

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 materialbased services (laboratory, computational and advisory services).

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

## **Master-Thesis**

### **Synthesis of ZnO-Nanowires for Novel Sensor Applications**

*Reference-n°.: MCL\_170*

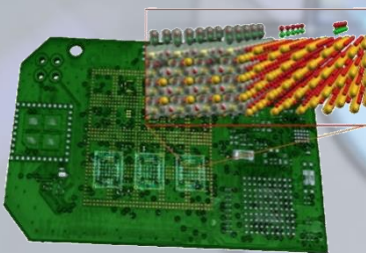
### **Synthesis of piezoelectric ZnO-Nanowires by thermal oxidation, transfer process to Silicon Chips, electrode structures for sensor fabrication**

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

#### What do we need?

- Education in one of the following fields: Materials Science & Engineering, Physics, Chemistry
- Knowledge/Language skills: German/English
- Interest in, microelectronics and nanotechnology, sensor technology, and materials science
- Interest in experimental work
- Scientific curiosity, self-initiative, learning ability, communications skills, teamwork capability

#### **We are working worldwide in strong cooperation with well-known scientific- and company partners!**



#### Your tasks?

- Synthesis of ZnO-Nanowires from bulk material and thin films
- Systematic variation of thermal oxidation parameters to achieve optimum nanowire growth
- Characterization of ZnO-Nanowires with respect to piezoelectric properties
- Integration on Si-chips and fabrication of ZnO-Nanowire based sensor devices

#### Our offer:

An employee relationship with supervision by Priv.-Doz. Dr. Anton Köck from 09.2019 and an expense allowance of € 3,000.00 net for 6 months

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

**Materials Center Leoben Forschung GmbH**  
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