



PROGRAMME

Tuesday 26th February 2019

- 10:00 - 10:20** Registration, Coffee and Networking
- 10:20 - 10:30** **Welcome and Introduction**
Chris McDonald, Chief Executive Officer, Materials Processing Institute
- 10:30 - 11:50** **Session 1: Materials Performance**
Chair Session 1: Dr. Steve Ooi (Ovako Steel)
- 1. Role of fracture toughness and wear mechanism in impact-abrasion.
Presenter: Appa rao Chintha (University of Cambridge)*
 - 2. Using deep neural network with small dataset to predict solidification cracking susceptibility of stainless steels.
Presenter: Shuo Feng (University of Leicester)*
 - 3. Aesthetic and performance enhancement of ZMA coated steels.
Presenter: Amar Dhoj Malla (Swansea University)*
 - 4. Comparison of Squats and Studs from different traffic environments.
Presenter: Shaun Earl (University of Sheffield)*
- 11:50 - 12:10** **First Perambulation**
Poster Exposition
- 12:10 - 13:10** **Session 2: New Materials Design**
Chair Session 2: Dr. Richard Thackray (University of Sheffield)
- 1. Hot stage quasi in-situ analysis of the effect of titanium and manganese on static recrystallization of cold-rolled low carbon V and Ti-V bearing micro-alloyed steels.
Presenter: Ishwar Kapoor (WMG, University of Warwick)*
 - 2. Understanding the nano-oxide particle nature of irradiated oxide dispersion strengthened steels.
Presenter: Thomas Davis (University of Oxford)*
 - 3. Surface texture and visual appearance of packaging steel.
Presenter: Stephen Jones (Swansea University)*
- 13:10 - 14:00** **Lunch and Networking**
St. George's Den (Library 13:35-13:50)
Poster Exposition
- 14:00 - 15:20** **Session 3: Materials Processing**
Chair Session 3: Professor Hongbiao Dong (University of Leicester)
- 1. Direct observation of coal particle swelling.
Presenter: Ian Moore (Materials Processing Institute)*
 - 2. The single-stage production of low zinc pig iron nuggets from basic oxygen furnace dust using blast furnace dust as a reductant
Presenter: Daniel Stewart (Swansea University)*
 - 3. A microstructural evaluation of the cleavage fracture of as-cast slabs, known as 'Clinking'.
Presenter: Guy Khosla (Imperial College, London)*
 - 4. TRansformation/TWinning Induced Plasticity (TRIP/TWIP) steels produced by additive layer manufacturing
Presenter: Hossein Eskandari Sabzi (Lancaster University)*

- 15:20 - 15:40** **Second Perambulation**
Poster Exposition
- 15.40 - 16:00** **Awarding of Prizes by the Armourers and Brasiers' Materials Science Committee**
1. Best Paper and Runner-up
 2. Best Poster
 3. Best Pitch

16:00 - 16:40 **Keynote Speaker**
Ron Deelen, Chief Marketing Officer, British Steel

16:40 - 16:50 Vote of Thanks
Chris Vaughan, Technical Director, British Steel

16:50 - 18:30 Drinks Reception



VENUE:
**Armourers' Hall,
Armourers & Brasiers' Company,
81 Coleman Street,
London EC2R 5BJ**

Contact the organisers:

Tel: 01642 382000
email: academy@mpiuk.com

Please join us:

Eventbrite registration: <http://bit.ly/2oTAuiT>

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POSTER EXPOSITION

Tuesday 26th February 2019

The simulation of hydrogen in magnetic iron.
Edmund Simpson (Kings College, London)

**Hydrogen embrittlement of automotive ultra-high-strength steels
– Generation & diffusion of atomic hydrogen.**
James Lelliott (Swansea University)

Atomistic simulations of BCC-Fe and ferrite.
Angel Alberto Izquierdo Sanchez (Newcastle University)

Galling in 316 stainless steel.
Samuel Rogers (Imperial College, London)

**Nanoindentation as a method for phase mapping auto-tempered
martensite and lower bainite mixed microstructure steels.**
Cameron Bee (WMG, University of Warwick)

Galvanised UHSS for automotive BIW applications.
James Ayres (Swansea University)



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