



# ATTOSECOND X-RAY SCIENCE.

## DESY, Hamburg location, is seeking: Engineer (f/m) for Experimental Set-up

### DESY

DESY is one of the world's leading research centres for photon science, particle and astroparticle physics as well as accelerator physics.

DESY, the leading accelerator centre in Europe, is searching for an engineer to work in an interdisciplinary team of scientists on the AXSIS project (Attosecond X-ray Science: Imaging and Spectroscopy), which is a synergy grant funded by the European Research Council. We look for an engineer with experience in the experimental setup of multi-instrumentation complex systems. The Engineer will work with the team of international scientists in designing and building a compact attosecond hard X-ray source and the experimental setup of the AXSIS end station for time-resolved imaging of molecular reactions with a combination of X-ray diffractive imaging, X-ray spectroscopy and optical spectroscopy. The goal of the project is to make molecular movies of biological, chemical and physical processes (for example to unravel the mechanism of water splitting and oxygen evolution in photosynthesis) on an attosecond time scale at atomic resolution.

### The position

The work of the engineer will contribute to experimental setup of the AXSIS project. This will include:

- Independent design and construction of the experimental set-up for the AXSIS project, with special focus of the experimental end-station (beamline)

The design and construction of the experimental endstation will be performed in close collaboration with the scientists of the AXSIS project and includes:

- setup of the interfacing optics with the compact attosecond X-ray Free Electron Laser
- setup and support during experimental operation of the sample delivery systems and sample environment and its interface with the X-rays
- setup and support during experimental Operation of the X-ray imaging system, the system for X-ray spectroscopy as well as the system for 2D optical spectroscopy
- Commissioning and optimization of recently developed components of the AXSIS system
- Technical assistance and support during run of experiments
- Interfacing between the scientific, engineering and construction aspects of the project

### Requirements

- Dipl.-Ing. (FH) or Bachelor of Mechanical Engineering or Physical Technology or a comparable subject or equivalent expertise, abilities and experience
- Profound, practical experience in mechanical design as well as in X-ray physics
- Several years of experience with complex experimental setups and interfacing of different instruments into an integrated system
- Profound, practical experience with CAD programs
- Excellent oral and written command of English and German language

For further information please contact Dr. Petra Fromme +49-40-8998-6204 (petra.fromme@cfel.de) or Dr. Alke Meents +49-40-8998-95468 (alke.meents@desy.de).

The position is limited to 3 years.

Salary and benefits are commensurate with those of public service organisations in Germany. Classification is based upon qualifications and assigned duties. Handicapped persons will be given preference to other equally qualified applicants. DESY operates flexible work schemes. DESY is an equal opportunity, affirmative action employer and encourages applications from women. Vacant positions at DESY are in general open to part-time-work. During each application procedure DESY will assess whether the post can be filled with part-time employees. There is a bilingual kindergarten on the DESY

site.

We are looking forward to your application quoting the reference code preferably via our electronic application System: Online-Application

**Deutsches Elektronen-Synchrotron DESY**

Human Resources Department | Code: FSMA022/2017

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Email: [recruitment@desy.de](mailto:recruitment@desy.de)

**Deadline for applications: Bis zur Besetzung der Position.**

**[www.desy.de](http://www.desy.de)**

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