



INTERNATIONAL CONFERENCE ON MECHANICS OF NANO, MICRO AND MACRO COMPOSITE STRUCTURES

CERAMIC AND METAL-BASED COMPOSITES FOR HARSH WORKING CONDITIONS

In several applications, such as aerospace, automotive, propulsion, energy, regenerative medicine...., materials are subjected to extreme working conditions in terms of temperature, pressure, biological and/or chemical agents, heat and/or particle fluxes, electro-magnetic fields, mechanical stresses. The application of composites in extreme environment implied the optimization of their composition, their fabrication processes as well as the study of their behavior in the exposure environment and the relative characterization methods. The aim of this thematic session is an overview of the recent progress in the study of ceramic-based and metal/ceramic composites for their applications in harsh working conditions.

TOPICS

- Ultra high temperature
- Corrosive environment
- High mechanical stresses
- Wear conditions
- Biological end tribological conditions
- Aerospace applications
- Automotive applications
- Materials in medicine
- Materials for energy
- Intermetallic materials

Scientific Committee of the thematic session

Prof. Claudio Badini

Prof. Laura Montanaro

Prof. Paolo Fino

*Politecnico di Torino,
Dept. Materials Sci. & Chem. Eng.*

Executive organizing committee of the thematic session

Sara Biamino, sara.biamino@polito.it

Mariangela Lombardi, mariangela.lombardi@polito.it

Tel. +39 0110904674-4678 Fax +39 0110904699

Web: <http://paginas.fe.up.pt/~icnmmcs/>