



INTERNATIONAL FEDERATION FOR
HEAT TREATMENT AND SURFACE ENGINEERING

Bangkok Conference 25-27 June

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Bulletin 2012 / 6 23 May 2012

BANGKOK CONFERENCE

Draft programme

The **draft programme** for the *1st International Conference on Energy and the Future of Heat Treatment and Surface Engineering*, Bangkok Thailand, 25-27 June 2012 is on **pages 2-4**. It will soon be updated and posted on the website www.mtec.or.th/efhtse2012/

Registration

For registration rates and procedures you can go straight to:

<http://www.mtec.or.th/efhtse2012/index.php/registration-fee>

For accommodation deals at the Conference hotel, follow the 'Venue' link on the Home page.

Entry into Thailand

Residents of many countries do not need visas to enter Thailand, but check on this site for the full details:

www.mfa.go.th/web/2482.php?id=2487

Associated Seminar to follow the Conference

The level of interest in the programme has inspired the Thai Ministry of Industry to arrange a free Seminar to follow

immediately after the Conference (at a different location) on Thursday 28 June. This Seminar is a component of the Ministry's programme of encouraging improvements in heat treating and surface engineering in Thailand – some funding is also available under this programme for SMEs. The Seminar is organised by the Metallurgical Laboratory of MTEC, in cooperation with Thai Machinery Association, Thai Foundrymen Association, Enhancement of Mould and Die Industry Competitiveness Project of the Thai-German Institute; it also has the support of the Permanent Secretary's Office of the Ministry of Science and Technology.

The Seminar, focussing on applied and practical issues and skill levels, is open, and is intended to attract companies, collaborators, consultants etc. for exchange of knowledge and networking. The working language is English and the plan is that MTEC staff with good knowledge of English will be available to help with communication with Thai participants in case of need.

Details through the Conference website: www.mtec.or.th/efhtse2012/



DRAFT Programme: 1st International Conf. on Energy and the Future of Heat Treatment and Surface Engineering 25-27 June 2012

MONDAY 25 JUNE 2012

Registration

Opening Ceremony

Plenary Lecture 1 : Surface Engineering using Friction-Stir Processing (Dr Stan Lynch, Defence Science and Technology Organisation, Australia)

Plenary Lecture 2 : Title to be announced (Prof. Paritud Bhandhubanyong, Former MTEC Executive Director)

Session : New Technology 1

1 : New ecological fluid bed nitrocarburizing technology for improvement properties X160CrMoV121 steel

Tomasz Babul, Institute of Precision Mechanics, Warsaw Poland

2 : PreNitLPC® - the economic option for vacuum carburizing

Piotr Kula, Institute of Materials Science and Engineering, Łódź University of Technology, Poland

3 : Steels of Optimal Chemical Composition Manufacturing Combined with the Intensive Quenching Saving Energy and Making Environment Cleaner

Nikolai Kobasko, Intensive Technologies Ltd, Kyiv, Ukraine and IQ Technologies Inc., Akron, USA

Plenary Lecture 3 : Global Research Trends in Heat Treatment and Surface Engineering (Dr Kiyoshi Funatani, IMST Institute, Japan)

Plenary Lecture 4 : Trends in Carburizing and Heat Treatment with LPC and HPGQ (Gunter Busch, ALD Vacuum Technologies GmbH, Germany)

Session : New Technology 2

4 : Title to be announced
Fritz Hartung, University of Applied Science, Germany

5 : Design and Technological Development of 9 % Chromium Creep-Resistant Steels for TPP and NPP Equipment

Dub A, Skorobogatykh V, Schenkova I, Kozlov , Dub V, CNIITMASH, Russia

6 : Energy-Efficient and Resource-Saving Technologies of Thermo-Chemical Treatment of Steels

Prof Larisa Petrova, MADl, Russian Federation

Session : Heat Treatment and Welding

7 : Characteristics of Microstructure, Microhardness, and Oxidation of FSW and MIG Welded Steels

Dong Bok Lee, Sungkyunkwan University, South Korea

8 : The influence of welding parameters and heat treatment on the microstructure of lean duplex stainless steel S32101 welds

Jerzy Niagaj, Institute of Welding, Poland

9 : Phase Transformation Sequence in Isothermally Heat-Treated Cast Fe-22wt%Cr-3.2wt%Mo-0.037wt%C Duplex Stainless Steel
Surasak Kuimalee, Maejo University, Thailand

Session : Surface Hardening

10 : Protective Atmosphere Induction Heating
Dr Paul Stratton, Matscribe UK

11 : Application of Flow Analysis in Improving Condition of Gas Nitriding in Vacuum Furnace
Prapat Kunnom, MTEC, Thailand

12 : Mathematical Modeling of Mechanical Properties of Quenched and Tempered Steel Components

Prof Božo Smoljan, University of Rijeka, Croatia

Conference Banquet

TUESDAY 26 JUNE 2012

Plenary Lecture 5 : Thermal Spraying in Energy Generation in Thailand (Dr Panadda Sheppard, MTEC, Thailand)

Plenary Lecture 6 : Active Screen Plasma Nitriding : ASPN (Dr Pierre Collignon, Partner Development Industry International, France)

Session : New Technology 3

13 : Deep Rolling (To be Confirmed)
Patiphan Juijerm, Kasetsart University

14 : Deep Cold Rolling Process on AISI 4140 Steel and Optimization of Surface Roughness by Response Surface Methodology
P. R. Prabhu, Manipal Institute of Technology, India

15 : Title to be announced

Session : Surface Engineering 1

20 : Erosion- Corrosion in Coal Based Power Plants and Possible Solutions – a Review
Vikas Chawla, BMSCE, India

21 : FeAl and FeCrAl as Alternative Coatings for NiAl
Hathaipat Koiprasert, MTEC, Thailand

22 : Reactive Gas Feeding Technique in Production of Titanium Nitride Film by Magnetron Sputtering
Withawat Wongpisan, MTEC, Thailand

Plenary Lecture 7 : Title to be announced (Representative of Dept. of Alternative Energy Development and Efficiency, Ministry of Energy, Thailand)

Session : New Technology 4

16 : Energy Saving Model for the Heat Treatment of Castings
Rong Yiming, Worcester Polytechnic Inst. USA

17 : Effect of Aging Temperature and Time on the Characteristics of Thermomechanically and Conventionally Treated Stir Cast Iron Powder Reinforced Al Alloy Metal Matrix Composites
S.S.Sharma, Manipal Institute of Technology, India

18 : Effect of Heat-treatment on the Chemical Stability of Sealing Glass for Solid Oxide Fuel Cells
Teng Zhang, Fuzhou University, China

19 : Measurement of Thermal Expansion Coefficient of Metal Matrix Composites
Jagannath K, Manipal Institute of Technology, India

Session : Surface Engineering 2

23 : Modification of steel surfaces using the laser energy
Olga Chudina, MADI, Russian Federation

24 : Effect of P Addition on the Thermal Stability of Nanocrystalline Ni-Co-Fe-P Coatings
DAI Pinqiang, Fuzhou University, China

25 : SiC Coating on Graphite By Sintering Of Si Deposited Via C-Electrophoretic Deposition (DCEPD)
Hakime salehi alireza aghaeaaMaterial and Energy Research Center, Iran

26 : Effect of High Power Diode Laser Surface Alloying of Tool Steels
Miroslaw Bonek, Silesian University of Technology, Poland

WEDNESDAY 27 JUNE 2012

Networking and Industrial Visit

Bangkok Conference - Poster presentations

Duplex Heat Treatment of Steels

D. Krumes, Mechanical Engineering Faculty in Slavonski Brod, Croatia

High Temperature SO₂ gas corrosion of IN713 alloys

Dong Bok Lee, Sungkyunkwan University, Korea

Microstructural characterization of lean duplex stainless steel welded joints using EBSD

Zbigniew Brytan Silesian University of Technology, Poland

Increasing the durability of pressure die by modern surface treatment

Jacek Sawicki, Technical University of Łódź, Poland

Overview of the Heat Treatment Activities of Thailand

Thanaporn Korad, MTEC, Thailand

Overview of Applying Flow Analysis Simulation Technique in Improving Heat Treatment Condition.

Thanaporn Korad, MTEC, Thailand

Future of Surface Engineering and Alternative Energy of Thailand's Transport and Industrial Sectors

Sirinee Thaiwatthana, MTEC, Thailand

PUBLISHING

Planned contents of issue 2012 no. 2 *International Heat Treatment and Surface Engineering*

- Electrospark alloying of Mg-La electrode on ZM5 Mg alloy under distilled water or kerosene
- Novel pack cementation: dc field assisted pack cementation
- Basic tendencies in progress of theory and practice of thermochemical treatment of steels
- Effective technical collaboration in heat treatment process modeling - Case Study
- Carbo-oxidizing of titanium by diffusion treatment in carbon-oxygen containing media
- Effect of deep cryogenic treatment on dilatometric curve and tribological properties of high speed steel
- Systematic analysis of cooling curves for liquid quenchants
- Effect of TiO₂ nanoparticles on fluid quenching characteristics
- Liquid phase surface engineering of aluminium alloys using novel electron beam deflection techniques
- Ultrasonic assisted water quenching of aluminium and steel cylinders
- Numerical prediction of thermal panel distortion in the automotive paint shop

CONFERENCE DIARY

2012

 1st International Conference on Energy and the Future of Heat Treatment and Surface Engineering
25-27 June - Bangkok, Thailand (www.mtec.or.th/EFhtse2012/)

 6th International Conf. Quenching and Control of Distortion / 4th International Conf. on Distortion Engineering
10-13 September - Chicago II, USA
(www.asminternational.org/qcd)

 9th Tooling Conference / 4th International Conference on Heat Treatment of Tools and Dies
11-14 September - Leoben, Austria (www.tool2012.at)

HK 2012

10-12 October 2012 Wiesbaden, Germany (www.awt-online.org)

BALTMATRIB - 21st International Baltic Conference:
Engineering materials and tribology
18-19 October - Tallinn, Estonia (www.ttu.ee/baltmatrib2012)

 20th Congress IFHTSE
23-25 October - Beijing, China (www.20ifhtse.org)

24th National Conference on Heat Treatment with International Participation
27-29 November - Jihlava, Czech Republic (www.asociacetz.cz)

2013

 European Conference on Heat Treatment and Surface Engineering
25-26 April - Luzern, Switzerland (b.kuntzmann@listemann.com)

 2nd Mediterranean Conference on Heat Treatment and Surface Engineering
11-14 June, Dubrovnik-Cavtat, Croatia (smoljan@riteh.hr)

ASM Heat Treating Society 27th Conference and Exposition

16-18 September Indianapolis, Indiana, USA
(www.asminternational.org/)

2014

 21st Congress IFHTSE / incorporating European Conference on Heat Treatment and Surface Engineering
May? Munich, Germany (awt.ev@t-online.de)

