Saarland University is a campus university that is internationally recognized for its strong research programmes. Fostering young academic talent and creating ideal conditions for teaching and research are a core part of the university's mission. As part of the University of the Greater Region, Saarland University enables students and staff to share and exchange knowledge and ideas between disciplines, between universities and across borders. With over 17,000 national and international students, studying more than a hundred different academic disciplines, Saarland University is a diverse and dynamic learning environment. [Saarland University is officially recognized as one of Germany's family-friendly higher-education institutions and with a combined workforce of more than 4,000 it is one of the largest employers in the region.]

The Department of Physical Chemistry is inviting applications for the following position commencing at the earliest opportunity.

Academic research assistant (m/f/x)

Reference number W2795, salary in accordance with the German TV-L salary scale[1], pay grade: E13 TV- L, duration of employment: 2 years, volume of employment: 100 % of standard working time.

Workplace/Department:

The Maser lab at Saarland University (UdS) has an opening for a postdoc for studying strong collective effects in spin-resonator hybrid systems. Specifically, the influence of the collective coupling strength on phase and coherence losses will be under investigation.
The UdS Maser lab has expertise in studying and characterising solid-state spin systems for the regimes of weak, high cooperativity and strong coupling to a microwave resonator. This is complemented by theoretical modelling in the framework of cavity quantum electrodynamics. The aim is to understand spin dynamics influenced by strong collective effects for potential applications in sensing, communication, timekeeping and quantum technologies.

Studying spin dynamics in a regime of high cooperativity and strong light-matter interactions or strong dissipative interactions. Here, the spin ensemble relates to 'matter' and 'light' is represented by microwave photons residing in a resonator. Under strong magnetic dipole coupling both systems hybridise with coherent energy exchange. Spin-resonator hybrids can exhibit fascinating effects, like extended coherence or pathways to efficient and stable entanglement generation. The predominant spin ensembles are comprised of NV- centres in diamond or pentacene

[1] TV-L = collective agreement on remuneration of public sector employees in the German *Länder*
The pay grade assigned to an employee depends on their professional qualifications and the number of years of service. Each pay grade is further subdivided into levels. Entry-level employees with no previous experience will initially be assigned a level 1 rating. After one year at level 1 of the E10 pay grade, an employee will move up to level 2. After a further two years, the employee will move to level 3, etc.

molecules in p-terphenyl. These studies utilise microwave spectroscopy methods, in the steady-state and the time-domain.

Job requirements and responsibilities:

- Characterisation of collective effects in spin-resonator hybrids
- Perform experiments using steady-state microwave spectroscopy, as well as time-resolved spectroscopy methods
- Design and development of new experimental setups for characterisation
- Perform data analysis and simulations to complement experimental work
- Help produce independent and original research within the UdS Maser lab, submit publications to peer-reviewed journals
- Support overseeing PhD/masters/bachelor students
- Contribute to the induction of other research staff and students

Your academic qualifications:

- Doctoral degree / PhD in Physics, Chemistry, Engineering or equivalent
- Language skills (according to GER): English B2/C1

The successful candidate will also be expected to:

- Have programming skills in e.g, Python, Matlab, etc.
- Have experience in spectroscopy, preferably magnetic resonance spectroscopy
- Follow and actively promote UdS policies, including Equal Opportunities and Race Equality and maintain awareness and observation of Fire and Safety Regulations
- Carry out any other duties within the scope, spirit and purpose of the job as requested by the line manager
- Language skills (according to GER): German B1/B2

What we can offer you:

- A flexible work schedule allowing you to balance work and family, among other things the possibility of teleworking
- Secure and future-oriented employment with attractive conditions
- A broad range of further education and professional development programmes (for example language courses)
- An occupational health management model with numerous attractive options, such as our university sports programme
- Supplementary pension scheme (RZVK)
- Discounted tickets on local public transport services ('Job-Ticket Plus' of the saarVV)

We look forward to receiving your **meaningful online application** (in a PDF file) by **31.03.2026** to **christoph.zollitsch@uni-saarland.de**. Please include the reference number W2795 in the subject line of the e-mail.

If you have any **questions**, please contact us for assistance. Your contact:
Herr Dr. Christoph Zollitsch
Department of Physical Chemistry
Tel.: +49 681 302-64244

Pay grade classification is based on the particular details of the position held and the extent to which the applicant meets the requirements of the pay grade within the TV-L salary scale. Part-time employment is generally possible.

If you have obtained a foreign university degree, a proof of the equivalence of this degree with a German degree by the Zentralstelle für ausländisches Bildungswesen (ZAB) is needed before hiring. If necessary, please apply for this in time. You can find more information at https://www.kmk.org/zeugnisbewertung.

Unfortunately, neither costs for attending an interview at Saarland University nor costs for any certificate evaluation by the ZAB can be reimbursed in principle.

We welcome applications regardless of gender, nationality, ethnic and social origin, religion/belief, disability, age, and sexual orientation and identity. In accordance with its policy of increasing the proportion of women, the University actively encourages

applications from women. Applications from severely disabled persons will be given preferential consideration in the event of equal suitability.

When you submit a job application to Saarland University you will be transmitting personal data. Please refer to our privacy notice for information on how we collect and process personal data in accordance with Art. 13 of the Datenschutz-Grundverordnung. By submitting your application you confirm that you have taken note of the information in the Saarland University privacy notice.