Position ID	PhotonQ-WUE-PostDoc-1
Type of position	Postdoc
Subject Area	Physics / Experiment / Engineering
Type of institution	University
Start date	15th 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	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. 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. **What you will contribute.** The successful candidate will join our multidisciplinary team of researchers and be working on: • Development of deterministic III-V quantum light sources for Si photonic quantum information processing • Nanophotonic and electronic device design of broadband optical cavities for III-V quantum dot (QD) single-photon sources emitting in the Telecom-C band at 1.55 µm using numerical simulation methods such as FDTD. • Process development and device fabrication in our cleanroom facilities. • Contribute to project meetings, and conferences. Publication in peer-reviewed scientific journals. **What we offer:** • 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	• PhD in physics or equivalent related. • Work experience in a semiconductor cleanroom environment. Experience in nanofabrication of III-V semiconductors is preferred. • Experience with semiconductor processing & characterization tools. • Originality & productivity in research proven by scientific track record. • Excellent written and spoken English language skills (working language is English).
Application documents	Please include the following documents within one single PDF file of no more than 10 MB size: • 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	Please send your application to Prof. Höfling: l-tep@physik.uni-wuerzburg.de
Contact email	For additional questions, please contact: sven.hoefling@physik.uni-wuerzburg.de