



PhD Position in Organic Polymer Chemistry

in the group of Prof. Dr Guillaume Delaittre; Organic Functional (Macro)Molecules, Dpt. of Organic Chemistry, University of Wuppertal, Germany

Web: orga-funct-macromol.uni-wuppertal.de/de/

The PhD project will cover the synthesis and in-depth characterization of monomers, polymers, and corresponding nanomaterials. The project will mostly (but not exclusively) focus on polyoxazoline derivatives. Additional aspects will or may encompass conversion of plant-based chemicals, surface functionalization, biomolecule conjugation, and biocatalysis.

Our group – currently consisting of one postdoctoral researcher, six PhD students, and a varying number of undergraduates – develops functional organic polymer systems using modern methods of macromolecular synthesis (reversible-deactivation radical polymerizations, ring-opening polymerizations) and efficient organic chemistry ligation methods. Our research is linked to the design of functional/reactive nanostructured (biohybrid) materials for technical, biological, medical, or biotechnological applications. We are currently moving towards a more sustainable polymer chemistry (sourcing, stability, degradability, recyclability). We cooperate with biologists, physicists, engineers, and other chemists, and are well connected to the industry.

The University of Wuppertal is a young and dynamic university, which currently welcomes about 23000 students (110 nationalities) and is part of a network of 220 partner universities worldwide. The city of Wuppertal is said to be the greenest of the German large cities, hosts 350000 inhabitants, is very close to Cologne and Düsseldorf, and has recently been listed by CNN as one of the 20 places to visit in 2020 worldwide: edition.cnn.com/travel/article/places-to-visit-2020/index.html

The ideal candidate looks forward to working in a collaborative, multicultural, and open-minded team and holds or is about to complete a MSc degree or equivalent strongly focused on organic and/or macromolecular synthesis. She/he must have a hands-on experience of several months in a research laboratory. Further knowledge in areas such as nanoparticles, self-assembly processes, protein modification, biocatalysis, 3D printing, photochemistry is highly welcome. She/he should be familiar with at least some of the following analytical methods: NMR, IR, and UV-Vis spectroscopies, size-exclusion chromatography, mass spectrometry, DOSY, light scattering, electron microscopy, and AFM. An excellent level of English is essential. German language knowledge is a plus but is not mandatory.

Application material cover letter, CV, University certificates, contact details of 2–3 referees

Application deadline March 15, 2024

Starting date June 1, 2024 (earliest) to October 1, 2024 (latest)

Contract duration 36 months

Salary at least 1470 Euro after taxes (50% E13 German salary scale)

Please send your <u>complete</u>* application material with subject "PhD Position Application 24-1" to: Prof. Dr G. Delaittre (delaittre@uni-wuppertal.de)

^{*}The CV should include a list of synthetic methods (including purification techniques, e.g., column chromatography, recrystallization) and characterization methods with advanced hands-on experience. Incomplete applications will not be considered.