Postdoc

The *Laboratoire d'Étude des Microstructures et de Mécanique des Matériaux*, LEM3, was founded in 2011 by merging two CNRS laboratories located in Metz (France). From this fusion has emerged a center for transdisciplinary experimental and theoretical research combining mechanics of solids and metallurgy, materials science, chemistry, and physics, to ensure a better visibility of research in France and an effective knowledge transfer to industrial partners, while maintaining the balance between basic and applied approaches. The *Ingénierie des Microstructures, Procédés, Anisotropie, ComportemenT*, IMPACT department studies microstructures (with their 3D topology) and crystallographic textures (at micro- and macro-scales) of polycrystalline materials, with focus on changes induced by phase transitions during thermal, mechanical and/or physical processing, to better understand how the changes alter macroscopic behavior of materials, especially their anisotropy.

To support our research, we are looking for a

Postdoc

Influence of free surfaces on dislocation configurations.

Project team:

- Dr. Nabila MALOUFI (LEM3, France)
- Dr. Vincent TAUPIN (LEM3, France)
- Dr. Antoine GUITTON (LEM3, France)
- Prof. Laurent CAPOLUNGO (Los Alamos National Labs, USA)

Your tasks

- You will perform detailed analyses of deformation microstructures. You will explore cutting-edge techniques for characterizing defects.
- You will perform numerical simulations of microstructures evolution.
- You will share your time between Metz (France) and Los Alamos (USA).
- Your results will be discussed in the framework of fundamental deformation mechanisms of materials.

Your profile

- You should be a PhD in materials science. (PhD defense must be in 2016, 2017, 2018 or 2019)
- You should have good knowledge of deformation physics and plasticity of materials.
- Experience with electron microscopes is expected.
- Experience with numerical simulations will be a plus.
- As you will be part of international teams, good communication skills in English and teamwork practices are expected.

We offer

For further information and application, please contact:

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