
EU H2020 MSCA ETN DEMETER 5th Network Wide Event 26 Feb - 1 Mar 2018

Location: The Macdonald Burlington Hotel in Birmingham City Centre



Agenda

Monday 26 February 2018

08.30 – 9.00 Welcome Coffee

9.00 – 12.20 WP 3 & 4 presentations

09.00 – 09.20 Introduction

09.20 – 09.40 ESR9 – *Design of Halbach permanent magnet outer rotor machine for electro-mobility exchangers*

09.40 – 10.00 ESR10 – *Recyclable electrical machine designs with 3D flux and non-traditional materials*

10.00 – 10.20 ESR11 – *Electrical machine designs based on 3D flux paths for new generation HEVs*

10.20 – 10.40 ESR12 – *Electrical radial flux machine design for new generation (H)Evs*

10:40 – 11.00 Coffee break

11.00 – 11.20 ESR13 – *Nanoscale characterisation and in-situ dynamic electrochemical TEM studies of recycled magnets*

11.20 – 11.40 ESR14 – *Characterisation and modelling of Automotive Scrap Residue (ASR) feeds to improve recycling efficiency*

11.40 – 12.00 ESR15 – *Life cycle assessment of new recycling and reuse routes for REE magnet machines in (H)EVs*

12.00 – 12.20 Closing remarks

12.20 – 13.20 Lunch

13.20 – 16.40 WP1 & 2 presentations

- 13.20 – 13.40 ESR1 – *HD Processing of SmCo magnets*
- 13.40 – 14.00 ESR2 – *Extraction of NdFeB magnets from EoL (H)EVs/Advanced ICEVs and conversion into master alloys*
- 14.00 – 14.20 ESR3 – *Recovery of metal values from SmCo and NdFeB magnets by ionometallurgical methods*
- 14.20 – 14.40 ESR4 – *Sm/Co and Nd/Dy/Fe separation by solvent extraction with ionic liquids*

14.40 – 15.00 Coffee break

- 15.00 – 15.20 ESR5 – *Electrodeposition of SmCo alloys from ionic liquids*
- 15.20 – 15.40 ESR6 – *Development of novel hard magnetic NdFe₁₂Nx-based magnets by electrodeposition*
- 15.40 – 16.00 ESR7 – *Metal bonded magnets from HD materials using spark plasma sintering*
- 16.00 – 16.20 ESR8 – *Exchange coupled Sm-Co magnets with high remanence*
- 16.20 – 16.40 Conclusion of the meeting

19.00 Dinner

Tuesday 27 February 2018

08.30 – 9.00 Morning Coffee

- 9.00 – 13.00 Supervisory Board meeting **for SB members and ESR representative**

In parallel : soft & S/T skills training for ESRs

- 9.00 – 13.00 How to communicate Science to the General Public – *Jon Wood, University of Birmingham*

13.00 – 14.00 Lunch

- 14.00 – 16.30 Design stage life cycle analysis tools in Granta's Web Bills of Materials (BoM) Analyser – *James Goddin, Granta Design (remotely)*
- 17.00 – 18.00 Meeting: ESRs with S/T Coordinator – *Paul McGuinness*
- Evening (TBD) Optional: Cocktail making and Curry in the city centre*

Wednesday 28th February 2018

8.30 – 11.30 Coach departs from Hotel to LCM (*approximately 3 hours journey*)

11.00 – 11.30 Health & safety video

11.30 – 12.30 REE alloy production and qualification in LCM – *Ian Higgins, LCM*

12.30 – 13.30 Lunch

13.30 – 15.00 Tour of the facility

15.00 – 19.00

Thursday 1st March 2018

Optional Half-day @ Metallurgy and Materials Building (UoB)

9.00 – 10.30 Tour of Hydrogen Decrepitation Lab – *Allan Walton*

11.00 – 12.00 Recycling Lab – *Neil Rowson*



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