

Alloy Design – A Resource Efficient Approach

Venue: The University of Sheffield, Sheffield
1st September 2016 – 10.00am start

This is an open meeting and anything discussed here is to be considered 'in the public domain'.

Programme

10.00 - 10.30 **Registration and coffee**

10.30 – 11.00 **Welcome & overview**

Professor Mark Rainforth

Professor of Materials Engineering, Department of Materials Science and Engineering, The University of Sheffield.

11.00 – 12.45 **Presentations**

"Substituting Rare Earth elements in magnets"

Professor Mark van Schilfgaarde

Department of Physics, King's College, London, UK

"Designing High Strength Magnesium Alloys"

Professor Joseph Robson

School of Materials, The University of Manchester, UK

"Exploiting diffusion multiples for efficient alloy design"

Dr Maria Teresa Pérez-Prado

IMDEA Materials Institute, Madrid, Spain.

DARE

DARE: Designing Alloys for Resource Efficiency is a major research initiative funded by the EPSRC and is a joint collaboration between the Universities of Sheffield, Cambridge, and Imperial and King's Colleges London. <http://www.darealloys.org>

12.45– 13.45 **LUNCH and Posters**

13.45 – 15.00 **Presentations**

“The development of iron-based hard facings for use in the nuclear industry”

Dr Dave Stewart

Materials, Chemistry and Corrosion, Rolls-Royce plc

"Design of steels through control of martensitic and maraging microstructures"

Dr Enrique Galindo-Nava

Department of Materials Science and Metallurgy, Cambridge University, UK

15.00 – 15.30 **Tea and coffee**

15.30 – 17.15 **Presentations**

“Designing titanium alloys for machinability”

Dr Martin Jackson,

Department of Materials Science and Engineering, University of Sheffield, UK

“Alloy design for Additive Manufacturing: Small variations in composition lead to strong changes in part properties”

Dr Eric Jäggle

Max-Planck-Institut für Eisenforschung, Munich, Germany

"Life cycle analysis"

Prof Lenny Koh,

Director of Centre for Energy, Environment and Sustainability, Management School,
University of Sheffield, UK

18.00 **Poster session and drinks**

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