THE ONERA JOURNAL
AerospaceLab

ONERA
THE FRENCH AEROSPACE LAB

return on innovation

Issue 3
November 2011

High Temperature Materials

High Temperature Materials: an Introduction to Onera's Contribution
T. Khan

On Some Advanced Nickel-Based Superalloys for Disk Applications
D. Locq, P. Caron

Recent Studies at Onera on Superalloys for Single Crystal Turbine Blades
P. Caron, O. Lavigne

Performance and Degradation Mechanisms of Thermal Barrier Coatings for Turbine Blades: a Review of Onera Activities
M.-P. Bacos, J.-M. Dorvaux, O. Lavigne, R. Mévrel, M. Poulain, C. Rio, M.-H. Vidal-Sétif

10 Years-Activities at Onera on Advanced Thermal Barrier Coatings
M.-P. Bacos, J.-M. Dorvaux, S. Landais, O. Lavigne, R. Mévrel, M. Poulain, C. Rio, M.-H. Vidal-Sétif

Processing and Characterization of TiAl-based Alloys: Towards an Industrial Scale
M. Thomas, M.-P. Bacos

Advanced Lightweight Silicide and Nitride Based Materials for Turbo-Engine Applications
S. Drawin, J.-F. Justin

Potential of Directionally Solidified Eutectic Ceramics for High Temperature Applications
M. Parlier, R. Valle, L. Perrière, S. Lartigue-Korinek, L. Mazerolles

Ultra High Temperature Ceramics: Densification, Properties and Thermal Stability
J.-F. Justin, A. Jankowiak

Potential and Perspectives for Oxide/Oxide Composites
M. Parlier, M.-H. Ritti, A. Jankowiak

Publisher
Emmanuel Rosencher

Editor in Chief
Alain Appriou

Editorial Board
Daniel Abbé
Alain Appriou
Claude Barrouil
Alain Boutier
Emmanuel Rosencher
Jean-Jacques Thibert
Pierre Touboul

Production
Onera Scientific
Information Department

On line
www.aerospacelab-journal.com
Webmaster Onera

Contact
E-mail: aerospacelab@onera.fr

Produced by
Onera - BP 72
29 avenue de la Division Leclerc
92322 Châtillon CEDEX
France
www.onera.fr

ISSN: 2107-6596