

MS11: Ceramic Matrix Composites (*Florent Bouillon, Safran Ceramics, France; Prof. Zoheir Aboura, Université de Technologie de Compiègne, France*)

Ceramic matrix composites are required as a candidate for structural alleviation for operation in severe environments. (high temperature) Although their appearance dates back more than half a century, they are constantly evolving: the evolution of the processes, the nature of the interphases and their sequences, and the type and nature of the architectures reinforcement.

The mastery of thermomechanical behavior (in the broad sense elasticity, damage, and rupture) and thermochemical behavior of these materials, is a very important stake for their deployment. Both from an experimental point of view and from modeling, the understanding of these phenomena is necessary.

The specificity of the constituents of these materials imposes experimental strategies different from those developed on organic matrix composites. Modeling approaches must also incorporate the coupling of mechanical and thermochemical phenomena. This complexity is a wealth around which the scientific community could debate within this mini-symposium. We, therefore, ask the contributors, interested in the topic, in the broad sense, around the CMCs to propose their research work.

