Federation of European Materials Societies (FEMS) Keynote Symposium: Energy and Transportation from a European Materials Perspective: Keynote Session I

Sponsored by: Federation of European Materials Societies (FEMS) Program Organizers: Brett Suddell, Federation of European Materials Societies (FEMS)

Wednesday 8:30 AMRoom: 228AMarch 14, 2018Location: Phoenix Convention Center

Session Chair: Brett Suddell, Federation of European Materials Societies (FEMS)

8:30 AM Introductory Comments

8:35 AM Invited

Materials and Energy: The Need for a Systemic Approach: *Yves Brechet*¹; ¹Grenoble INP and High Commissioner to Atomic Energy, France

9:05 AM Invited

A European Corporate R&D View: New Materials and Processes in Transportation and Energy: *Winfried Keiper*¹; ¹Bosch Corporate Research, Germany

9:35 AM Invited

Third Generation Solar Cells from Laboratory to Factory: Developing a Scale-up Route for Perovskite Solar Cells to Turn 'Buildings into Power Stations': David Worsley¹; Trystan Watson;¹Swansea University, United Kingdom

10:05 AM Break

10:25 AM Invited European Efforts in the Development of High-Quality Metallic Components for Energy and Transport Applications: *David Jarvis*¹; ¹HIPtec, Norway

10:55 AM Invited

Fatigue Micromechanisms and Failure Analysis of Rail Steels: *Donato Firrao*¹; R. Doglione²; Paolo Matteis¹; S. Rossi³; R. Sesana⁴; ¹ DISAT, Politecnico di Torino, Italy; ²DISAT, Politecnico di Torino, Italy; ³Rete Ferroviaria Italiana SpA, Italy; ⁴DIMEAS, Politecnico di Torino, Italy

11:25 AM Panel Discussion

This discussion will be moderated by Pedro Dolabella Portella.

Federation of European Materials Societies (FEMS) Keynote Symposium: Energy and Transportation from a European Materials Perspective: Keynote Session II

Sponsored by: Federation of European Materials Societies (FEMS) Program Organizers: Brett Suddell, Federation of European Materials Societies (FEMS)

Wednesday 2:00 PMRoom: 228AMarch 14, 2018Location: Phoenix Convention Center

Session Chair: Brett Suddell, Federation of European Materials Societies (FEMS)

2:00 PM Introductory Comments

2:05 PM Invited

Magnesium Alloys in Transportation: Hidden Champions?!: *Karl Kainer*¹; Norbert Hort²; ¹Helmholtz-Zentrum Geesthacht, Gemany; ²Helmholtz-Zentrum Geesthacht

2:35 PM Invited

Recent Advances in Aluminum Product Development for Transportation: *Timothy Warner*¹; ¹Constellium C-TEC, France

3:05 PM Invited

Challenges for the Design of Ni-based SX Superalloys Components: *Jonathan Cormier*¹; ¹Institut Pprime, ISAE-ENSMA, France

3:35 PM Break

3:55 PM Invited

Integrated Computational Materials Engineering (ICME) and Business Decision Support Systems (BDSS) in the Context of Open Innovation and Interdisciplinary Collaboration: *Donna Dykeman*¹; James Goddin¹; Najib Baig¹; Will Marsden¹; David Cebon¹; ¹Granta Design, United Kingdom

4:25 PM Panel Discussion

This discussion will be moderated by Pedro Dolabella Portella.