Oral Session 4

Tuesday May 13 – 16:10 → 17:50

Deformation and Damage Mechanisms II: Fatigue, Oxidation and Crack Propagation

Chairmen : P. Villechaise & J. Zhang

16:10 - High temperature Oxidation of Polycrystalline γ′-Strengthened Co-Base Superalloys of the System Co-Al-W-B

Leonhard Klein, Sannakaisa Virtanen
University of Erlangen-Nürnberg, Erlangen, DE

16:30 - The Laboratory Assessment of High Temperature Corrosion-Fatigue in a Nickel Based Superalloy: Simulating SO_2 Environments

Andrew Girling, Hollie Rosier, Karen Perkins, Paul Jones
Swansea University, Swansea, GB

16:50 - Crack Initiation and Propagation in a New Disc Alloy under Fatigue-Oxidation Conditions

Rong Jiang, Nong Gao, Philippa Reed
University of Southampton, Southampton, GB

17:10 - Mechanisms of Dwell Fatigue Crack Growth in an Advanced Nickel Disk Alloy RR1000

S.Y. Yu[1], H.Y. Li[1], M.C. Hardy[2], S.A. McDonald[3], P. Bowen[1]
[1]The University of Birmingham, Birmingham, GB, [2]Rolls-Royce plc, Derby, GB, [3]University of Manchester, Manchester, GB

17:30 - Combining *In-situ* Micromechanical Testing and Advanced EBSD Analyses to Measure and Understand the Crack Propagation Resistance of Individual Grain Boundaries in Inconel 718

Nathalie Bozzolo[1], Farangis Ram[2], Peter Konijnenberg[2], K.G. Pradeeg[2], Stefan Zaefferer[2]
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