

The Crucible

New-Look Crucible Launched

Now Online

This Issue-

Farewell from Guy Darby

MMTA Conference Preview

The Big Interview

Minor Metals Insider

A day in the Life of...

MMTA on the Road

and much more...





Maria Cox, MMTA General Manager

WELCOME TO THE NEW-LOOK CRUCIBLE

By Maria Cox, General Manager

We hope you will agree that our new-look Crucible is quite a departure from the previous format. The Crucible Working Group has endeavoured to make our quarterly newsletter fresh, relevant and interesting, with more of a journal feel, so we are very keen to hear what you think!

The Crucible, in its new, online format, offers not only an overview of

next edition.

Another new feature of the newsletter is A Day in the Life... Ahead of the MMTA's International Minor Metals Conference in Cologne, Volker Mertens of Womet (www.womet.de) gives us an overview of a typical day in one of the MMTA's German member companies. For this edition, Volker's piece is published in German and English. In each edition, we will be focussing on the activity of one

We are very keen to hear what you think of this first edition of the re-launched Crucible!

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**Please send all letters
or suggestions for future
issues to**

maria@mmta.co.uk

the activities of the MMTA, but a wide range of comment and opinion.

In this edition, Guy Darby of Darton Commodities (www.dartoncommodities.co.uk) offers a short review of his 3 years as Chair of the Association. I am sure you will join the Main Committee and Executive in thanking him for all his hard work and commitment on behalf of the MMTA. We look forward to continuing to see Guy at future MMTA events.

We have been incredibly fortunate that Professor Martyn Poliakoff of The University of Nottingham and Vice President of the Royal Society, kindly agreed to share his insights with us in our big interview.

Our new Minor Metals Insider column offers a personal perspective on a topical issue from an industry insider. In this first edition, Anthony Lipmann offers his thoughts on the importance of warehouse neutrality. Whether you agree with Anthony's views or not, we look forward to being able to publish your letters in the

member company, and we are certain you will find this as interesting as we have.

Elsewhere in the Crucible, Tony Bayley of ABSCO Materials (www.abscomaterials.com) has been engaged in a review of REACH with the UK's Department for Environment, Food and Rural Affairs (DEFRA) to examine the impact of REACH on the business community, in particular small and medium sized enterprises (SMEs). To assist in this initiative, Tony is asking other MMTA members to support his efforts by providing anonymous data. Please see the back page for more details.

Above all, the Crucible is your newsletter, and we encourage you to contribute your comments. We want to know what you think of the new online format, whether there are other items you would like to see in future editions, as well as what you think about April's contributions; there may be other members who share your point of view.

MMTA'S MINOR METALS CONFERENCE 2012

If you have not already registered for the MMTA's International Minor Metals Conference, this year taking place at the Hyatt Regency Hotel in Cologne, Germany between 23rd and 25th April, time is running out!

Cologne was founded by the Romans on the River Rhine almost 2000 years ago making it one of the oldest cities in Germany. Throughout history the river has been an important transport link connecting the major Netherlands ports on the North Sea



Modern Art Structure, Cologne, Germany

with the industrial heartlands of Germany and beyond. The region continues to be at the centre of the minor metals industry and is home to many of the MMTA's member companies. It is for these reasons that the Association decided to bring its 2012 MMTA International Minor Metals Conference to Cologne.

The focus of the MMTA's conference is the programme of speakers, and each year we try to include presentations that reflect the pertinent issues for our membership and the wider industry. We are fortunate to be able to use the depth and breadth of our membership's knowledge to find specialists who provide a high level of insight into our industry's developments.

This year we are focusing on power and energy, with a session devoted to photovoltaics and the solar industry, which includes speakers from H.C. Starck, First Solar, Germany's Federal Institute for Geosciences and Natural Resources and AIM Specialty Metals. We also have presentations on battery materials such as lithium by Chemetall, as well as developments in the Gas Turbines sector by Alstom Thermal Power. As we are in Germany, it would be remiss not to include a speaker on the tool and specialty steel sectors and we are delighted that Markus Moll of SMR GmbH is giving the keynote presentation on the outlook for these important markets.

The availability of a number of our metals, including rare earths, rhenium and tungsten, is still a key issue. The importance of developing rare earths resources outside China continues, and Solikamsk Magnesium Works will talk about Russia's resources. The role of recycling in ensuring the availability of critical metals will be covered by Neo Performance Materials. Consumption trends for the minor metals will be covered by Less Common Metals looking at magnets and AVX Tantalum Division speaking on capacitors.

For more information, or to register, go to www.metalevents.co.uk or email sales@metalevents.co.uk.

UPCOMING EVENTS

- **MMTA's International Minor Metals Conference**, Hyatt Regency Hotel, Cologne, Germany **23rd—25th April 2012**
- **MMTA's AGM**, Hyatt Regency Hotel, Cologne, Germany **24th April 2012 at 16.15**
- **UN Trade & Development Event with dinner**, Geneva, **22nd/23rd May 2012**
- **Informal Drinks**, Wheel-tapper Patio, Fitzpatrick Hotel, **New York, USA, 14th June 2012**
- **Metallurgy for Beginners Training Course**, London, **UK 21st June 2012**
- **Informal Drinks**, London, **UK, 21st June 2012**

DIARY DATES

- **39th Anniversary Dinner**, Intercontinental Hotel, Park Lane, London, **16th October 2012**
- **New York Dinner**, Cornell Club, New York, **USA, 5th December 2012**
- **MMTA Christmas Lunch**, Pewterers' Hall, London, **UK, 12th December 2012**



Guy Darby, MMTA Chair 2009–2012

FAREWELL MESSAGE FROM THE CHAIR

As I reach the end of my 3-year tenure as Chairman of the MMTA, I look back with huge satisfaction at what we have achieved in that time.

A good barometer will always be membership numbers, which have increased by 50%, but it is also interesting to note that the new member companies clearly believe being part of a vibrant and dynamic industry association is important to their business.

Beyond increasing membership, I have felt it important to improve every faculty of the Association, and by doing this we have achieved a great deal including:-

£50,000, which I am very proud of.

We also worked with the LME to evolve an alternative price discovery system to the journalistic type that currently covers non terminally traded metals. Although a majority of members voted against proceeding with this system, I personally found the process interesting and something that perhaps can be re-visited in the future.

The issue of warehouse neutrality was felt to be so important, in an environment where other bodies had accepted non-independent ownership, that the Board decided to canvass the opinion of its membership, a vast majority of whom believed

“a wonderful example of members participating... [and]... their voices being heard”.

MMTA MEETS ZAMBIAN HIGH COMMISSIONER

On Tuesday 6th March, the new High Commissioner of Zambia, His Excellency Lt. Col. Bizwayo N. Nkunika, presented his letters of credence to Her Majesty Queen Elizabeth II. The MMTA was lucky enough to be invited to the Zambian Embassy for the return of the new High Commissioner and his party from Buckingham Palace, and to celebrate with them.

After speeches from The High Commissioner and Dr Scott, wife of the Vice President of Zambia, I had the chance to meet His Excellency. Once I mentioned the links between the MMTA and Mufulira -

(see over)

- Updating the Articles of Association – a vital job as the Association has changed beyond recognition since the original Articles were written.
- An overhaul of the Association’s IT/communication/website which is ongoing and should be complete during the course of this year.
- Together with Metal Events, the MMTA runs what is internationally recognised as THE conference representing minor, rare earth and electronic metals. To anyone that has attended this now annual event (and there can’t be many who haven’t) it is clear that the content, location and participation is unbeatable.
- The globalisation of the MMTA. With our stated intent to globalise the Association, we now have 30 American members and in recognition of that success, we last year held the most successful conference yet in Philadelphia, proving that the strategy is working. We now look towards the Far East as the next growth area.
- Establishing a charitable relationship with the copper town of Mufulira and the CMCPT (Cary Mufulira Community Partnership Trust) which includes a school exchange programme. Thanks to the generosity of the MMTA members, we have raised more than

the Association’s key criteria for obtaining approval to have relevance. In my mind this was a wonderful example of members participating in a very important issue of the day, and of course their voices being heard.

By now you all know Maria Cox, our General Manager, and her Assistant Emma Newman. In Maria and Emma we have a dynamic Executive fit for purpose and whose energy and enthusiasm permeates through the Association.

I would like to express my deep gratitude to all those that not only serve on the Main Committee but the various sub-committees, without whom the MMTA would not function. Their dedication to the cause should be applauded.

Lastly I would like to thank you, the members, for making the MMTA what it is today: the most dynamic and successful industry association.

In Roy, I leave the Chair in strong hands and look forward to witnessing the Association’s continued growth and success, but from the back seat!

Yours sincerely

Guy Darby

Chairman, Minor Metals Trade Association

A DAY IN THE LIFE OF... VOLKER MERTENS

TAGESABLAUF...

Was macht man eigentlich den ganzen Tag im Büroalltag eines kleinen Metallhandelshauses?

Der frühe Morgen steht jeden Tag unter den gleichen Vorzeichen: Die Kommunikation und Information will erledigt werden, also heißt es Kaffee und Emails – das kostet schon recht viel Zeit. Anschließend noch Recherche: welche politischen Entscheidungen oder wirtschaftlichen Aspekte die Märkte beeinflussen, welche Mine schließt, wo gibt es Knappheit – warum erhöhen die Chinesen die Preise?

Ein Überblick über die Entwicklungen von Marktpreisen und Devisenkursen ist Grundvoraussetzung.

Nach der Information steht bei mir der Austausch mit meinen Kollegen im Büro auf der Agenda – alle müssen informiert sein, das Tagesgeschäft und Termine abgesprochen werden. Außerdem müssen die Positionen gecheckt werden – müssen wir nachdecken oder verkaufen?

Meistens ist es dann schon 10 Uhr – den Rest des Vormittages verbringen wir mit der Abwicklung von Aufträgen und dem Versand von Waren an die Kunden. Wir prüfen jede eintreffende Ware und ausgehende Ware persönlich, verpacken und machen sie versandfertig. Oftmals müssen wir ins Lager fahren und Ware begutachten, passt sie mit den Kundenspezifikationen überein oder müssen wir Partien tauschen. Waren gehen häufig am gleichen Tag zum Kunden – just in time, wie immer.

Mittags gibt es oft nur eine Kleinigkeit zu essen – gelegentlich nutze ich die Mittagspause für ein Geschäftsessen mit Kunden und Kollegen.

Nachmittags ist häufig wieder Zeit für die eigentlichen kaufmännischen Aufgaben: Telefonate, Angebote, Kalkulationen, Bankgeschäfte, Devisensicherung, Emails usw.

Zwischen 17 und 18 Uhr kann ich meistens Feierabend machen, das Mobiltelefon und die Push-Emails bleiben natürlich an... Bis abends 20 Uhr... Alles was jetzt nicht erledigt werden konnte, ist morgen früh dran!

A DAY IN THE LIFE

What does one do all day in the office of a small metal trading firm?

The first heading of the day is always the same: Correspondence and Information need to be completed, so it's coffee and emails – which actually takes quite a lot of time. And then research - which policy decisions or economic aspects will influence the markets? Which mine is closing? Where do shortages exist? Why are the prices from China increasing?

An overview of developments in market prices and exchange rates is a must!

Next on the agenda is communication with colleagues in the office – everyone needs to be aware, so daily operations and schedules are discussed. In addition, our positions are checked – must we sell or cover ourselves?

Once all this is done, it is generally already 10 clock - the rest of the morning is spent on processing orders and shipping goods to customers. Every incoming and outgoing order is checked and packed in person, to ensure it is ready for shipment. Often we have to go to the warehouse and inspect the goods, to make sure they meet customer specifications, otherwise we have to swap part of the order. Goods often go to customers the same day - just in time, as always.

I often only eat something small for lunch – or sometimes I use the lunch break for a business lunch with clients and colleagues.

The afternoon is often when I get on with the actual business of trading: phone calls, quotations, cost estimates, banking, currency hedging, emails, etc.

I can usually call it a day somewhere between 5 and 6pm, of course the mobile phone is on until around 8pm, and I'm still checking emails! And anything that can't be done today – there's always tomorrow!

Volker Mertens is General Manager at [Womet GmbH](#)

MMTA MEETS ZAMBIAN HIGH COMMISSIONER (CONTINUED)

including supporting the town through fundraising, and having a number of members and their families who have visited - I was ushered away with Mrs Ikayi Gertrude Sambundu Mushingi, the Economic Councillor, to discuss the MMTA's continued support of Mufulira.

It was clear that the work the MMTA has done to support one of the most polluted towns in Zambia has not gone unnoticed. The generosity of the membership led to me receiving such a warm welcome, and so, to those who have donated to the charity in the past, I would like to thank you, and encourage all members to help us continue our support of this town in Zambia.



Emma Newman, MMTA Assistant General Manager meets His Excellency Lt. Col. Bizwayo N. Nkunika, High Commissioner of Zambia and his wife at the Zambian Embassy.



Anthony Lipmann presents Professor Martyn Poliakoff with a sample of Rhenium metal and a single crystal turbine blade in thanks for his fascinating interview.

POLIAKOFF SPEAKS TO THE MMTA

The scene is The Royal Society, and our interviewee, Martyn Poliakoff, is the man who, together with his team, has ignited a forest fire of interest in physics and chemistry with his YouTube success www.periodicvideos.com

These are a series of avuncular, genuinely unscripted, videos tackling in précis form chief characteristics, applications and wonders of each element, and are of equal interest to both novice and hack alike.

Here you will see everything from a Periodic Table made out of cupcakes to a snow covered journey in Sweden to find the quarry near Ytterby (Atomic no 70) where silvery, lustrous, Ytterbium was first found. For those of you who, like me, enjoy the trivia of metals and elements as much as the trades, this is for you.

The height of Dr Magnus Pike with the hair of Albert Einstein, Poliakoff clearly has the genes for this type of work, and thanks to Emma Newman of the MMTA, an alumna of Poliakoff's University of Nottingham, he has agreed to be subject-

"Elements can't run out, but they can get so finely distributed that you can't recover them."

MMTA UPDATE

The MMTA's next Annual General Meeting (AGM) will take place on 24th April 2012 at 16.15 (during the International Minor Metals Conference).

All MMTA member companies are welcome to attend.

Full details have been circulated by email to all member companies.

ed to the razor sharp interviewing techniques of the MMTA.

Today, Poliakoff is in his first year of Vice Presidency of the Royal Society, for which he is also roving ambassador, in honour of his services to education. On the desk in his office overlooking the Mall sits a miniature red pillar box. Poliakoff points to it and volunteers the explanation that 'it is there because the global population hit 7 billion in October 2011, which is about the number of grains of sand you could put in a (full size) letter box.'

It is an analogy worthy of the teacher in practice – to hit upon an image that reduces a subject to its essence. In metals trading, of course, the aim is a financial outcome, but as we sit at the interface between science and industry delivering elements, compounds and alloys into the hands of those who would manipulate them into products, we have a great privilege. One of the paradoxes of our position as merchants is that we sometimes see more elements in their metal form than some chemists see in a life time. So, with this in mind, I present Martyn with two items, a small sintered 99.9% Rhenium pellet, and a single crystal turbine blade. Poliakoff feels its density and remarks that he has 'done some experiments with Rhenium' but 'never seen rhenium metal'. I have also brought along a piece of Zirconium crystal bar. Poliakoff hands me in return one of his business cards which is the photograph of a periodic table printed on a hair. 'This is one of the smallest periodic tables in the world and it is now in the Guinness World Records'. Methinks, I have possibly been outdone here...

I am keen to ask Poliakoff if he can see any specific new application on the horizon which will require a minor metal. It is an unfair question, as he is not directly involved with this type of research, but it produces an interesting answer about the way research can lead to new uses.

He says, 'I think the answer is that it is quite likely that there will be new applications, but I have no idea what!'

And I think there is, as you know, a lot of interest and concern about elements running out, and....elements can't run out, but they can get so finely distributed that you can't recover them. And so there will be increasing pressure to look at things that are considered to be under-used to see if they can either substitute, or can make better catalysts or whatever'.

We then touch on an area that gets a lot of discussion in the media, which is often subject to scare-mongering more than science – that of nuclear power. I am interested to know whether there is anything to the idea that Thorium might one day become a replacement for Uranium as the main element for fission. 'This is not my area of specialty', he replies, 'but there is a large question at the moment on efficient use of nuclear fuel, the question of what you do with nuclear waste, so the Royal Society has recently produced a report on the nuclear fuel cycle, and I think the obvious question with going from Uranium to Thorium is that there are going to be a whole number of issues beyond the technical ones because people believe, rightly or wrongly, that the problems of Uranium-based nuclear power and Thorium-based nuclear power would require a lot of work to keep them in the same state – but I think it is quite possible.'

Keeping to the subject of energy, he touches upon fuel cells. 'One of the areas that have become fashionable recently, is called 'metal organic frameworks'. These are very porous materials of organic salts which fit together like a construction toy, that give a very porous structure which could be used for storing Hydrogen in a Hydrogen fuelled vehicle, and for that you want material as light as possible....for example Scandium, which is not a metal that has been studied as heavily as some others.'

I am beginning to get excited. Could this be the reason for the rash of Scandium enquiries from Japan?

We move on to what is really the core of what minor metals people do, and Poliakoff makes the following observation – 'I think the problem with your rare metals is that, as I understand it, most of them are not mined in their own right. They are products of other things. There was a meeting here a couple of weeks ago I think, a discussion about 'fringe metals'.

How interesting, and yet the MMTA would have been unaware of this and thus

“Could this be the reason for the rash of Scandium enquiries from Japan?”

unable to contribute commercial knowledge to the discussion. Suddenly, we realise that our interview has taken on a further useful purpose – to make us known to the Royal Society and enhance the cross-fertilization of science and commerce. Poliakoff even invites us to consider using the rooms from time to time for some of our meetings.

It seems the right moment to broaden our discussion again, as I have read that Poliakoff has compiled a list which he has called 'The principles of chemistry for a greener Africa'. It is an area that should appeal to MMTA members who have so generously supported the initiatives of the Association in the town of Mufulira in Zambia. Poliakoff explains: 'What happened is that green chemistry, which is my area of research, is an area where, since 1998,

LETTER FROM THE UNITED STATES

Dear Members

So, President Barack Obama, together with the EU and Japan are now going to the WTO about China and rare earths. Perhaps confident in their united stance, especially after their victory against China at the WTO last year over magnesium, manganese and other raw materials, all three believe they'll now have as much success over rare earths.

For all those who are not based here, it is as well to remember that, in addition to its international dimensions, this also has domestic political dimensions. Not least, in espousing the cause, Mr Obama demonstrates both to potential Republican contenders, and the unions, that he, too, is prepared to be tough with China.

If nothing else, the administration's action shows just how fast it can get itself up-to-speed on a complex issue. Back only in early April 2010, the United States General Accountability Office (the GAO) briefed staff of both the Senate and House Armed Services Committees that: "DOD [Department of Defense] is in the early stages of assessing its dependency on rare earth materials and is planning to complete its study by the end of September 2010."

And other minor metals vital to national defense? Well, we'll just have to wait and see.

From New York

Tom Butcher,
Hard Assets Investor

© 2012 Tom Butcher

NEW CHAIR FOR THE MMTA

You will be aware that the current Chair of the Association, Guy Darby, will be stepping down at the forthcoming AGM in Cologne. The search for his successor resulted in two candidates applying for the position, Gladys Smith of SANAB Ltd and Roy Walton of Darton Commodities. The Board convened on Thursday 22nd March and after deliberating the merits of each candidate voted, by a clear majority, in favour of Roy.

Unless another candidate comes forward before the AGM, Roy will be appointed the next Chair of the MMTA.

Roy has been on the Board of the MMTA for six years in the capacity of Treasurer and also chairs the Conference Committee.

The Board is extremely pleased to announce that Gladys Smith has accepted the offer of a seat on the Main Committee, with specific focus on building and developing links with Latin America. Please join us in welcoming her back.

INTERVIEW...CONTINUED FROM PAGE 5

there have been twelve principles of green chemistry, beginning with 'do not create waste' and ending up with 'trying to avoid accidents'. And in 2008, he collaborated with Richard Smith, an American chemical engineer working in Japan and came up with a simplified version of the twelve principles where the initial letters spelled the word 'PRODUCTIVELY' and the 'Y' represents 'Yes it's safe'. "Then," he said "in 2010, there was a green chemistry conference in Addis Ababa and we came up with 13 principles for Africa where the initial letters spelt GREENER AFRICA. And the point about green chemistry is that African countries don't have an established chemical industry, so they are very keen to try and build one up and, to do that, they are very interested to try and use the greenest possible methods'.

Finally, we reflect on the way in which science, art and, maybe, commerce can come together and how something as simple and extraordinary as the Periodic Videos can reach people and places one would never have imagined. He tells us, "The youngest documented viewer was 18 months old in Denmark, and we have quite a lot of children who watch. I had a message, it must have been last August, from a boy called George, who was eight years old. I didn't know where he lived, but George had seen that I had a children's book about the periodic table on the bookshelf in my office. He had the same book; so he sent me a photo-

graph of himself holding it, and I sent him a photo back holding my copy of the book with 'Hello George' written on my computer screen. A month later, I went to Australia, and we made some videos in real time while we were there. Soon I got an email from George's mother saying that they

were coming to my lecture in Canberra. So, George and his little brother were driven three hundred kilometers each way to come to my lecture! I was very touched by that.

On that note we reflect that minor metals, the mineral from which they come and the products which they make are all part of a wonderful world.

Anthony Lipmann

Please send any comments on Anthony's interview with Professor Martyn Poliakoff to maria@mmta.co.uk.

MMTA TRAINING INITIATIVE

You will recently have received a short questionnaire to complete asking you to indicate whether you would like to see the MMTA develop an education & training programme. The initial proposal is to work in collaboration with the National Metals Technology Centre (NAMTEC) to deliver several metals-related training courses, as well as offering seminars in Legal Aspects of Contracting, and Security Considerations for the Metals Sector.

As well as the suggested courses, we welcome suggestions for other training areas.

Please help us to develop and offer the training that would be of most benefit to you as members, by taking a couple of minutes to complete the questionnaire and return it to maria@mmta.co.uk.



“Do you believe the MMTA has a role in developing a targeted education & training programme for the minor metals community?”

REVIEW—The Elements, A Visual Exploration

Annealed metal people will find it difficult not to be bowled over by the cornucopia of delight that awaits the owner of an iPad loaded with Max Whitby, Theodore Gray & Nick Mann’s ‘The Elements’.

Recently featured in Alan Yentob’s BBC *Imagine* programme, *The Elements* was cited as an example of a new kind of book – the type that migrates to paper following its creation in the virtual world.

MMTA members will perhaps remember the former BBC Horizon producer, Max Whitby, from his speech at the opening of our Minor Metals conference at The Mandarin Oriental Hotel in London in 2010, at which he took us on a tour of the world of elements.

Directed equally at the professional scientist, metallurgist, student or passing visitor, *The Elements* App has something for everyone. From the front page each element in the Mendeleev table is represented by a pictogram which silently revolves through

360° to bring up a full page about the element in question. Tap again in the bottom right corner to display an array of fascinating facts, anecdotes and unusual visual examples of the element in its pure state, mineral or function in an application. Just roll the ball of your fingertip lightly across an image to see it revolve (thanks to the photographic wizardry of Nick Mann) allowing you to inspect the item from every angle and feast the eye and senses. Or, listen to Tom Lehrer’s famous song of *The Elements*, parodied to the tune of Gilbert & Sullivan’s *Modern Major General* whilst accompanied by each element in turn as sung.

As Max told the audience at our conference, the aim in the creation of the App was not just to reach the physics and chemistry of the elements – but the soul.

Available from the App Store £9.99 (£6.99 for iPhone)

Pictures: Images from The Elements



MINOR METALS INSIDER

NEW MEMBERS

The MMTA would like to extend a warm welcome to its three newest members. For more details, visit www.mmta.co.uk/members

Brown Brothers Harriman & Co
www.bbh.com

Brown Brothers Harriman & Co is a bank with a practice that specialises in lending to commodity trading companies. Its Merchant Banking practice dates back to 1843.

Jiujiang Jinxin Nonferrous Metals Co Ltd

www.jiujiangjx.com

Jinxin specialises in five product lines related with Ta, Nb and their derived products, which include High-pure Tantalum Pentaoxide, High-pure Niobium Pentaoxide, Common Tantalum Oxide, Nb₂O₅, Common Niobium Oxide, K₂TaF₇, TaC, FeNb and Rare Earth. Jinxin's products are sold nationwide, as well as to America, Japan, Korea and Europe.

Beryllium Science & Technology Association

www.beryllium.eu

The Beryllium Science & Technology Association's mission is to provide the best available scientific information related to Beryllium, and to ensure that its benefits to society in critical applications are realised and embraced and maintained by industry, governmental authorities and the general public.

MMTA approved warehouses – Still independent after all these years!

It seems so last century, doesn't it, to think that the MMTA still hangs on to warehouse independence when all around others appear to take a different view? Here then is what your Association has to say about this matter. Warehouse registration 'Rule A' states:

The Company shall be neutral, not owned or associated with any Trading Company

Is our lack of movement on this matter a reflection of an organisation too conservative to change? Is the MMTA out of touch with the way the world is going? Why should we have such scruples? Perhaps a few reflections as to why the MMTA hangs onto Rule A will assist to explain MMTA policy or stimulate discussion and comment. One of the first things that our founding fathers wanted to enshrine in 1973 was the guarantee of confidentiality. Centring the minor metals trade around the entrepot of Rotterdam had inevitable logic as the Dutch had a tradition of acting on behalf of a wide variety of physical trade businesses.

The MMTA's rules simply codified what minor metal merchants of the 1970s were doing anyway. Minor metals, then, was a smaller business than it is today, and members in general needed to sub-contract the services of warehousing and logistics, as few had the resources to devote to in-house warehousing.

But, as the trade grew, independ-

ence of warehouses, removed from the interests of traders, was seen to have a positive effect, as it increased liquidity – goods such as Cadmium or Mercury or other minor metals could come into entrepot from all over the world and change hands numerous times before being delivered out to an end user. The final delivery point would not be known to the original importer. The warehouse would provide the service of handling, unique storage references, making goods available on the instruction of the owner to sworn samplers and assayers, provide safe transfer of title and finally assist with all logistics.

Steinweg, founded in 1847, was the market leader, and other MMTA approved warehouses followed, creating a diversity of services to our trade.

With so many like-minded minor metal merchants storing within a small geographical area, a buyer searching for almost any element in the periodic table would be able to find it stocked or potentially deliverable by one of our members. But with each member specialising in different areas where the mere leak of a name would have been enough to lose a market angle, confidentiality was paramount.

But there are a couple of other points that emphasise the logic behind independence. Firstly, it is that traders and banks are basically not really very good at warehousing, let alone the ancillary services that the warehouse provides: logistics, shipping, stevedoring, hiring anything from barges to panamaxs, trucks to rail-wagons, re-packing anything

MINOR METALS INSIDER CONT'D

from a few kilos of minor metals worth thousands of dollars 'per kg', to discharging thousands of tonnes of alumina or copper concentrates with a similar value per tonne.

Each of the products has its own idiosyncrasies. It is an entirely different business from the business of buying and selling.

Today, we have seen that in other areas of metal trading, notably the London Metal Exchange, big banks and trading houses now own LME-approved warehouses while at the same time having an interest in the outcome of price via their proprietary trading or managed funds. It is

way? It is with a sense of professional gratitude to our independent MMTA-approved warehouses that I cannot remember a time when any shipment has been delayed for extraneous reasons.

The MMTA, having tested our members' opinions in 2011, is, I am pleased to say, sticking with its principles. Independence was voted for with almost unanimous support.

Long may it continue for the good health of our trade, but more importantly, all members need to encourage new independent warehouses to come forward for registration.



“a buyer searching for almost any element in the periodic table would be able to find it stocked or potentially deliverable by one of our members.”

said that Chinese walls between the trading and warehousing arms will solve any suggestion of conflict of interest and voluminous new rules have been drafted by the LME.

However, one of the most significant problems to have occurred since the merging of warehouse and trade interests is that stipulated load-out rates of 1500 tonnes per day have caused queues to form when it has not been in the interests of the warehouse owner to deliver out promptly.

What minor metal merchant, with a prompt order to fill at a super alloy maker, catalyst maker or steel plant would for one moment entertain the thought that the warehouse might limit the time of delivery in any

Anthony Lipmann of Lipmann Walton & Co www.lipmann.co.uk



DO YOU AGREE WITH THE POSITION OF THIS ISSUE'S MINOR METALS INSIDER?

If you wish to comment or provide an alternative point of view, please contact maria@mmta.co.uk.

Millie Paterson, Ned Smith and Mary Clapp have taken advantage of the MMTA's Mufulira link to gain some valuable work and life experience during their 3-week stay.

LETTER FROM MUFULIRA

Arriving from different parts of the globe and after a few difficult plane journeys, the three of us met at Ndola Airport on the 27th of February. We were officially welcomed to Zambia by Ethel Chibende, whose house we were to stay in for three weeks while we worked in Muleya winter basic school. We were all very excited to see Zambia and to immerse ourselves in this different way of life.

Ethel made us feel very welcome as did her large extended family. Ethel's niece Maggie and her two children live in Ethel's house with her, and Ethel's two grandchildren were also staying with her whilst we were there, due to the excitement of our visit. Maggie's cooking was incredible, and she taught us all how to cook 'nshima', the staple food of Zambia, and in return we taught her how to cook some less traditionally Zambian meals. We became very attached to Ethel's family, and are very grateful to them for looking after us and teaching us so much about Zambian life and culture. Our inclusion in their home life is one of our most treasured memories of our time in Mufulira.

"[we saw] great examples of how enthusiasm and talent prevailed over bad resources."



Children at school in Mufulira, Zambia.

Our main purpose in visiting Mufulira was to visit Muleya Winter Basic school and assist there for 3 weeks. It is a small school for Grade 1-9 students located a few minutes' walk from the copper mine in Mufulira.

It was difficult to see a school with few resources and comparatively challenging teaching conditions. However it was heartening to see how well both teachers and students coped. They made us feel like very special guests, with the children's excitement and the staff's care and attention. In some areas such as English and Maths, we were able to help with the teaching and marking, gaining valuable teaching experience. In others, we enjoyed sitting and learning with the children about Zambian History and Home Economics. A highlight of our days at the school was teaching Grade 1 students the 'hokey-kokey'.

We were lucky to be able to watch the inter-school and inter-zone athletics, which were great examples of how enthusiasm and talent prevailed over bad resources. Most children competed in bare feet. However both days were interrupted by the sulphur emissions from the nearby Mopani mine. The emissions are uncomfortable, even for those who are used to them, and were quite unbearable for us who were not. The sports games were held up both times until the gas cloud passed and we found refuge in a car. The emissions were clearly harmful to the community, even if they are supposedly not harmful to one's health, and it was upsetting to see that the mine management hadn't considered the local community. We were also told by locals that the pollution from the mine was harmful to the natural surroundings, which was evident in the lack of vegetation in the area. An example of the detrimental effects is the lack of Makole trees, native to the region, particularly in the grounds of Makole basic school, another local school which we visited. However locals had noticed a drop in the frequency of emissions, one man in particular telling us these were the first he had experienced since October.

Needless to say, we would love to visit the wonderful people we met in Mufulira again, which would most likely to happen when we are all finished with University. We'd hope by this time, that the sulphur emissions would have come to their expected end.

MMTA ON THE ROAD

If Only My Fingers Were Stronger by Emma Newman, MMTA

The MMTA Exec set out on Monday 19th March to St Pancras International, weighed down with luggage, but optimistic about our travels. Ahead of us lay 3 days of excitement, promotion, and exhaustion, as we spent time with some of our European members and their guests, and promoted ourselves in Brussels. We jumped on the Eurostar in London, and two hours later we were getting into a taxi to drop us at our hotel for the next two nights. A quick change and off we went again.

We arrived at Luxembourg Square, at a pub called The Beer Factory (where one of our members had carried out some pre-event research into the beers—Thank You, Benjamin of [Jean Goldschmidt](#)!) We were looking forward to meeting some of our non UK-based members, by holding an informal event (which has developed over the last year), which we like to call ‘MMTA Informal Drinks’. (I have also been told that these types of events may be referred to as MMTA Drinks A Lot). Our European members began trickling in at around 6pm, and we were even joined by some of our London members who were travelling. The evening progressed extremely sociably, and the final 8 last men (and women) standing, sat down for a very enjoyable dinner together.

The sun rose, and we were already back in a taxi to head across Brussels with our marketing material to the European Raw Materials Conference, where MMTA had an exhibition stand. We filled our table with information (and sweets) and enticed people to visit the stand with a business card raffle. We chattered away to a variety of industry experts, politicians, Institutes and Associations, creating more awareness of MMTA and enhancing our lobbying weight. By the end of the day we were exhausted, and an early night was had to prepare us for the following day.

Thank you to all the members who spent time with us in Brussels and to Umicore for a fascinating visit.

We were on the train early the next morning, travelling not back to London, but towards Antwerp, to visit the Umicore plant. After depositing our tonne of luggage in the secret luggage room, we were taken to the ‘Tellurium Meeting Room’ where Kris Van Den Broeck gave a presentation outlining the structure and ethos of the company and offering an overview of the wide-ranging activities carried out at the plant. Following this, we were whisked up in a lift to the top floor, to have lunch with a stunning view over the river and the plant. Next, we were taken to the highly guarded precious metals refinery, and shown precious metals in a variety of forms that had been recovered using [Umicore](#)’s unique expertise. Kris told us that if we were able to pick up the 12.5kg gold ingot with two fingers we could keep it, but try as we might, we could not do it. So the MMTA Exec headed home none the richer, and Umicore kept their gold ingot!



Maria Cox and Emma Newman outside the Umicore plant in Hoboken.

EVENT UPDATE

On 15th March, MMTA held its Quarterly Lunch at the Bleeding Heart Restaurant, near Farringdon, London. An informative presentation was given by Rob Jones from The Carbon Trust, about the work of the Carbon Trust, in particular how they support government initiatives on new technology, renewables and carbon reduction in industry. After the presentation, MMTA members and their guests enjoyed a delicious three-course meal, in the traditional French surroundings, with plenty of wine! The lunch was kindly sponsored by [Crowe Clark Whitehill](#).



James Peer & Emma Newman
with our sponsors



Wayde Yeoman and Robert
Baylis



During lunch at the Bleeding
Heart

METALS STATISTICS—INTRODUCTION

Statistical reports on the MMTA website aim to give visitors a picture of the facts about a market at a glance.

These reports address the following questions:

- Which companies and countries are the main producers?
- What companies, countries and sectors are the main consumers?
- How much of a role does recycling play?
- Where is the market heading?

Some of the reports (mainly data-rich markets) are compiled by research companies such as [Roskill](#) (an MMTA member company). In data-poor markets the information given, while drawing on available statistics where possible, largely draws on commercial knowledge informed by trading activity.

Public statistics on the flows of minor metals can be notoriously unreliable. An example of this is Rhenium, where the EU tariff code is the same as for Niobium. In this case, therefore, statistics alone would produce a false conclusion.

On other small markets, such as Tellurium, Thallium, Gallium or Indium, by-product arisings, recycle and revert loops muddy the waters. No one independent statistical body would be able to produce any true sense of these markets, and so again MMTA reports will be informed by trade knowledge.

Where statistics are both available and reliable, they will be used even if they shed light only on part of the picture. For example, *Banco Centrale do Chile* is required by the Chilean government to report export tonnages, destinations and prices of Copper, Molybdenum and Rhenium. From these solid figures it is possible to extrapolate the less reliable ones.

Having said the above, we hope that the reports we are now compiling, if read with these factors in mind, will offer the salient facts, and any further research should be carried out on a case by case basis, as required.

Do you have specialist knowledge of a particular metal?

Would you like to contribute your knowledge to building up-to-date statistical information on the various minor metals?

If so, please contact maria@mmta.co.uk

METAL STATISTICS TASTER - SILICON (SI)

Although commonly referred to as Silicon metal, Silicon (symbol Si) is semi or non-metallic, and is sometimes called a metalloid. Pure Silicon is very rarely found in nature, and it is usually found as a constituent of Silicon dioxide (silica or quartz) and silicate minerals, such as feldspars. In terms of mass, Silicon makes up about 26% of the Earth's crust and is the second most abundant element in the crust, after Oxygen. Ferrosilicon is an alloy of Silicon and Iron containing between 20% and 95% Si. Both Silicon and Ferrosilicon are derived commercially from silica feedstock.

World production of Silicon metal rose by an average of 3.4%py between 1990 and 1999, and by 4.9%py between 1999 and 2008, with particularly sharp increases in 1995 and 2003. In 2009 production fell by about 13% to 1.45Mt, with output falling in virtually all producing countries as a consequence of the global economic slowdown. In 2010, production recovered to about 1.76Mt (Figure 1).

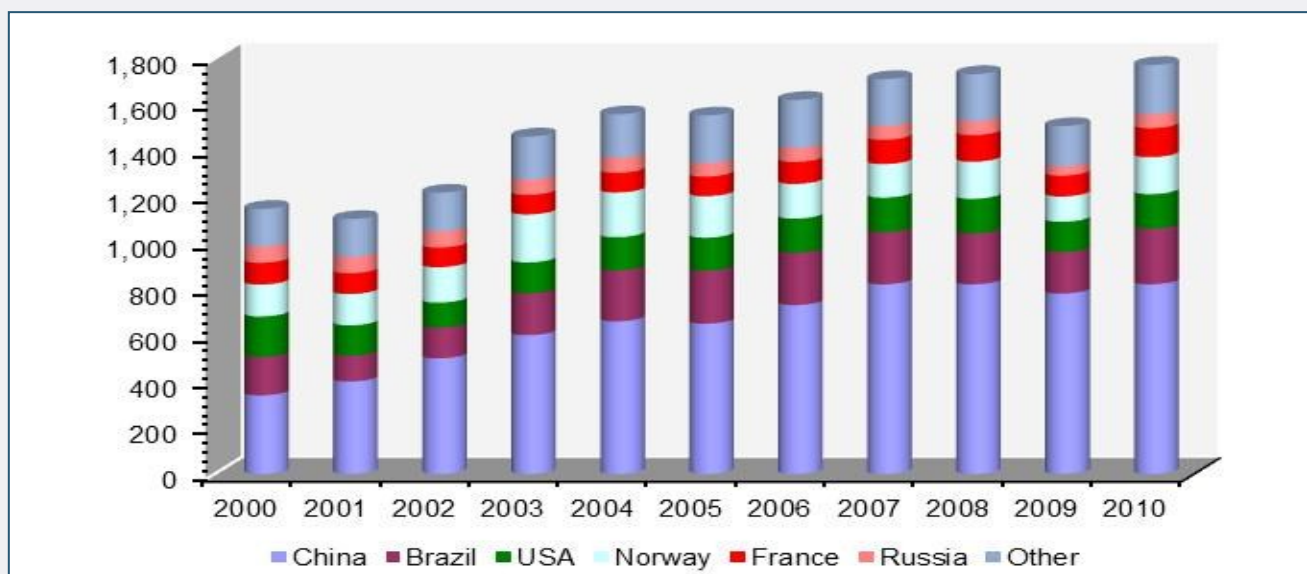


Figure 1: World: Production of Silicon metal by principal country, 2000 to 2010 (000t)

Source: Roskill estimates

MEMBER BENEFITS

Members-only early-bird discount on tickets for the MMTA's International Minor Metals Conference, offering substantial savings on the full conference fee

Significant member discount on all MMTA event tickets, including the prestigious Anniversary dinner

Access to free meeting/training room space in central London

Free advertising in members' directories on the MMTA website and other MMTA marketing publications

25% discount on Gold level membership of REACHReady

A range of educational & social events offering extensive networking opportunities

A dedicated Mediation & Arbitration service for MMTA members

A network of MMTA-approved warehouses, each independently inspected and having Indemnity Insurance to cover unexplained losses

Regular updates on the activities & accomplishments of the Association

Use of the MMTA logo & 'Member of MMTA'

Trade Regulations

Lobbying on a wide range of issues of importance to the minor metals sector

The MMTA promotes essential elements that add quality, safety and enjoyment to our lives.

The MMTA is the world's leading minor metals industry organisation.



THE IMPACT OF REACH ON SMEs—HELP NEEDED

Over the last 2 years or so, I, along with about a dozen other people, have held regular meetings under the auspices of the Knowledge Transfer Network (KTN) with DEFRA. Initially the meetings were held to discuss the on-going availability of “strategic” raw materials but have evolved to encompass questions relating to what the government can do to enhance primary and secondary production, recycling and re-use within the UK metal industry and to reduce barriers to business.

Inevitably, REACH came into the discussions and like it or not, the regulations are being imposed. At the last meeting at DEFRA in January the question of disproportionate charges for Letters of Access (LOA) for small importers or producers was raised. It is still difficult to obtain precise figures for such LOAs but typical amounts of €50000 per product are not uncommon. However, this amount is for the largest tonnage band (>1000 tonnes). Discounts for lower tonnage bands are modest, perhaps 10% discount for the 10-100 tonne band and 20% for 1 – 10 tonnes. As an example:

Letter of Access cost	€50000	
For >1000 tonnes:	0% discount	cost per tonne = maximum €50
For 100-1000 tonnes:	5% discount	cost per tonne could reach €475
For 10 – 100 tonnes:	10% discount	cost per tonne could reach €4500
For 1 – 10 tonnes:	20 % discount	cost per tonne could reach €40000

The consensus at the meeting was that these figures, if verified, could:

- Deter some smaller importers from continuing with the importation of certain materials, thus leaving the market to a few larger players with a resultant reduction in competition
- Eliminate some materials from the European market altogether, thereby eliminating downstream production and the resultant loss of jobs
- Deter innovative companies from developing novel materials if they cannot be assured of continuity of supply or the price of such materials renders them uneconomic

The REACH representative at DEFRA had not appreciated the ramifications of such disproportionate pricing and has asked if I can supply him with actual examples of the costs of LOA for various materials so that they can take this up at their next meeting in Brussels.

If other members share this view and have actual figures for costs of an LOA which they would like to share either directly with [me](#) or via the [MMTA Executive](#), I will correlate these and pass them on to DEFRA.

[Tony Bayley, ABCO Materials](#)



The MMTA has a partner agreement with REACHReady, enabling MMTA member companies to benefit from a 25% discount on Gold Subscriptions. To learn more about REACHReady, contact

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