# Stainless Steel World Japan 2020 Preliminary Conference Timetable

**8 & 9 June 2020 – Miraikan Tokyo, Japan**

**Organized by: KCI Publishing**
**As of 21 February 2020**

| Day 1 (June 8) | |
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| 9:20-9:30 | **Opening and Welcome**<br>Thijs Elshof, KCI Publishing |
| 9:30-10:00 | **Development of Stainless Steels – Past, Present and Future**<br>Stainless steel alloys have been undergoing development ever since their first commercialization around 1912. That has involved both alloy development and process development, and these are still occurring today, although in different ways. Both the past and present developments will be documented and put into perspective, along with technologies still in their infancy such as Additive Manufacturing and Integrated Computational Materials Engineering. The effect of these changes on the current worldwide stainless steel industry will be explored. Speaker: Gary Coates, Nickel Institute, Canada |
| 10:00-10:30 | **Current Status and Main Activities of the Stainless Steel Industry in Japan**<br><br>Presenter: Masaharu Uzawa, Japan Stainless Steel Association |
| 10:30-11:00 | **A Manufacture Perspective Development Trend from a Japanese Multi-National**<br><br>Presenter: NIPPON STEEL Stainless Steel (name will be received later) |
| 11:00-11:30 | Coffee Break |
| 11:30-12:00 | **Quality Aspects of Heat Treatment for Stainless Steel**<br>Quality aspects like holding- and soaking time, heat treatment- and quenching temperature as well as transfer time from furnace to quenching are driven by the actual chemical composition of the stainless-steel grade and its product dimensions. Especially Duplex, Martensitic and Precipitation hardened grades need special considerations. Welding of these grades is also a local heat treatment.<br>Presenter: Raymond Cordewener, R. Cordewener Management & Consultancy BV, The Netherlands |
| 12:00-12:40 | **Introduction of Exhibitors**<br><br>(2 minutes x 18 exhibitors) |
| 12:40-14:00 | Lunch |
| | **Paper Session: Welding**<br>Chair: Gen Nakayama, IHI |
| 14:00-14:25 | **Welding Technology for Stainless Steel Products at Hitachi Nuclear Power Plant**<br>Presenter: Shoh Tarasawa, Hitachi-GE Nuclear Energy |
| 14:25-14:50 | **Lean Duplex SUS application to sluice gates**<br>Presenter: Keisuke Torigata, IHI |
| | **Paper Session: Performance**<br>Chair: Mamoru Nagao, Kobelco Steel Tube |
| 15:00-15:25 | **Stainless Steel Pipes for Automotive Fuel Injection**<br>Stainless steel pipes are beginning to be used for fuel injection systems of direct injection gasoline engines. Introduce characteristics and results of performance study.<br>Presenter: Yonenaga, Kobelco Steel Tube |
| 15:25-15:50 | **Product Application Issues with the Additive Manufacturing of 316L Stainless Steel**<br>The material characteristics of 316L stainless steel formed by the EBM (Electron Beam Melting) method with a metal additive manufacturing will be looked at. This presentation will also address examples of improvement studies by changing the beam setting and the idea of post-processing technology.<br>Presenter: Hayao Sakaguchi, Ebara Corporation |
| 15:50-16:20 | Coffee Break |
| 16:20-17:50 | **Workshop: Process Improvement by New Materials**<br>Moderator: Masao Nakahara, Asahi Kasei Corporation, Japan<br>Panelist：<br>- Cast high alloy high performance metallic materials for demanding applications, Shankar Venkataraman, Schmidt + Clemens GmbH + Co. KG, Germany<br>- Development of duplex stainless steel for urea plant, Ryo Okubo, Toyo Engineering Corp.<br>- JGC Corporation |
| 18:00-20:00 | **Network Reception** |

| Day 2 (June 9) | |
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| 9:30-10:00 | **Application Limits of Stainless Steels – Localised Corrosion versus Stress Corrosion Cracking**<br>Exposure limits and thresholds material conditions for critical application of stainless steels are reviewed and discussed. This presentation aims to provide an understanding of the inherent relationship between environmental exposure parameter, the presence of applied and residual stress, and microstructure engineering treatments. Typical examples and innovative ways to extend component lifetime are introduced.<br>Presenter：Dirk Engelberg, The University of Manchester, UK |
| 10:00-10:30 | **Micro-electrochemistry and Real-Time Observation of Initial Stages of Pitting Corrosion of Stainless Steels**<br>A microelectrochemical system for in situ high-resolution optical microscopy was developed and applied to the real-time observation of pit initiation at MnS inclusion in Type 304 stainless steel in NaCl solutions. Metastable and stable pits were found to be initiated at the MnS/steel boundaries during potentiodynamic polarization. In addition, the effect of MnS inclusions on pitting and intergranular corrosion of sensitized Type 304 stainless steel was investigated. Intergranular corrosion was revealed to be triggered by pitting at the inclusions.<br>Presenter: Izumi Muto, Tohoku University, Japan |
| 10:30-11:00 | **Coffee Break** |
| 11:00-11:20 | **An end user Perspective from a Japanese Multi-National Chemical Company**<br>(The presentation title will be known later)<br><br>Presenter:  Masao Nakahara, Asahi Kasei Corporation, Japan |
| | **Paper Session:  Duplex**<br>Chair:  Bernd Beckers, Outokumpu, Germany |
| 11:20-11:45 | **Forta FDX 27 – The formable duplex stainless steel for plate heat exchangers**<br>Presenter: Claes Tigerstrand, Outokumpu, Sweden |
| 11:45-12:10 | **Title will be known later**<br>Presenter:  NIPPON STEEL Stainless Steel |
| 12:10-12:35 | **SAF 2707 HD – Advanced Duplex Metallurgy**<br>Presenter: Vikram Pandit, Sandvik Materials Technology, APAC |
| 12:35:14:00 | Lunch |
| | **Paper Session:  Heat Resistance / High Temperature Application**<br>Chair: |
| 14:00-14:25 | **Centrifugally cast heat resistant castings for thermal processing applications**<br>Speaker:  Shankar Venkataraman, Schmidt + Clemens GmbH + Co. KG, Germany |
| 14:25-14:50 | **ESRR: A New Faster, More Efficient and Reliable Process for High Temperature Materials**<br>Speaker: Daniel Cattin, Valbruna, Italy |
| 14:50-15:50 | **Workshop:  New Technology**<br>Moderator：Raymond Cordewener, R. Cordewener Management & Consultancy BV, The Netherlands<br>Panelist：<br>- SANICRO 35 – A new Ni-Cr-Mo Alloy for very aggressive corrosive environments,<br>Speaker: Vikram Pandit, Sandvik Materials Technology, India<br>- UNS.S34752 with superior sensitization resistance and creep rupture strength to UNS.S34709（347H）<br>Speaker:  Takahiro Osuki, NIPPON STEEL Stainless Steel<br>- |
| 15:50-16:00 | Short Break |
| 16:00-17:00 | **Ask the Doctors of Stainless Steels**<br>Moderator：Masao Nakahara, Asahi Kasei Corporation<br><br>Doctor：<br>- Dirk Engelberg, The University of Manchester, UK<br>- Gary Coates, Nickel Institute, Canada<br>- Takahiro Osuki, NIPPON STEEL Stainless Steel<br>- Claes Tigerstrand, Outokumpu, Sweden |
| 17:00-17:10 | **Closing** |