

36th Anniversary Dinner raises record sum for charity



Peter Nicholson, auctioneer

The MMTA's 2009 annual London Metals Week dinner took place at the Institute of Directors (IoD) in central London and was a sell-out event. The evening repeated 2008's highly successful format of a late bar, a dance floor and live music from "Almost Unheard".

The MMTA is very proud of its fundraising for charity at the anniversary dinners and this year was no exception. At past dinners this took the form of a raffle for a case of wine but, inspired by the silver ingots raffled last year, this year there was an auction of promises. With promises ranging from a flying lesson to a hike in rural England MMTA members dug deep into their pockets and raised a total of £5645 for the Carey-Mufulira Trust in the Copperbelt region of Zambia.



Avon Metals Ltd
generously
sponsored the dinner

This was by far the largest charity donation ever raised by the MMTA's membership and comfortably surpassed the previous record of £4500 donated at the 35th anniversary dinner. Special thanks go to [Avon Metals](#) for generously sponsoring the dinner, to Peter Nicholson for a commanding performance as auctioneer and all those who donated and bid for promises.

The International Minor Metals Conference



26-28 April 2010, Mandarin Oriental Hyde Park, London

The premier event for the minor metals industry!

Attendee list and full programme now available online at www.mmta.co.uk

The conference includes a cocktail reception in the LME 'Ring', gala dinner at London's Science Museum, the MMTA's AGM and world-class presentations!

North American Committee host dinner in New York

On December 3rd the inaugural meeting of the North American Committee took place in New York. Noah Lehrman ([Hudson Metals](#), in the chair), Wayde Yeoman ([OM Group](#)), and Gary Boigon ([PM Recovery](#)) were joined by MMTA Chairman Guy Darby and the Executive for an enthusiastic discussion on how best to represent North American members' interests and develop membership in this region. Following the meeting was the annual New York dinner generously sponsored by [Pacorini Metals](#).



On this occasion the speakers Robert Noll, Sales Manager at Molycorp Minerals LLC and US Airforce Major General Robert Latiff (retired) talked about rare earth elements and the US stockpiling policy respectively. The attendance was the highest yet for this event and provided an excellent launch-pad for the new committee.

New Approved Warehouse: Pacorini Metals USA, LLC

The MMTA's Warehousing Committee has confirmed that Pacorini Metals USA is now a fully approved warehouse for minor metals in Baltimore, Maryland, USA.



Pacorini Metals USA provides terminal stevedoring operations, warehousing, trucking and rail services as well as freight forwarding and chartering services. For more information please contact Frans Zwanenburg on f.zwanenburg@pacorinimetals.com, +1 410 327 2931, www.pacorini.com.

New MMTA Members:

Since the last edition of *The Crucible* the following companies have joined the MMTA community:

CP Chemical, LP is primarily focused on the recovery of cobalt, nickel, molybdenum, tungsten, rhenium and ruthenium. It is also involved in the production of nickel carbonate, nickel sulphate, nickel oxide, cobalt carbonate, cobalt sulphate, molybdenum oxide, APR and rhenium metal. For full details contact Paul Hesel on +1 724 656 7101 or paul@thecpchemical.com.

Credit Suisse is a major global bank with offices around the world. Credit Suisse can provide hedging arrangements for minor metals including cobalt, ferro-vanadium, manganese and molybdenum. For details contact Phillip Killicoat on +44 (0)207 888 0893, phillip.killicoat@credit-suisse.com, www.credit-suisse.com.

Exotech, Inc is a processor and producer of exotic and high temperature metals and alloys. Its primary focus areas include processing all forms of scrap Ta, Nb, Cr, Mo, W, In, Ti, Co, Hf and their alloys, particularly from the sputter target industry. Contact David Gussak on +1 954 917 1919, david@exotech.com, www.exotech.com.

F E Motram Ltd is a major producer of ferro-titanium and ferro-aluminium alloys and a supplier to steel industries throughout the world. Current annual production capacity is approximately 10,000 MT. It also can process Al-Ti master alloys. Contact Daniel Nix on +44 (0)114 244 6723, dnix@femottram.com, www.femottram.co.uk, for full information.

Metherma KG specialise in the supply of niobium, rhenium, zirconium, molybdenum, tungsten, cobalt, hafnium and their products. Further details can be obtained from Dieter Strathmann on +49 (0)211 408084-0, molybdenum@metherma.de or online at www.metherma.de.

Sinotungsten Ltd's main business involves investment in tungsten production in China and the trading of various kinds of tungsten, molybdenum, cobalt, bismuth, cadmium, tin, vanadium, manganese, copper scrap, nickel and rare earths. Contact He Hong on +86 791 620 3664, dept1@sinotungsten.com, www.sinotungsten.com.

Standard Bank is a global emerging markets bank headquartered in South Africa. Standard Bank's focus is on cobalt and base metals and it can offer a full service to industry participants, from financing through to final delivery. Details from Tony Southgate on +44 (0) 20 3145 5000, Tony.Southgate@standardbank.com, www.standardbank.com.

Willis Ltd is an insurance brokerage company and risk adviser to MMTA members. Willis provides value to clients in four key ways; industry expertise, strategic expertise, risk analysis expertise and innovative product solutions. For full details on the services Willis can provide contact Michael Pearce +44 20 3124 7654, pearcem@willis.com, www.willis.com.

Who would you recommend to join the MMTA?

Note to members: An application for warehouse approval by NEMS for a location in Liverpool was not accepted by the Warehousing Committee.

Dates for your diary

Trade and Industry Seminar	Brussels, Belgium	3 March 2010
The International Minor Metals Conference	London, UK	26 - 28 April 2010
Annual General Meeting (AGM)	London, UK	27 April 2010
Open day at KGHM Ecoren and KGHM	Wroclaw and Glogow, Poland	10 June 2010
North American dinner	(tbc) USA	June 2010 (tbc)
Open day at Stewart Group's laboratory	Rotterdam, The Netherlands	9 September 2010
37 th Anniversary Dinner	London, UK	12 October 2010
North American dinner	New York, USA	9 December 2010
Christmas Lunch	London, UK	16 December 2010



MMTA joins EU Trade Contact Group



The MMTA has been invited to join the high level trade contact group of the European Commission's tax and customs directorate in recognition of this association's significant role in the metals industry. This body is the main consultation group for all new developments of trade and customs issues within the European Union and membership will help keep MMTA members fully informed. The Trade and Lobby Committee would like to thank Arnoud Willems and Carolina Dacko of Sidley Austin for their support on this matter.

Learn more about this exciting development at the Trade and Industry Seminar in Brussels, March 3rd.

MMTA members quizzed over Christmas Lunch

The MMTA's 2009 Christmas lunch in London took place in the medieval glory of the Old Hall at Lincoln's Inn. Members were out in force and the festive experience was complete with a Christmas tree and carol singers. After the success of last year's quiz Avon Metals generously donated champagne for a repeat performance (www.avonmetals.com).



To outwit anyone tempted to consult their Blackberry for answers the final question was to identify the metal and weight of a crystalline bar. Suggestions ranged from zirconium to cobalt, but 496g of titanium was the correct answer.

The quiz questions in full (answers on page 4):

1. Iridium is obtained commercially from the mining of which two metals?
2. Name a minor metal known to impart a 'garlic' smell to anyone handling it?
3. Which 3 minor metals are used to manufacture CIGS semiconductors for thin film solar cells?
4. Which minor metal derives its name from the Greek word for the metal "lead"?
5. Which minor metal has gained the nickname "The Poisoners' Poison"? (hint – it is not Arsenic)
6. Which element is commonly used in the manufacture of LEDs?
7. Which minor metal is used in the manufacture of lipstick?
8. During WW2 which minor metal was widely used to coat bearings in high-performance aircraft?
9. In its oxide form, which minor metal has been identified by microchip makers Intel and IBM as a potential replacement for the Silicon chip?
10. Name the minor metal used to give the "red" colour in cathode ray tube televisions?
11. Which minor metal takes its name after the River Rhine?
12. The compounds of which minor metal are used medicinally in the production of antacids?
13. Which is the most corrosion resistant of all elements?
14. Which minor metal literally means "of rainbows"?
15. Name the two principal processes by which Titanium is extracted from its ore?
16. In the Julia Roberts film "Erin Brockovich" (2000), which metal contaminated the water supply?
17. Which 2 rare earth metals have the highest magnetic strengths of any elements?
18. Which minor metal was originally known as "erythronium"?
19. Which minor metal takes its symbol from the Latin "stibium", meaning "mark"?
20. What metal is on display and how much does it weigh (in grams)?

Focus on

Hafnium (Hf)



A hafnium crystal bar

Anthony Lipmann of Lipmann Walton & Co explores the world of hafnium.

Element No.72, hafnium, was named after Denmark's capital, Copenhagen (Hafnia in Latin) and was only isolated in 1923 by physicists examining zirconium ore. Today, zircon sands (ZrO₂), from Australia, South Africa, and Brazil are the main source of hafnium, where it occurs at the rate of 1:50 (hafnium to zirconium). Hafnium is refined during the purification of zirconium for use in the nuclear industry. Zirconium, a low neutron absorber, is used for the fuel rods containing uranium, while hafnium's neutron-blocking properties see it employed in the control rods.

Due to the strategic nature of the nuclear industry few hafnium producers exist. The two leading producers are Wah Chang in the USA (circa 40mt/yr) and Cezus in France (circa 30 mt/yr), the latter being owned by Areva, the largest constructor of nuclear power stations in the world. Toshiba Westinghouse also produced until recently. Ukraine produced hafnium during the Cold War but has now ceased. China is at an early stage of developing domestic hafnium production.

Consumption is dominated by nickel-based single-crystal alloys for jet engines and IGT, while hafnium consumption in nuclear control rods is about 10-15 mtpy. The leading hafnium-bearing nickel alloy, MAR-M-247, contains 1.5% Hf and consumes 20-30mt mtpy. A further 10 mtpy is used in plasma-cutting equipment where hafnium's properties have revolutionized the field. A small amount of hafnium is used in computer processing chips and hafnium oxide is used in blue lasers for DVD readers.

Hafnium is classed as a 'dual use' metal under the 'Non-Proliferation of Nuclear Weapons Treaty' and therefore many countries require end-user statements and licences to import or export. To discover MMTA suppliers of hafnium visit www.mmta.co.uk

Trade and Industry Seminar Brussels, March 3rd

This event will give an insider's guide to the EU decision-making process, how to lobby for/against proposals and what industrial topics are currently under consideration.

The event will include a tour of the European Parliament (bookings close on 16th February).

On the evening before the seminar (Tuesday 2nd March) there will be an informal dinner and drinks in central Brussels.

This event has been organised and sponsored by Sidley Austin.

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The International Minor Metals Conference 2010

Programme & attendee lists are now available.

Presentations from: Umicore Precious Metals Refining, Johnson Matthey, Heraeus, Firth Rixson, Magnesium Elektron, Less Common Metals, Avicenne, Chemetall and Retorte.

Gala Dinner will be at the London Science Museum on April 27th and is sponsored by LN Metals International. For full details contact sales@metalevents.com or +44 20 7840 0145 or visit www.mmta.co.uk.

 **LONDON METAL EXCHANGE**
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Answers to the Christmas Quiz:

1. Nickel and/or copper, 2. Selenium and/or tellurium, 3. Indium, gallium and selenium, 4. Molybdenum, 5. Thallium, 6. Gallium, 7. Bismuth, 8. Indium, 9. Hafnium, 10. Yttrium, 11. Rhenium, 12. Magnesium, 13. Iridium, 14. Iridium, 15. Kroll and/or Hunter, 16. Chromium, 17. Dysprosium and Holmium, 18. Vanadium, 19. Antimony, 20. Titanium, 496g.