

Séminaire du laboratoire PIMM

Jeudi 4 février 2021 à 13h30 sur Teams

Prof. Hatem ZUROB

McMaster University, Department of Materials Science and Engineering, Hamilton, Canada
présentera dans le cadre du séminaire ses travaux intitulés :

Opportunities for the Development of Compositionally-Graded Steels

Compositionally-graded steels provide an extra degree of freedom for optimizing material properties. Recent efforts to produce graded materials with variations of substitutional and interstitial elements will be reviewed. The deformation and fracture behaviour of selected compositionally graded materials will be discussed.

Biography

Dr. Zurob obtained his PhD from McMaster University in 2003. He held post doctoral fellowships at the Grenoble institute and Technology and Oxford University prior to joining McMaster as an Assistant Professor in 2005. He was promoted to Associate Professor in 2012 and Professor in 2017. Dr. Zurob is presently serving as Chair of the Department of Materials Science and Engineering.

The aim of Dr. Zurob's research is to understand and control microstructure development in engineering materials with the goal of optimizing mechanical properties. In recent years, he focussed on thermomechanical processing, recrystallization modelling, functionally-graded materials, austenite decomposition and structure property relationships. Dr. Zurob is recipient of several prestigious awards including Sawamura Award and Guimaraise Award of ISIJ and the Best Young Researcher Award of Internationally Recrystallization and Grain Growth Conference. In addition, Dr. Zurob is a dedicated educator who was recognized by several teaching awards at McMaster. Dr. Zurob is also an active participant in professional societies including ASM, TMS and ASM Materials Camps Canada.

Références :

Chéhab, B., Zurob, H., Embury, D., Bouaziz, O., & Brechet, Y. (2009). Compositionally graded steels: a strategy for materials development. *Advanced Engineering Materials*, 11(12), 992-999.

Roumina, R., Embury, J. D., Bouaziz, O., & Zurob, H. S. (2013). Mechanical behavior of a compositionally graded 300M steel. *Materials Science and Engineering: A*, 578, 140-149.

Lefevre-Schlick, F., Bouaziz, O., Brechet, Y., & Embury, J. D. (2008). Compositionally graded steels: The effect of partial decarburization on the mechanical properties of spherodite and pearlite. *Materials Science and Engineering: A*, 491(1-2), 80-87.

Coco, L., Lefevre-Schlick, F., Bouaziz, O., Wang, X., Solberg, J. K., & Embury, D. (2008). The mechanical response of compositionally graded materials. *Materials Science and Engineering: A*, 483, 266-269.