



The Physikalisch-Technische Bundesanstalt (PTB) is the national metrology institute of the Federal Republic of Germany with scientific and technical service tasks. It furthers progress and reliability in metrology for society, the economy and science.

Starting at the earliest possible date, the following position is available in Department 6.1, Radioactivity, at our Braunschweig site for a duration of three years:

**Experimental physicist with a PhD**

up to Remuneration Group 14 TVöD Bund ◦ full-time (39 hours/week) ◦ fixed-term contract

**Your tasks:**

At our "Radioactivity" department we produce activity standards for dissemination to customers and for research and development tasks of our own. Within the scope of European research projects, a high-resolution spectrometer based on a metallic magnetic calorimeter (MMC) has been operated and continuously further developed in collaboration with Department 7.6, Cryosensors. In collaboration with external partners, fundamental nuclide data and new methods to determine activity have been developed. You will work on exciting and varied tasks in an internationally positioned research institution. Your tasks include:

- Operating an MMC based spectrometer by means of SQUID selection at low temperatures ( $< 10$  mK)
- Measuring energy spectra of selected radionuclides by means of MMCs
- Developing and validating new methods to determine activity by means of MMCs
- Developing and preparing suitable radioactive sources
- Further development of data acquisition and analysis routines
- Determining fundamental radionuclide data
- Presenting your results at scientific congresses and in scientific journals
- Planning and reporting in accordance with the requirements of the supported project

**Your profile:**

- You have obtained an excellent university degree (master's degree or German Diplom) in physics and a PhD
- You have an excellent knowledge in the field of cryogenics
- Ideally, you have experience in developing and operating superconductive detectors, especially MMCs or "transition edge sensors" (TESs) and SQUIDs
- You have profound knowledge in the field of measurement data acquisition and analysis by means of in-house program routines; experience with LabView and Python, for example, is of advantage
- You have a proven ability to work independently and on your own responsibility and to write scientific publications
- You are prepared to collaborate in international scientific projects and to coordinate project meetings

- You are a team player with excellent communication skills
- You have an independent and well-structured working style, good organization skills, and enjoy experimental work
- You are prepared to work with radioactive substances
- You have a very good command of spoken and written English

**We offer:**

- Remuneration in accordance with the collective bargaining agreement for the public service (Tarifvertrag öffentlicher Dienst Bund – TVöD for the federal level)
- Public sector pension scheme (VBL)
- Compatibility of work and family life (flexible working hours and part-time schemes)
- 30 days' paid annual leave
- Various workplace health and wellness options
- Good transport connections (bus and bike); free parking
- In-house daycare center and canteen

You will find further information related to this position [here](#) and by contacting:  
 Dr. D. Arnold, phone: +49 (0)531 592-6100, e-mail: dirk.arnold(at)ptb.de or  
 Dr. O. Nähle, phone: +49 (0)531 592-6110, e-mail: ole.j.naehle(at)ptb.de or

PTB promotes the professional equality of women and men and is thus especially interested in applications from women.  
 Within the scope of the official feasibilities, PTB offers flexible part-time work schemes in order to support in particular the compatibility of work and family life.  
 Disabled persons will be given priority if they have the same occupational aptitude.

Please use our [online application form](#).

Alternatively, you can post your application to us at the following address:

Physikalisch-Technische Bundesanstalt  
 Referat "Personal"  
**Reference number 21-336-6**  
 Bundesallee 100  
 38116 Braunschweig  
 Germany

Unfortunately, we cannot accept applications sent via e-mail.

**Applications can be submitted from 29 June 2021 until 31 July 2021.**

