

ATTIS - The Romanian Heat Treatment and Surface Engineering Association

IFHTSE - International Federation for Heat Treatment and Surface Engineering

International conference on

**REDUCTION OF ENERGY CONSUMPTION
IN HEAT AND THERMOCHEMICAL
TREATMENT TECHNOLOGIES
AND INSTALLATIONS**

Alpin Hotel, Poiana Brasov, Romania

November 4 - 5, 2010

CONFERENCE PROGRAMME



**REDUCTION OF ENERGY CONSUMPTION
IN HEAT AND THERMOCHEMICAL
TREATMENT TECHNOLOGIES
AND INSTALLATIONS**

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Leontin Drugă, ASTR, Bucharest, Romania (ATTIS President)
Hans-Werner Zoch, IWT, Bremen, Germany (IFHTSE President)
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Jan Elwart, Bodycote European Holdings, Germany
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Richard Molnar, Linde Gaz Romania

Nicuşor Ruscu, Bodycote, Braşov

Ion Ivan, Mital Steel, Galati

Secretariat:

Gheorghe Toader, ATTIS, Bucharest, Romania

THURSDAY, November 4, 2010

- 8.30-9.30** **Registration**
- Opening Ceremony**
- Location: Carpathian Hall
- 9.30-9.40** **Welcome Speech**
 prof.dr. Leontin Druga
 ATTIS Chairman, Romania
- 9.40-10.00** **Opening Speech**
 Prof. dr. Hans Werner Zoch
 IFHTSE President
- 10.00 - 10.20** **IFHTSE 2010 Medal Award Ceremony**
- Robert Wood, IFHTSE Secretary
- 10.20 - 11.00** **Nitriding of iron-based alloys for improving
mechanical and chemical properties;
The role of the microstructure**
 Prof. Erick Mittemeijer
 Max Planck Institute for Metals Research,
 Stuttgart, Germany
- 11.00-11.30** **Exhibition/Coffee Break**

THURSDAY November 4, 2010

SESSION 1. KEYNOTES LECTURES

Location: Carpathian Hall

Chairman: Prof.Hans Werner Zoch

- 11.30-12.00** **Energy Management for Heat Treatment Shops**
Managementul energiei in sectiile de tratament termic
Jan Elwart, Bodycote Europe Holdings
- 12.00-12.30** **Surface hardening of cold-work tool steels - an energy saving and low distortion heat treatment alternative?**
Călirea în suprafață a oțelurilor de prelucrări la rece – o alternativa de tratament termic cu deformare minima si economii de energie ?
Prof. dr. Reinhold Schneider, C. Schuller
Upper Austria University of Applied Sciencies – Campus Wels
- 12.30-13.00** **Heat treatments evolution in Romania during 1985-2010**
Evolutia tratamentelor termice in perioada 1985-2010, in Romania
prof.dr. Leontin Druga, ATTIS, Bucharest, Romania
- 13.00 - 14.00** **Lunch**
- 14.00-14.30** **Heat Treatment in Energy Generation**
Tratamentul termic in sectorul energetic.
Dr. Zoltan Kolozsvary, SC Plasmaterm SA, Tg. Mures
- 14.30-15.00** **Kanthal Heating Solutions in Heat Treatment Industry**
Soluții Kanthal de încălzire în industria tratamentului termic
Ralph Trimborn, Kanthal, ZN der Sandvik Materials
Technology Deutschland GmbH
- 15.00 - 15.30** **Modern Russian Technologies of Chemical Heat Treatment in Manufacturing of Machine Components and Tools**
Tehnologii Rusești moderne de tratament termochimic utilizate la fabricarea componentelor mașinilor și sculelor
Dr. Tsikh S.G.* , Grishin V.I.** , Lisitskiy V.N.* , Glebova Y.A*.
*Central Scientific Research Institute of Machine –Building Technology, Moscow,Russia.
**Moscow State Tech. Univ. n.a. Baumann(MSTU), Russia.

THURSDAY November 4, 2010

SESSION 1. KEYNOTES LECTURES

Location: Carpathian Hall

Chairman: Prof. dr. Reinhold Schneider

- 15.30-16.00** **Performant and cost – saving solutions in designing coatings for fuel injection systems**
Soluții performante și eficiente în proiectarea straturilor subțiri pentru aplicații în sistemele de injecție a combustibilului
prof. dr. Daniel Munteanu*, Ioana Munteanu**
* Dept. of Technological Equipment and Materials Science, Transilvania University of Brasov, Romania
** S.C. Mefin S.A. Sinaia, Romania
- 16.00-16.30** **Exhibition/Coffee Break**
- 16.30-17.00** **An Energy Comparison for Gas and Low Pressure Carburising**
O comparație a consumurilor energetice în cazul carburării în gaz și la presiune scăzută
Dr. Paul Stratton – Mmatscribe UK
- 17.30-18.00** **Curtains in Continuous Furnaces**
Perdele de flacără la cuptoarele continue
Dr. Mircea Stanescu*, Dr. Paul Stratton**, prof.dr.Leontin Druga***
*The Linde Group, Murray Hill, New Jersey, USA,
**The Linde Group, Huddersfield, United Kingdom,
***UTTIS Industries, Bucharest, Romania
- 18.00-18,30** **Decision Support System for heat treatment operations**
Sistem de suport decizional pentru operațiile de tratament termic
Dr. Imre Felde, Bay Zoltán Foundation for Applied Research, Hungary
- 18,30-19,00** **Interacțiunile dintre laserii de mare putere și plasma generată de acestia cu materiale metalice**
High power laser-plasma interactions with metallic materials
Stefan Rusu, Petrică Vizureanu, Ioan Rusu,
Universitatea Tehnică „Gh. Asachi” Iasi
- 19.45** **Galla Dinner**

FRIDAY, November 5, 2010

SESSION 2. KEYNOTES LECTURES

Location: Carpati Hall

Chairman: Dr. Paul Stratton

- 9-9.30** **Heating and annealing using oxyfuel combustion: results from 120 installations**
Încălzirea și recoacerea folosind combustia oxigaz: rezultate din 120 instalații
Dr. Richard Molnar*, Joachim von Schéele**
* Linde Gaz Romania
** Linde AG
- 9.30-10.00** **Measurement Devices for Gas Carburizing**
Dispozitive de măsurare a carburării gazoase
Dr Džo Mikulović*, Dr. Dragan Živanović**,
* Mesa Electronic GmbH, Geretsried,
** Faculty of Electronic Engineering, University of Niš, Serbia, INFOTERM DOO Niš, Serbia,
- 10.00-10.30** **ALD Vacuum profile - Vacuum furnaces types**
Profilul companiei ALD - tipuri de cuptoare de vid
Gerald Hiller, ALD Vacuum Technologies GmbH, Germany
- 10.30-11.00** **Exhibition/Coffee Break**
- 11.00-11.30** **Lowering Exhaust Gas Losses and Emissions with New Developed Recuperative and Regenerative Burners**
Reducerea emisiilor și pierderilor de gaze reziduale cu ajutorul arzătoarelor recuperative și regenerative nou dezvoltate
Alexander Makiy, WS Wärmeprozestechnik GmbH, Germany
- 11.30-12.00** **The features and benefits of induction hardening — a brief introduction**
Caracteristicile și beneficiile calirii prin inductie - o trecere în revistă
Gabriel Lupu*, Sverre Masterod**, Gunning Gary**
* EFD Induction SRL, Bucharest, Romania
** EFD Norway
- 12.00-12.30** **How to teach and how to learn Heat Treatment and Surface Engineering**
Cum să predai și cum să înveți tratamentul termic și ingineria suprafețelor
Kocsis Baan, Miskolc University, Hungary

FRIDAY, November 5, 2010

SESSION 2. KEYNOTES LECTURES
Location: Carpathian Hall

Chairman: prof. Cornel Samoila

- 12.30-13.00** **Improvement in wear resistance of high speed steel by deep cryogenic treatment combined with nitriding**
Îmbunătățirea rezistenței la uzură a oțelurilor rapide prin tratamentul de criogenie profundă combinat cu nitrurarea
T. Babul*, A. Ciski*, P. Šuchmann**, P. Wach*
*Institute of Precision Mechanics, Warsaw, Poland
**COMTES FHT, Dobřany, Czech Republic
- 13.00-14.00** **Lunch**
- 14-14.30** **Improved energy efficiency through high frequency heating using**
Eficiență energetică îmbunătățită prin folosirea încălzirii prin curenți de înaltă frecvență
Gabor Molnar, AAGES Tg. Mures
- 14.30-15.00** **Nanotehnologie de obtinere a compusilor intermetalici pentru contacte electrice la temperatura camerei**
Intermetallic compounds nanotechnology for electric contacts at room temperature,
M. Ratzker*, prof.dr. Samoila,C.**, prof.dr. Ursutiu, D.**,
prof.dr. Cotfas, P.**, prof.dr.Cotfas, D.**, S. Moisa*
* Ben Gurion University of Negev- Beer Sheva-Israel
**Transilvania University of Brasov - Romania
- 15.00-15.30** **Modernizarea instalatiilor de incalzire ale cuptoarelor de tratament termic. Solutie si modalitati. Exemple si efecte economice si de mediu.**
Modernizing of heating installations for heat treatment furnaces. Solution and methods. Examples and economic and environmental effects
Cristian Badina, UTTIS Bucharest, Romania
- 15.30-16.00** **Spray techniques – efficient instruments for energy consumptions reducing**
Tehnicile spray –instrumente eficiente de reducere a consumurilor energetice
Dr.ing.Mircea Chiș*, Prof.dr.ing.Mihai Cojocaru**
*Trade Pipe Rom Ltd, London, UK
** University Polytechnica, Science and Materials Faculty, Bucharest Romania
- 16.00** **Closing ceremony**
Social programme (visit to Bran-Fundata-Moeciu national park area)



 **Bodycote**

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