The Chair for Applied Physics is a leading research facility in quantum optics, polaritonics, and nanostructure opto-electronic devices. We operate a 550 m² clean room facility equipped with a complete semiconductor technology line, including epitaxial growth as well as nanostructure fabrication and characterization. Our research is conducted within numerous national and international projects and collaborations with other universities, research centers and the industry.

We are looking for a

Post-Doctoral Candidate in Semiconductor Growth of Quantum Materials

What you will be working on

Within the BMBF funded project QR.X, we fabricate and investigate novel, deterministic quantum light sources and spin-photon interfaces based on III-V quantum dots. These devices will be used for the demonstration of quantum repeater functionalities. Successful candidates will join our multidisciplinary team of researchers and be working on:

- Molecular beam epitaxial growth and III-V quantum dot based single photon sources and spin-photon interfaces on GaAs substrate.
- Nanophotonic and electronic bandgap engineering of III-V quantum dot devices in the 900 nm spectral range.
- MBE growth process development and optoelectronic material characterization.
- Contribute to project meetings, and conferences. Publication in peer-reviewed scientific journals.

The earliest starting date is 1st May 2022.

What is required

- PhD in physics or related.
- Work experience in a semiconductor cleanroom environment.
- Experience in molecular beam epitaxy (MBE) semiconductor growth (MBE growth of III-V semiconductor quantum dots is preferred).
- Experience with nanostructure characterization of semiconductors.
- Originality and productivity in research, proven by the scientific track record.
- Excellent written and spoken English language skills (working language is English).

What we offer

- A full-time position for a duration of up to three years, part-time is possible if full-time coverage is facilitated by job sharing.
- Payment based on the German TV-L scale.
- A unique opportunity to join a strong interdisciplinary multi-national team of researchers with a shared interest in quantum physics and semiconductors.
- Working with a state-of-the-art technological infrastructure.
- Opportunity to grow your scientific track record.

How to apply

Please send your application including your cover letter, CV, transcript of records and certificates, list of publications and three recommendation letters in one single pdf file (no more than 10 MB) to Prof. Höfling (l-tep@physik.uni-wuerzburg.de). The deadline is 30th April 2022.

The University of Würzburg is an equal opportunity employer. All qualified applicants will be considered for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or age.

Zertifikat seit 2008 audit familiengerechte hochschule

For questions

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