IPMI ©[®] PRECIOUS METALS NEWS

2024

WINTER

MEETING

JANUARY 2024 VOLUME 49 • ISSUE 1

The 48TH ANNUAL CONFERENCE

AND

2024 Premier Award Winners
Women of IPMI
Intern Article
US Tax Bill
Latest Industry News



YATT REGENCY



HYATT REGENCY GRAND CYPRESS RESORT • ORLANDO, FL • February 20-22, 2024

WHERE TO STAY

The Hyatt Is Currently Sold Out

Where to Reserve a Room Nearby

While the Hyatt Regency Grand Cypress Resort is now booked, we have other great hotel recommendations for you to stay at.



The **Doubletree Suites by Hilton at Disney Springs** is nearby, less than half a mile away and would be a great place to stay while attending the Winter Meeting.







ta Resort is nearby, is just under a mile away and would also be a great place to stay while attending the Winter Meeting.

The Sheraton Orlando Lake Buena Vis-

Lake Buena Vista Website >

The Hyatt Place Orlando/Lake Buena Vista is another nearby hotel, located under a mile away and would also be a convenient place to stay while attending the Winter Meeting.

Hyatt Place Website >

All the other Disney Springs Hotels are less than 1 mile from the Hyatt. Contact Sandra to get more information at mail@ipmi.org



The 2024 Winter Meeting will take place between Feb. 20-22, 2024, and be held at the Hyatt Regency Grand Cypress Resort in Orlando, Florida.

WINTER MEETING REGISTRATION

FOR MEMBERS	NON MEMBERS
\$600	\$700
\$875	\$975
\$975	\$1075
	MEMBERS \$600 \$875

REGISTER

HYATT REGENCY GRAND CYPRESS RESORT · ORLANDO, FL · February 20-22, 2024

AGENDA: DAY 1

Tuesday, February 20th

Security and Anti Money Laundering Day (SECAM) Technical Program

Sponsored by Hugh Wood

8:00 AM Continental Breakfast Sponsored by Metalor

9:00 AM Welcome and Introductions Larry Drummond, IPMI

9:15 AM Session A: Precious Metals Security Insider Threat Awareness

Normadene Murphy, BASF

Sampling is a Risk Management Tool Mark Caffarey, Umicore

Panel discussion:
 Normadene Murphy, BASF-ECMS
 Mark Caffarey, Umicore
 Monica Mellas, Materion Corp.

10:00 AM

The Security Impact of Current Geo Political Issues -Safety of Employees During Travel David Ickes, Global Guardian

10:30 AM Break Sponsored by IBI

11:00 AM

Community Partnerships - The Value of Collaboration Scott Johnson, Mastermelt

11:30 AM

Protecting High Value Cargo - A Sense of Security Scott Volpe, IBI

12:00 PM

Lunch Sponsored by Brinks

1:30 PM

Session B: Responsible Sourcing AML Compliance 2024 - Corporate Transparency Act / Beneficial Owner Registry / U.S. Customs and Money Laundering Peter Quinter, Gunster

2:00 PM

AML Audit/Testing Presentation and Panel Discussion Sara Yood, Jewelers Vigilance Committee Steve Crogan, Blue Water Risk Management

2:30 PM

Responsible Sourcing -Chain of Custody Certification Dr. Jonathan Butler, Mitsubishi International Corporation for LPPM

2:30 PM

Responsible Sourcing (cont.) -LBMA Responsible Silver Guidance Version 2 Alan Martin, LBMA

3:00 PM

Break
* Sponsorship is Available *

3:30 PM

Identifying Red Flags from AML Investigations - A Panel Discussion Randy Weinerman, Mitsubishi International Corporation, Moderator

Raysa Garcia, United PMR Heather Wood, PGM of Texas Raquel DeCruz, PGM of Texas Steve Crogan, Blue Water Risk Management

4:15 PM

Preventing Auto Catalyst Theft Committee Update Becky Berube, United Catalyst Corporation Rick Spees, Akerman LLC

5:00 PM

Networking

6:00 PM Reception Sponsored by Sabin Metal

HYATT REGENCY GRAND CYPRESS RESORT · ORLANDO, FL · February 20-22, 2024

AGENDA: DAY 2

Wednesday, February 21st

PGM Refining Day (PGMRC)

Technical Program Sponsored by Hensel Recycling

8:00 AM

Continental Breakfast Sponsored by pH7Technologies

8:45 AM Welcome and Introductions Larry Drummond, IPMI

9:00 AM Session A:

PGM Markets & Recycling

PGM Market Update PGM Supply Jacob Smith, Metals Focus PGM Market Update Dr. Jonathan Butler, Mitsubishi International Corporation

Panel Discussion
 PGM Market Outlook
 Dr. Sandeep Kaler, SFA Oxford
 Jacob Smith, Metals Focus
 Craig Ostroff, BASF

10:15 AM

Break Sponsored by Mitsubishi International Corporation

10:45 AM

The Autocatalyst Recycle Market Doldrums- What's Driving the Recycle Downturn?

Autocat Recycling Market Update Toby Green, BASF

- Panel Discussion Moderator, Craig Ostroff, BASF & IPMI PGMRC Committee Chair

Ben Davis, Davis Recycling / CC Refining Billy Galligan, PGM of Texas John Keating, LKQ Scott Kinsbursky, KBI Oliver Krestin, Hensel Recycling Germany George Lucas, Accurate Converter

12:00 PM

Lunch Sponsored by Metalor

1:30 PM Session B:

Precious Metals in Clean Energy Introduction of IPMI Working

Group and Charter Dr. Jonathan Butler, Mitsubishi International Corporation

Matt Watson, Precious Metals Commodity Management, LLC (PMCM)

1:45 PM

H2 Update...Why This is Good...Cost & Viability Update Dr. Sandeep Kaler, SFA Oxford

2:15 PM

HyRefine Technology: Circularity of Precious Metals and lonomers in the Hydrogen Industry

Dr Jonathan McCree-Grey, Hydrogen Technologies Recycling Manager, Johnson Matthey

2:45 PM

Clean Energy & The Future of Precious Metals Matt Watson, Precious Metals Commodity Management, LLC (PMCM)

IPMI

3:30 PM Break

Sponsored by BASF

3:45 PM

Precious Metals in Clean Energy -Working Group Path Forward Dr. Jonathan Butler, Mitsubishi International Corporation Matt Watson, Precious Metals Commodity Management, LLC (PMCM)

4:00 PM

Session C:

Clean Energy Issues and Opportunities Lion Battery Project and the Impact to

Palladium and Platinum Dr. Bilal El-Zahab, Florida International University

4:30 PM

Rare Earth Recycling: An Untapped Source in PGM Refining Alexa Schmitz, CEO & Co-Founder REEgen

5:00 PM

Networking

6:00 PM

Reception Sponsored by BASF

8:00-9:30 PM

The IPMI Coffee House

HYATT REGENCY GRAND CYPRESS RESORT · ORLANDO, FL · February 20-22, 2024

AGENDA: DAY 3

Thursday, February 22nd

Sampling and Analytical Day (SAC)

Technical Program Sponsored by **Sims Precious Metals**

7:30 AM

Continental Breakfast Sponsored by Axium Scientific

8:45 AM

Welcome and Introductions Larry Drummond, IPMI

9:00 AM Session A: IPMI SAMPLING WORKSHOP

Virtual Workshop Know Your Sampling – A Deep Dive into the Professional and Accurate Sampling for Analysis of Precious Metals Prof. Kim H. Esbensen, KHE Consulting

10:30 AM Break * Sponsorship is Available *

10:45 AM Session A: IPMI SAMPLING WORKSHOP continues

12:30 PM Lunch Sponsored by **Techemet**

1.30 PM

Session B:

SAC Updates and Planning SAC Committee Updates and Round Robin Discussion Algis Naujokas, Sabin Metal Corporation Stacey Santolli, BASF-ECMS

2:00 PM Session C:

Innovation and Optimization

Spectrophotometric, Gravimetric and Potentiometric Methods for the Determination of Iridium Lou Britton, Auris Noble

2:30 PM

The Use of Hydrofluoric Acid for the Gravimetric Determination of Low-Level Gold in Copper Bullion Algis Naujokas, Sabin Metal Corporation

3:15 PM

ICP Analysis: Tips and Tricks Ashley Jones, Inorganic Ventures

3:45 PM

Session D

Closing of the Winter Meeting and Future Plans for the SAC Algis Naujokas, Sabin Metal Corporation Stacey Santolli, BASF-ECMS



IPMI

Prof. Kim H. Esbensen

KHE Consulting https://kheconsult.com/

Recycling and trading of precious metals is critically dependent on the ability to conduct representative sampling-for-analysis. All materials to be sampled, e.g. catalytic converters, jewelry scrap, catalytic gauzes, scrap of wires, bushings, other primary materials pose identical challenges for sampling - they are significantly heterogeneous!

• Are you confident you can always extract documentable representative samples?

- How to extract samples from moving materials (process sampling)?
- Choosing the optimal analytical approach is intimately related to the quality of sampling.
- Did you ever contemplate that different sampling
- approaches will give rise different analytical results?
 What to do when analytical results from two labs differ significantly?

The presenter of this workshop has recently conducted a thorough critique of the "Assay Exchange" paradigm, with worrying conclusions. This workshop points to the only approach for representativity, the Theory and Practice of Representative Sampling (TOS) and will leave you with valuable documentation relative to the precious metal industry. The IPMI wants you to be introduced to a world sampling expert with an in-depth understanding of the most relevant details of TOS.

HYATT REGENCY GRAND CYPRESS RESORT • ORLANDO, FL • February 20-22, 2024

IPMI SAMPLING WORKSHOP

IPMI

WORKSHOP OBJECTIVE

This course provides a comprehensive introduction to the Theory of and Practice of Sampling (TOS) for stationary as well as dynamic lots (process sampling). TOS is presented as a framework of six Governing Principles (GP) and five Sampling Unit Operations (SUO) with which to secure representative samples and analytical results across science, industry, society, business and for regulatory oversight. The goal is to introduce attendees to the principles behind designing, implementing and using fully representative procedures and equipment in setting up sampling plans and campaigns.

WORKSHOP DELIVERABLES

The workshop gives a first overview of how to guarantee that all primary sampling, and subsequent sub-sampling and sample preparation before analysis is professionally defensible and documentable as representative (procedures, equipment, maintenance). The workshop has a special focus on setting up empirical sampling variability assessment procedures with which to characterise lot heterogeneity, called the Replication Experiment (RE). The workshop will focus on key issues:

WHY sampling is much more than materials handling HETEROGENEITY—the root of all evil WHY we need the Theory of Sampling (TOS) to guide us The Fundamental Sampling Principle (FSP)—and why it must never be broken WHAT—and HOW TO conduct representative sampling in practice The TOS in the laboratory—sub-sample without errors The sampling bias—a fatal enemy that can be avoided The TOS for the sampling of stationary lots and materials The TOS for sampling of moving lots and materials The TOS for sampling of moving lots and materials (process sampling) The TOS and business ethics, buyer-seller relationships, OEM obligations, societal needs The TOS—Traditional Pros and Cons: Which are right; which are wrong? "The TOS will save you a lot of money."

LITERATURE DOCUMENTATION

The workshop is a summary overview from the textbook: "Introduction to the Theory and Practice of Sampling" and the world's only standard dedicated exclusively to representative sampling DS3077. It is recommended that workshop attendees acquire this text before the workshop, available as a downloadable e-book:

https://www.impopen.com/blog/introduction-theory-and-practice-sampling-available-ebook

The workshop is designed to allow attendees to continue sampling competence building seamlessly using the textbook.



HYATT REGENCY GRAND CYPRESS RESORT • ORLANDO, FL • February 20-22, 2024

THE IPMI WOULD LIKE TO THANK OUR SPONSORS AND DONORS



CONSULTANCY

GOLD | BANK



COMMITMENT TO OTHER ATTENDEES

As part of our collective effort to ensure a safe conference environment, we ask each attendee to be vigilant about their health status in the days leading up to and during the event. If you have a fever, bad cough, or difficulty breathing, and/or any other symptom of airborne illness, please consider refraining from attending the conference.

We encourage you to take a COVID-19 test prior to arriving at the conference, especially if you've been in high-risk environment. Remember, monitoring your health is not only for your own safety but also a commitment to the well-being of fellow attendees. We appreciate your cooperation and understanding in this regard.



HYATT REGENCY GRAND CYPRESS RESORT · ORLANDO, FL · JUNE 8-

ATTENDEE INFORMATION



EARLY REGISTRATION IS NOW OPEN

Reserve your place at the 48th Annual Conference, which is taking place this June 8-11, 2024

Early Registration Ends April 1st, 2024

REGISTER FOR THE CONFERENCE

BOOK YOUR ROOM

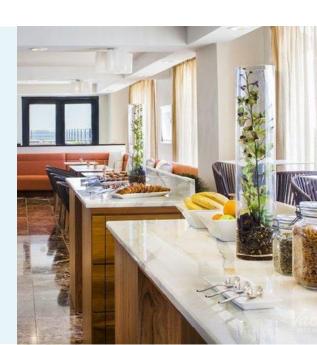
Hotel rooms at the Hyatt will go fast. We strongly encourage you to **book your room here** with No Resort Fee.

DISCOUNTED REGISTRATION

If your company is sending more than 5 attendees to the conference you are eligible for a 15% discount.

If this is the first time you are attending the IPMI Annual Conference you are eligible for a First Time Attendee \$200 discount.

Note to secure these discounts you have to book through Sandra Arrants. You can contact her at mail@ipmi.org



HYATT REGENCY GRAND CYPRESS RESORT · ORLANDO, FL · JUNE 8-11, 20,

PRELIMINARY AGENDA - DAY 1

Saturday, June 8th

Conference WIFI (Each Day of the Conference) Sponsored by Metallix

Conference Technical Program (Each Day of the Conference) Sponsored by Reldan

8:00 AM **IPMI Golf Tournament Shotgun Start at 8am** Disney's Magnolia Golf Course Transportation from/to Hyatt will be provided

8:00 AM - 5:00 PM (See Daily Schedule Below) Registration Room Opens Sponsored by Heraeus 9:00 AM - 4:00 PM (Every Day) The Meeting Place ... an informal area to hold meetings Sponsored by Sims Precious Metals

3:30-4:30 PM Student Meet and Greet

4:30-6:00 PM

The IPMI Experience for First-Time Attendees — by invitation only Sponsored by Sabin Metal Corporation

6:00-8:00 PM Welcome Reception Sponsored by Tanaka and Metalor

8:00-10:00 PM

Dueling Piano Bar Sponsored by **Dillon Gage** Open Bar Sponsored by **RS Bruce** Dessert Reception Sponsored by **Techemet**





HYATT REGENCY GRAND CYPRESS RESORT · ORLANDO, FL · JUNE 8-11,

PRELIMINARY AGENDA - DAY 2

Sunday, June 9th

Security and Anti Money Laundering Day (SECAM)

7:30 AM Continental Breakfast Sponsored by Hensel Recycling

8:00 AM-4:00 PM (Every Day) Exhibit Booths

TBD Spouse Event

8:30-10:00 AM <mark>Session A</mark> World of PM Finance - PGMs

10:00-10:15 AM Morning Break Sponsored by CIBC

10:15-11:30 AM Session B World of PM Finance - Gold and Silver

11:30-1:30 PM

Member's Meeting and IPMI Luncheon Sponsored by **BASF**

1:45-3:00 PM Session C Sustainability ESG

3:00-4:30 PM Women of IPMI Sponsored by FideliTrade and Delaware Depository

5:00-6:00 PM Premier Member Social — by invitation only

Sunday Night Fever

6:30-10:30 PM

IPMI Reception Disco and 70s-80s Dance Show (starts 8:30 PM) Gold Sponsors Rand Refinery / World Gold Council / Colt Refining / Hugh Wood Silver Sponsor United PMR Dessert Sponsored by Loomis





HYATT REGENCY GRAND CYPRESS RESORT · ORLANDO, FL · JUNE 8-11,

PRELIMINARY AGENDA - DAY 3

Monday, June 10th

7:30 AM Continental Breakfast Sponsored by PMR

8:30-10:00 AM Session D Precious Metals in Clean Energy

10:00-10:15 AM Morning Break Sponsored by PMR

10:15-11:30 AM Session E Cyber Security Workshop

11:30-12:30 PM Session F Responsible Sourcing

12:30-2:00 PM IPMI Delegate Luncheon Sponsored by Auramet 2:00-3:00 PM Session G H2 Economy New Products and Refining

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 Reception Sponsored by Sabin Metal Corporation

8:00-10:00 PM **IPMI Margaritaville** (on the Upper Pool Deck) *Sponsored by Mastermelt*

The Landsharks Tribute to the Music of Jimmy Buffett, The Beach Boys and more







HYATT REGENCY GRAND CYPRESS RESORT - ORLANDO, FL - JUNE 8

PRELIMINARY AGENDA - DAY 4

Tuesday, June 11th

7:30 AM Continental Breakfast Sponsored by Brinks

8:30-9:45 AM Session H Jewelry

9:45-10:00 AM Morning Break Sponsored by Techemet

10:00-11:15 AM Session I SAC Workshop

11:15-12:30 PM Session J New Horizons

12:30 PM Student Lunch — by invitation only Sponsored by the European Chapter of the IPMI

1:30-2:45 PM Student Presentations Part 1 Open to All

2:45-3:00 PM Afternoon Break

3:00-4:15 PM Student Presentations Part 2 Open to All 6:00-7:00 PM

President's Reception Sponsored by Mitsubishi International Corporation

7:00-9:00 PM

Awards Banquet Awards Banquet Wine Sponsored by QML Awards Banquet Entertainment Sponsored by pH7

9:00-10:00 PM Closing Dessert Reception Sponsored by Umicore

** Further details on Spouse Program and Committee Meetings to follow.

Registration will be open at the following times during the Conference:

8AM-5PM on Saturday 8AM-3PM on Sunday 8AM-1PM on Monday 8AM-12PM on Tuesday



The IPMI ()® Would Like to Thank its Website Sponsors















METALOR[®]







The Jun-ichiro Tanaka Award Distinguished Achievement Award Winner is Professor Bruce H. Lipshutz

Professor Bruce H. Lipshutz

University of California Department of Chemistry & Biochemistry

Bldg. 557, Mesa Road Santa Barbara, CA 93106 USA

Education

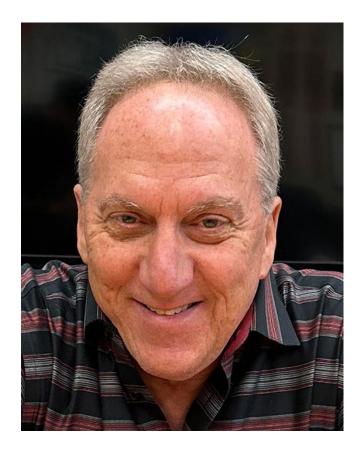
State University of New York at Binghamton (HowardAlper) B.A. 1973

Yale University (Harry Wasserman) Ph.D. 1977

Harvard University; Postdoctoral Research Fellowship (E.J. Corey), American Cancer Society (1977-1979)

Academic Appointments

1979-84 Assistant Professor University of California, Santa Barbara 1984-87 Associate Professor University of California, Santa Barbara 1987-06 Professor University of California, Santa Barbara 2006 - Professor Above Scale University of California, Santa Barbara



The Lipshutz research group continues to develop new technologies in green chemistry, with the specific goal being to get organic solvents out of organic reactions, as organic solvents are, by far, responsible for most of the organic waste created by the chemical enterprise, and derive mainly from finite petroleum reserves. To accomplish this goal, the concept of "designer" surfactants has been introduced within the area of aqueous micellar catalysis. The nanoparticles that form in water from these amphiphiles act as nanoreactors, enabling key transition metal-catalyzed cross-couplings, and many other reactions, to be carried out in water under mild conditions. The group has also focused its attention on developing new catalysts for key Pd- and several other transition metal-catalyzed reactions that enable C-C, C-N, and C-H bond formation typically at the parts per million level of the metal. Most recently, these newly developed technologies in chemo-catalysis are being merged with enzymatic processes, done in tandem in 1-pot, and all in water.



The IPMI Henry J. Albert Award Winner is Jin-Quan Yu

Jin-Quan Yu

Department of Chemistry The Scripps Research Institute

10550 N. Torrey Pines Road La Jolla, California 92037

Jin-Quan Yu was born and raised in a rather isolated mountain valley in Zhejiang Province (Southwest of Shanghai). He received his B.S. in Chemistry at East China Normal University, where he worked with Professor Li-Xin Dai and Professor Bi-Qi Wu as a visiting student at Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences in 1987. Following a one-year course study in Shanghai Institute of Organic Chemistry, he went to Guangzhou Institute of Chemistry, Chinese Academy of Sciences to study terpene chemistry and heterogeneous catalysis under the supervision of Professor Shu-De Xiao and obtained his master's degree in 1990. He stayed on as a research associate for four years and went to Cambridge University for his doctoral studies under the supervision of Prof. J. B. Spen-

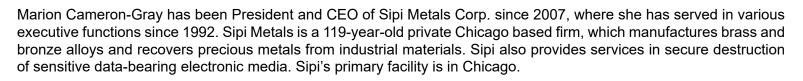


cer, where he studied biosynthesis and the mechanistic details of the hydrometallation step in asymmetric hydrogenation. He was elected as a Junior Research Fellow of St John's College, Cambridge University in 1998. From 2001-2002, Jin-Quan worked on Pd-catalyzed allylic oxidation as a postdoctoral fellow at the Harvard University in the laboratories of Professor E. J. Corey. He returned to Cambridge University in 2002 and was appointed as a University Royal Society Research Fellow in 2003 to start his independent research towards developing asymmetric C–H metalation reactions. In 2004, he moved to Brandeis University as an Assistant Professor of Chemistry. He joined The Scripps Research Institute as an Associate Professor in 2007 and became a full Professor in August 2010. He was appointed as the Frank and Bertha Hupp Professor of Chemistry at The Scripps Research Institute in 2012. He received the Mukaiyama Award in 2012, the Raymond and Beverly Sackler Prize in the Physical Sciences in 2013, the Elias J. Corey Award in 2014, the MacArthur Fellowship in 2016, the Pedler Award in 2017, Gabor A. Somorjai Award in 2022, and Tishler Prize from Harvard in 2023.



IPMI BRM Services Carol Tyler Award

Marion A. Cameron-Gray



The precious metal recovery operation partners with major refiners in Europe, Africa and Japan.

In 2007, Ms. Cameron-Gray executed a buy-out from the last remaining shareholder of the founding family.

Prior to Sipi Metals Corp., Ms. Cameron-Gray was associated with international metals trading companies in New York.

Ms. Cameron-Gray studied Electrical Engineering at Trinity College, Dublin, where she grew up, and graduated with an MBA from Pace University in New York.

A devoted music lover, Ms. Cameron-Gray is a member of the board of the Lyric Opera of Chicago where she chairs the investment committee and is a Trustee of the Chicago Symphony Orchestra Association. She is also a founding member of the American Writers Museum, recently opened in Chicago and is a board member of the Chicago Council on Global Affairs. She is also a member of the Kellogg School of Management Global Advisory Board at Northwestern University.

Ms. Cameron-Gray is a member of The Economic Club of Chicago, The Chicago Network, The Committee of 200 and the International Precious Metals Institute.







BASF Environmental Catalysts & Metals Solutions, in partnership with the International Precious Metals Institute (IPMI) have awarded Dr. Meredith A. Brown and Mr. R. Tyler Brown honorary Henry J. Albert awards in memory of their grandfather, Dr. Henry J. Albert.

Dr. Henry J. Albert, a founding member of the IPMI, served as Technical Director of Engelhard's Carteret Division and as President of the IPMI at the time of his death. This award was created in 1980 as a memorial to Dr. Albert, who was a loved and respected titan of our industry. Each year this award recognizes the outstanding theoretical or experimental contributions of the recipient to the metallurgy and science of precious metals. To date, forty-three Henry J. Albert Awards have been bestowed to renowned individuals in the precious metals community, including multiple Nobel Laureates.

Meryl Brown, the daughter of Dr. Albert, contacted Zac Henneman and Larry Drummond to ask if she could bestow her children with a keepsake legacy to her father, which we were all too happy to oblige. As noted by Meryl, "I can't remember the last time Tyler was speechless! He was truly moved to receive this. Meredith opened hers with her oldest son by her side. He is 6 and has lots of questions. It was touching hearing her explain the award to him and telling him about his great grandfather. She was thrilled to receive this. I can't thank you enough for making this idea a reality. This was truly special to all of us, and we appreciate your efforts to make this happen."

Special thanks to John Antonacci of Gannon & Scott for helping us to have the medallion minted from fine silver, in record time, so this could be presented to them for Christmas 2023.



Meredith's plaque reads:

"This award is bestowed on you as a lasting legacy to your grandfather, a fellow MIT alum, who would be proud of your accomplishments in the fields of neuroscience, linguistics, and data science."

Meredith, like her grandfather, is an MIT graduate; thereafter, she went on to receive her PhD from the University of Rochester. She currently lives in the Boston, MA area with her husband and two children, and she works as a Senior Lead Data Scientist.



Tyler's plaque reads:

"This award is bestowed on you as a lasting legacy to your grandfather, who would be proud of your education at the University of North Carolina at Chapel Hill and your accomplishments in the field of marketing."

Tyler, like his late father, is a graduate of the University of North Carolina at Chapel Hill with a degree in Marketing. He currently lives and works in Richmond, VA where he and his wife have one child with another on the way.



IPMI Internship Program

Sponsored by FideliTrade

As you know our Foundation has an extensive awards program for PhD level students. We also want to bring to your attention that we also have an internship program for undergraduates with a focus on Chemical Engineers and Chemists, but open to all educational disciplines.

Our program process is up to two of our member companies per year can apply for participation in our program. We assist them in the recruiting but the final decision as to who they hire is up to them. The students selected will receive a \$5000 internship award from our Foundation's Endowment -- sponsored by FideliTrade Inc. -- at the end of completing their assignment. The hiring company is responsible for paying the student.

Obviously the biggest potential benefit is getting hired upon graduation. We are generally looking for those in their Junior year so the company can possibly have 2 different assignments with the student. However, Seniors and Sophomores can also be included as well. There is another perk in that the student will also be invited to our Annual Conference which is typically attended by 500+ industry professionals from every aspect of the precious metals industry. They will join the 7-8 other PhD student award winners who are present at the conference. They will also present a paper at the conference describing their work.

There is complimentary registration and hotel accommodations provided by IPMI. The hiring company reimburses the student for their travel cost. This is a relatively new program and was typically a summer internship. However, some of our member companies are open to a longer assignment such as can be obtained through working with a Co-Op program where students attend school for 6 months and then work for 6 months.

If you are interested in applying to host a student intern for this year's program please contact **Larry Drummond** at ljd@ipmi.org.

WOMEN IN PRECIOUS METALS

Melissa Sullivan

Director of Suppliers Services & Compliance

PMR Inc.

As Director of Supplier Services & Compliance, Melissa Sullivan is dedicated to educating and supporting PMR suppliers, particularly in navigating the dynamic landscape of catalytic converter recycling. With over two decades of managerial, problem-solving, and client-facing expertise, Melissa's contributions to PMR are marked by her adaptability to rapidly changing market conditions and industry trends. This tangible knowledge allows her to support and assist her team through every phase of the customer service journey.

Supplier Services at PMR prioritizes delivering customized business solutions to recyclers of all-sizes, while rigorously upholding KYC and AML protocols.

Looking ahead to 2024 and beyond, the team aims to equip suppliers with the support, tools, and processes to remain advantageous in any market. Despite current challenges posed by fluctuating market values and disruptions in the supply chain, Sullivan's team is committed to empowering suppliers with knowledge, enabling them not only to endure downturns but also thrive.

"PMR consistently invests in refining our processes, upgrading facilities, and acquiring state-of-the-art machinery. This strategic approach ensures that, when the market rebounds, PMR suppliers are not only prepared but also positioned for greater success than ever before."





A leaked election manifesto of the centre-right European People's Party group (EPP) vows to "revise" the combustion engine phase-out, raising questions as to whether hard-won Green Deal laws will unravel in the wake of a more conservative EU.

This June will see Europeans head to the polls to elect a new European Parliament, helping to define the political ideology that animates both the Parliament and European Commission.

Despite being a misunderstood footnote in most EU capitals (imagine my chagrin when a family member asked if I would be voting for "Angela von Der Leyen" in the election), the upcoming European election is already the talk of the town in the Brussels bubble.

MEPs are declaring their candidacies, positions are being defined on hot button issues, and draft political manifestos are being leaked to journalists (a canny means to gauge public reaction before the document is finalised).

Last week, Euractiv got its hand on the draft EPP group manifesto, the Parliament's largest group. As with all manifestos, the document is full of soaring rhetoric, designed to give voters a sense of what values they are cosigning when they back EPP candidates.

From a transport perspective, perhaps the most interesting part is the following sentence:

"We reject a ban policy – such as the ban on combustion engines – and will also revise it as soon as possible."

The EPP has been consistent in its opposition to the 2035 internal combustion engine ban (or rather "phase out", as

Commission spokespeople like to haughtily remind journalists).

Jens Gieseke, the German lawmaker who represented the EPP in discussions on tightening CO2 standards for new cars and vans, has long railed against the Commission's "prohibition ideology".

Gieseke warned that the decision to end the sale of combustion engine vehicles would lead to a "Havana effect", with Europeans driving old combustion engine cars for decades, much like in the Cuban capital.

Indeed, the stance chimes with the EPP's "technology open" approach to decarbonisation, which essentially states that the EU shouldn't pick technological winners, in this case, electric vehicles (for the record, the European Commission also insists it has a technological neutral approach, though critics aren't convinced).

What is perhaps more interesting is the EPP explicitly declaring their intention to "revise [the law] as soon as possible".

The ramifications of this statement are significant: The European Parliament's largest group is declaring their intention to reopen a closed file, to alter something that has been signed off both by the European Parliament and member states.

If this is the case with the end of the combustion engine, it means that other Green Deal laws with lengthy implementation dates may also be open to modification.

Such a move brings into question the legacy of the von der Leyen Commission (well, its first term at least).

Much like President Trump ruthlessly repealing Obama-era legislation upon

taking office in 2017, could the EPP and their allies water down the Green Deal as it currently stands?

The expectation in Brussels is that Europe will swing further to the right in the next election. If this benefits the EPP (and, to be fair, there is speculation that the further right ECR and ID groups will be the main beneficiaries), the group may condition their support of the next European Commission President on his or her support for revisiting the ban.

E-fuel vehicles

However, one aspect is being overlooked in this discussion – despite the wording of the manifesto, combustion engine cars are not truly banned under the legislation. Rather it is the use of fossil fuels which is being banned.

Thanks mainly to the efforts of Germany (which refused to support the law without this amendment), new cars powered solely by green hydrogen-derived synthetic fuels will be allowed to be sold after the 2035 cut-off date.

This means that combustion engine cars are, in effect, already saved – so long as they run on e-fuels rather than petrol or diesel.

Whether this technicality will be enough to stop the EPP from attempting to "revise" the law – and promoting its intention to do so to voters – remains to be seen.

Sean Goulding Carroll Euractiv

https://www.euractiv.com/section/ transport/news/epp-group-vowsto-revise-combustion-engine-banas-soon-as-possible/

CHOOSING THE RIGHT CONVERTER PROCESSOR

Get all the information you need to choose the ideal converter processor for your business.

By downloading our report, you'll discover:

- The tools, services, and advantages to look for when choosing a converter partner.
- Converter data you should be tracking to grow your business.
- How PMR helped 7 recyclers achieve their business goals using the tools, services, and data we present in this report.

You deserve to make the most informed choices for your business.





Download Our Free Report





Corporate Transparency Act became effective on January 1, 2024

Congress passed the "Corporate Transparency Act," or "CTA," in 2021 as part of a global effort to limit the ability of individuals to use legal entities to shield their identities. For many years, the United States has been viewed as a significant holdout where individuals could hide behind entities, thereby facilitating money laundering and other financial crimes. The CTA is intended to prevent this by requiring many entities to report information about the individuals who are their "beneficial owners."

The CTA became effective on January 1, 2024. Accordingly, we are sending you this communication to alert you to the effects of the CTA and provide you with a very high-level summary of the CTA and its requirements. Bear in mind that the CTA and the related rules promulgated and enforced by the Financial Crimes Enforcement Network ("FinCEN") are very broad and complex, and this short communication cannot address all the particulars.

Which entities are required to report?

Subject to some exceptions, the CTA requires all US legal entities created by the filing of a document with a secretary of state or similar official (such as corporations, limited liability companies, and limited partnerships) ("reporting companies") to report beneficial ownership information to FinCEN. Non-US legal entities that are qualified or licensed to do business in the US may also be subject to the CTA. The exceptions include, but are not limited to, SEC reporting companies, banks and credit unions, securities broker and dealers, certain large operating businesses, and tax-exempt entities. However, the specifics of some of these definitions are complex, so caution is recommended.

What information must be reported?

Each reporting company must report its name (including any trade names or DBAs), address, jurisdiction of organization, and tax ID number ("EIN"). Notably, an EIN must be obtained prior to filing the CTA report. In addition, the reporting company must report, for each "beneficial owner", either the beneficial owner's (1) full legal name, date of birth, and address (and must supply a copy of a government-issued photo ID) or (2) "FinCEN Identifier". Beneficial owners are the human beings who exercise "substantial control" over the reporting company or who own or control 25% or more of the ownership interests of the reporting company, in both cases after looking through trusts or other entities that own interests in the reporting company.

When must the reports be submitted?

Reporting companies formed on or after January 1, 2024 must file initial reports within 90 days of their formation (to be reduced to 30 days in January 2025). Reporting companies formed before January 1, 2024 must file initial reports before January 1, 2025, regardless of how long ago they may have been formed.

Any time a reporting company experiences a change of beneficial ownership, it must file an update to its CTA report within 30 days of that change. For example, an update is required when a beneficial owner dies or when someone who was exempt from reporting because she was a minor reaches the age of 18. Similarly, any errors in a CTA report must be corrected within 30 days after the error comes to the attention of the reporting company.

What are the penalties for violating the CTA?

Anyone who willfully provides false or fraudulent information or fails to report complete or updated information is subject to civil and/or criminal penalties, which may include imprisonment. Note that the penalties may extend to persons in positions to make the report or who do make the report.



Tax Relief for American Families and Workers Act of 2024

Enhanced Child Tax Credit

The act expands the Child Tax Credit to provide additional support to working families. Key provisions include:

• Increased Refundable Portion: The refundable portion of the child tax credit will gradually increase over the years 2023-2025, offering more financial tax assistance to families.

• Fairness for Larger Families: Adjustments will be made to ensure fairness for families with multiple children.

Flexible Income Lookback: Taxpayers can choose to use either current or prior-year income to calculate the child tax credit in 2024 and 2025, providing flexibility in determining eligibility.
Inflation Adjustment: Starting in 2024, the child tax credit will be adjusted for inflation to keep up with the rising cost of living.

Business tax relief

The act includes provisions to support businesses and promote economic growth. Key provisions include:

Research and Experimental Expenses: The act allows businesses to immediately deduct research and experimentation expenditures, encouraging innovation.

 Bonus Depreciation: 100% bonus depreciation is extended through 2025, allowing businesses to fully expense qualified property.

• Increased Section 179 Deduction: The act raises the deduction limit for qualifying property, providing businesses with greater flexibility in deducting investment costs.

• Interest Deductibility: Businesses can deduct interest expenses, supporting their ability to meet payroll obligations and expand operations.

Support for small businesses

The act recognizes the importance of small businesses and introduces measures to support their growth and resilience. Key provisions include:

Increased Small Business Expensing Cap: The limit for immediate expensing of investments is raised, providing small businesses with more financial flexibility.
Reducing Administrative Burdens: The reporting threshold for businesses using subcontract labor is adjusted, reducing administrative burdens and streamlining operations.

• Disaster Tax Relief: Tax relief measures are extended to help families and businesses affected by natural disasters recover and rebuild.

Employee Retention Tax Credit (ERTC)

To address fraudulent claims related to the ERTC, the Tax Relief for American Families and Workers Act introduces measures to increase penalties on fraudulent promoters. It also accelerates the termination of the period for making new claims for the ERTC. These changes aim to ensure the integrity of the credit while providing support to businesses that have been relying on it. Adjustments to 1099-MISC and 1099-NEC filing thresholds

The act recognizes the evolving business landscape by adjusting the filing thresh-

olds for Form 1099-MISC and 1099-NEC. Under the new legislation, businesses will need to file these forms for payments made after December 31, 2023, exceeding \$1,000, instead of the previous threshold of \$600. This change aims to streamline reporting requirements while maintaining accurate tax reporting. Support for affordable housing

The Tax Relief for American Families and Workers Act also includes provisions to support affordable housing. It increases the nine percent low-income housing tax credit ceiling by 12.5 percent for calendar years 2023 through 2025. Additionally, the act lowers the bond-financing threshold to 30 percent for projects financed by bonds issued before 2026. These measures aim to promote the availability of affordable housing options for individuals and families.

Empowering American families and businesses: The Tax Relief for a stronger future

The Tax Relief for American Families and Workers Act of 2024 aims to provide tax relief to American families, workers, and businesses. By expanding the Child Tax Credit, offering business tax incentives, and supporting small businesses, this act seeks to stimulate economic growth and alleviate financial burdens. It is important for taxpayers to stay informed about the provisions of this act and consult with tax professionals to understand its impact on their specific circumstances.

Read the full Act here



Parliament and Council reach agreement on lower CO2 emissions for heavy-duty vehicles (POLITICO, 18 January 2024)

EU negotiators today reached a deal on cutting CO2 emission standards for heavy-duty vehicles (HDVs) like trucks, buses and trailers that will almost completely end the sale of new diesel trucks by 2040. The new targets require manufacturers to cut average emissions from new trucks by 45 percent in 2030, 65 percent in 2035 and 90 percent by 2040. The HDV sector is responsible for over a quarter of the EU's greenhouse gas emissions from road transport. The targets will also apply to other heavy-duty vehicles such as garbage and construction trucks. According to green NGO Transport & Environment (T&E), this extension will result in an additional 7 percent of the heavy-duty vehicle market being covered by the regulation.

"The EU is clearly telling truck makers when almost all their vehicles will need to be zero emissions," Fedor Unterlohner, T&E's freight manager, said in a statement. "European producers now have a clear trajectory to ramp up production of electric and hydrogen rigs and be ready for the challenge of Tesla and Chinese rivals."

The CO2 reduction targets in the regulation do include an exemption for small-volume manufacturers, vehicles used for mining, forestry and agriculture, as well as trucks used by armed forces, fire services, civil protection and medical care. Parliament's environment committee and the representatives of the member states in the Council will now receive the provisional agreement for approval. If accepted, both institutions will then formally adopt the text.

EU bans unsubstantiated environmental claims and misleading product information

(Table.Media, 18 January 2024)

On Wednesday, the EU Parliament adopted the trilogue agreement on the ban on greenwashing and misleading product information ("Empowering Consumers for the Green Transition"). The Council must now also give its approval before the directive can enter into force. The law is intended to protect consumers from misleading advertising and help them make better purchasing decisions. Among other things, several practices related to greenwashing and the planned wear and tear of products will be added to the EU list of unfair commercial practices. General environmental claims such as "environmentally friendly", "natural", "biodegradable", "climate neutral" or "eco" will be banned unless they are substantiated.

Unfounded statements about shelf life will also be prohibited in the future: For example, manufacturers will no longer be allowed to encourage products to be replaced earlier than absolutely necessary. This is often the case with printer ink, for example. Only official seals allowed In addition, only sustainability labels based on recognized certification systems or introduced by government agencies will be permitted. A new label will be introduced to highlight guarantees that go beyond the statutory warranty. If the directive is finally adopted by the Council, it will then be published in the Official Journal. The member states then have 24 months to transpose it into national law.

EU-funded NGOs should be accountable

(Table.Media, 18 January 2024)

In the future, NGOs that receive money from the EU budget will have to disclose the use of the funds down to the last recipient as well as the origin of all funding. In addition, recipients of EU taxpayers' money will be required to make all meetings with MEPs, employees and representatives of other EU institutions transparent if EU legislation is affected. This is provided for in the own-initiative report by Markus Pieper (CDU), which was adopted by the European Parliament. Pieper was unable to push through the plan to call on the Commission to submit a legislative proposal for the regulation of NGOs. The reference to an NGO in the draft report, which the Commission had founded specifically to lobby MEPs on the Nature Restoration Act, was also deleted.

THINK UMICORE.

Global Resources with Local Care

PRECIOUS METAL MILL PRODUCTS & REFINING SERVICES



300 Wampanoag Trail, Riverside, RI 02915, USA Toll Free Phone: **1-877-795-5060** Email: **usa-salesweb@am.umicore.com** Web: **umicorepreciousmetals.com**





metallix Dwayne Bailey

Environmental Health & Safety Manager Dwayne Bailey on how Metallix ensures precious metals are processed with strict attention to environmental, health, and safety regulations.

TALK ABOUT THE IMPORTANCE OF CREATING A SAFE WORKING ENVIRONMENT

At Metallix, we believe there is nothing more important than the safety of our employees. We believe all injuries are preventable and we establish specific safety initiatives and programs to support our efforts.

To create a culture of safety, it takes strong leadership commitment and a motivated workforce. We are very fortunate here at Metallix to have leaders that demonstrate their commitment to safety and promote employee engagement at all levels.

WHAT HEALTH & SAFETY PRACTICES DOES METALLIX IMPLEMENT?

Examples include employee involvement in our Safety Committee, Near Miss Reporting – to uncover hidden hazards, and participation in NC OSHA's consultative safety and health program.

HOW DOES METALLIX ENSURE A SUSTAINABLE & ENVIRONMENTALLY FRIENDLY OPERATIONS?

As a recycling company, Metallix is committed to conserving natural resources and operating sustainably. Metallix management strives for sustainable solutions and empowers our workforce to do the same.

Examples include:

- Utilizing environmentally conscious materials whenever feasible within the supply chain.
- Foster partnerships that encourage and support sustainable practices. Including annual community clean up events and our adopt a highway initiative – quarterly clean ups along a two mile stretch that runs in front of our facilities.
- We also have goals/objectives to reduce our overall environmental impact. We focus on our incoming waste streams and reducing waste generation from processing.

WHAT WILL METALLIX BE DOING NEXT?

Metallix engages in outreach initiatives that inspire a commitment to environmental stewardship in our employees and community. Metallix will be sponsoring Growing Greenville in 2024.



716.395.4444 info@upmranalytical.com UPMRAnalytical.com

Commercial Analytical Services for the Precious Metal Industry

Refining • Manufacturing Fine Jewelry Products Independent Assay Laboratory • Electronics Scrap Karat Material • High Purity Analysis • Raw Materials

We Offer:

- Fire Assay
- Inductively Couple Plasma Optical Emission Spectrometry
- Gravimetric Analysis
- Wet Chemistry
- Turnkey/Combination Analysis



PRESS RELEASE

January 31, 2024 TANAKA Precious Metals TANAKA Holdings Co., Ltd.

<u>TANAKA Establishes New Method of Recovering</u> <u>Precious Metals Adhering to Vacuum Film Formation</u> <u>Equipment Components</u>

Developing supply systems by 2025, promoting the recycling of limited precious metal resources, and contributing further to the circular economy

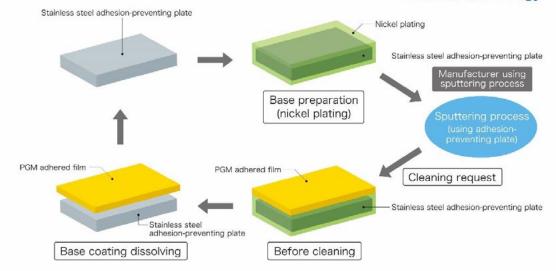
TANAKA Kikinzoku Kogyo K.K. (Head office: Chiyoda-ku, Tokyo; Group CEO: Koichiro Tanaka), which develops industrial precious metals products as one of the core companies of **TANAKA Precious Metals**, announced that it **has established a jig cleaning method called** <u>TANAKA Green Shield</u>. This cleaning method is characterized by nickel plating on the adhesion-preventing plate¹, a component of vacuum film formation equipment² used in semiconductor manufacturing and other processes. When using a nickel-plated adhesion-preventing plate, PGM³ sputtered films, including platinum and palladium, can be easily detached from the plate.

TANAKA is developing a recycling business for this use case. After detaching sputtered films adhering to components, mainly made from stainless steel, of vacuum film formation equipment such as sputtering and vacuum deposition equipment, the recovered precious metals are refined and returned to the customer with the precision-cleaned components.

This cleaning method takes advantage of a unique TANAKA technology related to base plating. Applying a nickel plating to an adhesion-preventing plate enables PGM sputtered films to be detached through chemical treatment without damaging the base material. This method makes it easier than previous methods to detach PGM sputtered films, so it is expected to reduce the amount of cleaning agent required when cleaning equipment, in turn contributing to reduced environmental impact. With an anticipated reduction in recovery loss of precious metals scattered around during the grinding process, this method is also expected to achieve higher PGM recovery rates with lower costs.

TANAKA aims to develop the TANAKA Green Shield system to support a wide variety of component shapes and sizes and to expand PGM film recovery rates by six times the current level by 2025.

Patented technology



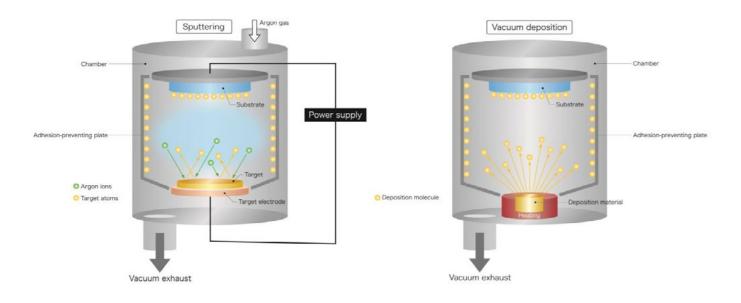
TANAKA Green Shield jig cleaning process

Jig Cleaning Method

There are multiple jig cleaning methods for vacuum film formation equipment components, including physical detachment (blast cleaning) and thermal sprayed aluminum base film formation. Physical detachment, in which an abrasive agent (cleaning agent) is sprayed to remove an adhered film, is currently a commonly used jig cleaning method due to its low cost. Use of an abrasive agent damages the surface of the base material, thereby leading to reduced lifetime of the base material. Another disadvantage of this method is that material is scattered during the process, causing a loss in precious metal recovery.

Another method for detaching an adhered film is the thermal sprayed aluminum base film formation method of jig cleaning. This requires the adhesion-preventing plate to be coated with aluminum in advance using a thermal spraying method, and the aluminum to be then dissolved with chemicals. Drawbacks of this approach include challenges in recovering adhered film from surfaces lacking an aluminum coating, as well as the elevated cost associated with forming the aluminum film.

TANAKA Green Shield is a base preparation method whereby nickel plating is applied to an adhesionpreventing plate prior to use. After using a plate in a sputtering process, for example, only the nickel plate coating between the adhesion-preventing plate and PGM sputtered film is dissolved. This enables not only the PGM sputtered film but also other adhered films with various compositions to be detached from the plate without damaging the base material. This base preparation has a high level of adhesion with adhesion-preventing plates and sputtered films, which can prevent sputtering defects caused by peeling of sputtered film. A wide variety of component shapes can also be nickel-plated with this method. In addition to preventing degradation of the base material, this cleaning method is cheaper than the aluminum film formation method. It also requires lower amounts of cleaning agent, making it an environmentally friendly, next-generation jig cleaning method.



Sputtering and deposition processes using the jig cleaning method

TANAKA and the Circular Economy

Since it was founded in 1885, TANAKA has continuously operated a precious metals recycling business. In addition to its existing precious metals recycling technologies, developed through research into precious metals over these many years, the company is now developing the TANAKA Green Shield, with a range of new precious metals recycling technologies. TANAKA's precious metals recycling business promotes the recycling of limited precious metal resources and contributes to the realization of a circular economy.

¹ Adhesion-preventing plate: Plate installed to prevent film adhering to the interior wall of a film formation chamber (sealed reaction vessel used for producing physical or chemical reactions)

² Vacuum film formation equipment: Equipment used in thin film formation processes, including sputtering and deposition, employed in the manufacture of semiconductors

³ **PGM:** Platinum group metals comprising six precious metals (platinum, palladium, rhodium, ruthenium, iridium, and osmium)

Company Information

About TANAKA Precious Metals

Since its foundation in 1885, TANAKA Precious Metals has built a portfolio of products to support a diversified range of business uses focused on precious metals. TANAKA is a leader in Japan regarding the volumes of precious metals handled. Over the course of many years, TANAKA has not only manufactured and sold precious metal products for industry but also provided precious metals in such forms as jewelry and assets. As precious metals specialists, all Group companies in Japan and around the world collaborate and cooperate on manufacturing, sales, and technology development to offer a full range of products and services. With 5,355 employees, the group's consolidated net sales for the fiscal year ending March 31, 2023, was 680 billion yen.

■ Global industrial business website https://tanaka-preciousmetals.com/en/

Product inquiries TANAKA Kikinzoku Kogyo K.K. <u>https://tanaka-preciousmetals.com/en/inquiries-on-industrial-products/</u>

Press inquiries TANAKA Holdings Co., Ltd. <u>https://tanaka-preciousmetals.com/en/inquiries-for-media/</u>



The Go-To Source for Fabricated Precious Metal Products



Are you ready to elevate your business to new heights? Look no further than Sigmund Cohn Corp, where innovation meets excellence! We can create custom wire, ribbon, tubing, targets, slugs and coin blanks from pure or alloy metals. For well over 100 years, we have serviced 20 industries, including companies focused on the production of medical, aerospace, defense, automotive, electronics, semiconductor, control, temperature-sensing and measurement products and devices. Our quality, service and dedication are what set us apart.

Contact us today to explore the endless possibilities with Sigmund Cohn Corp.

ISO 9001:2015 Certification Sigmund Cohn Corp. | www.sigmundcohn.com | Phone: 914-664-5300

GOLD NEWS



Safe-haven demand fuels price gains for gold, silver

(Kitco News) - Gold and silver prices are higher in early U.S. trading Monday, on safe-haven buying after a terrorist strike in Jordan killed three U.S. soldiers. February gold was last up \$11.50 at \$2,028.80. March silver was last up \$0.288 at \$23.16.

READ MORE



More than 70 dead in artisanal mine collapse in Mali

More than 70 people have died in southwest Mali after an artisanal gold mine collapsed last week, officials have said, the latest disaster in a region prone to mining accidents.

READ MORE



At this open-pit gold mine in northeastern Ontario, the trucks drive themselves

A new open-pit gold mine in northeastern Ontario has turned to automation — including nearly 300-tonne hauling trucks that drive themselves — in a bid to increase productivity and worker safety.

READ MORE



Tropical birds bear brunt of gold mining impact

Artisanal and small-scale gold mining has led to high levels of mercury in tropical birds, as shown by an analysis of 13 years' worth of data by an international research team, led by Christopher J. Sayers II at the University of California. The birds and the organisms linked to them in the food chain **READ MORE** are at risk of harm from exposure to this neurotoxin.



SILVER NEWS

XAG/USD soars to near \$23 as Middle East tensions mount

Silver price (XAG/USD) jumps to near \$23 as deepening geopolitical tensions improve appeal for bullions. The white metal witnesses significant buying interest as volatility expands due to deepening Middle East crises.

READ MORE



WoodMac predicts strong yet flat global PV growth through to 2032

Wood Mackenzie says the solar industry has reached a new stage in its evolution and is predicting around 350 GW of global solar installations annually for the next eight years. The research firm is also forecasting challenges for the solar manufacturing sector and long-awaited benefits from the Inflation Reduction Act in the United States.

READ MORE



Silver Nanoparticles Market Estimated to Reach US\$ 5.64 Billion by 2030 Globally, at a CAGR of 18%

Silver nanoparticles are ultrafine particles of silver that have antimicrobial properties. They are used in biomedical materials, water treatment, photonic and electronic devices owing to their **READ MORE** optical, electronic and antimicrobial properties.



Indian Finance Ministry raises import duties on gold and silver, targets tax advantage

The Finance Ministry has raised import duties on gold and silver findings, coins of precious metals, and spent catalysts containing precious metals. This has been done to end tax advantage in **READ MORE** importing gold and silver in findings form than in bar.

PLATINUM GROUP METALS



Platinum Price Forecast: Top Trends That Will Affect Platinum in 2024

After posting a surplus of 776,000 ounces in 2022, platinum began to reverse course in 2023 on the back of strong demand and decreased supply, ultimately losing 9.43 percent from the start of the year to close with a price of US\$987.25.

READ MORE



Elemental Holding and Mitsubishi enter platinum-group metals recycling partnership

Elemental Holding SA and Mitsubishi Corporation will form a platinum-group metal (PGM) recycling strategic partnership, covering Elemental's global operations from collection to refined **READ MORE** metal.



Platinum will edge higher amid deficit, on track for price parity with palladium

Analysts and traders have downgraded their price forecasts for platinum and palladium in 2024 as demand struggles to rise significantly, but they still expect prices for both to rebound from current levels, a Reuters poll showed on Monday.

READ MORE



High stakes of energy-related critical minerals

With commitments made at the 2023 COP28 Climate Change Conference in Dubai to triple renewable energy production and the surging popularity of electric vehicles, the demand for minerals such as cobalt, copper, lithium, nickel, and rare earths has skyrocketed.

READ MORE



The road ahead: Mining and extraction sector trends for 2024

2023 was an extremely challenging year for the global mining industry. In South Africa, the challenges were so multi-faceted and far-reaching that the sector has been forced to adopt crisis-mode management, and this has become the normalised way of managing South African mines. Will this continue in 2024?

READ MORE



Leading the Way in Precious Metal Reclamation



Your gold, silver, platinum, palladium, rhodium, iridium and ruthenium recovery experts

(401) 490-4555 | www.qml.us

ISO 9001 and ISO 14001 Certified

E-WASTE & PRECIOUS METALS RECYCLING RELATED



Heraeus

TANAKA

BASF and Heraeus Precious Metals start up joint metal-recycling facility in China

BASF Environmental Catalyst and Metal Solutions (ECMS) and Heraeus Precious Metals have commenced operations of a new joint venture facility, BASF HERAEUS Metal Resource Co., Ltd, (BHMR) located in Pinghu, China.

READ MORE

Tanaka claims precious metals recovery breakthrough

The Tanaka Precious Metals business unit of Tokyo-based Tanaka Kikinzoku Kogyo K.K., a producer and recycler of precious metals, says it has established a method that can recover metals including platinum and palladium that are adhere to certain types of equipment used in semiconductor manufacturing and other processes.



Mastermelt's double strategic acquisitions in homogeneous catalyst recycling

Precious Metal Recovery Specialist proudly announces the strategic acquisition of IEX Technologies Ltd, a leading provider of advanced ion exchange materials and process technology. Simultaneously, we are pleased to announce the acquisition of the solvent distillation process plant from Green Lizard Technologies Ltd.



The Royal Mint partners with the Ministry of Defence to provide a sustainable solution for the recycling of military electronic devices

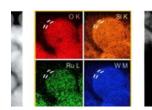
The Royal Mint has partnered with the Ministry of Defence's (MOD) Defence Equipment Sales Authority (DESA) to provide an innovative and sustainable solution for the disposal of electronic defence equipment.





The European Chapter of the IPMI has booked the venue for next year's Annual Seminar in Lisbon, Portugal. We hope to see you there! Sheraton Lisboa Hotel & Spa Lisbon, Portugal November 17 - 19, 2024 More details to follow.

HYDROGEN NEWS



(RuSiW Catalyst) Discovery enables cost-effective and eco-friendly green hydrogen production

A breakthrough technology has been developed that enables the production of green hydrogen in a more cost-effective and environmentally friendly manner, bringing us closer to a carbon-**READ MORE** neutral society by replacing expensive precious metal catalysts.



The Next Diesel? GM and Honda Start U.S. Production of Hydrogen Fuel Cells

GM and Honda have started production of hydrogen fuel cells that will power commercial trucks, heavy equipment, generators, and passenger vehicles. The fuel-cell modules being built by the joint venture will be used in a hydrogen-powered Honda CR-V that will debut in March 2024 and **READ MORE** eventually be available for sale in California in limited quantities.



BASF and Envision Energy enter a collaboration to develop e-methanol technologies

BASF Process Catalysts announced a new collaboration with Envision Energy, a leading green technology provider of comprehensive net zero solutions. The collaboration aims to further develop the conversion of green hydrogen and CO2 into e-methanol ...

READ MORE



The dawn of the clean hydrogen economy — visualized

The world is betting big on hydrogen, which might just be the best way to eliminate fossil fuels from essential industries like aviation and steelmaking. But for hydrogen to actually decarbonize anything, it needs to be more or less emissions-free --- "clean," if you like.

READ MORE

Recover more Worry less

Recovering your precious metals since 1919.



gannon-scott.com

800.556.7296

SEMICONDUCTOR, EV, FUEL CELL RELATED



Researchers Create World's First Functional Semiconductor Made From Graphene

In a breakthrough new paper, an international research team has unveiled the world's first functional semiconductor made from graphene. The research team says that their discovery could open the door to a whole new way of building electronics.



The environmental costs of EV batteries that politicians don't tend to talk about

Along with the massive recent manufacturing investments in electric vehicle (EV) technology and talks of a greener, decarbonized future, there are some not-so-green problems.

READ MORE



Porsche CFO says Europe may delay its ICE ban

On the heels of unveiling the long-awaited all-electric Porsche Macan SUV, the company's chief financial officer Lutz Meschke delivered what could be some dreary news, if it happens: He said that Europe's plan to ban ICE vehicles by 2035 may get pushed back due to a slowing EV demand, reports Automotive News Europe.



Infinium and Amogy Team Up to Spearhead Green Ammonia and eFuels Solutions

Leading eFuels provider Infinium and Amogy Inc. ("Amogy") have entered into a memorandum of understanding (MOU) to explore opportunities to integrate their technologies and develop commercial applications across the eFuels and green ammonia value chain.



One of the largest recyclers of PGMs

We are one of the world's largest recyclers of scrap automobile catalyst. Headquartered in Pasadena, Texas, we have branch offices in Mexico, Italy, UK, Canada and Brazil





OTHER PRECIOUS METALS NEWS



Silver Outlook 2024: Constrained supply, rising demand, and USD weakness could see silver overshoot forecasts

(Kitco News) - Silver is in a paradoxical position at the start of 2024. On the one hand, industrial demand for the precious metal continues to grow, particularly from the solar and electrification sector, and supply remains constrained.



Heraeus Precious Metals commits to the hydrogen economy

Germany-based Heraeus Precious Metals has established a new dedicated Hydrogen Systems business line as of the start of the year, signaling its commitment to the hydrogen economy.

READ MORE



BRICS Continue Gold Buying Spree in 2024

BRICS was the biggest buyer of gold in 2023 as China, Russia, and India stockpiled the precious metal worth billions. The latest data from the World Gold Council shows that BRICS member China added 225 tonnes of gold to its reserves in 2023 alone.

READ MORE



Kazakhstan Plans to Auction Nearly 70 Precious Metal Deposits

The Kazakh Ministry of Industry and Construction has announced its intention to facilitate electronic trading for about 70 deposits of precious metals soon, Kazinform reported on Jan. 3.

READ MORE



Logistics Crafted to Fit Your Needs Lic. & Cert. by: US Customs / TSA / C-TPAT / FMC e-Mail: <u>info@vortexwl.com</u>

IPMI ©[®] Upcoming Events









IPMI Winter Meeting

February 20-22, 2024

Hyatt Grand Cypress Resort, Orlando, Florida

REGISTER TODAY

New England Chapter Networking

Warwick, RI

New York Chapter Spring Seminar May 1, 2024

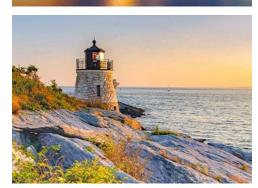
New York City, NY

IPMI EU Chapter: The Spring Reception May 14-15, 2024

London, UK

New England Chapter Jewelry Awards May, 2024

TBD



IPMI ©[®] Upcoming Events









IPMI 48th Annual Conference June 8-11, 2024

Hyatt Grand Cypress Resort, Orlando, Florida

REGISTER TODAY

New York Metro Chapter Fall Event September, 2024 New York City, NY

11th Annual Platinum Dinner September 12, 2024

St. Regis Hotel, New York City, NY

EHS Operations Hybrid Seminar Fall, 2024

TBD



SAC Symposium IV October, 2024 Colorado School of Mines, Golden, CO

IPMI ©[®] Upcoming Events

2024



New England Chapter Fall Networking Dinner October, 2024

Warwick, RI



2024 European Chapter Annual Seminar November 17 - 19, 2024 Sheraton Lisboa Hotel & Spa, Lisbon, Portugal

BOOST YOUR BRAND'S VISIBILITY

Through IPMI Ads & Sponsorships

Advertising and sponsorships are available for the IPMI website, publications and events.

Contact Sandra at <u>mail@ipmi.org</u> for more information.

IPMI Upcoming Events

2025-26-27-28



IPMI Winter Meetings

February 18-20, 2025

Hyatt Grand Cypress Resort, Orlando, Florida

IPMI 49th Annual Conference June 7-10, 2025 The Phoenician Resort, Scottsdale, Arizona

IPMI 50th Annual Conference June 6-9, 2026







IPMI 51st Annual Conference June 12-15, 2027

The Phoenician Resort, Scottsdale, Arizona

IPMI 52nd Annual Conference June 10-13, 2028

JW Marriott Bonnet Creek, Orlando, Florida