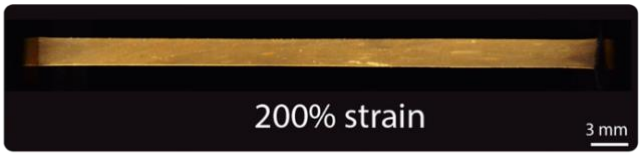
*Join the team of **Prof. Stephen Schrettl** at the TUM Campus Weihenstephan to develop stimuli-responsive thermoplastic elastomers using supramolecular interactions. We are looking for a highly motivated PhD student (m/f/d) to join us as soon as possible.*

PhD in Stimuli-Responsive Elastomers



Your tasks – In this project, you will design and study thermoplastic elastomers whose mechanical properties can be tuned and reprogrammed by heat and light. The envisioned polymers combine defined blocks with reversible crosslinking chemistries and metal-ligand coordination. You will synthesize and modify ligands, attach them to polymers, and assemble supramolecular materials in solution and in the melt. A significant part of your work will be dedicated to understanding how the molecular architecture and the supramolecular interactions translate into macroscopic properties. To this end, you will use a broad range of characterization techniques, including spectroscopy, size-exclusion chromatography, thermal analysis (DSC/TGA), scattering methods (SAXS/WAXS), microscopy (e.g. AFM) and mechanical and rheological measurements. You will be part of an international consortium and interact closely with our collaborators at Université de Lille (France).

We are looking for candidates with an outstanding Master's degree (or equivalent) in chemistry, polymer science, or a closely related discipline, with a strong interest in synthetic chemistry, self-assembly, and functional materials. Prior experience in organic and/or polymer synthesis is highly desirable. Familiarity with supramolecular chemistry, scattering methods or mechanical testing is an advantage but not a requirement. You should enjoy experimental laboratory work, be curious about how molecular design controls material properties, and be willing to engage with concepts that span from synthesis to polymer science. Good communication skills in English, both written and spoken, and the ability to work collaboratively in an international and interdisciplinary environment are essential.

We offer a PhD position for three years (TV-L E13, 67% according to DFG/TUM regulations; possibility of extension) in a highly motivated, dynamic, interdisciplinary, and supportive team. You will be enrolled in the TUM Graduate School with its structured doctoral program and professional-skills courses. You will contribute to an French-German collaboration on next-generation elastomers and will have the opportunity to present your results at international conferences. TUM is an equal opportunity employer; we explicitly encourage applications from women and all under-represented groups. Applicants with disabilities will be given preference in case of equal qualifications. More information about our research and team can be found here: www.lse.ls.tum.de/fmp.

Application – Please send your application as a *single PDF file* and use the subject line "Responsive Elastomers – [Your Name]". The file should contain a motivation letter (1–2 pages) outlining your interests and how they relate to this project, your CV (including any publications, if available), copies of your academic transcripts (BSc & MSc or equivalent), and contact details of at least two references (or reference letters, if already available). Please send your application by e-mail to: **application.fmp@ls.tum.de** .

Applications will be reviewed on a rolling basis until the position is filled. We look forward to receiving your application! If you have any questions about this position, please feel free to contact us by email. We will be happy to provide you with further information in advance.