

Position ID	PhotonQ-WUE-PostDoc-2
Type of position	Postdoc
Subject Area	Physics / Experiment / Engineering
Type of institution	University
Start date	15 th March 2022, or thereafter
Type of contract	Up to 36 months (100% TV-L E13)
PI	Prof. Dr. Sven Hoefling
Location	Julius-Maximilians-Universität Würzburg
Application deadline	Open until filled with the ideal candidate
Position description	<p>The Chair for Applied Physics is a leading research facility in quantum optics, polaritonics, and nanostructured opto-electronic devices. We operate the Gottfried Landwehr Laboratory for Nanotechnologies, a 550 m² cleanroom facility equipped with a complete semiconductor technology line, including epitaxial growth as well as nanostructure fabrication and characterization.</p> <p>In PhotonQ, we investigate novel, deterministic quantum light sources of single photons and higher-order entangled photonic states. These sources will be used by our project partners to drive a Si-photonic quantum processor.</p> <p>What you will contribute. The successful candidate will join our multidisciplinary team of researchers and be working on:</p> <ul style="list-style-type: none"> • Development of deterministic III-V quantum light sources for Si photonic quantum information processing • Nanophotonic and electronic bandgap engineering of broadband optical III-V quantum dot (QD) single-photon source material emitting in the Telecom-C band at 1.55 μm. • MBE growth process development and optoelectronic material characterization thereof in our cleanroom facilities. • Contribute to project meetings, and conferences. Publication in peer-reviewed scientific journals. <p>What we offer:</p> <ul style="list-style-type: none"> • A position for a duration of up to three years. • Payment based on the German TV-L scale (100% of E13). • A unique opportunity to join a strong interdisciplinary multi-national team of researchers with a shared interest in quantum physics and semiconductors. • State-of-the-art technological and spectroscopic infrastructure. • Opportunity to grow your scientific track record.

Requirements	<ul style="list-style-type: none"> • 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).
Application documents	<p>Please include the following documents within one single PDF file of no more than 10 MB size:</p> <ul style="list-style-type: none"> • Cover letter stating your research interest. • Curriculum Vitae including a list of publications. • Transcript of records and certificates. • Contact details of three references.
Application email	<p>Please send your application to Prof. Höfling: l-tep@physik.uni-wuerzburg.de</p>
Contact email	<p>For additional questions, please contact: sven.hoefling@physik.uni-wuerzburg.de</p>