

The Materials Center Leoben Forschung GmbH (MCL) is an internationally active research institution specializing in materials research. The field of activity of MCL includes on the one hand the implementation of research and development projects along the whole product value chain (materials design, materials processing and materials use in innovative products) and on the other hand material-based services (laboratory, computational and advisory services).

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

## ***Two PhD positions***

### **Synthesis and characterization of lead-free perovskite thin films for energy storage applications**

*Reference-n°.: MCL\_144*

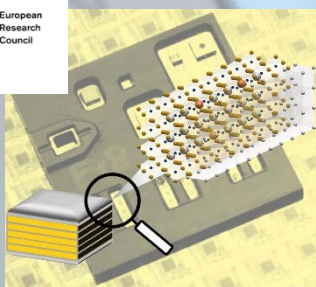
**Sol-gel synthesis of perovskite thin films – Structure-property relationships of relaxors – High energy density ceramic capacitors**

*These topics inspire you or you are already familiar with them?  
Then you are the right person we are looking for!*

#### **What do we need?**

- *Academic degree (master equivalent) in chemistry, chemical engineering or materials science*
- *Previous experience in thin-film deposition using sol-gel techniques*
- *Interest and experience in advanced characterization techniques (XRD, SEM, TEM, AFM, Raman)*
- *Scientific curiosity, team skills, self-initiative*
- *Good oral and written communication skills in English*

**You will be involved in a cutting-edge ERC-funded project, together with a top worldwide network of scientific institutions and companies!**



#### **Your tasks?**

- *Synthesis of thin films based on barium titanate solid solutions using sol-gel techniques*
- *Use of characterization tools to study the growth process*
- *Setup of advanced Raman spectroscopic methods to study the nanoscale polar order*
- *Measurement of energy storage properties of thin films*
- *Interaction with partners in the field of atomistic modelling*
- *Presentation of results at international conferences*
- *Writing of scientific articles for peer reviewed journals*

#### **Our offer:**

A permanent employment, with start in April 2019 and a gross monthly salary of € 2.794,60.

Please send your complete application documents by post/email. We would be pleased to get to know you!



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