

2015 - Sustainable Industrial Processing Summit & Exhibition

2015
SIPS

Covering 3 Sustainability Pillars: (1)Science, Technology & Industrial Practice (2)Political and Social framework and (3)education.
Incorporating numerous International Symposia related to:
mineral*metals*material-mining*extraction*processing*manufacturing*
recycling*waste treatment-environmental/health* legal/management/
financial*policy/social issues

4 - 9 OCTOBER 2015, CORNELIA DIAMOND GOLF RESORT & SPA, ANTALYA, TURKEY

Mining and Metallurgical Waste Management and Material and Metal Recovery: Experiences and opportunities from Latin American market

By Mario Sánchez and Armando Valenzuela

Short Course: 03/04 October 2015(from 09h to 17h), Cornelia Diamond Golf Resort & Spa, Antalya, Turkey

This 2-day course will present the main environmental and technical trends regarding the waste management in the mining and metallurgical industry, with focus in Latin America, mainly Chile and Peru as well as the experiences and opportunities to recover materials and metals in this market.

Some objectives to reach are:

- General overview of the mining and metallurgical production with present and future output, identifying main metals produced and players
- General overview of the mining and metallurgical processes for main metal produced in the region with focus in copper and molybdenum, gold and silver, lead, etc., and smelting and refining processes
- Characterization of the main waste generated from mining and metallurgical processes and its environmental impact
- Analysis of the main environmental regulation affecting the mining sector, with emphasis in recycling and waste management
- Analysis of the technological development and available technologies for the waste handling, treatment and disposal. Special analysis for the Arsenic case in Chile
- Analysis about R+D and industrial practices for the metal recovery from mining and metallurgical waste.

Course Contents

N°	Subject topics
Day 1	
1	Mining and metallurgical production in Latin America: general overview
2	Analysis of mining exploration, production and projects in Chile and Peru
3	Mining and metallurgical processes: hydro and pyro
4	Case study: copper smelting and refining
5	Waste generation and its environmental impact
6	Waste characterization and metals contained
7	Environmental regulations and standards: air, soil, mine closure, etc.

Day 2	
1	Market and regulatory aspects: technological and strategic metals
2	Waste handling, treatment and disposal: general overview
3	Case study: arsenic and SO ₂ in copper smelters
4	Case study: slag in copper smelters
5	Case study: copper flotation tailing
6	Material and metal recovery from waste: R+D and industrial practices
7	Future trends and opportunities

Who Should Attend

People involved in mining and metallurgical production with focus in waste handling, treatment and disposal, as well as in metal recovery from waste; people interested to know the present and future situation in the Latin America region with focus in Chile and Peru market.

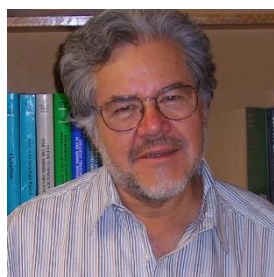
The participant will also receive:

- CD with course material in pdf format
- Certificate of completion
- Lunch and refreshments

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Course Instructor Mario Sánchez Medina



Metallurgical Eng. from Universidad de Concepcion, Chile (1973), with a Metallurgical Dr. Eng. Degree obtained at Ecole National Polytechnique de Grenoble, France (1980), and a Post-Doctoral degree in Metallurgy at Imperial College of Science and Technology of London, UK (1990). He worked as Processes Engineer at Chuquicamata smelter plant of CODELCO, Chile. Later, as part of the academic staff of the Universidad de Concepcion, Chile, he participated as Visiting Professor in various Universities: Technical University of Kosice, Slovak Republic; Laval University, Quebec, Canada; Imperial College of Science and Technology, London, England; National University of Arequipa, Peru.

With a hundred of papers published in conferences and journals and personal interest in sustainability for the mining industry, participating as main organizer for Clean Technologies international meeting in Santiago, Chile and editing several proceedings in this field: Effluent treatment in the Mining Industry, 389 pages, 1998 (ISBN 956-227-156-0); Environment & Innovation in Mining and Mineral Technology, Vol. I, 487 pages, 1998 (ISBN 956-227 158-7), Environment & Innovation in Mining and Mineral Technology, Vol. II. 529 pages, 1998 (ISBN 956-227 159-5); Waste treatment and environmental impact in

the mining industry, 472 pages, 2000 (ISBN 956-227-2303); Environmental improvements in mineral processing and Extractive Metallurgy, 488 pages, 2000 (ISBN 956-227-231-1); Molten 2009, 139 papers, 157 pages CD (ISBN 978-956-8504-20-5); Cleanmining 2011, 48 papers, 119 pages CD (ISBN 978-956-8504-43-4); Enviromine 2011, 45 papers, 113 pages CD (ISBN 978-956-8504-61-8).

Author of two books: 'Copper Pyrometallurgy and Molten system behavior' and 'Environmental Issues in the Mining and Metallurgical Industry'.

He is part of the Board in CIM Los Andes Branch - Chile (Canadian Institute of Mining, Metallurgy and Petroleum) and other professional societies in Chile and abroad.

Today he is the Head of the Metallurgical Department, Eng. Faculty, Universidad Andres Bello, Santiago, Chile.

More details at www.mariosanchez.cl

Course Instructor Armando Valenzuela Jara



Metallurgical Civil Engineer (1996) from Atacama University, Copiapó, Chile, awarded as “Best Student for Engineering Promotion 1996” and “Best Academic Performance in Metallurgical Engineering Program from 1992 to 1995. In 2000 he holds a Master of Sciences in Mining Engineering from Laval University, Quebec, Canada using the scholarship “President of the Republic of Chile” for Graduate Studies Abroad”. He also has a diploma in Asia Pacific Studies (2004) from Institute of International Studies, University of Santiago, Chile with focus in the relationship between Chile and China.

Over 14 years of experience in carrying out and leading national and international studies and projects related to the development of the mining and metallurgical industry, mainly market opportunities, R&D, policies, environmental management and regulations, with focus in Latin America.

He worked as process engineer for Codelco (Chuquicamata concentrator and Potrerillos smelter) and he was an officer at the Unit of International and Environmental Issues of the Chilean Copper Commission (Cochilco), a governmental office working for the Ministry of Mining in Chile.

In 2006, he founded AL Prospecta Consultores, www.alprospecta.cl, which specializes in providing expert consultancy, market research studies and technical training in mining and metallurgy. Over 50 strategic market studies and consultancies have been carried out in the last years, focused on metals and mining projects forecasts; evaluation and identification of mining suppliers; environmental issues (waste and arsenic management and treatment, mine closure); R&D policies; food industry; energy, among others. Clients are mainly mining suppliers, mining and metallurgical companies, trade show organizers, public institutions and universities mainly in Chile and from other countries (Mexico, Peru, China, Australia, Sweden, USA, etc.).

Since 2006, Mr. Valenzuela is technical advisor of EXPOMIN, www.expomin.cl, the largest mining expo in Latin America and one of the most important worldwide, and technical coordinator of its Mining Congress 2016, www.congreso.expomin.cl, which includes the 4° International Workshop on Metal Recovery from Mining Waste (M2R2), participating as main organizer.

He is a member of the Board in CIM Los Andes Branch - Chile (Canadian Institute of Mining, Metallurgy and Petroleum) and honorary member in several national committees working in the development of the Chilean mining sector.

Author of the book “Environmental Issues in the Mining and Metallurgical Industry” in cooperation with Dr. Sánchez. He has also provided courses and conferences about “Environmental Issues” and “Mining R&D Policies and Development” in the last 14 years in Belgium, Bolivia, Brazil, Canada, Chile, China, Cuba, Mexico, Peru, among others. He also has published on 25 papers in national and international journals, books and conferences about environmental management with focus in arsenic and the history of mining.

REGISTRATION: <http://www.flogen.org/sips2015>