scott who are

celebrating their 100th Anniversary. The Sessions and the Exhibit Hall will start on Sunday June 16. Sessions and Exhibit Hall will continue on Monday the 17th and conclude on Tuesday the 18th. The Conference will adjourn on Tuesday evening after the Closing Reception.

The Technical Committee and the Marketing Committee are busy working on the technical and social programs and there will be more to report in the next issue.



One of the world's largest recyclers of scrap automobile catalyst

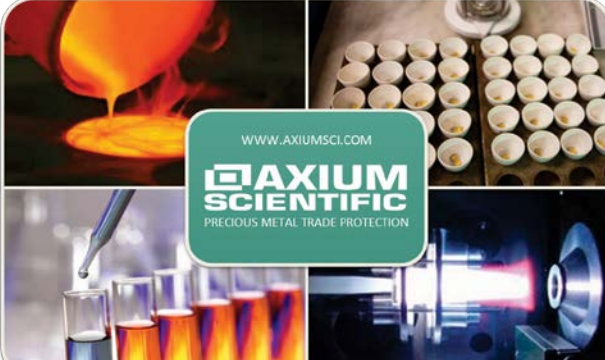


TECHEMET

www.techemet.com +1-281-991-8300

A photograph of a broken metal catalyst converter, showing its internal structure. The converter is cylindrical and appears to be made of a dark, possibly oxidized metal. The broken pieces are scattered around the main body of the converter.

REPRESENTATION & ANALYSIS



WWW.AXIUMSCI.COM

**AXIUM
SCIENTIFIC**
PRECIOUS METAL TRADE PROTECTION

A collage of four images related to scientific analysis. The top left image shows a glowing orange liquid being poured into a container. The top right image shows a tray of small white vials. The bottom left image shows a test tube with a blue liquid. The bottom right image shows a glowing blue object, possibly a piece of metal or a component of a machine.

MARKETING@AXIUMSCI.COM | SPARKS NV | 775.771.6771



ALFRED H KNIGHT

**GLOBAL METALS &
MINERALS SPECIALISTS**

'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.

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:

✉ us.enquiries@ahkgroup.com

🌐 www.ahkgroup.com/NorthAmerica



ALFRED H KNIGHT

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

2019 IPMI Premier Industry Awards

The IPMI Awards Committee is now seeking nominations for the 2019 Premier Industry Awards!

The following three (3) Awards will be presented during the 43rd Annual International Conference to be held June 15-18, 2019 at the Peppermill Resort in Reno, Nevada.

The first award is the **IPMI Jun-ichiro Tanaka Distinguished Achievement Award**. It recognizes career contributions to the advancement of the precious metals industry, be it technological, economic or management. The award includes a \$5,000 prize and complementary registration at our International Conference.

The second award is the **IPMI Henry J. Albert Award**, sponsored by BASF Corporation. It recognizes outstanding theoretical, experimental or engineering contributions to the science and technology of precious metals. The award includes a \$5,000 prize and complementary registration at our International Conference.

The third award is the **IPMI Carol Tyler Award**. It recognizes the achievement of a woman in the precious metals industry, precious metals academia or graduate student in precious metals research. This includes a \$5,000.00 prize and complimentary registration at our International Conference.

Please go to the IPMI website, <http://ipmi.org/awards/index.cfm> for short videos describing our awards and scholarships as well as for lists of past award recipients.

Send a letter of nomination along with curriculum vitae, if appropriate, a list of contributions and achievements and any other supporting documentation in one pdf file by email to: mail@ipmi.org Please put "**Premiere Award Nomination**" in the subject line on the email.

Nominations should be mailed **no later than January 20, 2019**.

2019 IPMI Student Awards

To support **research focusing on precious metals**, IPMI awards scholarships worth more than US \$100,000 every year. These scholarships include:

• IPMI Student Awards

Up to 3 IPMI-sponsored Student Awards in the amount of up to US \$20,000 each, and US \$5,000 for one of the student advisors.

• IPMI Corporate Student Awards

Several corporate-sponsored Student Awards in the amount of US \$5,000 each sponsored by some of the most prestigious companies in the precious metals industry.

Eligibility

Students applying for an IPMI Student Award have to be enrolled in an academic training program (Masters, Ph.D., Post-doctoral research) performing fundamental or applied research focusing on any precious metal (Au, Ag, Pt, Pd, Ir, Rh or Ru), be it on the scientific side (catalysis, material, mining, refining, etc.) or on the commercial side (finance, marketing, etc.). Their expected graduation date must not be within the same year in which the award is received (e.g. an award winner of 2019 may not graduate before 2020).

Documents

The following application documents are required:

1. Student CV (resume);
2. Executive Summary of the research (maximum half-page), indicating the program the student is enrolled in, as well as the expected end-date of the program;
3. Short research plan (maximum 2 pages) detailing research performed so far with results, as well as planned projects during the remaining time of the education program;
4. Nomination/recommendation letter (maximum 1 page) from the supervising professor;

Students are welcome to add any other document they deem pertinent to their application (e.g. published papers, extended research details, academic grades, etc.).

Please submit one single pdf file containing all required documents; the file name should be as follows: "student last name student first name-academic institution" (for example: Smith John-Columbia University USA).

Please mail the pdf application to: mail@ipmi.org

continued on page 9



Alex Stewart International Corporation



Alex Stewart International provides inspection, weighing, sampling and assay services for the global precious metal industry, including all major and reputable UK, USA, Asian, African and European precious metal refineries.

Your Global Network of Inspection & Analytical Laboratory Services

Alex Stewart (International) Corporation

2b Sefton Business Park, Aintree, Liverpool L30 1RD United Kingdom

T: +44 151 525 1499 **F:** +44 151 523 3760

All PM enquiries, please contact Mr. Andy Smith **E:** andy.smith@alexstewartinternational.com

www.alexstewartinternational.com

Student Awards, continued from page 7

Student Award Winners

The student award winners are expected to attend IPMI's Annual Conference in Reno, NV (USA) in June 2019, present their work in the Student Research Session and join the conference events. They will have many opportunities to meet and interact with people from the precious metal industry.

Students joining the conference will be reimbursed by IPMI (economy flights, to be purchased at the lowest available rate). Conference registration (including meals) and hotel reservation will be made by IPMI.

Timeframe

Date

20 January 2019
31 March 2019
15-18 June 2019

Action

Deadline for submitting application
Award winners will be notified
Conference in Reno, NV

Contact

For questions or for additional information, please contact:
mail@ipmi.org

43rd Conference Call for Papers

The IPMI 43rd Conference will be held at the Peppermill Resort in Reno, Nevada, June 15-18 2018. Our Technical Program, following the format for 2018, is restructured to allow for a more scientific and informative approach and at this time we are officially submitting a Call for Papers.

- Potential Speakers Must Submit Abstract to IPMI by January 31, 2019
- Abstracts will be Vetted by the Technical Chairs and Selected Speakers Confirmed by March 1, 2019.
- Any papers that are "Marketing Oriented" will be assigned to the New Technology: What's on the Horizon session

Topics for Papers

- Sampling and Analysis
- Hedging/Finance/ Market Analysis
- Environmental/Legal/Regulations/Insurance
- New Technologies
- Mining
- Security

Please submit your abstract including Title by **January 31, 2019** to mail@ipmi.org



QML Inc. Global Sourcing and MST Domestic Refining



(401) 490-4555
email: sales@qml.us
www.qml.us

**In a sea of refiners, we are
THE BETTER CHOICE.**

(401) 762-0094
email: sales@mstllc.us
www.qml.us/mst

2018 European Chapter Seminar



The 2018 Seminar of the European Chapter of the IPMI took place in Budapest, 12-13 November. The event was held at the Hilton Budapest, in the center of the historic castle, where a great view on the whole city welcomed our participants.

As it was the case in 2017, the event was completely sold-out, and although we were able to increase the capacity to 160, we had to refuse a significant number of tentative registrations; hence booking early for 2019 would be highly recommended.

The format of the seminar was unchanged - General Assembly on Monday morning, two half-days of Seminar on Monday afternoon and Tuesday morning, Welcome drinks and Dinner on Monday evening.

Thanks to our **sponsors** (Platinum : Nippon PGM; Gold : affinia recycling, Metalor & Sabin Metal; Silver : Techemet, Hensel Recycling, Oegussa, Remondis & Johnson Matthey), we were able to keep the registration fee at a very low level. Typically, EC members got an early bird rate of 330 EUR only.

On Monday afternoon, **Stephen Forrest (SFA)** covered the PGM supply through a very interesting journey on the **South African mining industry**. It was especially surprising for many to learn that with the cost of mining in South Africa raising steeply over the last years, many mines have been underwater several

months in 2018, and are currently only profitable because of their revenue on minor PGM (Ir, Ru, Rh). On the market side, Stephen expects a strong deficit in Ru and Ir stocks as non-profitable mines and mines reaching their end-of-life cycles will close soon in South Africa.

Rhodium, one of the rarest precious metal, was covered by **Tony Dobra (Baird & Co)**. Its main usage is for 3-way car catalysts, and 80% of the rhodium mined worldwide comes from South Africa. This highly volatile metal raised to 10'000 US\$/ounce in 2018, dropped below 1'000 US\$/ounce 2 years ago, eventually recovering to 3'000 US\$/ounce now. Several ETFs have been created recently, as well as a legal tender coin (100 dollars coin in Tuvalu), generating new interest for that metal.

Jonathan Butler (Mitsubishi Corp.) gave two papers back-to-back! The first one was on **Ruthenium**, the best 2018 performer within the precious metals! This metal has a very varied demand, covering chemical (especially nylon and acetic acid production) and electrical (hard disk drive, chip resistors, micro electromechanical sensors MEMS) applications. Some trends could however be detrimental for Ru, for example the increased usage of SSD - not containing any Ru - rather than

[continued on page 11](#)

2018 European Chapter Seminar, continued from page 10

HDD. In agreement with Stephen's comments, Jonathan is expecting a ca. 105 koz net decline in South African Ru between 2017 and 2022. Although the deficit is increasing, there is still plenty of stock with producers and fabricators.

After a break, **Iridium** was discussed. Ir prices have grown steadily over the last 3 years (2016 +30%, 2017 +4%, 2018 +53%), reaching a point where Ir is more valuable than Au - which has not happened over the last 20 years. At the same time, Ir market is still very small - 250 koz annually. Electrical demand is mostly in crucibles (for example to manufacture sapphire glasses), but applications for LED and OLED are also found - Ir would typically produce brighter red and green colours. Spark plugs - using an iridium tip - are also currently consuming a significant amount of the metal, but it could be limited by future electrification of the vehicles. Another risk on Ir is the current trade war between US and China, which could be detrimental for electronic consumer products. Unlike other PGMs, Iridium total supply from South Africa is expected to be flat over the 5 next years.

On the following morning, **Laura Cole (JM)** discussed the use of **Palladium** in catalysis. As we all know, palladium demand is dominated by automotive use - reaching 8.53 Moz in 2018 and representing roughly 75% of the total consumption, with other applications in jewellery, electronics, dental and process catalysts. Laura explained that there are no readily available Pt/Rh and Pt/Pd/Rh solutions to replace currently used Pd/Rh catalysts. The automotive demand is 105.8 t/year, to compare with 192.1 t/year of mining supply & 62.7 t/year of recycling supply. For process catalysts, 48% of global demand came from China in 2018 (220 koz) - a much higher amount than Europe and its 60 koz annual consumption. Historically, the main demand for palladium catalysts came from synthesis of purified terephthalic acid (TPS), with other applications for HPO in caprolactam, coal-to-monoethylene glycol, hydrogen peroxide and of course pharma and supported catalysts.

Semih Sunkar (Nippon PGM) gave an interesting paper on **Platinum** demand and outlook, drawing a worrying comparison between Pt and Ag... Photography demand for silver used to represent 40% of the total demand for that metal, eventually dropping below 5% with the apparition of numeric cameras... A similar outlook could be seen for platinum, should the combustion

engines and catalytic converters disappear... and fuel cells not be able to take over electric and plug-in vehicles.

Serge Gambs gave an update on the current market conditions for **Gold**, insisting on the significant overcapacity found on the refining side: there are 32 refineries in India & 15 in Dubai, and worldwide there is in total 3 times the capacity of the yearly available volume to be recycled. Serge presented, country by country, many interesting facts related to local and global demand and offer.

Junlu Liang (Metal Focus) discussed about **Silver**, a metal whose price has been decreasing almost continuously over the last decade. Silver industrial applications are often associated with photovoltaic cells. But the silver loadings for such application has decreased by 70% from 2010, and this tendency will continue over the next years. At the same time, a large range of applications are found in automotive, as that metal is found in multiple devices including LEDs, actuators, heated seats and batteries. With the silver content in cars increasing and the number of cars to grow, the automotive industry is likely to be a key factor of the Ag demand over the next years. Flexible electronics and 3D printing could also be applications generating a demand for Ag in the future.

Final paper was given by **Neil Harby, Chief Technical Officer of the LBMA**. With 4800 t of gold going annually through LBMA refineries, the key role of this association is well established - as a matter of fact, 85-90% of the annual world gold production is supposed to be handled by the 68 LBMA Gold Good Delivery Refiners. LBMA has recently been extensively working on the Gold Bar Integrity, through a Request for Proposal on supply chain provenance and security feature. The presentation also led to many questions from the audience, as many were surprised to learn that being on the Good Delivery List does not guarantee acceptability of 400 oz bars on the London market.

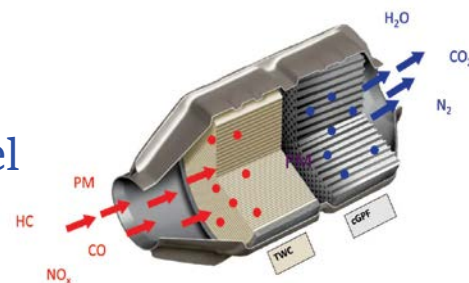
IPMI® Calendar

2019	Feb 5	SAC Meeting • Marriott Hotel, George Bush Airport, Houston, TX
	Feb 6	PRC Meeting • Marriott Hotel, George Bush Airport, Houston, TX
	Mar 18-20	SECAM Meeting • Marriott Harbor Beach Hotel, Ft. Lauderdale, FL
	Apr 4-5	Auto Catalyst & Fuel Cell Seminar • Atlanta Airport Marriott Hotel, Atlanta, GA
	Apr 17	NY Metro Chapter Spring Seminar • New York, NY
	May 21	ERAC Spring Conference • BASF Catalysts Division, Iselin, NJ
	Jun 15-18	IPMI Annual Conference • Peppermill Resort, Reno NV

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