23rd IFHTSE Congress

Just concluded last week, this congress in Savannah, GA, USA, was well attended, with 20 countries represented from each continent. Approximately a total of 171 attended, with 20 exhibitors. The conference was chaired by IFHTSE vice president Scott Mackenzie, organized by ASM, and sponsored by Houghton International and Linde Gas.

Keynote speeches

The first keynote presenter was Prof. Harry K.D.H. Bhadeshia, who was awarded the IFHTSE Medal, and presented an excellent talk on
“Very Short and Very Long Heat Treatments in the Processing of steel”. It was an excellent talk, with humor, and showed a real connection with the audience. His talk was thought-provoking, and demonstrated some fundamental concepts in a unique manner.

The second keynote was Tobias Steiner, the past winner of the Linde Tom Bell Young Author Award in Munich (2014). His presentation on “Alloying Element Nitride Development in Ferritic Fe-based Materials upon Nitriding,” was interesting, and demonstrated fully why he was chosen for the Tom Bell Award.

The final Keynote was by Prof. Dr.-Ing. habil. Rolf Zenker, on “Surface Treatment by Electron Beam in Combination with Other Heat Treatment Technologies.”
Awards

The Tom Bell Young Author Award Honours the best paper presented by an author under 35 years of age. This award grants the winner free travel, accommodation and participation at the next IFHTSE Congress. It is sponsored by Linde AG. The winner this year was Dr. Matteo Villa, Technical University of Denmark, on his talk “The sub-zero Celsius treatment of stainless steels: experiments and perspective.”

Two best poster awards of 500 € each, also sponsored by Linde AG, went to Ms. Wellington Mattos and Dr. Kazuki Kawata, each with co-authors.

3 Patrick Jacquot, IFHTSE president, congratulating Dr. Matteo Villa for the Tom Bell Young Author Award

4 IFHTSE’s former president Goerge Totten: “Sure, come join us at this table!”
Presentations

Quenching, Modeling, Nitriding, as well as other advanced Thermal Processing were hot topics. One interesting paper on extending the life of Furnace and Fixture Alloys by surface engineering was discussed by Mr. Anbo Wang of Worcester Polytechnic Institute (Student of Prof. Rick Sisson). This paper examined the practical benefits of prolonging the life of expensive high nickel alloy fixtures by pre-oxidizing using a specific thermal path. This go directly to the bottom-line of many commercial and OEM heat treater

Other conference papers of great practical impact described filtering methods that extend the life of quench oil, minimizing failures of case/core in induction components, process variables and resulting microstructure of electron beam welded structures, and generally control of vacuum carburizing, and gas carburizing.

Special symposium
Residual Stress Prediction, Control and Measurement were worth an extra event in conjunction with the IFHTSE Congress. This symposium brought together many experts from Aerospace, including the USAF Materials Laboratory, Pratt & Whitney, Rolls Royce, Lockheed Martin, Boeing, as well as experts from IWT Bremen, including Prof. Hans-Werner Zoch, and others from the automotive industry. It was
a very exciting symposium with a excellent exchange of ideas between very different industries. A great deal of networking was accomplished.

A special riverboat cruise on the Savannah River with an excellent dinner, and perfect weather was a highlight of the conference. This IFHTSE Congress provided many opportunities for fellowship and networking. It was well organized; the food was good, and the attendees from all over the globe enjoyed themselves.

IFHTSE is very grateful to the Conference Chairman Scott Mackenzie for his untiring effort. Special thanks go also to the ASM Staff (Jeanelle Harden and Lindy Good) and the Sponsors Houghton International, and Linde Gas, for making this event well attended; well organized and extensive technical information exchanged.

Germany's Hans-Werner Zoch, former IFHTSE president, enjoying American beer
Forthcoming Conferences

2016 MAY 11-13 3rd International Conference on Heat Treatment and Surface Engineering in Automotive Applications /European Conference on Heat Treatment
Prague, Czech Republic
www.htconference-prague2016.cz

2016 MAY 12-14 2nd Heat Treatment & Surface Engineering Conference and Expo 2016
Chennai, India
www.htsechennai.com

2016 JUNE 22-24 4th Symposium on Surface Hardening of Corrosion Resistant Materials
La Valletta, Malta

2016 SEP 13-15 10th International Conference «Innovation Technologies of Heat Treatment»
Moscow, Russia
http://www.htexporus.com/conference.html

2016 SEP 20-23 Heat Treat Mexico
Queretaro, Mexico
http://www.asminternational.org/web/htmexico

2016 SEP 26-28 3rd Mediterranean Conference on Heat Treatment and Surface Engineering
Portorož, Slovenia
http://mchtse2016.com/

2016 OCT 04-07 International Tooling Conference
Bratislava, Slovakia
www.toli2016.org

2016 OCT 26-28 HK 2016 [languages: German/English]
Cologne, Germany
http://www.awt-online.org/haertereikongress.html

2016 Nov 12-14 5th Asian Conference on Heat Treatment and Surface Engineering
Hangzhou, China
http://www.5achtse.org

2017 JUN 26-29 24th IFHTSE Congress / European Conference on Heat Treatment
Nice, France
www.a3ts.org

2018 APR 12-13 European Conference on Heat Treatment
Friedrichshafen, Germany

2018 AUTUMN International Conference on Quenching and Distortion Engineering
Japan