

The Leibniz Institute for Crystal Growth (IKZ) is a leading research institution in the area of science & technology as well as service & transfer of crystalline materials to enable solutions in society by modern technologies (e.g. artificial intelligence, climate protection, health etc.). Our work covers the full spectrum from basic over applied research up to pre-industrial development, including national and international partners from university, institutes as well as industry. The institute is part of Forschungsverbund Berlin (<https://www.leibniz-fvb.de/>) and a member of the Leibniz Association (<https://www.leibniz-gemeinschaft.de/>). You can find more details at the institute webpage: [www.ikz-berlin.de](http://www.ikz-berlin.de).



Figure 1: sublimation growth reactor  
 $T > 2000^{\circ}\text{C}$

We are looking for a new member of the Aluminium Nitride working group at the earliest possible date

## Scientific employee (m/f/d)

for the topic: „Growth and characterization of aluminum nitride (AlN) semiconductor crystals“.

AlN substrates with high crystalline quality and defined doping are required, among other things, for the manufacture of UVC light-emitting diodes which will fundamentally improve the disinfection of e.g. medical equipment. Before a possible commercialization there is still a fundamental need for research, especially regarding dislocation formation and movement, diameter enlargement and reproducibility. We are looking for a motivated, team-oriented colleague aiming for a leading career in science and technology.

### Work topics

- Proactive acquisition of third-party funding projects to solve fundamental (DFG) and application-oriented (AiF, BMBF) problems concerning the material system AlN.
- Optimization of growth processes for AlN semiconductor crystals with low defect densities and diameters up to 2" in the existing sublimation growth reactors.
- Improvement of metrology tools for the characterization of the crystalline quality in AlN crystals, e.g. using X-ray methods and answering fundamental questions, in particular on dislocation formation and movement.
- Regular publication of the results in international journals.



Figure 2: AlN crystal

### Requirements:

- Study of physics, chemistry or a related course of studies and a completed doctorate in one of the subject areas.
- Sound knowledge in the growth and characterization of semiconductor crystals.
- Experience with sublimation growth (i. e. AlN, silicon carbide) is desirable.
- Experience in the acquisition and implementation of third-party funded projects.
- Experimental skills, initiative and flexibility.
- Good knowledge of the English language and basic knowledge of the German language.

For technical information please contact Dr. Thomas Straubinger ([thomas.straubinger@ikz-berlin.de](mailto:thomas.straubinger@ikz-berlin.de)).

The position is initially limited in time for 2 years and is remunerated according to the public tariff law TVöD (Bund). The Leibniz-Institut für Kristallzüchtung aims to increase the proportion of women. Applications from women are therefore expressly welcome. Severely handicapped persons with equal aptitude will be given preferential consideration. The Leibniz-Institut für Kristallzüchtung actively supports the compatibility of career and family.

### Are you interested?

Then apply with a letter of motivation, curriculum vitae and all relevant certificates by **31.12.2019**. To do so, go to [Job offers/jobs on our homepage](#) and click on this advertisement and then on "Apply online". Please use this form to send us your complete application documents.

**We look forward to receiving your application!**