

7th European
**stainless
steel**

Conference
science and market

como (italy)
21-23 september 2011



www.aimnet.it/stainless2011.htm

organised by

AIM - Associazione Italiana di Metallurgia

final program



in cooperation with



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Polo Regionale di Como

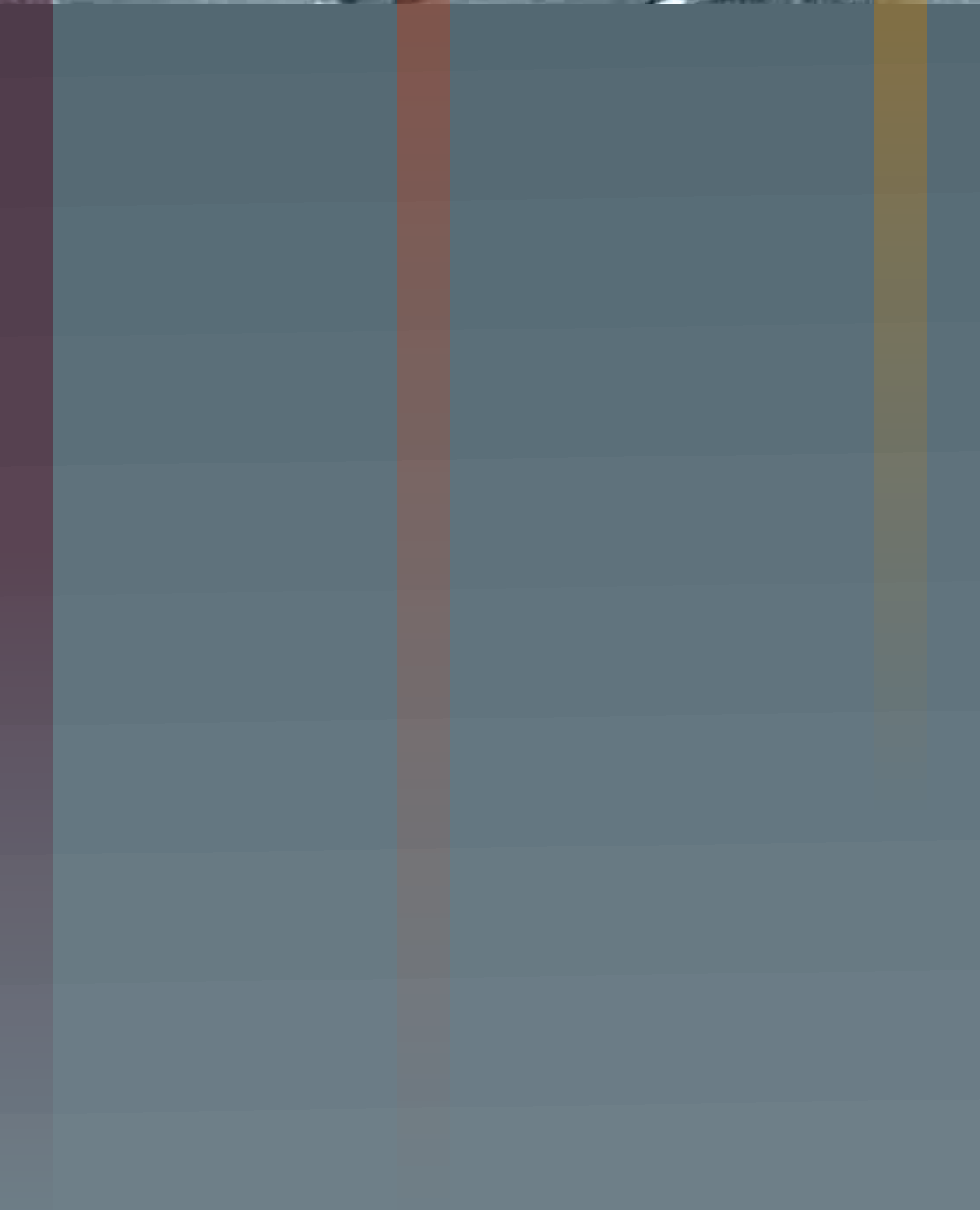
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Federacciai





CONFERENCE CHAIRMEN

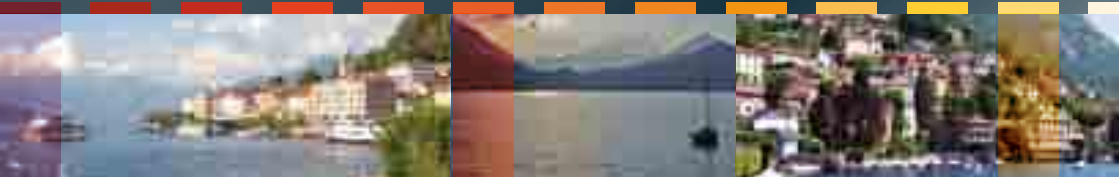
Walter Nicodemi - Politecnico di Milano, Italy
Jan-Olof Nilsson - Sandvik Materials Technology, Sweden
Alberto Tiziani - Università di Padova - DTG, Italy

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COOPERATING ORGANISATIONS

- **Austrian Society for Metallurgy and Materials**
- **Brazilian Metals and Materials Association**
- **Centro Nacional de Investigaciones Metalúrgicas**
- **Centre de Recherches Métallurgiques**
- **The Chinese Society for Metals**
- **Croatian Metallurgical Society**
- **Czech Steel Federation**
- **DVM, German Association for Materials Research and Testing**
- **Fédération Française de l'Acier**
- **Hungarian Mining & Metallurgical Society**
- **The Institute of Materials, Minerals and Mining**
- **International Stainless Steel Forum**
- **The Iron and Steel Institute of Japan**
- **Jernkontoret**
- **The Minerals, Metals & Materials Society**
- **Société Française de Métallurgie et de Matériaux**
- **Steel Institute VDEh**

PREVIOUS CONFERENCES

1st - Florence, Italy (1993)

2nd - Dusseldorf, Germany (1996)

3rd - Chia Laguna, Sardinia, Italy (1999)

4th - Paris, France (2002)

5th - Sevilla, Spain (2005)

6th - Helsinki, Finland (2008)



SCOPE

With the 7th European Stainless Steel Conference - Science and Market, that will be held on 21-23 September 2011 in Como (Italy), AIM would like to match and to improve the positive and successful experience of the previous European Stainless Steel Conferences, started by AIM in 1993 with the first meeting in Florence (Italy).

The Conference aims at gathering and sharing information on all aspects of production technology of stainless steels such as hot and cold rolling, heat treatment and so on, among delegates with academic and industrial backgrounds. These developments will be linked to existing and potential applications and to other market-related factors, in order to set orientations to guide future developments. Such an event, capable of bringing together manufacturers and users of stainless steel, will allow the comparison between the present and future needs of the latter and the former's ability to satisfy these demands now or in the future.

stainless steel market outlook

Short and medium term perspectives of Italian stainless steel flat and long products. These issues will be broadly discussed inside the fourth edition of the Stainless Steel Market Outlook, the appointment organized by Siderweb specifically focused on stainless steel sector. Using the technical analysis on prices developments mixed to macroeconomic views, the most topical current issues combined with forecast indications will be addressed to all the attendees. It is expected the presence of speakers representing the most important Italian stainless steel association and testimonials coming from the big stainless steel Italian companies. The participation to the SSMO is free for the conference attendees. If you wish to attend, please fill in the relevant section in the Conference registration form.



program

tuesday, 20 september 2011

16.30 Opening of the registration

18.30 *Aperitivo di benvenuto* - Get-together cocktail

wednesday, 21 september 2011

ROOM A

8.00 Registration

OPENING SESSION

9.00 **Welcome addresses by:**

Ing. Giuseppe Marzorati, *AIM Vice-President*

Prof. Maria Antonia Brovelli, *Dean of Politecnico di Milano - Como Campus*

Dr. Jan-Olof Nilsson, *Conference Chairman*

Presentation of the Stainless Steel "Gabriele Di Caprio" Medal to Jacques Charles

9.55 **Opening Lecture**

Some past experiences with stainless steel products and market developments; perspectives for the future of stainless steel activities

Dr. J. Charles - *GM, R&D head of APERAM, former stainless steel division of ArcelorMittal, Saint-Denis, France*

10.40 Coffee break

11.00 **Opening Lecture**

Thermodynamic and Kinetic computations for stainless steels – science driven engineering

Prof. J. Ågren - *Royal Institute of Technology, Stockholm, Sweden*

11.30 **Opening Lecture**

From volume to value: outlook for the global stainless steel industry, with a focus on Europe

Dr. M. Moll - *SMR-Steel & Metals Market Research, Austria*

12.00 Lunch

wednesday, 21 september 2011

ROOM A

CORROSION I

Chairpersons: I. NEMBRINI; *Salzgitter Mannesmann Stainless Tubes Italia*
R. PETERSSON; *Outokumpu Stainless AB*

13.00 Keynote

An overview of stainless steel corrosion in some demanding applications

L-G. Johansson, J-E. Svensson, J. Froitzheim, T. Jonsson, S. Canovic, M. Halvarsson, J. Pettersson, N. Folkesson, S. Karlsson, E. Larsson - *Chalmers University of Technology, Gothenburg, Sweden*

13.30 Optimisation of a qualification test method for lean duplex stainless steels

J.Y. Jonsson, C. Canderyd, R. Pettersson - *Outokumpu Stainless AB, Avesta, Sweden*

13.50 Pitting failure of an AISI 316L cooling water pipeline due to the presence of sigma phase in the base metal

O. Conejero - *ITMA Materials Technology, Llanera, Spain*

14.10 Electrochemical investigation of passive layer formation and degradation on 1.4301 at neutral pH significance of experimental parameters

S. Kurz, P. Seemann - *Institut für Werkstoffsystemtechnik Thurgau (WITg), Switzerland*
P. Gümpel - *University of Applied Sciences (HTWG Konstanz), Germany*

14.30 Coffee break

CORROSION II

Chairpersons: I. NEMBRINI; *Salzgitter Mannesmann Stainless Tubes Italia*
R. PETERSSON; *Outokumpu Stainless AB*

14.50 Effect of sodium sulphide addition on selective dissolution and stress corrosion cracking susceptibility of austenitic and duplex stainless steels in alkaline solution

J. Romu, T. Saukkonen, T. Schildt, H. Hänninen - *Aalto University, Espoo, Finland*
H. Leinonen, P. Pohjanne - *VTT Technical Research Centre of Finland, Espoo, Finland*

15.10 Atmospheric corrosion resistance of ferritic stainless steels containing high Cr and Mo

W. Harada, K. Shiotsuki - *Nisshin Steel Co. Ltd, Yamaguchi, Japan*

15.30 Characteristics of Sn-added ferritic stainless steels

H. Matsuyama, M. Hatano, T. Matsuhashi, E. Ishimaru - *Nippon Steel & Sumikin Stainless Steel Corporation, Japan*

15.50 Comparative evaluation on pitting resistance behavior of ferritic stainless steels: experimental studies of electrochemical tests

M. Romero, V. Matres - *Acerinox S.A., Los Barrios, Spain*

16.10 Electrochemical investigation of steel wire used in cardiologic leaders

W. Walke - *Silesian University of Technology, Gliwice, Poland*
J. Przondziano - *Silesian University of Technology, Katowice, Poland*

wednesday, 21 september 2011

ROOM A

OPENING SESSION

ROOM B

MARKET DEVELOPMENTS

Chairpersons: M. MOLL; *Steel & Metals Market Research* - T. PAULY; *Euro Inox*

13.00 **Keynote**

Getting prepared for tomorrow: the European market development network and its priorities

T. Pauly - *Euro Inox, Brussels, Belgium*

13.30 **Stainless steel and sustainability**

P. Payet-Gaspard - *International Stainless Steel Forum, Brussels, Belgium*

13.50 **Stainless steel, global market trends and Asian innovations**

A. Gatti - *Trinoxia, Genova, Italy*

14.10 **Qualification of manufacturers of special materials**

E. Ryengen - *Aker Solutions ASA, Lysaker, Norway*

14.30 Coffee break

14.50 **STAINLESS STEEL MARKET OUTLOOK**

Co-organised with Siderweb

Short and medium term perspectives of Italian stainless steel flat and long products will be broadly discussed inside the fourth edition of the **Stainless Steel Market Outlook**. Using the technical analysis on prices developments mixed to macroeconomic views, the most topical current issues combined with forecast indications will be addressed to all the attendees. The following speakers will take part to it:

- Achille Fornasini (*chief analyst Siderweb*)
- Markus Moll (*managing director SMR*)
- Gianfranco Tosini (*Chief research and analysis Siderweb*)
- Fausto Capelli and Vittorio Boneschi (*Centro Inox*)
- Roberta Salerno (*Stemcor Italia*)

The SSMO will be moderated by **Stefano Ferrari** (*Director Siderweb*)

A debate follow.

The participation to the SSMO is free for the conference attendees.

thursday, 22 september 2011

ROOM A

CORROSION III

Chairpersons: L-G. JOHANSSON; *Chalmers University of Technology* - V. MATRES; *Acerinox S.A.*

9.00 **Keynote**

Localised corrosion in stainless steels - an integrated approach to identify risk conditions

R. Pettersson, E. Johansson - *Outokumpu Stainless AB, Avesta, Sweden*

J. Flyg - *Swerea KIMAB AB, Stockholm, Sweden*

9.30 **Comparative evaluation on uniform corrosion resistance behavior of ferritic stainless steels: experimental studies of electrochemical tests**

M. Romero, V. Matres - *Acerinox S.A., Los Barrios, Spain*

9.50 **Atmospheric corrosion behavior of ferritic stainless steels in a tropical environment**

H. Matsuyama, A. Takahashi - *Nippon Steel & Sumikin Stainless Steel Corporation, Japan*

N. Fukuda - *NS-Thainox Auto Co., Ltd., Thailand*

E. Viyanit, W. Pongsaksawad, S. Sorachot, J. Troset - *National Metal and Materials Technology Center (MTEC), Thailand*

10.10 **Corrosion behavior depending on different stress conditions of metastable austenitic stainless steels**

K. Voges-Schwieger, P. Wilk, B-A. Behrens - *Leibniz Universität Hannover, Germany*

10.50 coffee break

SURFACE PROPERTIES I

Chairpersons: M. BESTETTI; *Politecnico di Milano* - L. MAGAGNIN; *Politecnico di Milano*

11.10 **Interfacial properties of Ti-Nb stabilized ferritic stainless steel: electron spectroscopic studies at the nanometer scale**

P. Jussila, H. Ali-Löytty, K. Lahtonen, M. Hirsimäki, M. Valden - *Tampere University of Technology, Finland*

11.30 **Electropolishing of austenitic and duplex stainless steels**

B. Henkel - *Henkel Beiz- und Elektropolieretechnik (Pickling and Electropolishing) GmbH & Co. KG, Neustadt-Glewe, Germany*

T.L. Ladwein, S. Schilling, U. Pflanz - *Aalen University of Applied Sciences, Aalen, Germany*

11.50 **Microstructural characterization of oxide scales formed on austenitic stainless steel Esshete 1250**

E.O. Mogire, R.L. Higginson, R.C. Thomson - *Loughborough University, United Kingdom*

A.T. Fry - *NPL Materials Centre, Middlesex, United Kingdom*

12.10 **Influence of different quenching technique on wear and corrosion resistance of AISI 420 stainless steel**

R. Sola, R. Giovanardi, P. Veronesi, G. Poli - *Università di Modena e Reggio Emilia, Italy*

G. Parigi - *Stav, Barberino del Mugello, Italy*

12.30 **Structural and semiconducting investigation of passive films and thermally grown oxides on stainless steel**

N.E. Hakiki, B. Maachi, F. Mechehoud - *Université d'Oran, Algérie*

C. Pirri, A. Mehdaoui, J.L. Bubendorff - *Université de Haute Alsace (UHA), Mulhouse, France*

12.50 Lunch

thursday, 22 september 2011

ROOM B

AUSTENITIC STAINLESS STEELS I

Chairpersons: L. APPOLLONI; *ThyssenKrupp Acciai Speciali Terni* - M. CUSOLITO; *Rodacciai*

9.00 **Keynote**

Low temperature surface hardening of stainless steel through gaseous nitriding and carburizing; from fundamentals to applications

M.A.J. Somers, T.L. Christiansen - *Technical University of Denmark, Lyngby, Denmark*

T.S. Hummelshøj - *Expanite A/S, Lyngby, Denmark*

9.30 **Comparison of microstructure and corrosion properties of boron micro-alloyed austenitic stainless steels**

S. Kodukula, T. Ohligschläger - *Outokumpu Stainless Oy, Tornio, Finland*

9.50 **Effect of V and Nb additions and annealing temperatures on microstructure of AISI 301L stainless steel**

M. Sawada, K. Adachi, T. Maeda - *Sumitomo Metals Industries, LTD., Hyogo, Japan*

10.10 **High temperature oxidation during production process of an AISI 304L stainless steel**

D. Lussana, L. Battezzati, A. Castellero, L. Miranti, P. Rizzi, F. Scaglione, M. Baricco - *Università di Torino, Italy*

M. Massazza, M. Favero, A. Franciscono, S. Rollet, E. Balducci - *Cogne Acciai Speciali, Aosta, Italy*

D. Baldissin, D. Lombardo - *Università di Torino, Italy and Compumat, Torino, Italy*

10.30 **Effects of electropulsing on the annealing behaviour of nanostructured austenitic stainless steel**

A.T. Krawczynska, M. Rosinski, A. Michalski M. Lewandowska, K.J. Kurzydowski - *Warsaw University of Technology, Poland*

10.50 coffee break

AUSTENITIC STAINLESS STEELS II

Chairpersons: L. APPOLLONI; *ThyssenKrupp Acciai Speciali Terni* -

M. SOMERS; *Technical University of Denmark*

11.10 **Determination of temperature dependent forming limit curves of metastable austenitic stainless steel considering martensite formation**

P. Schmid - *Forschungsgesellschaft Umformtechnik mbH Stuttgart, Germany*

M. Liewald - *Universität Stuttgart, Germany*

11.30 **Mechanical properties of weld joints in a novel high-strength austenitic stainless steel**

J. Leinonen - *University of Oulu, Finland*

11.50 **Use of APERAM's 16-5MnL (201LN – 1.4371): which benefits?**

J. Delacroix, B. Petit, J. Bridel - *APERAM R&D Isbergues, France*

J. De Wilde - *APERAM Genk, Belgium*

12.10 **Influence of cold-work on the elastic properties of austenitic stainless steels**

T. Manninen - *Outokumpu Stainless Oy, Tornio, Finland*

J. Solin, J. Alhainen, M. Chauhan - *VTT, Espoo, Finland*

12.50 Lunch

thursday, 22 september 2011
ROOM C

SIMULATION AND MODELING I

Chairpersons: A. FRANCISCONO; *Cogne Acciai Speciali* - S. HERTZMAN; *Outokumpu Stainless*

9.00 Keynote

Stainless steel alloys from first-principles theory

L. Vitos - *Royal Institute of Technology, Stockholm, Sweden and Uppsala University, Sweden and Research Institute for Solid State Physics and Optics, Budapest, Hungary*

H. L. Zhang, N. Al-Zoubi, S. Lu, S. Hertzman - *Royal Institute of Technology, Stockholm, Sweden*

J.O. Nilsson - *AB Sandvik Materials Technology, Sandviken, Sweden*

G. Nilson - *Uddeholms AB, Hagfors, Sweden*

B. Johansson - *Royal Institute of Technology, Stockholm, Sweden and Uppsala University, Sweden*

9.30 Thermodynamic and kinetic modeling tools and their application to the lifecycle of stainless steel

A. Engström, J. Bratberg, Q. Chen, P. Shi - *Thermo-Calc Software AB, Stockholm, Sweden*

P. Mason - *Thermo-Calc Software Inc., McMurray, USA*

9.50 A statistical analysis of the fatigue behaviour of single and multi-spot welded joints

A. Clifton, A. Smith - *Sheffield Hallam University, United Kingdom*

H. Nordberg - *Outokumpu Stainless Research Foundation, Sweden*

10.10 Sigma phase precipitation modelling in a UNS S32760 superduplex stainless steel

P. Ferro, F. Bonollo, G. Timelli - *Università di Padova, Vicenza, Italy*

M. Longin, M. Viotto - *Forgerossi, Vicenza, Italy*

10.30 Restoration mechanisms in stabilized high-Cr ferritic stainless steels in hot deformation

S. Mehtonen, T. Oittinen, P. Karjalainen - *University of Oulu, Finland*

10.50 Coffee break

SIMULATION AND MODELING II

Chairpersons: P. FERRO; *Università di Padova* - L. VITOS; *Royal Institute of Technology*

11.10 Influence of long time ageing on ductility and toughness in the stainless steel 310 in the presence of banded microstructure

M. Farooq, R. Sandström - *KTH, Stockholm, Sweden*

11.30 Cyclic behaviour and fatigue of stainless steels

M. Chauhan, J. Solin, J. Alhainen - *VTT, Espoo, Finland*

T. Manninen - *Outokumpu Stainless Oy, Tornio, Finland*

C. Lönnqvist - *Wärtsilä Finland Oy, Vaasa, Finland*

11.50 Effect of the isothermal ageing on impact toughness in a Zeron®100 SDSS

I. Calliari, M. Breda, E. Ramous, K. Brunelli - *Università di Padova, Italy*

M. Pizzo - *Exova CTR, Italy*

C. Menapace - *Università di Trento, Italy*

12.10 Chemical analysis of products and radioactivity risks surveillance

A. Franciscono, D. Olivero, S. Rollet, V. Vicario - *Cogne Acciai Speciali SpA, Aosta, Italy*

12.30 Optimization of the extrusion of steel profiles

S. Burkin, Y. Brynskiikh, E. Andriukova - *Ural Federal University, Ekaterinburg, Russia*

12 12.50 Lunch

thursday, 22 september 2011

ROOM A

SURFACE PROPERTIES II

Chairpersons: M. BONIARDI; *Politecnico di Milano* - T. LADWEIN; *Aalen University*

13.50 **Keynote**

Methodological approach of antibacterial surfaces characterization

A. Allion - *APERAM, Isbergues, France*

B. Van Hecke - *APERAM, Genk, Belgium*

A. Boubetra, F. Lenestour - *ISHA - Institut Scientifique d'Hygiène et d'Analyse Massy, France*

14.20 **Effect of Kolsterising treatment on surface properties of a duplex stainless steel**

M. Faccoli, G. Cornacchia, R. Roberti - *Università degli Studi di Brescia, Italy*

V. Bordiga - *Bodycote Trattamenti Termici, Rodengo Saiano, Italy*

14.40 **Influence of annealing oxide structure and composition on pickling of the duplex stainless steel 1.4462**

N. Fuertes Casals, P. Viklund - *Swerea KIMAB AB, Stockholm, Sweden*

C-O. A. Olsson - *AB Sandvik Materials Technology, Sandviken, Sweden*

15.00 **Functional and decorative coatings onto stainless steel sheets and strips deposited by high-rate physical vapour deposition**

B. Scheffel, C. Metzner, T. Modes, O. Zywitzki, H. Morgner - *Fraunhofer Institute for Electron Beam and Plasma Technology, Germany*

15.20 **A profilometric method to measure ridging and roping**

T. Ohligschläger - *Outokumpu Stainless Oy, Tornio, Finland*

15.40 Coffee break

WELDING

Chairpersons: F. COLOMBARI; *Outokumpu* - M. SIRÉN; *VTT Technical Research Centre of Finland*

16.00 **Keynote**

Influence of weld undermatching strength (mis-match) on limit load and failure behaviour of strain hardened austenitic stainless steel

P. Nevasmaa, A. Laukkanen, M. Sirén - *VTT Technical Research Centre of Finland, Espoo, Finland*

16.30 **A new lean duplex stainless steel exhibits excellent properties under large heat input welding**

S. Tsuge, Y. Oikawa, H. Kajimura - *Nippon Steel & Sumikin Stainless Steel Corp., Japan*

H. Inoue, R. Matsuhashi - *Nippon Steel Corp., Japan*

16.50 **Welding problems of thin ferritic stainless steel sheets**

S. Barella, M. Boniardi, S. Cincera, M. Bellogini - *Politecnico di Milano, Italy*

17.10 **Weld cracking behaviour of extra high-purity stainless steels**

K. Saida, K. Nishimoto - *Osaka University, Japan*

K. Kiuchi - *Japan Atomic Energy Agency, Japan*

J. Nakayama - *Kobe Steel Ltd., Japan*

17.30 **Influence of the welding gases and welding wire composition on the microstructural and mechanical properties of the austenitic weld seam**

D. Dyja, M. Rybarz, M. Mrozek, M. Piktas - *Tenneco Emission Control Europe, Rybnik, Poland*

20.00 **Conference dinner at Como Social Theatre**

thursday, 22 september 2011

ROOM B

APPLICATIONS I

Chairpersons: I. ROMMERSKIRCHEN; H. Butting - B. VAN HECKE; Aperam

13.50 **Keynote**

Duplex stainless steel in fire

E. Schedin, B. Ivarsson, M. Andersson, R. Lindström - *Outokumpu Stainless AB, Avesta, Sweden*

14.20 **Study of molybdenum effect on pitting corrosion of stainless steel concrete reinforcements**

T.J. Mesquita, E. Chauveau, M. Mantel - *Ugitech Research Center, UGINE, France*

N. Kinsman - *IMOA International Molybdenum Association, London, United Kingdom*

A. Araujo, C. Santos, Z. Panossian - *CINTEQ - Laboratório de Corrosão e Proteção - IPT, São Paulo, Brasil*

R.P. Nogueira - *LEPMI - INP Grenoble, St. Martin d'Hères, France*

14.40 **Novel Opencell™ metal sandwich panel concept: design, manufacture and properties**

M. Sirén - *VTT Technical Research Centre of Finland, Espoo, Finland*

A. Valente - *PLY Engenharia Lda, Portugal*

J. Säynäjäkangas - *Outokumpu Tornio Works, Finland*

15.00 **Stainless steel passenger cars and how they are made**

W. Jaxa-Rozen - *Bombardier Transportation North America, St-Bruno, Quebec, Canada*

15.20 **K44X: A new ferritic stainless steel grade with improved durability for high temperature exhaust manifolds**

P.-O. Santacreu, L. Faivre, A. Acher, J. Leseux - *Aperam Stainless & Electrical Steel Europe, Isbergues, France*

15.40 **Coffee break**

APPLICATIONS II

Chairpersons: M. ANDERSSON; *Outokumpu Stainless AB* - N. KINSMAN; *IMOA*

16.00 **Keynote**

Stainless steel and profiling: a solution for the railway industry?

J. De Wilde, B. Van Hecke - *Aperam Stainless & Electrical Steel Europe, Belgium*

L. Faivre - *Aperam Stainless & Electrical Steel Europe, France*

16.30 **Structure changes in blades from 12% Cr steel after long servicing period in low pressure turbine**

Z. Kovačević - *Institute for Testing of Materials, Belgrade, Serbia*

Z. Karastojković - *Technical College, Belgrade, Serbia*

R. Perić - *Perić&Perić, Požarevac, Serbia*

M. Arsić - *Institute for Testing of Materials, Belgrade, Serbia*

16.50 **More than corrosion resistance: magnetic properties of stainless steels**

S. Riedner, D. Fofanov, C. Ernst - *Deutsche Edelstahlwerke GmbH, Witten, Germany*

17.10 **Experience on the manufacturing of nickel base alloy boiler tubes**

P. Schraven - *Salzgitter Mannesmann Stainless Tubes, Germany*

registration form

7th European STAINLESS STEEL Conference - Science & Market

Como (Italy), 21-23 September 2011

Please complete and return this form by September 9, 2011 to:

ASSOCIAZIONE ITALIANA DI METALLURGIA - AIM

Piazzale Rodolfo Morandi 2 - I - 20121 Milano, Italy

Tel. +39 0276021132 / 0276397770 · Fax +39 0276020551 · E-mail: aim@aimnet.it · Website: www.aimnet.it

LATE REGISTRATION FEES (after July 29, 2011)

Standard Rates

Delegates: Eur **680** (*)
Academics/Chairmen: Eur **630** (*)
Students (★★): Eur **340** (*)

(*) Revenue Stamp included

Accompanying persons Eur **138** (VAT included)

(Includes only aperitivo di benvenuto - 20 September, guided tour of Como and cocktail close to the lake -21 September and Conference dinner -22 September)

Conference Registration fees include admittance 2012.

to technical sessions, Conference bag with CD-Rom proceedings, coffee breaks, lunches, aperitivo di benvenuto (20 September), guided tour of Como and cocktail close to the lake (21 September) and Conference dinner (22 September).

For non-members the fee includes AIM Membership for the last quarter of 2011 and for the year

AIM/Centro Inox Members Rates

Delegates: Eur **580** (*)
Academics/Chairmen: Eur **530** (*)
AIM Junior Members: **Free**

(★★) **Students** will have to provide valid proof of student status. Student registration fee includes access to technical sessions, Conference bag with CD-Rom proceedings, coffee breaks, lunches, aperitivo di benvenuto (20 September), guided tour of Como and cocktail close to the lake (21 September).

Cumulative registrations for over 3 delegates from the same company will entitle to a discount of 15% of the total amount.
Cumulative registration forms should be sent together.

does not include the Conference dinner.

To register please fill-in the following registration form in all its parts.

(It is also possible to register online - www.aimnet.it/stainless2011.htm)

Please use BLOCK letters throughout form (photocopies can be used)

hotel reservation form



Como Imprenditori
Alberghieri

7th European STAINLESS STEEL Conference - Science & Market

Como (Italy), 21-23 September 2011

Please book your accommodation before September 12, 2011

MIZAR Srl: +39 031 342015 (tel. +39 031 342025) · madda@mizarconventions.com

Family Name.....

First Name(s).....

Company Name.....

ZipCode..... Town..... Country.....

Tel.....

Fax.....

I WOULD LIKE TO MAKE THE FOLLOWING ROOM RESERVATION:

STAR RATING
★★★★

DOUBLE ROOM SINGLE USE
€ 130,00/184,00

DOUBLE/TWIN ROOM
€ 180,00/242,00



€ 90,00/€ 140,00

€ 120,00/141,00

The rates are per room, per night, B&B accommodation, taxes included

ROOMS:

★★ ★

TWIN ROOM SINGLE USE

TWIN/DOUBLE ROOM

N° _____ twin rooms single use

N° _____ twin/double rooms

DATE OF ARRIVAL:

DATE OF DEPARTURE:

GUARANTEE:

Reservations and cancellations policies:

You will be asked to provide a valid credit card number with date of expiry as guarantee to secure your accommodation upon confirmation of availability. Payment is direct to the hotel which will provide an invoice for the paid amount at the end of your stay.

For cancellations received after August 31, 100% penalty will be applied.

VISA

MASTERCARD

AMERICAN EXPRESS

DINERS

NUMBER:

EXPIRY:

BELONGING:

SIGNATURE

DATE

GUARANTEE: the credit card details will be stored in a protected area.

PERSONAL AND INVOICING DATA

Family Name

First Name(s)

Company Name

Company Fiscal Address

ZipCode Town

Country

E-mail for correspondence

E-mail for invoicing and billing information

Tel

Fax

VAT and FISCAL CODE (if different)

Order ref. number (if requested on the invoice)

I will attend the Conference as:

NON MEMBER AIM MEMBER Centro Inox MEMBER

by non-transferable bank draft or cheque, negotiable in Italy, to the order of Associazione Italiana di Metallurgia - AIM.

Speaker (paper nr)

by bank transfer, to the order of Associazione Italiana di Metallurgia - AIM at "Banca Popolare Commercio e Industria", Branch no. 2 - Milano, account no. 000000022325 - cod. ABI 05048 - CAB 01602 - cin L, IBAN: IT92L0504801602000000022325, swift code POCITM1002. The transfer order must specify the name of the delegate and the reference "STAINLESS 2011".

Academic

€

Chairman of the session

€

Delegate

€

Student

€

AIM Junior Member

free

n. Accompanying Persons

€

I would like to attend the Stainless Steel Market Outlook

free

by credit card online (www.aimnet.it/stainless2011.htm).

Total amount being paid:

€

by credit card (Visa, Carta Si, Mastercard, American Express and Diners) and cash **at the registration desk in Como.**

We inform you that data collected will be treated following the normal institutional activity of AIM. In accordance to article 130 of the D.lgs. 196/03 in every moment the interested party has the right to oppose the treatment of one's personal data. Your data will be dealt with in accordance of the D.lgs.

In 30th June 2003 n. 196, guaranteeing the rights of the interested parties foreseen in the 7 art. of the Decree. We also inform you that AIM will communicate to foreign partners the personal data only for above reasons. We also inform you that your personal data will be on the list of the conference

participants. In the case that you **DO NOT** want to appear on this list you may block the mail box. We also inform you that the holder of the personal data is AIM in Milan in P.le Morandi 2, while owner of the personal data is Ing. Vincenzo Crapanzano, available near the AIM offices.

Date

Signature

thursday, 22 september 2011

ROOM C

FERRITIC STAINLESS STEELS

Chairpersons: A. KOSMAC; *Euro Inox* - A. TIZIANI; *Università di Padova*

13.50 **Keynote**

New grades of stabilized superferritic stainless steel: main properties and applications

L. Appolloni, C. Rocchi, D. Sciaioletta - *TKL-SL-AST, Terni, Italy*

R. Guerra, F. Ruffini - *Centro Sviluppo Materiali, Roma, Italy*

14.20 **Modern ferritic and martensitic stainless steel for the house-ware segment**

G. Ronchi - *Ikea Components AB, Almhult, Sweden*

14.40 **Static strain aging of stabilized ferritic stainless steels**

M. Palosaari, T. Manninen - *Outokumpu Stainless Oy, Tornio, Finland*

R. Toppila, T. Kauppi - *Kemi-Tornio University of Applied Sciences, Kemi, Finland*

15.00 **Cold rolling of $\alpha+\alpha'$ dual-phase microstructure in transformable ferritic stainless steel**

J. Mola, E. Seo, I. Jung, B.C. De Cooman - *POSTECH, Pohang, South Korea*

J. Park - *POSCO, Pohang, South Korea*

15.20 **Recrystallization behavior of α' martensite in transformable ferritic stainless steels**

J. Mola, B.C. De Cooman - *POSTECH, Pohang, South Korea*

J. Park - *POSCO, Pohang, South Korea*

15.40 Coffee break

MISCELLANEOUS

Chairpersons: C. MAPELLI; *Politecnico di Milano* - J-O. NILSSON; *Sandvik Materials Technology*

16.00 **Keynote**

Studies on Nb microalloying of 13Cr super-martensitic stainless steel

X. Ma, Z. Jiang, L. Wang, C. Liu - *North Eastern University, Shenyang, China*

M. Perez de Oliveira - *Companhia Brasileira de Metalurgia e Mineração (CBMM), São Paulo, Brazil*

S. Subramanian - *McMaster University, Hamilton, Canada*

16.30 **High temperature resisting materials. Experience in fabrication (forming, bending, welding) properties of welded joints and steels applications for boilers with supercritical parameters**

J. Pasternak - *Rafako S.A., Raciborz, Poland*

J. Dobrzański - *Institute for Ferrous Metallurgy, Gliwice, Poland*

16.50 **Microstructure and wear behavior of a boron-containing super duplex stainless steel processed by spray forming**

L.G. Beraldo, A.M. Branquinho, C.S. Kiminami, W.J. Botta Filho, C.R. Moreira Afonso, C. Bolfinari - *Universidade Federal de São Carlos, Brazil*

17.10 **Phase analyses of a thermally treated 2507 duplex steel through EBSD**

P. Bassani, F. Passaretti - *CNR-ENI Lecco, Italy*

I. Calliari, A.F. Miranda Perez - *Università di Padova, Italy*

20.00 **Conference dinner at Como Social Theatre**

friday, 23 september 2011

ROOM A

DUPLEX STAINLESS STEELS I

Chairpersons: J. CHARLES; *Aperam* - M. FARINET; *Cogne Acciai Speciali*

9.00 **Keynote**

A new duplex 1.4062: a new and promising stainless steel grade for spring applications

T. Sourisseau - *UGITECH, Imphy, France*

E. Chauveau, M. Mantel - *UGITECH, Ugine, France*

9.30 **Forming and stress relieving of welded superduplex**

A. Fanica, G. Passot, L. Lhenry - *ArcelorMittal Global R&D, Le Creusot, France*

9.50 **How to use super and hyper duplex stainless steel in seawater cooled heat exchangers to minimize the risk for crevice corrosion**

J. Höwing, K. Tersmeden - *Sandvik Materials Technology, Sandviken, Sweden*

10.10 **Effect of the temperature on the mechanical properties of high ductile lean duplex stainless steel**

C. Herrera, D. Ponge, D. Raabe - *Max-Planck-Institut für Eisenforschung, Düsseldorf, Germany*

J.A. Jimenez - *Centro Nacional de Investigaciones Metalúrgicas, C.S.I.C., Madrid, Spain*

10.30 Coffee break

DUPLEX STAINLESS STEELS II

Chairpersons: J.C. GAGNEPAIN; *Industeel* - K. TERSMEDEN; *Sandvik Materials Technology*

10.50 **1.4669, a new lean duplex stainless steel with improved toughness and machinability**

N. Renaudot, E. Chauveau, M. Mantel - *UGITECH, Ugine, France*

11.10 **Development of high strength duplex stainless steels for railway cargo transportation**

L. Jiang, R. Wang, X. Ye, H. Zheng - *Shanghai Baosteel Research Institute, Baoshan, P.R.China*

11.30 **Superduplex stainless steel UNS S 32760 production in large diameter rolled bars**

C. A. Barbosa, A. Sokolowski, A.B. Farina - *Villares Metals, Sumaré, Brazil*

11.50 **Effect of creep deformation on the microstructure of duplex stainless steel 2205 during the continuous annealing process**

H. Park, B.C. De Cooman - *POSTECH, Pohang, South Korea*

K. Kim - *POSCO, Pohang, South Korea*

12.10 **Characterization of duplex stainless steels**

T.R. Parayil, D.S. Bergstrom - *ATI Allegheny Ludlum, Natrona Heights, USA*

12.30 Lunch

friday, 23 september 2011

ROOM B

PROCESS TECHNOLOGIES I

Chairpersons: A. MORINI; *Fondinox* - E. RAMOUS; *Università di Padova*

9.00 **Keynote**

High performances of water cooling technology

M. Renard, P-Y. Halleux, P-H. Picard - *Drever International S.A., Angleur, Belgium*

S. Cervo, A. De Santo - *Thyssenkrupp Acciai Speciali Terni, Italy*

9.30 **Oxyfuel annealing of EN 1.4307 austenitic stainless steel tube - oxide formation and pickling behaviour**

T. Olli - *Swerea KIMAB AB, Stockholm, Sweden*

T. Ekman - *AGA AB (Linde Group), Lidingö, Sweden*

9.50 **Relaxation of residual stress in 1.4570 austenitic stainless steel drawn bars**

N. Meyer, M. Libert, R. Boudinet, C. Bourgin, M. Mantel - *UGITECH Research Centre, Ugine, France*

10.10 **Experience with dry running vacuum pumping systems as applied to the VOD, VD-OB and RH processes for the production of stainless and ULC steels**

S. Bruce - *Edwards Ltd, Shoreham United Kingdom*

V. Cheetham - *Edwards Ltd, Bolton United Kingdom*

G. Legge - *Edwards Vacuum Inc., Tewkesbury, USA*

A. Villa - *Edwards Spa, Milano, Italy*

10.30 Coffee break

PROCESS TECHNOLOGIES II

Chairpersons: A. MORINI; *Fondinox* - E. RAMOUS; *Università di Padova*

10.50 **Optimizing the environmental footprint and production costs in stainless steel refining**

K. Beskow, C-J. Rick, M. Engholm - *Uvån Hagfors Teknologi AB, Sweden*

11.10 **Improvement of the superficial quality of stainless steel P430A 2B-bright**

W.S. Labiapari, C.M. Alcântara, R.C.R. Silva, J.S. Ferreira, J.C. Batista, G. Coura, V.C. Machado - *ArcelorMittal Inox Brasil*

11.30 **High temperature behavior of stainless steel in manufacture of Saggors for curing the graphite electrode used in electric arc furnaces**

A. Lopez, V. Pintos, M.D. Paz, C. González - *AIMEN Research Technological Centre, Porriño, Pontevedra, Spain*

C.A. Castaño - *INCALPESA S.L., Perillo-Oleiros, A Coruña, Spain*

11.50 **Influence of parameters of flattening process in ball rolling mill on stainless steel wire widening**

J. Przondziono, J. Szymshal - *Silesian University of Technology, Katowice, Poland*

12.30 Lunch

friday, 23 september 2011

ROOM A

APPLICATIONS III

Chairpersons: F. CAPELLI; Centro Inox - M. RENARD; Drever International

13.30 Keynote

EAF-Foamy slag in stainless steel production. Experiences in industrial application

J. Reichel, L. Rose - *SMS Siemag AG, Düsseldorf, Germany*

14.00 Corrosion resistance of lean alloy alternatives for 300 series stainless steels

P. Gümpel, F. Leu - *University of Applied Sciences, Konstanz, Germany*

A. Burkert, J. Lehmann - *BAM Bundesanstalt für Materialforschung und -prüfung, Berlin, Germany*

14.20 On-site generation of free chlorine for cleaning and disinfection purposes: its compatibility with stainless steels used in the food industry

V. Boneschi - *Centro Inox, Milano, Italy*

M. Benedetto - *MedNora, Milano, Italy*

G. Rivolta, P.V. Scolari - *RTM Breda, Cormano, Italy*

14.40 Stainless steel and its finishes. A resource for architecture and design

E. Rizkallah - *Steel Color, Pescarolo ed Uniti, Italy*

15.00 Closure of the Conference

friday, 23 september 2011
ROOM B

MICROSTRUCTURE AND CHARACTERISATION

Chairpersons: R.L. HIGGINSON; *Loughborough University* - I. CALLIARI; *Università di Padova*

13.30 **Keynote**

Characteristics and morphologies of oxides on austenitic stainless steels

R.L. Higginson, L. Millar, G. Green - *Loughborough University, United Kingdom*

J. Hulance - *RWE npower, Swindon, United Kingdom*

14.00 **Temperature dependence of the mechanical properties of as-cast and wrought Cr-Mn-Ni stainless steels with TRIP/TWIP-effect**

A. Jahn, A. Kovalev, A. Weiß, S. Wolf, L. Krüger, P.R. Scheller - *University of Mining and Technology, Freiberg, Germany*

14.20 **Comparative study of ferrite quantification methods applied to duplex stainless steels**

R. Magnabosco, S. Spomberg - *Ignatian Educational Foundation, FEI, São Bernardo do Campo, Brazil*

14.40 **The effect of intense external influences on the structure and properties of alloys**

L.A. Maltseva, T.V. Maltseva, N.N. Ozerets, V.A. Sharapona, A.V. Levina - *Ural Federal University, Yekaterinburg, Russia*

15.00 **Closure of the Conference**

poster session

Ferrite-to-austenite transformation during cold working of a duplex stainless steel

R. Magnabosco, D. Barduzzi Tavares - *Ignatian Educational Foundation, FEI, São Bernardo do Campo, Brazil*

A. Forgas Jr., C. de Moura Neto - *Aeronautical Institute of Technology, ITA, São José dos Campos, Brazil*

Phase transformations on an UNS S31803 duplex stainless steel during aging at 650°C and its influence on pitting potentials in a 0.6M NaCl solution

E. Barbosa de Mélo, C. de Moura Neto - *Aeronautical Institute of Technology (ITA), São José dos Campos, Brazil*

R. Magnabosco - *Ignatian Educational Foundation (FEI), São Bernardo do Campo, Brazil*

Quantitative analysis of phases in UNS S31803 duplex stainless steel aged at 750°C using scanning electron microscopy

D. Caluscio dos Santos - *Aeronautical Institute of Technology (ITA) / Ignatian Educational Foundation (FEI), São Paulo, Brazil*

R. Magnabosco - *Ignatian Educational Foundation (FEI), São Paulo, Brazil*

C. de Moura Neto - *Aeronautical Institute of Technology (ITA), São Paulo, Brazil*

Low temperature glow-discharge nitriding of stainless steels

F. Borgioli, A. Fossati, L. Raugei, E. Galvanetto, T. Bacci - *Università di Firenze, Italy*

Superplastic forming of duplex stainless steel

H-S. Lee, J-H. Yoon, J-T. Yoo - *Korea Aerospace Research Institute, Republic of Korea*

Investigations on the failure behaviour of nano-coated ferritic stainless steel

C.M. Gaebel, K. Voges-Schwieger, S. Hübner, B-A. Behrens - *Leibniz Universität Hannover, Germany*

α' -martensite formation and a new method for the detection of damage in sheet metal components

B-A. Behrens, K. Voges-Schwieger, K. Weilandt, J. Schrödter, J. Jocker - *Leibniz Universität Hannover (IFUM), Garbsen, Germany*

Investigation the effect of nitrogen on oxidation behavior of stainless steel

S. Ghali, F. Baiomy, M. Eissa - *CMRDI, Helwan, Egypt*

Characteristic microstructures in simulated HAZ of temper-rolled austenitic stainless steel EN 1.4318

S. Cvetkovski, L.P. Karjalainen, A. Kisko - *University of Oulu, Finland*

S. Lantto - *Outokumpu Stainless Oy, Tornio, Finland*

Contribution of Mo and Si to laves-phase precipitation in type 444 steel and its effect on steel properties

T. Juuti, P. Karjalainen, L. Rovatti, E-P. Heikkinen - *University of Oulu, Finland*

P. Pohjanne - *Technical Research Centre of Finland, Espoo, Finland*

Effect of corrugation on passive film behaviour in low-alloyed stainless steel by Mott-Schottky approach

E.C. Paredes, A. Bautista, F. Velasco, S. Guzmán - *Universidad Carlos III de Madrid, Spain*

Microstructure and anisotropy of mechanical properties in reversion-treated high-Mn type 204Cu and 201 stainless steels

A. Kisko, L. Rovatti, I. Miettunen, L.P. Karjalainen - *University of Oulu, Finland*

J. Talonen - *Outokumpu Oyj, Espoo, Finland*

A study of duplex stainless steels aged at 325°C under applied tensile load

J. Zhou, P. Hedström, J. Odqvist - *KTH Royal Institute of Technology, Stockholm, Sweden*

S. Hertzman - *KTH, Sweden and Outokumpu Stainless Research Foundation, formerly Swerea Kimab Stockholm, Sweden*

M. Thuvander - *Chalmers University of Technology, Sweden*

poster session

New protective coatings from hollow particles for extreme environments

S. Guzmán, F. Velasco, A. Bautista, C. Paredes, S. Álvarez - *Universidad Carlos III of Madrid, Spain*

Atmospheric corrosion evaluation of 304 austenitic and 19%Cr ferritic stainless steels with welds under tropical climate of Thailand

E. Viyanit, W. Pongsaksawad, S. Sorachot, J. Troset - *National Metal and Materials Technology Center (MTEC), Pathumthani, Thailand*

H. Matsuyama - *Nippon Steel & Sumikin Stainless Steel Corporation, Yamaguchi, Japan*

N. Fukuda - *NS-Thainox Auto Co., Ltd., Bangkok, Thailand*

Effect of microstructure and test temperature on impact toughness of superduplex stainless steel UNS S32760

G. Timelli, F. Bonollo, P. Ferro - *Università di Padova, Vicenza, Italy*

M. Longin, M. Viotto - *Forgerossi, Italy*

Mechanical properties of the different alloys during rolling process

A. Chiran, B. Moisa, Z. Bacinsch, I. Priceputu - *Valahia University, Targoviste, Romania*

Duplex stainless steel and Ni based alloy performance in extremely aggressive environments

M.S. Barce, J.H. Alano, S.E. Kuri - *Universidade Federal de São Carlos, Brazil*

S.E. Kuri - *PPGCEM, São Carlos, Brazil*

EN-1.4509 ferritic stainless steel behaviour in aggressive environments for structured catalyst preparation

R. García, J. F. Almagro - *ACERINOX S.A., Spain*

O. Sanz - *Universidad del País Vasco, Spain*

A. Corrales, B. Sánchez, M. A. Centeno, J. A. Odriozola - *Universidad de Sevilla-CSIC, Spain*

Corrosion behaviour of the austenite and ferrite phases in duplex stainless steels

S.M. Alvarez, A. Bautista, F. Velasco, S. Guzman - *Universidad Carlos III de Madrid, Leganés, Spain*

Characterization and mechanical performances of stainless steel sponges

C. Mapelli, A. Gruttadauria, D. Mombelli, S. Barella - *Politecnico di Milano, Italy*

E.M. Castrodeza - *COPPE-Federal University of Rio de Janeiro, Brazil*

Stress corrosion cracking and hydrogen embrittlement of sensitized stainless steels: effect of sensitizing time

O.M. Alyousif - *Kuwait University, Safat, Kuwait*

R. Nishimura - *Osaka Prefecture University, Japan*

High temperature deformation behavior of 25Cr super duplex stainless steel

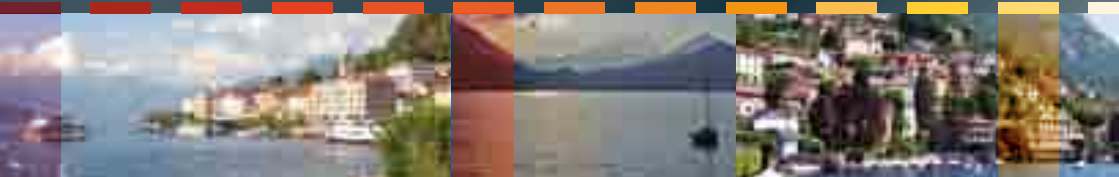
J.S. Kim, K.T. Kim, S.K. Ahn, S.C. Lee, K.S. Kim - *POSCO, Pohang, Gyeongbuk, South Korea*

Effect of second phase particles on pitting corrosion of Mn-alloyed austenitic stainless steels

H. Pulkkinen, R. Ilola, H. Hänninen - *Aalto University School of Engineering, Finland*

J. Talonen - *Outokumpu Oyj, Espoo, Finland*

**POSTERS WILL BE DISPLAYED
FOR THE ENTIRE PERIOD OF THE CONFERENCE**



GENERAL INFORMATION

Organizing Secretariat

AIM - Associazione Italiana di Metallurgia

Piazzale Rodolfo Morandi 2 · I - 20121 Milano, Italy

Tel.: +39 02.7602.1132 or +39 02.7639.7770

Fax +39 02.7602.0551

E-mail: aim@aimnet.it

Conference website:

www.aimnet.it/stainless2011.htm

Conference Venue

The Conference will be staged in Como at the Congress Centre of Politecnico di Milano - Como Campus - via Castelnuovo, 7.

Language

The official language of the conference will be English.

Proceedings

The full texts of the accepted papers will be published in the CD-Rom proceedings and issued to attendees on arrival at the conference. A selection of the best papers will also be published on "La Metallurgia Italiana", the scientific journal of Associazione Italiana di Metallurgia which is now covered in the Science Citation Index Expanded by Thomson Reuters and in Scopis by Elsevier B.V.

Registration Information

Conference Registration fees include admittance to technical sessions, Conference bag with CD-Rom proceedings, coffee breaks, lunches, *aperitivo di benvenuto* - get together cocktail (20 September), guided tour of Como and cocktail close to the lake (21 September) and Conference dinner (22 September).

For non-members the fee includes AIM Membership for the last quarter of 2011 and for the year 2012.

(★★) **Students** will have to provide valid proof of student status. Student registration fee includes access to technical sessions, Conference bag with CD-Rom proceedings, coffee breaks, lunches, *aperitivo di benvenuto* (20 September), guided tour of Como and cocktail close to the lake (21 September). **It does not include the Conference dinner.**

Cumulative registrations for over 3 delegates from the same company will entitle to a discount of 15% of the total amount. Cumulative registration forms should be sent together.

Payment and remittance

· by non-transferable bank draft or cheque, negotiable in Italy, to the order of Associazione Italiana di Metallurgia - AIM

REGISTRATION INFORMATION

LATE REGISTRATION FEES (after July 29, 2011)

Standard Rates

Delegates:	Eur 680 (*)
Academics/Chairmen:	Eur 630 (*)
Students(★★):	Eur 340 (*)

(*) Revenue Stamp included

AIM/Centro Inox Members Rates

Delegates:	Eur 580 (*)
Academics/Chairmen:	Eur 530 (*)
AIM Junior Members:	Free

Accompanying persons Eur **138** (VAT included)

(includes only *aperitivo di benvenuto* - 20 September, guided tour of Como

and cocktail close to the lake -21 September and Conference dinner -22 September)



GENERAL INFORMATION

- by bank transfer, to the order of Associazione Italiana di Metallurgia - AIM at "Banca Popolare Commercio e Industria", Branch no. 2 - Milano, account no. 000000022325 - cod. ABI 05048 - CAB 01602 - cin L, IBAN: IT92L050480160200000022325, swift code POCIITM1002. The transfer order must specify the name of the delegate and the reference "STAINLESS 2011". A copy of the transfer order must be sent to AIM, together with the Registration Form.
- by credit card online (www.aimnet.it/stainless2011.htm);
- by credit card (Visa, Carta Si, Mastercard, American Express and Diners) and cash at the registration desk in Como.

Registration

If you plan to attend, please download the Registration Form on the conference website www.aimnet.it/stainless2011.htm or fill in the enclosed Registration Form and send it to the Organising Secretariat at your earliest convenience, but **not later than September 9, 2011**. Please use a separate form for each participant.

Photocopies can be used.

It is also possible to register online on the Conference website:

www.aimnet.it/stainless2011.htm

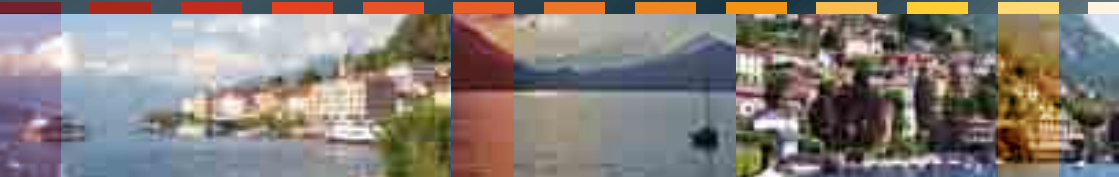
Please contact the Organising Secretariat by fax or e-mail, if possible.

Cancellation and refund policy

A refund, **less 20%** deduction for administrative costs, will be issued for written cancellations received **by August 26, 2011**. For attendees who notified their cancellation **after August 26, 2011** or will not attend the conference, a **charge of 100% of the conference fee** will be with-held and a copy of the proceedings will be sent after the event.

Insurance

The Organising Secretariat cannot assume any responsibility for personal accident, loss or damage to the private property of participants and accompanying persons, which may either occur during or arise from the conference. Participants should therefore take whatever steps they consider necessary as regards insurance.



ACCOMMODATION

Official travel and reservation agency

MIZAR

Via 5 giornate 2/R · 22012 Cernobbio (CO), Italy

Phone: +39 031 342025

Fax: +39 031 342015

e-mail: madda@mizarconventions.com

website: www.mizarconventions.com

Hotel reservations

To reserve accommodation, the attached Hotel Reservation Form should be completed and transmitted to **MIZAR by September 12, 2011**.

After September 12, the fees will be subjected to availability.

HOTEL RATES

(The rates are per room, per night, B&B accommodation, taxes included)

STAR RATING



DOUBLE ROOM SINGLE USE

€ 130,00/184,00
€ 90,00/140,00

DOUBLE ROOM

€ 180,00/242,00
€ 120,00/141,00

All the hotels are located in the city centre and at a walking distance from the venue of the event. Booking is on a first come, first served basis.

Credit card is used as guarantee. The room will be paid at departure.

Accepted credit cards: AMERICAN EXPRESS, VISA (no ELECTRON VISA), MASTERCARD, DINERS.

Cancellation or booking changes can only be made by writing to Mizar, Cernobbio.

° Cancellation **after August 31, 2011**/no show/no notice: no refund

PARKING

The Congress centre does not avail of a private parking. Close to the Conference venue you can find:





SOCIAL PROGRAM

A rich social program has been designed to give delegates the opportunity to meet informally and enjoy Como's atmosphere.

- **Aperitivo di benvenuto (Get-together cocktail)**

A get-together cocktail will be offered at the Conference venue on **September 20, 2011** at 18:30.

- **Guided tour of Como and cocktail**

A visit to the city centre of Como will be organised in the late afternoon of **21 September 2011**. The MEETING POINT will be in front of the **Hotel Metropole Suisse at 18:00**.

The tour starts in Piazza Cavour where you have an overview over the lake and the monuments facing it. After going to Piazza Volta and Casa Bazzi, you arrive in Piazza San

Fedele where you can admire the Basilica of San Fedele, an important witness to the Lombard Romanesque. Finally you arrive in Piazza Duomo where you can visit the interior of the Cathedral. The tour will end with a cocktail served at the Palace Hotel, close to the lake.

- **Conference dinner**

In the evening of **22 September 2011**, a Conference dinner will be held at Como Social Theatre, in Piazza Verdi.

Before the dinner, starting at 20:00, an aperitivo will be offered in piazza Verdi in front of the theatre, on the left side. Afterwards, the dinner will be served in the Sala Bianca (white room) on the first floor of the theatre. During the dinner, we will enjoy a performance of the string trio *Bakura ensemble*.

P1 - Parking in via Castelnovo

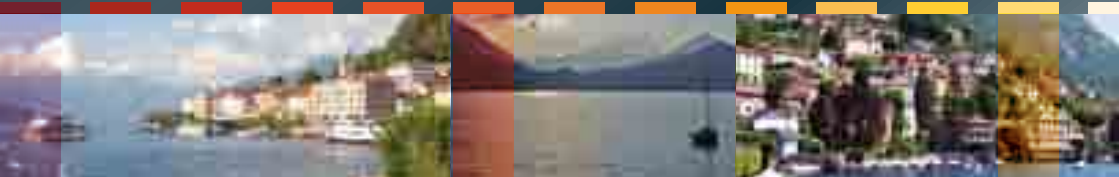
HOURS	FEES
Half day (from 7.30 to 13.30)	€ 1,00
Half day (from 13.30 to 19.30)	€ 1,00
All day	€ 2,00

P2 - Parking garage in Via Castelnovo

HOURS	FEES
Half an hour	€ 0,50
One hour	€ 1,00
From the 2nd hour to 6th hour	€ 0,50 (each hour)
All day (from 7.00 to 19.00)	€ 1,50

P3 - Parking "Ippocastano"

	FEES
Parking meter - one hour	€ 0,50



TIME TABLE

TUESDAY 20 SEPTEMBER

16:30	Opening of the registration
18:30	<i>Aperitivo di benvenuto</i> (Get-together cocktail)

WEDNESDAY 21 SEPTEMBER

8:00	Registration
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ROOM A

OPENING AND PLENARY SESSION

9:00	Welcome addresses Presentation of the STAINLESS STEEL "GABRIELE DI CAPRIO" MEDAL to Jacques Charles Opening lecture by J. Charles - <i>Aperam, France</i>
10:40	Coffee break
11:00	Opening lectures by J. Ågren - <i>Royal Institute of Technology, Stockholm, Sweden</i> M. Moll - <i>SMR-Steel & Metals Market Research, Austria</i>
12:00	Lunch

ROOM A

ROOM B

13:00	Corrosion I	Market Developments
14:30	Coffee break	
14:50	Corrosion II	Stainless Steel Market Outlook
18:00	Guided tour of Como and cocktail	

THURSDAY 22 SEPTEMBER

ROOM A

ROOM B

ROOM C

9:00	Corrosion III	Austenitic Stainless Steels I	Simulation and Modeling I
10:50	Coffee break		
11:10	Surface Properties I	Austenitic Stainless Steels II	Simulation and Modeling II
12:50	Lunch		
13:50	Surface Properties II	Applications I	Ferritic Stainless Steels
15:40	Coffee break		
16:00	Welding	Applications II	Miscellaneous
20:00	Conference dinner		

FRIDAY 23 SEPTEMBER

ROOM A

ROOM B

9:00	Duplex Stainless Steels I	Process Technologies I
10:30	Coffee break	
10:50	Duplex Stainless Steels II	Process Technologies II
12:30	Lunch	
13:30	Applications III	Microstructure & Characterisation
15:00	Closure of the Conference	



The city of Como

Just half an hour from noisy, bustling Milan, Como province is a jewel like oasis of tranquillity, a magical combination of lush Mediterranean foliage and snowy alpine peaks. Lake Como (Lago di Como) is one of the famous Italian Lakes destinations, long (50km), slender and extremely deep. The southern end forks into two long 'arms', with the picturesque town of Bellagio situated on the promontory between them. Like the other Italian Lakes, Lake Como has been popular as a resort since the days of the Roman Empire. Visitors ever since have admired the blue waters and relaxed in luxurious villas in the wooded lakeside slopes above. Como preserves important monuments from each important era of its history, such as its Gothic-Renaissance cathedral completed in the 19th century with the dome of Filippo Juvarra or the many 400-year-old buildings and the basilica in Piazza San Fedele, at the heart of Como's walled Old Town. For all these reasons, Como and its lake have become, over the years, more and more popular with both tourists and celebrities alike as it is in a fantastic location, with its magnificent mountains and valleys and the many quaint villages with beautiful lakeside villas. The lake offers also many things to do: walking or hiking and of course a multitude of watersports to choose from with many schools towards the northern part of the lake (Dongo, Domaso, Colico) where you can book lessons for sailing, windsurfing, diving etc.

How to get there

- You can easily reach Como **by plane**, arriving at the 3 airports of Milan (Malpensa, Linate and Orio al Serio) and at the one in Lugano, Switzerland. The airport in Lugano is only 20 minutes by car from Como, while the airports of Malpensa, Linate and Bergamo (Orio al Serio) are 50-60 minutes by car from Como.
- Como is also well connected **by train** to all the most important cities in Italy and Europe. Fast and frequent train link Como to Milan and to Switzerland: Ferrovie Nord Milan (Milan North Railway) links Como to the centre of Milan-Milano Cadorna- with a frequency of a train every 30 minutes. Ferrovie dello Stato (National Railway)-station of Como San Giovanni, situated on the International line Milano-Chiasso links Como to the major European and Italian cities.
- You can also reach Como **by car**, using the A9 motorway from Milan.



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