

**PRECIOUS METALS NEWS**

# **ARIZONA DREAMIN'**

A Closer Look at the IPMI 47th Annual Conference

**Upcoming IPMI  
Events Calendar**

**Precious Metals  
Industry News**

**PLUS:  
Info & Links for the  
47th Annual Conference**





## 47th Annual Conference

June 10-13, 2023



If You Haven't Done So, IPMI Members Need to Sign up Once on the Website to Get the Member Rate \*

**SIGN UP**



Early Registration for the 47th Annual Conference Ends May 5th. Register Now and Save Money!

**REGISTER**



The IPMI Room Block Ends May 16th. Book Your Room at the Hotel Today. Don't Get Stuck By Waiting!

**BOOK A ROOM**

\* In order to be recognized as an IPMI member in the new Glue Up CMS system, you need to register once on the new website, using the email address and password that you have always used on ipmi.org in the past. [Full instructions can be found via this link.](#)

## Agenda

### Saturday June 10

7:00 AM

#### **IPMI Golf Tournament at the Phoenician Golf Club - Shotgun Start**

Golf Breakfast, Longest Drive and Closest to Pin - Sponsored by Auramet

Longest Drive Sponsored by CAC Specialty Natural Resources

Hole in One Sponsored by Hugh Wood

Golf Trophies Sponsored by Axium Scientific

8:00 AM - 5:00 PM

#### **Registration Room Opens**

Registration Room Sponsored by Heraeus

9:00 AM - 4:00 PM

#### **The Meeting Place ... an informal area to hold meetings.**

Sponsored by Sims Lifecycle Services

3:30 - 5:00 PM

#### **Women of IPMI**

Sponsored by FideITrade and Delaware Depository

5:00 - 6:00 PM

#### **Student Meet & Greet**

— by invitation only

6:00 - 8:00 PM

#### **Welcome Reception**

Sponsored by Johnson Matthey

8:00 - 10:30 PM

#### **Dueling Piano Bar**

Entertainment Sponsored by Dillon Gage

Open Bar Sponsored by RS Bruce

Dessert Sponsored by Techemet



# 47th Annual Conference

June 10-13, 2023

## Sunday, June 11

7:30 AM

### **Continental Breakfast**

Sponsored by Hensel Recycling

7:30 AM - 3:00 PM

### **Registration**

Registration Room Sponsored  
by Heraeus

8:00 AM - 4:00 PM

### **Exhibit Booths**

8:00 AM - 4:00 PM

### **The Meeting Place ... an informal area to hold meetings**

*Sponsored by Sims Lifecycle  
Services*

### **Technical Sessions**

Sponsored by Reldan

### **Wi-Fi**

Sponsored by Metallix

9:30 AM - 2:30 PM

### **Spouse Event**

Brunch (at the Mowry and Cotton)  
followed by the Drink and Doodle  
(Mesquite)

8:30 - 10:00 AM

### **Session A - World of PM Finance - Jonathan Butler, Moderator**

#### **Presenters:**

Jonathan Butler, Mitsubishi -  
Demand - PGM Demand in a  
Changing Economic Landscape  
Wilma Swarts, Metals Focus-  
Supply - Implications of Tightening  
Margins on Miners and Recyclers  
Expansion Plans

#### **Panelists:**

David Holmes, Heraeus  
Grant Stewart, Sibanye Stillwater  
Wilma Swarts, Metals Focus-  
Supply  
Thierry Van Kerckhoven, Umicore

10:00 - 10:15 AM

### **Morning Break**

Sponsored by CIBC

10:15 - 11:30 AM

### **Session B - Alternative Energy & Future Impact on PGM's**

Matt Watson, Moderator

#### **Presenters:**

Stewart Brown, Johnson Matthey  
- PGM in the Hydrogen Economy,  
Addressing Availability Challenges  
Matt Watson – Precious  
Metals Commodity Mgmt. LLC-  
Alternative Energy & Future  
Impact on PGM's

#### **H2 Economy Panel:**

Stewart Brown, Johnson Matthey  
Bodo Albrecht, BASF

11:30 - 1:30 PM

### **Member's Meeting and IPMI Luncheon**

Sponsored by BASF

1:45 - 3:00 PM

### **Session C - World of PM Finance - Gold & Silver**

Philip Newman, Moderator

#### **Presenters:**

Rohit Savant, CPM Group - The  
Gold Market Outlook

Bart Melek, TD Securities - Silver  
Has Game

#### **H2 Economy Panel:**

All Presenters plus  
Steve Scacalossi, CIBC  
Keith Weiner, Monetary Metals

3:30 - 4:30 PM

### **Young Professionals Social**

Sponsored by United Catalyst

5:00 - 6:00 PM

### **Premier Member Social**

— *by invitation only*

6:00 - 8:00 PM

### **Tanaka/Metalor Reception**

8:00 - 10:30 PM

### **The IPMI Concert Event - Radio Gaga Tour: The Music and Spirit of Queen meets Lady Gaga**

#### **Sponsors:**

Open Bar: PGM of Texas  
Dessert Sponsor: Loomis  
Entertainment Sponsors  
Platinum: KBI, Multimetco  
Gold: Colt Refining, Mitsubishi,  
Rand Refinery, Hugh Wood  
Silver: Cotenca, United PMR

*Additional Sponsorships Available*



# 47th Annual Conference

June 10-13, 2023

## Monday, June 12

7:30 AM

### **Continental Breakfast**

Sponsored by PMR

7:30 AM - 2:00 PM

### **Registration**

Registration Room Sponsored  
by Heraeus

8:00 AM - 4:00 PM

### **Exhibit Booths**

8:00 AM - 4:00 PM

### **The Meeting Place ... an informal area to hold meetings**

*Sponsored by Sims Lifecycle  
Services*

### **Technical Sessions**

Sponsored by Reldan

### **Wi-Fi**

Sponsored by Metallix

8:30 - 9:45 AM

### **Session D - Sustainability ESG**

Jimmy Gavilan, Sam Sabin  
Moderators

#### **Presenters:**

John Mulligan, WGC - Gold  
Industry Responsible and  
Sustainability Principles  
Malcom Harris, Novisto - ESG  
Metrics and Reporting Platform  
Nirali Shah, Responsible Gold -  
Digitization and Tokenization Gold  
Provenance Platform

#### **Panelists:**

Panelists will be all the presenters

9:45 - 10:00 AM

### **AM Break**

Sponsored by PMR

10:00 - 11:15 AM

### **Session E - Responsible Sourcing**

Monica Mellas, Moderator

#### **Presenters:**

Neil Harby, LBMA - LBMA  
Responsible Sourcing  
Jonathan Butler for LPPM -  
Accepting Responsibility – The  
LPPM's Programme and the PGM  
Supply Chain  
Randy Weirnerman, Mitsubishi -  
US Corporate Transparency Act

#### **Panelists:**

All Presenters plus  
Ruth Leland, Johnson Matthey  
Samantha McCourt, Metalor

11:15 - 12:30 PM

### **Session F PGM & AutoCat Recycling and Refining**

Mark Caffarey, Moderator

#### **Presenters:**

Mohammed Doost, pH7 -Circular  
Economy for the Green Transition:  
An Overview of pH7 Technologies'  
Sustainable Process  
Don Weatherbee, Regenx Tech  
Corp. - The Future of Precious  
Metal Recovery – An Introduction  
to Regenx

#### **Panelists:**

All Presenters plus  
David Carl, BASF  
Lee Hockey, Lee Hockey  
Consultancy

1:45 - 3:00 PM

### **Session G - Jewelry**

Zibi Milkiewicz, Moderator

#### **Presenters:**

Gaetano Cavalieri, CIBJO - A  
Holistic Approach to Responsible  
Sourcing and Supply Chain  
Integrity in the Jewelry Industry  
Joe Cavatoni, World Gold Council  
- Gold Demand for Jewelry -  
Past, Present Trends and Future  
Possibilities  
Elan Farbiarz, Italpreziosi -  
Sourcing the Jewelry Supply  
Chain Ethically: Today and  
Tomorrow

3:00 - 5:00 PM

### **Afternoon Party**

Sponsored by Gannon and Scott

5:00 - 6:00 PM

### **Happy Hour**

Sponsored by Bureau Veritas

6:00 - 8:00 PM

### **Sabin Metal Corporation Reception**

8:00 - 10:30 PM

### **One of These Nights - A Tribute Concert to the Music of The Eagles**

Sponsored by Mastermelt





# 47th Annual Conference

June 10-13, 2023

**Tuesday, June 13**

7:30 AM

**Continental Breakfast**

Sponsored by Brinks

7:30 AM - 12:00 PM

**Registration**

Registration Room Sponsored  
by Heraeus

8:00 AM - 12:00 PM

**Exhibit Booths**

8:00 AM - 12:00 PM

**The Meeting Place ... an  
informal area to hold meetings**

*Sponsored by Sims Lifecycle  
Services*

**Technical Sessions**

Sponsored by Reldan

**Wi-Fi**

Sponsored by Metallix

8:30 - 9:45 AM

**Cybersecurity Workshop**

Scott Schwartz, FidelityTrade  
*Open to All*

9:45 - 10:00 AM

**AM Break**

*Sponsored by Techemet*

10:00 - 11:15 AM

**SAC Workshop**

Algis Naujokas, Sabin Metal  
and Stacey Santolli, BASF

**Presenters:**

Jonathan Jodry, Metalor - A Deep  
Dive into Method Validation

Panelists:

SAC Round Robin discussion and  
path forward - Algis Naujokas and  
Stacey Santolli

*Open to All*

11:15 - 12:00 PM

**New Horizons**

Federico Pardon, IKOI

**Presenters:**

*Steve Izatt, IBC Advanced  
Technologies - Achieving Iridium  
Sustainability from Spent*

*Secondary Sources*

*Federico Pardon, IKOI,*

*Moderator - Mechanical Operation  
for Producing Silver Bars: A More  
Sustainable Alternative*

*Luca Fiorini, Tera Automation*

*- Vacuum tunnel furnace for  
continuous production of Pt/Pd/  
Au/Ag bars*

*Calvin Rey, Precient Technologies*

*- Membrane Biofilm Reaction*

*Ingo Wolf, Osmium Institute*

*- International Expansion of  
Crystalline Osmium Business*

*Bradley Lusk, Precient*

*Technologies - Using the*

*Membrane Biofilm Reactor (MBfR)  
to Recover Platinum Group Metals*

*(PGM), Rare Earth Elements*

*(REE), and Valuable materials as*

*Nanoparticles from Wastewater*

*Open to All*

12:30 PM

**Student Lunch**

*— by invitation only*

Sponsored by IPMI European  
Chapter

1:30 - 2:45 PM

**Student Presentations Part 1**

*Open to All*

2:45 - 3:00 PM

**PM Break**

3:00 - 4:15 PM

**Student Presentations part 2**

*Open to All*

6:00 - 7:00 PM

**President's Reception**

Sponsored by Umicore

7:00 - 9:00 PM

**Awards Banquet**

Wine Sponsored by QML  
*Entertainment Sponsorship  
is Available*

9:00 - 10:00 PM

**Closing Dessert Reception**

*Sponsorship is Available*





**The Phoenician**  
6000 E Camelback Rd  
Scottsdale AZ 85251  
480-941-8200

# 47th Annual Conference

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## Sponsorships

**These Sponsorships are Available**

### Phone Charging Stations

Two stations each holding 8 phones. Each will be positioned near the session room and registration room so that when a delegate needs to recharge their phone your logo and marketing message will be front and center! Logos will be wrapped around the stations. Same design or two different ones. Supply your logo and message and we do the rest.

**Pricing: Two for \$5,000.**

### Hand Sanitizer Stations

Two stations with each one being positioned near the Session Room and Exhibit Hall. Your logo and marketing message will be wrapped around the station. You can have up to two different designs. Supply your logo and message and we will do the rest.

**Pricing: Two for \$3,500.**

### Available Sponsorships

#### Sunday Entertainment

Platinum \$5,000

Gold \$3,500

Silver \$2,500

Awards Banquet Entertainment \$4,000

Awards Banquet Dessert \$4,000

To get more information, please contact Sandra at [mail@ipmi.org](mailto:mail@ipmi.org)

### Golf Sponsorships

#### Lunch

After the round lunch will be served at the Phoenician 19th Hole Grill. Signage and announcements will acknowledge your sponsorship.

**Pricing: \$2,500.**

In addition to the above acknowledgement and signage ALL SPONSORSHIPS will be listed in the Agenda as well as on the Conference Sponsor Board near the Registration Room. All sponsorships will be on the Conference App as well as the IPMI website. To get more information, please contact Sandra at [mail@ipmi.org](mailto:mail@ipmi.org)

# Register today! Spouse Program IPMI Conference 2023



## *A treat for your spouse*

An extended weekend in the luxurious Phoenician.

Enjoy the beauty of the desert, connect and chat with other spouses, relax, and have some fun painting your own masterpiece.

## *Explore nearby attractions*

Visit the Desert Botanical Garden.  
Hike one of the many trails in the Camelback Mountain.  
Stroll through the Phoenix Zoo.

## *Enjoy the evening events*

Evening Receptions with food, wine, and great conversations. Dueling Pianos. Radio Gaga Concert. Eagle Tribute.

## *Detailed program*

Please scroll to the next page.

Registration:

Please contact Sandra Arrants at [maileipmi.org](mailto:maileipmi.org) for details or go to [www.ipmi.org](http://www.ipmi.org).



**IPMI** 

Register today!

# Spouse Program IPMI Conference 2023

## Events For Spouses To Enjoy:

### Highlights on Saturday

- Ladies of IPMI at 3:30pm in The Salon, chat and enjoy a glass of wine.
- Welcome Reception in the East Foyer at 6:00pm with appetizers, desserts, and wine.
- Dueling Pianos in the Estrella Theatre at 8:00pm.

### Highlights on Sunday

- Sunday Brunch in the Mowry and Cotton Restaurant at 9:30am followed by Drink & Doodle with Laura in the Mesquite Board Room.
- Delegate Lunch in the Camelback Ballroom L at 12:00noon.
- Metalor Tanaka Reception in the Ballroom EFG at 6:00pm with appetizers and wine.
- Radio Gaga Concert: Tribute to Lady Gaga and Freddy Mercury in the Camelback LMN at 8:00pm.

### Highlights on Monday

- Afternoon Party on the Orchid Lawn at 3:00pm with refreshments.
- Happy Hour in the Salon at 5:00pm.
- Sabin Reception in the Ballroom EFG with appetizers and wine at 6:00pm.
- Eagles Tribute in Camelback Ballroom at 8:00pm.

### Highlights on Tuesday\*

- President Reception in the Camelback Foyer at 6:00pm.
- Awards Banquet in the Camelback Ballroom K at 7:00pm.
- Dessert Reception in the Camelback Foyer at 9:00pm.

\*The Presidents Reception, Awards Banquet, and Dessert Reception are not included in the Spouse Program and require separate registration.



**IPMI** 



# Regulatory and Legislative Affairs Update

**EPA proposed sweeping emissions cuts for new cars and trucks through 2032, a move it says could mean two out of every three new vehicles automakers sell will be electric within a decade**

Under the EPA proposal, carbon dioxide emissions for new cars and light trucks would need to fall by 49 percent on average from 2027 to 2032.

Although the new proposal does not mandate a certain percentage of EV sales, but rather mandates rapidly decreasing average fleet CO2 emissions, automakers will likely lean heavily on battery electric vehicles.

Therefore, the new tailpipe rules proposed by EPA could push electric vehicles to make up two-thirds of new car sales in US by 2032.

[You can read the full IPA Policy Update via the link.](#)



# John Antonacci Promoted to VP of Sales & Marketing at Gannon & Scott

## George Lucas Hands the VP Keys to John Antonacci

Gannon & Scott is pleased to announce the promotion of John Antonacci from Director of Marketing and Strategic Accounts to Vice President of Sales & Marketing. In his new role, Antonacci will oversee both the sales and marketing departments and work closely with the executive team to develop and implement strategies that drive growth and profitability.

“John has been a driving force behind our marketing efforts over the past three years, and we are excited to have him take on this expanded role,” said CEO Joe Peixoto. “His leadership, strategic thinking, and 17 years of Precious Metals experience have been instrumental in elevating our brand and expanding our market share. I have no doubt he will continue to bring the same level of dedication and passion to his new position.”

George Lucas, who previously held the VP position, will be stepping down to pursue a CEO position at Accurate Converters, a leading buyer, processor, and refiner of catalytic converters. “We are incredibly proud of George and his many accomplishments during his time with us. He has been an integral part of our team for many years, and we are grateful for his contributions,” said Peixoto. “We wish him all the best in his new role.”

Reflecting on his time at Gannon & Scott, George Lucas stated, “I have truly enjoyed my time at Gannon & Scott and am grateful for the opportunity to have worked with such a talented team. I am excited to take on this new challenge at Accurate Converter and look forward to the company’s continued growth.”

Antonacci expressed his appreciation for Lucas’s leadership and accomplishments and looks forward to building on his efforts. “I am honored to take on this new role and excited to work with our sales and marketing teams to drive growth and innovation,” said Antonacci. “I want to thank George for his guidance and support over the years, and I look forward to continuing to build on the strong foundation he has helped create.”

## About Gannon & Scott:

Gannon & Scott is a leading precious metals refiner with over 100 years of experience in the industry. The company specializes in the recovery of gold, silver, platinum, and palladium from a wide range of industrial materials. Gannon & Scott is headquartered in Rhode Island and serves customers throughout North America and beyond. It is committed to providing its customers with the highest level of service and value and remains dedicated to driving growth and innovation in the precious metal sector.

For more information about Gannon & Scott, please visit our website at [www.gannon-scott.com](http://www.gannon-scott.com)

Contact: John Antonacci

Email: [JohnAntonacci@Gannon-Scott.com](mailto:JohnAntonacci@Gannon-Scott.com)

Phone: (401) 463-5550



George

John



GANNON & SCOTT





Accurate Converter is happy to announce that George Lucas will be taking over as CEO of Accurate Converter effective April 17th, 2023. George has over a decade of experience in the precious metal recycling and refining industry and was most recently the Vice President of Sales and Business Development at Gannon & Scott.

Brian Tetreault, one of the founding partners of Accurate Converter, has been promoted to Chairman of the company. He has been instrumental in its growth and success and looks forward to continuing to guide the company moving forward. “We are excited to have George join our team,” said Brian Tetreault. “His experience in the industry will be invaluable as we continue to grow, expand and diversify our business.”

Accurate Converter is a leading full-service catalytic converter recycler, for the recovery of Platinum, Palladium and Rhodium. The company has 6 locations throughout the United States with its headquarters residing in Stoughton Massachusetts.

For more information, please contact George Lucas at [George@AccurateConverter.com](mailto:George@AccurateConverter.com).

\*\*\*

Accurate Converter is pleased to announce the hiring of Cliff Hope as our new National Sales Executive. With a decade of sales and marketing expertise in the converter recycling industry, Cliff brings a wealth of experience to the team. He has successfully collaborated with customers throughout the United States, Canada, and many international countries. “Cliff is a tremendous addition to the Accurate Converter sales team, and we are extremely excited to have him on board,” says George Lucas, CEO of Accurate Converter.

Accurate Converter is a leading full-service catalytic converter recycler, for the recovery of Platinum, Palladium and Rhodium. The company has 6 locations throughout the United States with its headquarters residing in Stoughton Massachusetts.



metallix

## Landscaping to reduce our impact on the environment

As urbanization and industrial development increases so too does the volume and velocity of our stormwater runoff.

This influx of water has significant detrimental impacts on our local waterways – increasing erosion of our banks, muddying waters in a way that clogs fish gills and prevents the growth of aquatic plants. In this way, even clean stormwater becomes a pollutant.

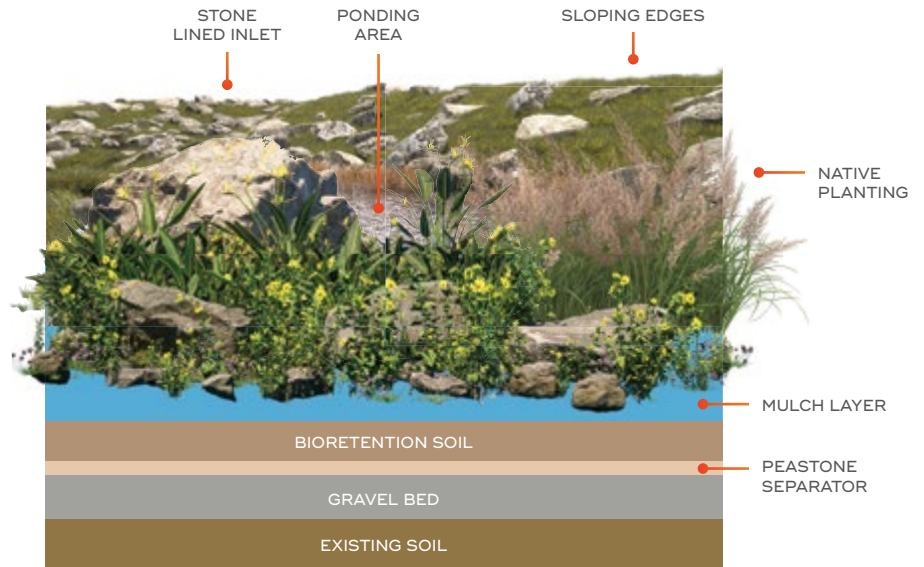
Bioretention areas hold stormwater and reduce the offsite flow rate. These landscaped depressions allow for plant use of water or infiltration into the ground.

At Metallix, we believe that infrastructure that is kind to our local ecosystems is critical for a happy future. That's why we're designing and installing bioretention areas at both of our Greenville, North Carolina locations.

## REDUCING POLLUTANTS IN STORMWATER RUNOFF

Bioretention areas use plants, soil and rockeries to filter stormwater before it drains into groundwater or enters drainage systems.

Shallow ground depressions or ditches formed of sandy soil, mulch, vegetation and stone are distributed at key locations around the facility to act as a first line of defence, removing solids, pollutants and metals from runoff water and can prevent flooding during larger storms.



## FINDING SOLUTIONS TO POTENTIAL POLLUTANTS

Ensuring potential pollutant areas are well maintained and routinely inspected in accordance with departmental and environmental policies ensures the risk of pollutant material discharge is kept to a minimum. Metallix have implemented a range of other techniques alongside bioretention areas to help further reduce pollutant runoff:

- Secondary containment around machinery
- Regular equipment and filtration inspections
- Well maintained landscaped grounds
- Ensuring dust prone areas are regularly cleaned

[FIND OUT MORE](#)

## LIVE BIO-FILTERING OF HEAVY METALS

A well constructed bioretention system with the correct choice of plants and mosses can act as a living filtering system for heavy metals. Creating an adaptable bio-filter and a new opportunity for water eco-sustainable remediation.

## CONTACT US TO DISCUSS YOUR REQUIREMENTS

When we work together, we can achieve more – today, tomorrow and in the future.

+1 - 800-327-7938  
+1 - 732-945-4132

[metallix.com](http://metallix.com)  
[sales@metallix.com](mailto:sales@metallix.com)

# TANAKA Memorial Foundation Announces Recipients of Precious Metals Research Grants

- Associate Professor Masashi Kaneko of Osaka University presented Gold Award for modeling of precious metal extraction and separation using Moessbauer spectroscopy parameters and computational chemistry. Also receiving a Gold Award is Professor Seiji Miura of Hokkaido University for experiments to achieve microstructure control of precious metal-based high-entropy alloys.

- Development of precious metal extraction and separation technologies using computational chemistry and development of microstructure-controlled precious metal-based high-entropy alloys received awards.

TOKYO, Mar 31, 2023 - (JCN Newswire) - The TANAKA Memorial Foundation's Representative Director, Hideya Okamoto, announced the recipients of the FY2022 Precious Metals Research Grants.

Following a rigorous screening process, the Gold Awards, each for 2 million yen, were presented to Associate Professor Masashi Kaneko of Osaka University and Professor Seiji Miura of Hokkaido University. In addition, four research projects received Silver Awards, and four Young Researcher Awards were presented.

The TANAKA Memorial Foundation undertakes programs designed to foster developments in new precious metal fields while contributing to the advancement of science, technology, and socio-economics for the overall enrichment of society. The research grant program was launched in FY1999 and has continued each year since with the goal of supporting the various challenges of the "new world opened up by precious metals." This year, the program's 24th year, a total of 159 applications were received in a wide range of fields where precious metals can make contributions to the research and development of new technologies. A total of 16.2 million yen in research grants was awarded for 24 projects.

The names of the two Gold Award recipients, their research, and the reasons for their selection are below.

## **- Associate Professor Masashi Kaneko of Osaka University**

Modeling of precious metal extraction and separation using Moessbauer spectroscopy parameters and computational chemistry

This research seeks to develop a computational method for predicting the solvent extraction equilibrium of precious metals. The research was highly rated for its development of a computational chemistry model for precious metal solvent extraction reactions according to chemical equilibrium theory, and based on computational chemistry benchmarking of precious metal complexes using Mossbauer spectroscopy parameters. The research has the potential of accelerating the development of new precious metal extraction agents in combination with experimental chemistry, while it also has scientific and industrial value as well.

## **- Professor Seiji Miura of Hokkaido University**

Experiments to achieve microstructure control of precious metal-based high-entropy alloys

This research seeks to develop innovative metal materials aimed at creating strengthening mechanisms with high thermal stability through the use of microstructure control of precious metal-based high-entropy alloys using two-phase crystal structures and their orientation relationship. The research was highly rated for its research related to high-entropy alloys, which are being more actively researched and are gaining attention for their unique material properties. The research has the potential of opening up new material fields for precious metals and expanding their industrial usage.

Four Silver Awards, four Young Researcher Awards, and 12 Encouragement Awards were also granted. The recipients and an overview of the Precious Metals Research Grants are indicated below. Applications for the FY2023 research grants are scheduled to open in the fall.

### **List of FY2022 Precious Metals Research Grants Recipients**

- Platinum Award (0 award, 5 million yen)  
Non granted

- Gold Award (2 awards, 2 million yen each)

#### **Masashi Kaneko, Associate Professor, Osaka University**

Modeling of precious metal extraction and separation using Moessbauer spectroscopy parameters and computational chemistry

#### **Seiji Miura, Professor, Hokkaido University**

Experiments to achieve microstructure control of precious metal-based high-entropy alloys

- Silver Awards (4 awards, 1 million yen each)

Takatoshi Nagano, Lecturer, Ibaraki University

Efforts to clarify mechanisms that cause cracking in thin ruthenium film and to achieve low electrical resistance

Naoji Matsuhisa, Associate Professor, The University of Tokyo

Structural control and wearable applications of stretchable gold vapor deposition film

Zhou Weiwei, Assistant Professor, Tohoku University

Manufacturing and functional enhancement of 2D Mxene-reinforced silver-based composite materials

Hiroshi Yukawa, Designated professor, Nagoya University

Realization of deep tissue temperature imaging through development of band edge / defect-type near-infrared fluorescent quantum dots with silver in the core region

- Young Researcher Awards (4 awards, 1 million yen each)

Minori Goto, Assistant Professor, Osaka University

Improved efficiency of heat-driven spin devices using thermal resistance of precious metal / insulator interfaces

Hideki Narita, Specially Appointed Assistant Professor, Kyoto University

Control of magnetic superconductors using precious metals and development of nonvolatile superconducting devices

Wan-ting CHIU, Assistant Professor, Tokyo Institute of Technology

Effects on mechanical properties and functionality of medical-use titanium-gold-based shape-memory alloys through addition of transition metal elements

Lustikova Jana, Assistant Professor, Tohoku University

Formation of magnetic memory devices using precious metal / superconductor hetero-interfaces

- Encouragement Award (14 awards, 300,000 yen each)

Naotsugu Itoh, Specially-appointed Professor, Utsunomiya University

Takahiro Namazu, Professor, Kyoto University of Advanced Science

Teppei Araki, Associate Professor, Osaka University

Makoto Hasegawa, Professor, Chitose Institute of Science and Technology

Yuki Noda, Specially-appointed Assistant Professor, Osaka University

Yuki Shiomi, Associate Professor, The University of Tokyo

Takuya Matsumoto, Assistant professor, Osaka Metropolitan University

Shinya Kato, Assistant Professor, Nagoya Institute of Technology

Daisuke Tanaka, Professor, Kwansei Gakuin University

Kure Shochiku (SONG-ZHU CHU), Professor, Nagoya Institute of Technology

Atsushi Takagaki, Associate Professor, Kyushu University

Yusuke Yamauchi, Group Leader, National Institute for Materials Science

Yasuhiro Fukuma, Professor, Kyushu Institute of Technology

Koki Kubota, Researcher, University of Yamanashi

(Affiliated organizations and job titles correct as of time of presentation)

## Overview of the 2022 Precious Metals Research Grants

### Theme:

- Themes that involve any of the following: new technologies to which precious metals can make a contribution, research related to precious metals that will bring innovative evolution to products, or research and development of new products using precious metals

### Grant Amounts:

- Platinum Award: 5 million yen (1 award)

- Gold Award: 2 million yen (1 award)

- Silver Awards: 1 million yen (4 awards)

- Young Researcher Awards: 1 million yen (2 awards)

- Encouragement Award: 300,000 yen (several awards)

\* The grant amount is treated as a scholarship donation.

\* Awards may not be granted in some cases.

\* The number of awards is subject to change.

### Eligible Candidates:

- Personnel who belong to (or work for) educational institutions in Japan (universities, graduate schools, or technical colleges) or public and related research institutions may participate.

\* As long as the applicant is affiliated with a research institution in Japan, the base of activity can be in Japan or overseas.

\* The Young Researcher Awards are for researchers under the age of 37 as of April 1, 2022.

### Application Period:

- 9am, September 1, 2022 (Thu) - 5pm, November 30, 2022 (Wed)

### Application Method:



- Enter the required information on the application form available on the TANAKA Memorial Foundation website (<https://tanaka-foundation.or.jp>) and upload details of the research (papers and supplementary material on the theme).

**Announcement:**

- Results will be announced on the TANAKA Memorial Foundation website around the end of March 2023.  
\* TANAKA will contact the award recipients directly.

**Conditions:**

Research content that falls under any of the following

- New technology related to precious metals
- Research and development related to precious metals that bring about innovative evolution in products
- Research and development of new products using precious metals
- \* Precious metal refers to eight elements of platinum, gold, silver, palladium, rhodium, iridium, ruthenium and osmium.
- \* If development is conducted jointly (or planned to be) with other material manufacturers, please indicate so.
- \* Products that have already been commercialized, put to practical use, or that are planned are not eligible.

**Inquiries Concerning the Research Grant Program:**

Precious Metals Research Grants Office

Global Marketing / R&D Supervisory Department, TANAKA Kikinzoku Kogyo K.K.

22F Tokyo Building, 2-7-3 Marunouchi, Chiyoda-ku, Tokyo 100-6422

E-mail: [joseikin@ml.tanaka.co.jp](mailto:joseikin@ml.tanaka.co.jp)

TANAKA Memorial Foundation website: <https://tanaka-foundation.or.jp>

TANAKA Memorial Foundation

Established: April 1, 2015

Address: 22F Tokyo Building, 2-7-3 Marunouchi, Chiyoda-ku, Tokyo

Representative: Hideya Okamoto

Purpose of Business: To provide grants for research related to precious metals to contribute to the development and cultivation of new fields for precious metals, and to the development of science, technology, and the social economy.

Areas of Business:

- Provision of grants for scientific and technological research related to precious metals.
- Recognition of excellent analysis of precious metals and holding of seminars and other events.

TANAKA Kikinzoku Kogyo K.K.

Headquarters: 22F, Tokyo Building, 2-7-3 Marunouchi, Chiyoda-ku, Tokyo

Representative: Koichiro Tanaka, Representative Director & CEO

Founded: 1885

Incorporated: 1918

Capital: 500 million yen

Employees: 2,429 (including overseas subsidiaries) (as of March 31, 2022)

Sales: 389,646.82 million yen\* (FY2021)

Main businesses: Manufacture, sales, import and export of precious metals (platinum, gold, silver, and others) and various types of industrial precious metals products.

URL: <https://tanaka-preciousmetals.com>

\* Starting from this fiscal year, due to the application of accounting standards related to recognition of revenues, the sales figure includes some transactions displayed as net amounts.

Press Inquiries

TANAKA Holdings Co., Ltd.

<https://tanaka-preciousmetals.com/en/inquiries-for-media/>

## SECAM News Alert

A major heist at Toronto Pearson International Airport, Canada's largest and busiest airport, has left a major bank out \$22 million and a leading airline wondering what went wrong.

On the 20th of April, Canadian police said they were investigating the robbery of gold other "high-value" goods [reportedly bank notes] that were being moved through Toronto Pearson Airport. The gold and valuables arrived Monday evening (17 April) in a container that was offloaded from a plane that landed at Pearson. The container was securely stored in a cargo holding facility on the site. It was reported missing shortly after.

Investigators suspect the thieves may have made their escape in a heavy-duty truck due to the size of the loading. The Toronto Sun reports the gold belonged to TD Bank and had been brought to the airport by airline Air Canada. It was being held in a single aircraft container.

It's understood that the gold and banknotes were being shipped as part of an intra-bank transaction, though the identity of the other bank in the transaction isn't known at this time. At this point, investigators don't know who stole the gold. The investigators are suspecting it to be an act of organised crime, initial reports in the Canadian media said. The theft could mark one of the bigger heists in Canadian history.

Read more via the following news links:

['Obviously, there were people on both ends': \\$20 million Pearson gold heist likely a professional job, experts say](#)

[Huge Pearson heist takes \\$22 million from major Canadian bank](#)

[Canada gold heist: police investigating \\$20m of 'high-value' cargo stolen from Toronto airport](#)

[Canadian police investigating C\\$20 million gold heist at Toronto airport](#)





## Platinum Group Metals

### China's car sales stay flat in March amid price war -CPCA

Growth in sales of China's passenger vehicles was flat in March from a year earlier, industry data showed on Monday, as more price cuts by auto brands and the rollout of incentives by local governments helped to support demand. Car sales in March were 1.61 million units, the China Passenger Car Association (CPCA) said. In the first three months, sales had fallen 13.4% to 4.33 million units, it added.

<https://www.msn.com/en-us/money/companies/chinas-car-sales-stay-flat-in-march-amid-price-war-cpca/ar-AA19FToR>


### H2 will be the 'only viable economic choice for zero-emission long-haul trucking'

"There really are no viable alternatives to hydrogen for hauling freight 600+ miles per day with zero emissions," the report explains. "While it is technically viable for a battery electric truck to go 800+ miles in a day with en-route charging and carrying equivalent freight weight to a diesel, the situations where this is feasible are limited."

<https://www.hydrogeninsight.com/transport/hydrogen-will-be-the-only-viable-economic-choice-for-zero-emission-long-haul-trucking-us-freight-body/2-1-1431470>

 European Chapter of the IPMI logo, featuring the text 'European Chapter of the' in a smaller font above the 'IPMI' logo, which is a stylized blue hexagon with a smaller hexagon inside it.

# SPRING RECEPTION

 A photograph of St Pauls Cathedral in London at sunset, viewed from a terrace. The cathedral's large dome is the central focus, with the city skyline and the London Eye visible in the background. The sky is a mix of orange, yellow, and blue. In the foreground, there are people sitting at tables on the terrace, and some architectural elements like a curved metal railing and a glass structure are visible.

In course of this year's London Platinum-Week we are looking forward to hosting our premier EC-IPMI Spring Reception.

For the first time, the Spring Reception will replace our traditional Wine Tasting for outstanding networking conditions with fellow members and industry professionals in a beautiful ambience.

Save the date for May 17th to join us at the Madison St Pauls at One New Change on their stunning terrace overlooking St Pauls. **[Reserve your spot here.](#)**

PLEASE UPON REGISTERING PROVIDE THE NAME OF THE ACTUAL ATTENDEE.

### Platinum Group Metals

#### Palladium wants to jump onto the 'last' bandwagon of hydrogen energy industry

Today, there are catalysts based on platinum and iridium in the hydrogen energy market. Norilsk Nickel is considering the possibility of increasing the catalyst efficiency by partially replacing these metals with palladium. Due to its extremely high chemical resistance, palladium is more effective in catalysts than other platinum-group metals, the company explains. Norilsk Nickel plans to test prototypes in the Chinese market to weigh the prospects for their commercial production.

<https://www.rough-polished.com/en/analytics/130423.html>

#### Platinum price analysis as demand and supply dynamics shift

Platinum price has bounced back in the past few days as investors focus on China's reopening and the expected deficit in the industry. The metal was trading at \$986.50, which is about 8.81% above the lowest level this month and ~20% above its lowest point in 2022.

<https://invezz.com/news/2023/03/31/platinum-price-analysis-as-demand-and-supply-dynamics-shift/>

#### Platinum Group Metals on the Move: What Next?

Platinum prices are expected to rise to \$1,500 an ounce by year-end, underpinned by the power crisis in South Africa as chronic electricity outages undermine one of the world's largest operators of mines, Bank of America said in an investors' note Wednesday. Power supply [is a] long-standing issue for South African miners," analysts at BofA Securities wrote in the note. The power situation in South Africa has gained attention as power cuts have become more frequent.

<https://www.investing.com/analysis/platinum-group-metals-on-the-move-what-next-200637331>



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## Metals Market News

### Fuel Cells/H2 Economy

#### **Tata Steel Launches a Powerful Hydrogen Gas Injection Trial**

Tata Steel Ltd has taken a major step towards reducing its carbon emissions by launching a new hydrogen gas trial in the blast furnace at its flagship plant in Jamshedpur. The trial involves injecting hydrogen gas into the blast furnace to reduce the use of metallurgical coke, thereby reducing carbon emissions. The company has committed to net zero by 2045 and hopes the trial will reduce its coke rate by 10%.

<https://www.hydrogenfuelnews.com/hydrogen-gas-tata-steel/8558395/>

#### **Toyota partners with AMRC Cymru to optimise hydrogen fuel cell assembly**

Toyota Motor Manufacturing UK, under a new deal with AMRC Cymru, is looking to optimise hydrogen fuel cell assembly to accelerate the decarbonisation and digitalisation of the transport sector.

<https://www.h2-view.com/story/toyota-partners-with-amrc-cymru-to-optimise-hydrogen-fuel-cell-assembly/>

#### **Loop Energy adapts hydrogen fuel cell systems for H2 Portable gensets**

Vancouver-based Loop Energy Inc. has delivered the first three hydrogen fuel cell systems to H2 Portable Power Corp., for integration into its hydrogen-electric gensets to provide power to remote areas.

<https://sustainablebiz.ca/loop-energy-adapts-hydrogen-fuel-cell-systems-for-h2-portable-gensets>

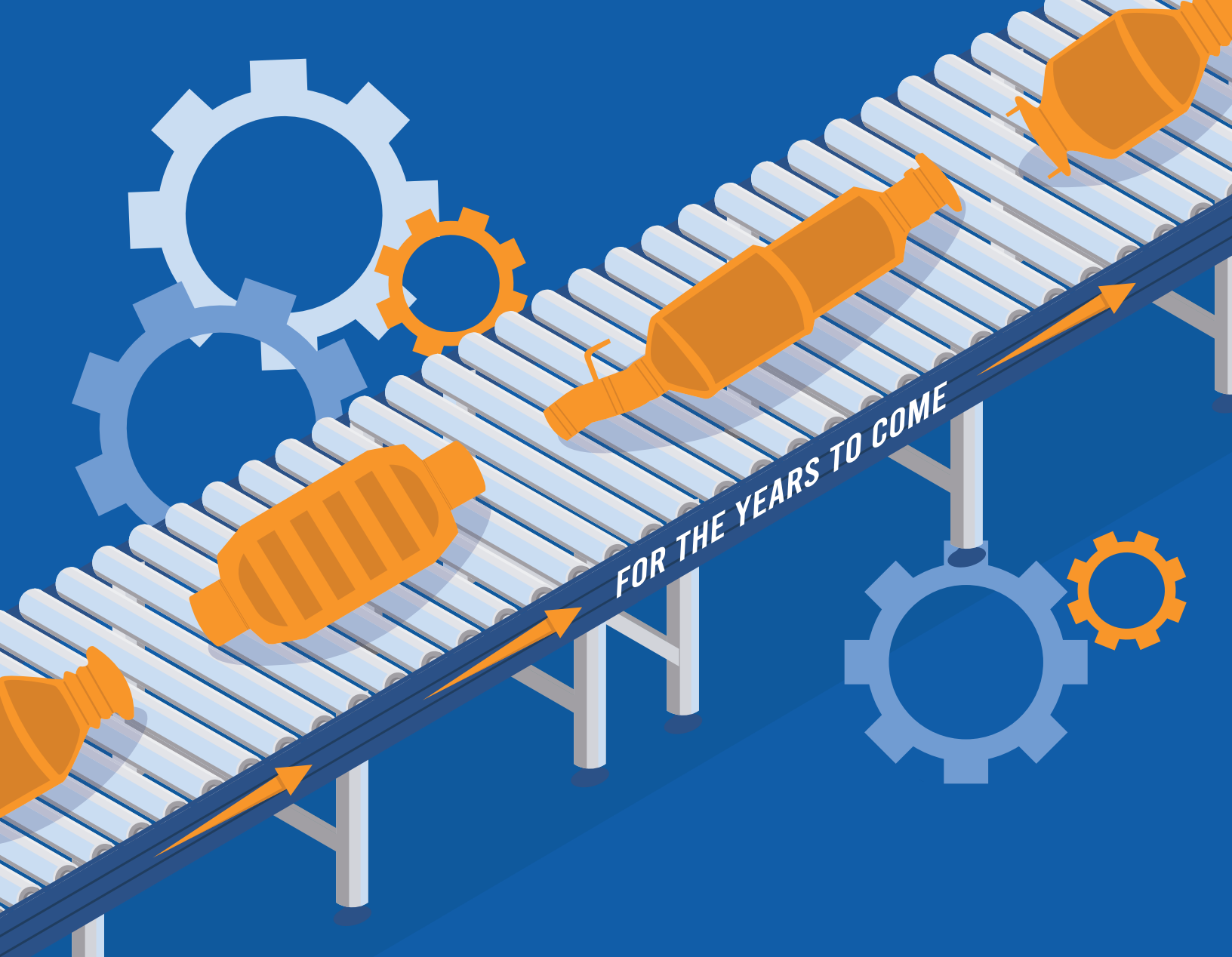
European Chapter of the  
**IPMI** 

**SAVE THE  
DATES**

## ANNUAL CONFERENCE

The European Chapter of the IPMI will be hosting another annual conference this year in Vienna, Austria. The dates will be 12-14th November, 2023.

Further details will follow on the exact location and program soon.



FOR THE YEARS TO COME

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### Silver

#### Record demand pushes silver into biggest deficit on record

Record global silver demand and a lack of supply upside have pushed the silver market to its second consecutive yearly deficit, with a shortfall of 237.7-million ounces last year, the Silver Institute reports in its 'World Silver Survey 2023'. Recycling activity rose for a third year in a row, with the 3% lift taking the total to a ten-year high of 180.6-million ounces. This was driven by a 7% rise in industrial scrap.

[https://www.miningweekly.com/article/record-demand-pushes-silver-into-biggest-deficit-on-record-2023-04-19/rep\\_id:3650](https://www.miningweekly.com/article/record-demand-pushes-silver-into-biggest-deficit-on-record-2023-04-19/rep_id:3650)

#### World Silver Survey 2023 Report

All major silver demand categories achieved record highs in 2022, pushing total silver demand to a new high of 1.242 billion ounces (Boz) last year. Silver industrial demand rose by 5%, physical investment increased by 22%, and jewelry and silverware rose by 29% and 80%, respectively, leading to the total global silver demand milestone. Since 2020, the global total has increased by 38% as world economies recover from the pandemic. Along with record silver demand and lower mine production, the silver market achieved its second consecutive annual structural deficit, at a significant 237.7 million ounces last year.

<https://www.silverinstitute.org/wp-content/uploads/2023/04/World-Silver-Survey-2023.pdf>



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## Metals Market News

### Precious Metals Mining

#### Tharisa cuts production guidance by 10% after severe weather hits mining operations

Chrome and PGM miner Tharisa has cut its full year production guidance by 10% because of the impact of severe weather conditions on its open pit mining operations from December to February. Tharisa's previous guidance was for the production of between 175,000oz and 185,000oz of pgm and 1.75mt to 1.85mt of chrome concentrates in the year to September.

<https://www.miningmx.com/top-story/53046-tharisa-cuts-production-guidance-by-10-after-severe-weather-hits-mining-operations/>

#### Your Evening Briefing: The Enemies of ESG Are Gaining Ground

Companies sold only \$6 billion of bonds last quarter to pay for projects that help the environment, achieve a social goal, or improve their governance. That's down more than 50% from the same time last year, according to data compiled by Bloomberg. Moreover, some states are barring external asset managers that oversee public pension funds from considering ESG criteria. That could be making skittish borrowers even less interested in ESG debt.

<https://www.bloomberg.com/news/newsletters/2023-04-18/bloomberg-evening-briefing-the-enemies-of-esg-are-gaining-ground-in-america>

#### Precious metals miners expected to report lower 1Q output and higher costs, say Stifel analysts

Spring brings in a new season for gold and gold equities, Stifel GMP analysts wrote in an earnings preview published on Wednesday, but they cautioned not to expect the mining companies' production numbers to bloom.

<https://www.proactiveinvestors.com/companies/news/1012840/precious-metals-miners-expected-to-report-lower-1q-output-and-higher-costs-say-stifel-analysts-1012840.html>



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## E-Waste & Precious Metals Recycle Related

### A visit to the future of electronics recycling

The brand-new Camston Wrather circuit board recycling facility in Carlsbad, California, can process 1.5 million pounds every month, a fraction of America's electronic waste.

<https://www.greenbiz.com/article/visit-future-electronics-recycling>

### Integrated e-waste recycling unit soon in Hyderabad

In June this year, Hyderabad is all set to emerge as home to Asia's first LEED Platinum certified e-waste and industrial scrap processing and precious metals recovery and refining facility spread over 13.6 acres at Dundigal.

<https://timesofindia.indiatimes.com/city/hyderabad/integrated-e-waste-recycling-unit-soon-in-hyderabad/articleshow/99506416.cms>

### Singapore E-Waste Management: City-state seeks to recycle electronic trash

Electronics are an intrinsic part of modern day living. But once they are discarded, they join the growing pile of e-waste the world's fastest growing waste stream. Globally over 50 million tonnes of e-waste is generated every year. Singapore accounts for 60,000 tonnes. CGTN's Miro Lu looks at what the island nation is doing to manage its e-waste.

<https://news.cgtn.com/news/2023-04-21/VHJhbnNjcmlwdDcxODQ5/index.html>

### The Energy Transition Will Need More Rare Earth Elements. Can We Secure Them Sustainably?

To limit the global temperature increase to 1.5 degrees C or close to it, all countries must decarbonize—cut fossil fuel use, transition to zero-carbon renewable energy sources, and electrify as many sectors as possible. It will require huge numbers of wind turbines, solar panels, electric vehicles (EVs), and storage batteries — all of which are made with rare earth elements and critical metals.

<https://news.climate.columbia.edu/2023/04/05/the-energy-transition-will-need-more-rare-earth-elements-can-we-secure-them-sustainably/>

**SAVE THE DATE**

The Metro New York Chapter of the IPMI will be hosting their Spring Seminar on Wednesday, May 3rd 2023.

Be sure and mark your calendars. There is no better way to keep your fingers on the pulse of the industry.

### Gold News

#### Gold slides below \$2,000, market eyes Fed rate hike cues

- Gold reversed course to slip below the key \$2,000 level on Monday, pressured by a stronger dollar and higher Treasury yields, while investors looked for cues on whether the market will see a 'one and done' rate hike by the U.S. Federal Reserve in May.
- U.S. dollar up 0.6%
- 10-year Treasury yields scale two-week peak
- Markets mostly see a Fed pause in June

<https://www.reuters.com/markets/commodities/gold-off-one-year-highs-investors-weigh-rate-hike-prospects-2023-04-17/>

#### China extends its gold shopping spree to five months, buying 18 tonnes in March

- China's appetite for gold remains insatiable as the latest data from the People's Bank of China bought 18 tonnes of gold last month.
- China's gold shopping spree hit its fifth consecutive month; Krishan Gopaul, senior European, Middle East and Asian market analyst, said that since November the nation has bought 120 tonnes of gold.

<https://www.kitco.com/news/2023-04-07/China-extends-its-gold-shopping-sprees-to-five-months-buying-18-tonnes-in-March.html>



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### Semiconductor Related Articles (impacting Precious Metals electronics):

#### UK Looks Closer to Home for Green Tech Raw Materials

The UK is continuing to look at prospective avenues to lessen their dependence on the global supply chain for critical metals and minerals. The British Geological Society (BGS) has produced a report identifying areas in the UK prospective for critical raw materials for the Critical Minerals Intelligence Centre (CMIC).

<https://www.digit.fyi/uk-looks-closer-to-home-for-green-tech-raw-materials/>

#### Photovoltaics Power an Indoor Revolution

Indoor photovoltaic (PV) cells are poised to expand in the next few years, thanks to growing demand from the Internet of Things (IoT): a constellation of tiny, networked sensors and other devices that transmit and receive information via Wi-Fi, Bluetooth, or radio frequencies. "All of a sudden you have a lot of devices that need very little power — but they still need power," said Jonas Bergqvist, CTO at Epishine in Linköping, Sweden.

Indeed, recent analyses of the IoT market by Gartner suggested that the market could fuel a total number of sensor devices reaching 43 billion this year — with the potential to leap to a trillion devices by 2035. Battery power is neither a practical nor a sustainable solution to this explosive growth.

[https://www.photonics.com/Articles/Photovoltaics\\_Power\\_an\\_Indoor\\_Revolution/a68815](https://www.photonics.com/Articles/Photovoltaics_Power_an_Indoor_Revolution/a68815)

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[umicorepreciousmetals.com](http://umicorepreciousmetals.com)





## Upcoming Events



### **NY Chapter Spring Seminar**

Wednesday, May 3, 2023

New York City, New York



### **New England Chapter Jewelry Awards**

May 2023

TBD



### **IPMI 47th Conference**

Saturday, June 10, 2023

Scottsdale, Arizona

[More Information >](#)



### **NY Chapter Fall Seminar**

Wednesday, September 13, 2023

New York City, New York



### **IPMI 10th Annual Platinum Dinner**

September 14, 2023

Intercontinental Barclay, NYC



## **Upcoming Events**

**May 17 ... IPMI European Chapter Spring Reception • London, UK**

**Fall 2023 ... IPMI EHS Seminar • TBD**

**Oct 2023 ... IPMI SAC Symposium III - Colorado School of Mines • Golden,  
Colorado**

**Oct 2023 ... IPMI New England Chapter Fall Networking Dinner • Warwick, RI**

**Nov 12-14, 2023 ... IPMI European Chapter Seminar • Vienna, Austria**