The RTG 2767 aims to train a new generation of experts who will design materials made of supracolloidal structures from the drawing board to application in components. Supracolloidal structures are complex superstructures composed of different nanoparticles, similar to how atoms are linked to molecules. This results in innovative, exceptionally promising optical and electronic properties that go far beyond those of the individual building blocks. To date, these structure-property relationships of the assembled particles are not adequately understood. The technological visions of these new materials include novel solar cells, field amplification for highly sensitive spectroscopy, biosensing applications where complex detection processes are made simpler, and even on-site sample examination using smartphones. Participating institutions: TUD Dresden University of Technology (TUD), the Universität Leipzig, Leibniz Institute for Polymer Research Dresden, and the Helmholtz-Center Dresden-Rossendorf.

For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

The DFG-funded **Research Training Group 2767 „Supracolloidal Structures: From Materials to Optical and Electronic Devices"** offers a positions as

Research Associate / PhD Student (m/f/x)
(subject to personal qualifications employees are remunerated according to salary group E 13 TV-L)

starting **April 1, 2025**. The position is limited for 3 years. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). The position aims at obtaining further academic qualifications (usually PhD).

Position #5	RTG2767-B13
Investigators:	Prof. Dr. Gianaurelo Cuniberti
Terms:	100 % of the full-time weekly hours
Tasks:	**Neuromorphic sensing via 2D-materials-nanoparticle networks**
Requirements:	excellent university degree (Master of Science or diploma) in materials science, physics, chemistry, electrical engineering (or a similar discipline) with focus on sensorics; experience in data processing and machine learning; experience in 2D materials synthesis and device fabrication; knowledge in neuromorphic computing

General Requirements:
- above-average university degree achieved in a short study period
- willingness and ability to think beyond the boundaries of your field, to act in an international and diverse environment and to live an open and constructive communication
- strong analytic and problem-solving skills, creativity
- an independent, target- and solution-driven work attitude
- fluency in English, knowledge of German would be a plus

What we offer: You will join an enthusiastic and ambitious research training group, where you can drive your project forward and benefit from inspirational interactions with like-minded researchers. The RTG offers structured training program with technical and soft skill courses, research stays abroad as well as contact to industry. It offers the opportunity for PhD thesis completion. The working language of our international teams is English.

For informal enquiries, please contact the investigators given above or Tatjana Sereda-Neuber (tatjana.sereda-neuber@tu-dresden.de, +49 351 463-40874).

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university and offers a Dual Career Service. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

Your application **(in English only)** must include: a motivation letter, your CV with publication list, copy of degree certificate, and transcript of grades (i.e. the official list of coursework including your grades). Please include also a link to your Master's or diploma thesis. Complete applications should be submitted preferably via the TU Dresden SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf document quoting the reference number **RTG2767-RTG2767-B13** in the subject header to **recruiting.cfaed@tu-dresden.de** or by mail to: **TU Dresden, cfaed, Frau Tatjana Sereda-Neuber, Helmholtzstr. 10, 01069 Dresden, Germany.** The closing date for applications is **February 14, 2025** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies). Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

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