





Metals Despatch

Newsletter of the International Metals Study Groups

June 2009, Issue No. 7

LEAD AND ZINC FORECAST

The outlook for World supply and demand for lead and zinc was presented during the ILZSG Spring meetings held in Lisbon on 22 April 2009. Highlights include:

- In view of the global economic crisis the demand forecasts for many of the Group's member countries have been reduced and global usage of refined lead metal is expected to fall by 1.1% to 8.56 million tonnes this year. It is anticipated that demand in Europe will decline by a significant 10.2% and in the United States by 2.2%
- Global lead mine production is forecast to fall by 6.3% to 3.66 million tonnes in 2009 as a consequence of cutbacks and closures announced during the last six months. Production in China, where many small mines are reported to have closed, is expected to fall by 8%. Reductions in output are also anticipated in Australia, Canada, Peru, Poland and the United States.
- Production of refined lead metal has been scaled back in many countries and global output this year is expected to decrease by 0.9% to 8.60 million tonnes, the first reduction since 2001.
- Refined lead metal production in Europe is predicted to decline by 4% and in the United States by 3.3%. Reductions are also anticipated in Australia, Canada, Japan and Peru. Chinese output is forecast to rise by 3.2% and production is also expected to increase in India, Kazakhstan and the Republic of Korea in 2009.
- Global zinc usage was forecast to decline 4.9% in 2009 to 10.92 million tonnes, the largest reduction since 1975.
- Global zinc mine output is forecast to decrease to 11.08 million tonnes in 2009. Significant reductions are anticipated in Australia, Canada, China, Peru, Portugal and the United States. New capacity will be added in Finland and Spain.
- Global refined zinc production was forecast to decrease by 4.0% to 11.18 million tonnes in 2009. However, production in India and China is expected to increase.
- The latest forecasts supplied by the Group's member countries indicate that global supply of

refined zinc metal will exceed demand by 260,000 tonnes in 2009.

For further details of the outcomes of the ILZSG meetings or questions on the market outlook please email Paul White at paul_white@ilzsg.org

COPPER FORECAST

During the 33rd Regular Meeting of the International Copper Study Group Statistical Commitee in Lisbon on 20 - 21 April 2009 member countries reviewed the current outlook for trends in World supply and demand for copper during 2009 and 2010 and issued the following forecast:

- Global copper usage is forecast to decline by 4.3% in 2009 to 17.23 million tonnes (Mt) due in part to slower growth in apparent refined usage in China. World copper usage is expected to rise 6.4% in 2009 to 18.33 Mt.
- Global copper mine output is expected to rise 3.8% in 2009 to 16.0 Mt and increase by 7.5% in 2010 to 17.2 Mt due to new mine developments and reduction in operational constraints.
- Global refined copper metal production in 2009 is predicted to decrease by 3.7% to 17.6 Mt and expand 6.7% in 2010 to 18.8 Mt.
- ICSG anticipates that the copper market will have a surplus in 2009 of around 345,000 tonnes and that the surplus will expand to 418,000 tonnes in 2009.

For further details of the outcomes of the ICSG meetings or questions on the market outlook please email Ana Rebelo at rebelo@icsg.org

Contents

Lead, Zinc and Copper Forecasts - Page 1
Nickel Forecast - Page 2
Joint Seminar - Page 2
October Meetings Schedule - Page 2
INSG Meeting Report - Page 2
ICSG Meeting Report - Page 3
ILZSG Meeting Report - Page 3
New Member of ICSG - Page 3
Forthcoming Events - Page 4
Study Groups' Publications - Pages 5 to 7

Metals Despatch
June 2009 - No. 7

NICKEL FORECAST

The International Nickel Study Group (INSG) met on 23 and 24 April 2009 in Lisbon and reviewed the current outlook for trends in World supply and demand for nickel during 2008 and 2009 and issued the following forecast:

- Global primary nickel usage (consumption) was 1.29 Mt in 2008. For 2009 a decline to 1.18 Mt is expected.
- Global primary refined nickel production was 1.39 Mt in 2008. As supply adjusts to current demand, a decline to 1.26Mt is expected in 2009. The 2009 figure does not include any adjustment factor for possible production disruptions.
- INSG also discussed market trends and noted that world primary nickel usage in 2008 started strongly but dropped as economic conditions weakened and demand and production of stainless steel declined from the middle of the year. No recovery in primary nickel demand and stainless steel production is anticipated until at least the second half of 2009.

INSG recognizes that the current global economic crisis has created a large degree of uncertainty in the global market, and its impacts on both the supply and demand for nickel are not fully known. The Study Group cautions that future market developments could significantly alter the forward-looking market balance.

For further details of the outcomes of the INSG meetings or questions on the market outlook please email Sven Tollin at sven.tollin@insg.org

JOINT STUDY GROUPS' SEMINAR

The International Lead and Zinc Study Group (ILZSG), the International Copper Study Group (ICSG) and the International Nickel Study Group (INSG), held a Joint Seminar on "Energy Issues and Climate Change Policies Impacting on the Non-Ferrous Metals Industries" on 22 April 2009 in Lisbon.

An opening presentation by Mr Robert Jeekel, Director for Energy and Climate Change at Eurometaux helped define the challenges facing the non-ferrous metals industry. Presentations, followed government by а panel discussion, by representatives Ms Sarita Pimentel of Chile, Ms Helen Clarke of Australia, Mr Patrick Chevalier of Canada, Mr Heli Kask of the EU and Mr Kazakito Sakurai of Japan, provided detailed information on the the policy choices and differing approaches among member countries.

A presentation by Mr John Barkas of Metalytics provided indepth information on energy consumption and greenhouse gas emissions for various nonferrous metals in a range of countries. Finally, a series of presentations and a panel discussion by representatives of industry associations gave delegates more information on recent developments in industry as well as the beneficial roles that the various metals play in addressing the challenge of reducing emissions and combating climate change.

The seminar was followed by a reception hosted by the Government of Portugal.

For further details of about work underway in the Study Groups please email paul-white@ilzsg.org (for lead and zinc), curtis-stewart@ilzsg.org (for nickel) and risopatron@icsg.org for copper. The presentations given at the Seminar may be viewed by visiting: http://www.ilzsg.org/presentations.asp

NEXT STUDY GROUPS' MEETING DATES

The dates for the next International Study Groups' meetings in Lisbon, Portugal are:

ICSG: 5-7 October 2009

INSG: 5-7 October 2009

ILZSG: 7-9 October 2009

Joint Study Groups' Seminar at 2:00 pm on 7 April 2009: "Post-crisis Metals – What will be Different?"

INSG 19TH SESSION: 23-24 APRIL 2009

Around 60 delegates from member countries, industry and observing countries/organisations met in Lisbon on 23-24 April at the INSG April meeting to review statistical, economic and environment and health issues related to nickel.

Delegates reviewed the INSG primary nickel market statistics in detail, and discussed the market forecast, which was prepared by the secretariat based on information provided by governments and industry. Details of the forecasts are provided above.

The Environmental and Economic Committee of the INSG received presentations on a range of topics including environmental regulation and international policy initiatives that may affect nickel as well as information from industry. A panel discussion on the subject of "The Nickel Market: More or Less Volatility?" drew on the participation of Dr Andrew Mitchell of Brook Hunt & Associates Ltd., Mr Heinz Pariser of Heinz H. Pariser Alloy Metals & Steel

Metals Despatch
June 2009 - No. 7

Market Research and Dr Benedikt Zeumer of McKinsey, and generated intensive discussion. Mr Paul Anciaux of the Euopean Commission gave a presentation on the EU Raw Materials Initiative, outlining the EU efforts to ensure that raw materials remain available in the future. Mr Carlos de Melo Ribeiro, CEO of Siemens Portugal, spoke on how his company, a major engineering firm and nickel consumer, is meeting the challenges of the economic crisis. Mr Patrick Chevalier, Natural Resources Canada, gave a presentation in which he pointed out the opportunity offered by the UN Commission on Sustainable Development for governments in major resource countries to report on the sustainable development, stewardship and good governance aspects of their resource industries.

The INSG Industry Advisory Panel, comprised of representatives from the world's nickel producing, consuming and recycling industries, provided valuable input on ithe Study Group's work program priorities. The Panel heard presentations from: Mr Paul Gray, Goldman Sachs JBWere, who spoke on the latest trends in World primary nickel supply and demand, Mr Benno Kratz, ELG, Germany, who spoke on the latest world trends in the supply and demand for stainless steel scrap from the point of view of a large processor, and Mr Max Layton of Macquarie Research, who made a presentation on the latest trends in Nickel Pig Iron in China.

ICSG CONVENES 17th GENERAL SESSION

Over 50 representatives from 17 member governments, three observer governments and ten observer companies and organizations attended the International Copper Study Group's 17th General Session at ICSG Headquarters in Lisbon on 20-21 April 2009.

The Session included meetings of the Statistical Committee. Environmental and Economic Committee, Industry Advisory Panel, Finance and Standing Committees and a Plenary Session. At the Statistical Committee meeting, the secretariat invited market analysts/participants to address producers and consumers are being affected and how they are reacting to the current market downturn on both a national and global level. Presentations from Ms Li Lan (BGRIMM, China), Mr Juan Cristóbal Ciudad (Cochilco, Chile), Mr Paul Dewison (Bloomsbury Minerals Economics, United Kingdom) and Ms Marion Finney (Aurubis, Germany) were followed by a panel discussion. Other highlights from the Statistical Committee meeting included a presentation by Mr Lars-Göran Björkqvist (President Concentrates, Boliden AB, Sweden) on the copper industry in Sweden, the presentation of the 2009/2010 Production and Usage Forecasts by ICSG Chief Statistician Ana Rebelo, and the Forecasting Forum.

At the Environmental and Economic Committee (EEC) meeting, the Committee was provided with four different perspectives on the impact of the economic crisis on the copper industry. Presentations from Ms Judith Mosely (Managing Director of Mining Finance, Société Générale), Mr Kevin Norrish (Director of Commodities Research, Barclays Capital Bank), Mr Chris Thomas (UK Head of Metals & Mining, Deloitte LLP) and Mr Carlos Risopatron (ICSG Head of Economics and Environment) were followed by a panel discussion. Other highlights from the EEC meeting included a presentation on the European Union Raw Materials Strategy by Ms Heli Kask (Policy Officer of Non-Ferrous Metals, European Commission) and presentations by the secretariat staff on the 2009 ICSG Directory of Copper and Copper Alloy Fabricators, the ICSG Copper Scrap Project and Annual Recyclables Survey, recent advances on the ICSG Project on Constraints on New Copper Supply Coming on Stream and an update on Common Fund for Commodities' projects. Presentations may be viewed at ICSG's recently upgraded web site, www.icsg.org.

ICSG meetings provide a unique opportunity for industry people to meet and interact with government representatives from around the world. ICSG was pleased to welcome Mr Salim Bhabhrawala (U.S. Department of Commerce) as the new Chairman of the Standing Committee and Mr Mark Loveitt (IWCC) and the new Chairman of the Industry Advisory Panel.

ICSG WELCOMES SWEDEN TO THE GROUP!



Sweden has become the 22nd member of the International Copper Study Group. Sweden has a long history of mining, with copper mining being documented as early as 1288. Today, Swedish companies are active in mining, refining and fabrication of copper. Swedish companies are also active in environmental management and planning. ICSG welcomes Sweden!

ILZSG SPRING MEETING 2009

The International Lead and Zinc Study Group held its Spring meeting in Lisbon on 22 April. The Study Group received a review of the current outlook for trends in World supply and demand for 2009 (See details on page 1). Meetings of the Standing Committee, Economic and Environment Committee and the ILZSG Industry Advisory Panel were held.

The Industry Advisory Panel met on 22 April and provided an opportunity for members to comment on

Metals Despatch June 2009 - No. 7

the latest developments in the lead and zinc market. Mr. Woolridge of the European General Galvanisers Association commented that the effect of the economic downturn on the continuous galvanising sector had been severe. However, the impact on the general galvanising industry had not been of the same order as it was not as closely related to the business cycle. However, he did state that he was becoming more aware of falling demand in some regions in particular Spain, Ireland and Italy. China's ILZSG representative, Mr Bian Gang, of China Non-Ferrous Metals Industry Association (CNIA), stated that China was experiencing its lowest rate of growth since 1992 and that up to 30% of smelting capacity had been shut down.

Mr Michael Widmer of BNP Paribas gave a presentation on 'The Implications of the Economic Crisis for the Nonferrous Metals Industry' and noted with metal prices close to production cost many producers were moving into survival mode resulting in the shuttering of less economic operations. Also, most non-essential capital expenditure had been curtailed. As the zinc industry was facing a structural underinvestment even prior to the current upheaval it was likely that growth in mine output would lag additions to smelting capacity.

Mr Lars Goran Bjorkqvist, President Concentrates, Boliden Commercial AB speaking on the zinc industry's response to the downturn said that zinc prices had fallen below the 90th percentile cash cost for mines. Smelter operating margins were being severely squeezed and there was now a fight for survival. However, for possibly the first time in the history of the industry, zinc mines and smelters had attempted to mitigate the effects of the downturn by voluntarily reducing capacity. Production cutbacks in 2009 from both zinc mines and refineries were estimated to exceed a million tonnes. In the future it was likely that industry consolidation would continue to the benefit of both producers and consumers.

The Study Group's Economic and Environment Committee met on 22 April and heard presentations on a number of topics. Mr Johan Van Wesemael of the IZA briefed the committee on 'Increasing Zinc Consumption in China'. Dr David Wilson, Director of the International Lead Association, briefed the Committee on the pre-registration process for lead substances under the EU REACH system reporting that the number of pre-registrations had far exceeded expectations. Dr John Atherton of ICMM spoke on the topic of Corporate Social Responsibility and the metals industry. Mr Christian Canoo, Senior Advisor, IZA, provided an update on the work of the Recycling Project Team. Copies of the presentations are available on the ILZSG website.

ANTAIKE VISIT TO THE STUDY GROUP **SECRETARIAT**

INSG hosted a visit by the Chief Analyst of Nickel and Cobalt from Antaike, the information center for metals in China in early May. The visit helped to increase the exchange of information on nickel statistics.

STUDY GROUPS CONTINUE RECYCLING WORK

During March, a delegation from Eurometaux visited the Study Group headquarters in Lisbon to discuss aspects of metal recycling including material flow analysis and recyling indicator analysis. Past work by the Study Groups on recycling provided a basis for future cooperation on this topic. The Study Groups plan to take part in a workshop in Brussels in June to further develop metals recycling methodology and data collection.

ILZSG PRESENTS AT METAL BULLETIN ZINC CONFERENCE

The ILZSG Head of Forecasting and Statistics, Paul White, presented a paper entitled 'What Prospects for Zinc?' at Metal Bulletin's 13th "Zinc & Its Markets" conference in Dusseldorf on 11 May. For copies of the paper, please contact the ILZSG Secretariat at paul white@ilzsg.org

COOPERATION BETWEEN STUDY GROUPS AND UNCTAD

The Study Groups continue to expand their cooperation with other organizations including UN agencies. ILZSG/INSG Head of Economics and Environment Curtis Stewart made at presentation at the April meeting of the UNCTAD Expert Meeting on Commodities and Development in Geneva on 6 April. 2009. A representative of UNCTAD also attended the April meetings in Lisbon.

WORKSHOP ON TRADE AND RECYCLING **POLICIES AFFECTING COPPER**

As a final step of the two-year copper scrap research project, the ICSG Environment and Economic Committee will host a workshop on this topic during Forthcoming Events the October 2009 meeting.

CONFERENCES and SEMINARS

In preparation for the 2010 and 2011 UN Conference on Sustainable Development, the following regional meetings are planned. Themes addressed will include mining, chemicals and waste management (http://www.un.org/esa/sustdev/natlinfo/natlinfo.htm)

- June 24-26, 2009, Africa Regional Meeting, Addis Ababa, Ethiopia.
- August 11-13, 2009, Green Growth Meeting for Asia Pacific Region, Korea.
- September 17-18, 2009, Latin American Regional meeting, Colombia.

International Copper Study Group (ICSG)

Tel: + 351 21 351 3870 Fax: + 351 21 352 4035 e-mail: mail@icsg.org Website: www.icsg.org

International Lead & Zinc Study Group (ILZSG)
Tel: + 351 21 359 2420
Fax: + 351 21 359 2429
e-mail: root@ilzsg.org
Website: www.ilzsg.org

International Nickel Study Group (INSG) Tel: + 351 21 356 7030 Fax: + 351 21 356 7039 e-mail: insq@insq.org Website: www.insg.org

ILZSG Member States:

Australia, Belgium, Brazil,
Bulgaria, Canada, China,
European Union,
Finland, France,
Germany, India, Iran,
Ireland, Italy, Japan
Korea, Morocco, Namibia,
Netherlands, Norway, Peru,
Poland, Portugal,
Russian Federation,
South Africa,
Serbia,
Spain, Sweden,
Thailand,
United States

INSG Member States:

Australia, Brazil, Cuba, European Union, Finland, France, Greece Italy, Japan, Netherlands, Norway, Portugal, Russian Federation, Sweden United Kinddom

ICSG Member States

Belgium Luxembourg
Chile, China,
European Union
Finland, France
Germany, Greece, India, Italy,
Japan, Mexico, Netherlands,
Peru, Poland, Portugal,
Russian Federation,
Serbia,
Spain, Sweden,
United States



PUBLICATIONS

NEW

INSG Environment, Health and Safety (EHS) Regulations Relating to Nickel 2009

A compilation of environmental, health and safety regulations affecting nickel. The listing is provided by country, state or province as well as international regulations. It is presented in a spreadsheet format and contains web links to regulations in various jurisdictions. 42 pages. *Published June 2009.*

NEW

ICSG China and India New Copper Scrap Market Reports

Recycling is a key issue for the copper industry and scrap is an important factor in the copper market. Acknowledging its importance ICSG commissioned two new reports about scrap that provide the latest and most useful information on two critical copper scrap markets: China and India. Both Reports are now available for purchase. The Chinese Study was prepared by Beijing Antaike Information Development Co., Ltd, and the Indian Study by the India Copper Development Centre. *Published June 2009.*

NEW

INSG Nickel in Batteries 2009

A comprehensive report on the use of nickel in batteries drawing on data from a variety of sources, both government and private. Provides a history of nickel in batteries and describes the principal types of batteries which use nickel. A comparison of the various nickel containing batteries in terms of cost and energy density is provided, as is information on the environmental regulations impacting nickel batteries. Includes a list of major producers of nickel containing batteries with web addresses. 25 Pages. *Published May 2009*.

NEW

ICSG Directory of Copper Mines and Plants (March 2009 edition)

The Directory of Copper Mines and Plants highlights current capacity and provides a five year outlook of forecasted capacity for over 700 existing and planned copper mines, plants and refineries on a country by country basis, including separate tables for SX-EW plants. Salient details for each operation are included and the Directory separates operations between Operating & Developing and Exploration & Feasibility stages. The Directory is published twice a year.

NEW

ICSG Directory of Copper & Copper Alloy Fabricators (First Use) 2009 Edition

This directory provides a systematic global overview of companies and plants involved in the first use of copper. First users are mainly semis fabricators that process refinery shapes into semi-finished copper and copper alloy products. The Directory covers wire rod plants, ingot makers (for castings), master alloy plants, brass mills, and electrodeposited copper foil mills. Powder and chemical plants are not included. The 2008 Edition of the ICSG Directory includes data through

Metals Despatch
June 2009 – No.7

International Copper Study Group (ICSG)

Tel: + 351 21 351 3870 Fax: + 351 21 352 4035 e-mail: mail@icsg.org Website: www.icsg.org

International Lead & Zinc Study Group (ILZSG)
Tel: + 351 21 359 2420
Fax: + 351 21 359 2429
e-mail: root@ilzsq.org
Website: www.ilzsq.org

International Nickel Study Group (INSG) Tel: + 351 21 356 7030 Fax: + 351 21 356 7039 e-mail: insg@insg.org Website: www.insg.org

ILZSG Member States:

Australia, Belgium, Brazil,
Bulgaria, Canada, China,
European Union,
Finland, France,
Germany, India, Iran,
Ireland, Italy, Japan
Korea, Morocco, Namibia,
Netherlands, Norway, Peru,
Poland, Portugal,
Russian Federation,
South Africa,
Serbia,
Spain, Sweden,
Thailand,
United States

INSG Member States:

Australia, Brazil, Cuba, European Union, Finland, France, Greece Italy, Japan, Netherlands, Norway, Portugal, Russian Federation, Sweden United Kingdom

ICSG Member States

Belgium Luxembourg
Chile, China,
European Union
Finland, France
Germany, Greece, India, Italy,
Japan, Mexico, Netherlands,
Peru, Poland, Portugal,
Russian Federation,
Serbia,
Spain, Sweden,
United States



the end of 2007 for most of the existing, developing and planned first use plants located in more than 75 countries. *Published March 2009*

ILZSG Lead & Zinc New Mine & Smelter Projects Mines 2009

A principal source of information on developments in the lead and zinc industries for 44 years. This 85 page report contains comprehensive data gathered from ILZSG's extensive network of sources worldwide. In total, 200 entries from 47 countries are listed. The report includes extensive details of new projects in China. *Published January 2009*

ILZSG World Directory: Primary and Secondary Zinc Plants 2008

An overview and full detailed listing of primary and secondary zinc plants in 38 countries showing addresses, telephone and fax nos., email and web addresses, processes used and current capacities. Details of plants recovering zinc from steel plant flue dusts are covered in a separate chapter. Also includes summary tables, graphs and a new Google Earth digital mapping product allowing the exact location of most of the plants listed to be determined. 51 pages. *Published 2008*.

INSG World Directory of Nickel Production Facilities

Comprehensive directory lists nickel mines, smelters and refineries as well as new nickel industry developments (committed, likely and potential) together with recent closures in more than twenty countries. *Published November 2008.*

ICSG 2008 Statistical Yearbook (July 2008)

The ICSG Copper Bulletin yearbook includes annual statistics on copper and copper products, their production, usage and trade by country, as well as stocks and exchange prices, providing a global view of supply and demand for the past 10 years. The Yearbook serves as a useful tool for consultations and analysis on the longer term evolution of world copper production, usage, stocks and prices. Subscribers to the Copper Bulletin receive the Yearbook as part of their annual subscription.

The Lead Fact Book 2008

This report, a unique joint initiative between government and industry, identifies the key role lead contributes to society, and provides policy makers with an objective assessment of the economic, environmental and health issues relating to lead usage. Each section is accompanied by key messages answering the major questions associated with lead usage today. *Published February 2008*.

Principal Uses of Lead and Zinc 2008

This report updates the short term review of trends in the main uses of lead and zinc to include trends during 2004 and 2005 and in all the major industrialized countries and many developing ones. It includes revisions to previously published data for 1998-2003. 67 pages including graphs and diagrams. *Published January 2008*.

Metals Despatch
June 2009 – No.7

International Copper Study Group (ICSG)

Tel: + 351 21 351 3870 Fax: + 351 21 352 4035 e-mail: mail@icsg.org Website: www.icsg.org

International Lead & Zinc Study Group (ILZSG) Tel: + 351 21 359 2420 Fax: + 351 21 359 2429

e-mail: root@ilzsg.org Website: www.ilzsg.org

International Nickel Study Group (INSG)

Tel: + 351 21 356 7030 Fax: + 351 21 356 7039 e-mail: insq@insg.org Website: www.insg.org

ILZSG Member States:

Australia, Belgium, Brazil,
Bulgaria, Canada, China,
European Union,
Finland, France,
Germany, India, Iran,
Ireland, Italy, Japan
Korea, Morocco, Namibia,
Netherlands, Norway, Peru,
Poland, Portugal,
Russian Federation,
South Africa,
Serbia,
Spain, Sweden,
Thailand,
United States

INSG Member States:

Australia, Brazil, Cuba, European Union, Finland, France, Greece Italy, Japan, Netherlands, Norway, Portugal, Russian Federation, Sweden United Kingdom

ICSG Member States

Belgium Luxembourg
Chile, China,
European Union
Finland, France
Germany, Greece, India, Italy,
Japan, Mexico, Netherlands,
Peru, Poland, Portugal,
Russian Federation,
Serbia,
Spain, Sweden,
United States



MORE PUBLICATIONS

INSG Market for Nickel: Fundamentals Driving Change

Comprehensive analysis of the drivers for change in the world nickel market. Analyses the structure of mine and refined world nickel production and identifies current and future trends. Assesses nickel usage patterns in the main market sectors and the impact of environmental regulations on the metal's usage. Traces changes in the structure of industry ownership. Summarises developments in environmental regulation. *Published January 2008*.

Environmental and Health Controls on Zinc 2008

A comprehensive review has been prepared of current and proposed regulations controlling zinc in works, zinc in the atmosphere, zinc in water and recommended daily dietary allowances for humans and animals. Available in PDF or spreadsheet form. *Published January* 2008.

To place an order or for further information about the above and other publications published by the International Metals Study Groups please contact: sales@ilzsg.org for ILZSG reports, <a href="mailto:m