

Materials Center Leoben Forschung GmbH (MCL) is an internationally active research institution specializing in materials research along the whole product value chain starting from the materials synthesis, proceeding with the processing of products and concluding with their in-service behavior until the end of the product life time. MCL is carrying out long-term research and development projects in cooperation with a total of some 150 industrial and scientific partners as well as laboratory, computational and advisory services.

In the view of the requirements of a modern society the further miniaturization in microelectronics is essential and a challenge for the power semiconductor industry. A promising approach is the use of porous metallic layers. The announced PhD thesis is embedded in this hot topic where the development and application of advanced methods like X-ray computed tomography, laser ultrasound etc. shall give novel possibilities regarding the characterization of porous metallic layers.

To strengthen our team, we are looking for someone with the following area of responsibility or requirement profile:

PhD Thesis

Development of an Advanced Methodtoolbox for the Characterization of Porous Metallic Layers

Reference-n°: MCL_75

Tasks:

- *Work within an interdisciplinary research environment directly connected to the industry.*
- *Develop and apply a method toolbox for the characterization of porous metallic layers.*
- *Link the obtained experimental data to the simulations.*
- *Evaluate possibilities and limitations of the methods and give a conclusion regarding the best possible characterization approach.*

Requirements:

- *Education: graduate degree in experimental or theoretical physics, material science, or similar*
- *Hard skills: basic programming skills e.g. Python or similar, Matlab; interest in experimental and theoretical work*
- *Soft skills: Initiative, scientific curiosity, team-minded, structured working*

Additional information:

- *Supervisor: priv. Doz. Dr. Roland Brunner*
- *Gross monthly salary: € 2.696,44*
- *Start of work: June 2016*
- *Leoben*
- *employment*

Please send your complete application documents by post or email to:

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