



April 27, 2012

Edition: 16

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Below are articles and summaries of **magnesium** related stories. Members are asked to distribute the update to their employees – if their employees wish to receive the IMA Weekly Update, please send their email addresses to the IMA Head Office. We appreciate your company press releases and announcements for inclusion in the Weekly Update.

INDUSTRY CALENDAR

May 2-3, 2012

Automotive Metals Conference
Dearborn, MI USA
www.amm.com/EventDetail/4259/5th-Automotive-Metals-Conference.html

May 20-22, 2012

IMA 69th Annual World Conference
San Francisco, California, USA
www.imaworldconference.org

July 8-12, 2012

9th International Conference on Magnesium
Alloys and their Applications
Vancouver, Canada
www.magnesium2012vancouver.com/welcome.html

September 30 – October 3, 2012

COM 2012
Niagra Falls, Ontario, Canada
<http://www.cim.org/com2012/>

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ASSOCIATION NEWS

IMA 69th Annual World Conference: *A Message from Ms. Jan Guy, Program Chairwoman*

IMA 69th Annual World Conference: *Optional Yountville Wine Tour and Lunch – Sold Out!*

IMA 69th Annual World Conference: *Magnesium – The Dream Metal*

Articles follow below

INDUSTRY NEWS

Independent Study Concludes Automotive GHG Emissions Can Be Materially Reduced By Gossan's New Breakthrough Magnesium Production Process
Press Release from [Gossan Resources Limited](#) (23-Apr-12)

US Magnesium Locked in Range Amid Flat Demand
www.metal-pages.com (27-Apr-12)

Articles follow below

CHINA'S LATEST

Magnesium Trade Slows Down in China Ahead of Labour Day
www.metal-pages.com (27-Apr-2012)

Articles follow below

EDITOR'S NOTE: IMA makes every possible effort to substantiate the articles which appear in the Weekly Update. However, as this is not always possible IMA does not warrant the details nor accuracy of any given article. Please keep in mind that materials are attained through press releases, outside articles from numerous sources and publications. Such materials often contain opinions which are not that of the association nor should they be construed as such. We realize that in the case of some materials, the translations might often lead to less than perfect grammar, etc. It is our position however to print as submitted rather than take upon ourselves the editing of such materials which would entail potential changes unwanted by any given author.

ASSOCIATION NEWS

IMA 69th Annual World Conference: *A Message from Ms. Jan A. Guy, Program Chairwoman*

On behalf of the 69th IMA Annual World Conference Program Committee, I encourage those of our weekly member readership who have not registered for the upcoming World Magnesium Conference to join us in San Francisco, California, USA from May 20 – 22, 2012 at The Fairmont Hotel. We have a very strong program in place that is sure to provide attendees with valuable industry updates and knowledge and importantly, association and networking opportunities with key industry representatives. Our exhibit area is sold out and is sure to provide great interest for all aspects of our industry. Registration for this year's conference is strong and our discounted room block is over 90% committed.

I look forward to seeing you in San Francisco!

Kind regards,
Jan A. Guy
IMA Program Chairwoman

IMA 69th Annual World Conference: *Optional Yountville Wine Tour and Lunch – Sold Out!*

We are happy to announce that the Optional Yountville Wine Tour and Lunch is sold out! We thank everyone who signed up and know it will be a memorable day in beautiful Napa Valley.

IMA 69th Annual World Conference: *Magnesium – The Dream Metal*

The 69th Annual World Magnesium Conference will be held in San Francisco, California, USA from May 20 – 22, 2012. Visit www.IMAworldconference.org to:

- Process your online [Registration](#). It's easy, safe and secure.
- Download the [Attendee Brochure](#) for a comprehensive outline of the Conference.
 - Check out the **Technical Program**. Review the list of Speakers and their scheduled topics of presentation.
 - Plan for your upcoming **Networking Opportunities**. Connect with Industry peers and friends.
 - Print and Process your **Registration** form.
 - Get important **Travel** and **Lodging** information
- Reserve your accommodations at **The Fairmont San Francisco**

IMA 69th Annual World Conference Exhibitors:



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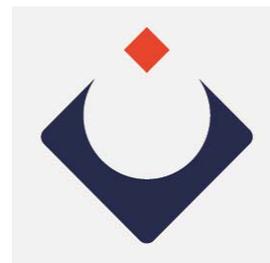
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Yountville Wine Tour and Lunch

The World Magnesium Conference is the premier international **magnesium** conference that highlights the industry's latest technological advances, innovative applications, and emerging developments in the global marketplace. The conference combines informative technical sessions, exhibits, networking opportunities, as well as social activities and tours for a well-rounded industry experience. In addition, winners of the 2012 Awards of Excellence—IMA's competition recognizing outstanding **magnesium** products and innovative manufacturing technologies—will be announced during the World Magnesium Conference. Additionally IMA will recognize environmentally progressive and responsible companies in the 2012 International Environmental Responsibility Award competition.

As information about the 2012 World Conference becomes available, it will be reflected on the website www.imaworldconference.org and proactively sent out via targeted emails and the IMA Weekly Update.

We look forward to seeing you in May!

Standard Cancellation Policy

Conference Cancellations received by the IMA in writing by March 25 will qualify for a refund of 80%. Cancellations received by the IMA in writing by April 22 will qualify for a refund of 40%. No refunds will be given after April 22 due to Conference contractual service arrangements.

Any cancellations due to declined Visa applications will be refunded in full if the Visa application was submitted prior to March 15, 2012. Appropriate documentation is required. Cancellations due to declined Visa applications after March 15 will follow the standard cancellation policy noted above.

INDUSTRY NEWS

Independent Study Concludes Automotive GHG Emissions Can Be Materially Reduced By Gossan's New Breakthrough Magnesium Production Process
Press Release from [Gossan Resources Limited](http://www.gossanresources.com) (23-Apr-12)

Gossan Resources Limited has conducted an independent Green House Gas ("GHG") Emission Study of the Gossan-Zuliani Process for primary **magnesium** production. A dramatic reduction in carbon emissions is achieved by the high raw material utilization efficiency of the production process and the use of hydro-electricity, natural gas and high-purity dolomite. The study concludes that midsize car emissions could be reduced by almost 7% over the car's life expectancy (200,000 km) by lightweighting using **magnesium** produced by the Zuliani Process and that this technology is a new breakthrough **magnesium** production process.

The Zuliani Process is a cost saving **magnesium** extraction technology being developed by Gossan which has been successfully demonstrated by thermodynamic modeling and bench scale testing. Subject to confirmation of the process on a commercial scale, the direct cost of **magnesium** ingot produced with the Zuliani Process is expected to be about 25-30% less than the direct cost of Chinese **magnesium** ingot landed in western markets.

The environmental Life Cycle Analysis (LCA) for Zuliani Process **magnesium**, as reported in the PRO Study is based upon the substitution of cast iron, steel and aluminum in mid-sized cars with **magnesium** at levels proposed in a comprehensive report by the United States Automotive Materials Partnership (USAMP). Based on the high efficiency of the Zuliani Process and using hydro-electricity and natural gas as energy inputs, Gossan **magnesium** ingot produced using the Zuliani Process has a Global Warming Potential (GWP – reported in kg CO₂ per kg Mg) of only 9.1. The GWP achieved through the Zuliani Process is 78% lower than the GWP for **magnesium** produced by the Pidgeon Process in China (GWP 43.3) and 28% lower than the average GWP for aluminum (GWP 12.7). The improvement of the GWP for **magnesium** production using the Zuliani Process has significant positive environmental implications.

The LCA for auto parts made with Gossan **magnesium** produced by the clean Zuliani Process shows that the cradle to grave break-even for GHG saved from the reduced vehicle weight is just over 69,500 km which would make **magnesium** the most environmentally attractive weight-saving material. At a vehicle life expectancy of 200,000 km, greenhouse gases from vehicles could be reduced by almost 7% and fuel efficiency would improve by an even greater amount.

A copy of PRO's report entitled "Lowering of CO₂ Emission for Magnesium Production by Gossan-Zuliani Process" may be found at: www.gossan.ca/projects/pdf/MgGHGReport.pdf.

From an environmental and performance perspective, ultra-light **magnesium** components have the potential to significantly reduce vehicle weight which in turn has important implications for reducing emissions and improving fuel efficiency of combustion engines and increasing the range of electric vehicles.

The LCA analysis is based on the USAMP study which determined that a total of 159 kg of **magnesium** could be incorporated into the average North American car which represents an increase of 154 kg over today's average of 5 kg. USAMP estimated that a total weight savings of 227 kg could be realized by direct substitution weight savings of about 132 kg from replacing 226 kg of cast iron and steel and 59 kg of aluminum with 154 kg of **magnesium**. In addition, there will be secondary weight savings expected to be a further 95 kg as a result of vehicle redesign efficiencies using **magnesium**. The analysis also assumes SF₆ free, near net shape parts manufacturing and utilizes a model developed by D'Errico, Fare and Garces for determining a LCA when using **magnesium** alloy parts in transportation.

Magnesium alloys exhibit the highest strength to weight and stiffness to weight ratios in many structural applications and typically provide weight savings of between ~50-75% over conventional steel, ~40-60% over high strength "light steel" and ~20-35% over aluminum. In addition **magnesium** alloys also demonstrate excellent castability, fabrication characteristics and dent resistance.

Dr. R. Sridhar, Ph.D., and Dr. V. I. Lakshmanan, Ph.D., of Process Research ORTECH (PRO) of Mississauga, Ontario, supervised the study, "Lowering of CO₂ Emission for Magnesium Production by Gossan-Zuliani Process" and have reviewed the technical contents of this news release.

Gossan is developing the Zuliani Process for **magnesium** production and holds an option on the world-wide rights to the technology. In order to prove out the technology prior to commercialization, Gossan is undertaking a four stage evaluation process. Initially independent FactSage thermodynamic modeling was successfully used to verify the process fundamentals. The second stage which involved three phases of bench scale testing was successfully conducted at PRO. The third stage which is now being planned and sourced will involve largescale batch and process testing. Thereafter a fourth stage of pilot plant testing will be required to demonstrate commercial viability. Gossan may seek a joint venture partner to assist in the pilot plant testing and subsequent commercialization of the process.

Based on the extensive bench scale trials and thermodynamic modeling completed to date and the dominance of Chinese Pidgeon Process **magnesium** (about 80% of world supply utilizing technology originally developed in the 1940's), Gossan expects commercialization of the Zuliani Process will provide the Company with a significant operating cost advantage in the North American and European **magnesium** markets.

Gossan holds a very-large, high-purity, at surface, **magnesium**-bearing dolomite deposit with a NI 43-101 Measured Resource that alone would be capable of sustaining a very substantial production facility of 80,000 tonnes of **magnesium** per year for about 30 years. Manitoba has abundant low-cost hydro-electricity.

On April 25-26, 2012, Dr. Zuliani will be delivering a paper, "Making Magnesium A More Cost & Environmentally Competitive Lightweighting Option" at the Global Automotive Lightweight Materials 2012

Conference in London, UK. Interested parties are invited to meet with Gossan management and Dr. Zuliani at Conference Booth 17. www.global-automotive-lightweight-materials.com

Gossan Resources Limited is engaged in mineral exploration and development in Manitoba and northwestern Ontario. It has a well-diversified portfolio of properties hosting gold, platinum group and base metals, as well as the specialty and minor metals, vanadium, titanium, tantalum, lithium and chromium. The Company also has a large deposit of **magnesium**-rich dolomite, the world-wide rights to the Zuliani high-efficiency **magnesium** production process, and a silica frac sand deposit. Gossan trades on the TSX Venture and the Frankfurt/Freiverkehr & Xetra Exchanges and has 33,140,400 common shares outstanding.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this news release.

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E-Mail: info@gossan

US Magnesium Locked in Range Amid Flat Demand www.metal-pages.com (27-Apr-12)

The price of **magnesium** in the US remains stuck in its current range amid lackluster demand as consumers continue to sit on the sidelines of the spot market, according to trade sources.

Although demand has so far failed to spark back into life in the traditionally busier second quarter, trade sources said that near-by stocks are slightly more snug as the availability of imported metal has tightened over the past few weeks.

US spot pure **magnesium** min 99.9% is holding in a range of \$2.00-2.15/lb delivered, while secondary 90/10 **magnesium** material remains at \$1.75-1.85/lb.

Despite the lack of business activity on the spot market, overall order books are still healthy due to solid volumes in the key aluminum end-user market, trade sources note.

US aluminum fabricator Kaiser Aluminum said this week that it remains optimistic in the near and long-term as end-markets continue to improve.

Demand for **magnesium** is expected to be supported in the near-term as volumes in the aluminum sector remaining strong.

But prices could face renewed pressure later in the year as **magnesium** from Malaysia-based CVM Minerals may find its way back into the market as the company's new plant is ramped up, while sole US producer Magnesium LLC increases output from about 60,000 tonnes to 63,500 tonnes by the middle of this year.

Magnesium is primarily used as an alloy with aluminum, accounting for some 45% of total world consumption. Another 35% is consumed in **magnesium** alloys in structural metals, about 13% in steel making, with the rest used in electro-chemical and other sectors.

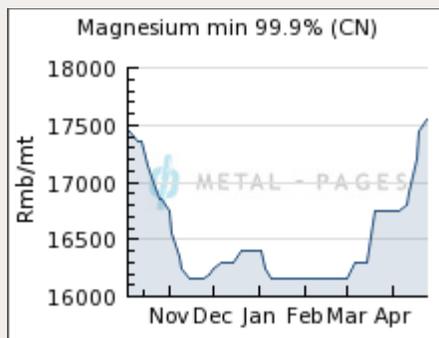
CHINA'S LATEST

Magnesium Trade Slows Down in China Ahead of Labour Day www.metal-pages.com (27-Apr-2012)

The Chinese **magnesium** ingot market has seen fewer deals this week as buyers prepare for Labour Day holidays between April 29 and May 1.

The market is stable with prices in Shanxi and in Shaanxi at RMB 17,500-17,700/tonne and RMB 17,300-17,500/tonne, respectively, following a sharp bounce in previous weeks.

Magnesium min 99.9% price for 26 Apr 2012



Market ■
Price 17,400.00 - 17,700.00
Previous 17,400.00 - 17,700.00
Change =

“Sales have slowed down as buyers are going to have a three-day holiday,” a Shaanxi-based producer said, adding that, unlike in the past weeks, he wasn’t able to make deals every day this week.

“Final prices are at RMB 17,300/tonne despite the fact that we offer as high as RMB 17,500/tonne,” he noted.

Another producer source from Shaanxi said his company will do small maintenance jobs during the holiday time. “The market is expected to be quiet for a few days with buyers absent,” he explained.

He will cut down output to 1,600 tonnes from previous 1,800 tonnes for maintenance and in line with the expected market stagnancy during the holiday.

The producer has little stocks left and is holding firmly at RMB 17,500/tonne. “However, no deals have been made at this level,” he said.

One trader from Shanxi said he would start his holidays on Saturday. “As the price has become stable at such high level, I want to watch the market and wait for a clear trend after the holiday.”

The trader has made several deals at RMB 17,300-17,400/tonne in the past week.



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