

Christine is 23 years old and studies in the Master's program „Materials Science and Engineering“. Her position as a research assistant in the group „Biocompatible Nanomaterials“ was possible thanks to the special funding program “Hilfskraftstellen für leistungsstarke Studentinnen”.

Short description of Christine's work:

My tasks include the performance of MTT assays as well as the tailoring of properties of hydrogels. An MTT-assay is a colorimetric assay used for assessing cell metabolic activity. MTT is the abbreviation of the name of the dye used in this test. With the MTT-assay it is possible to estimate how the viability of cells changes under the influence of materials in order to test if they are toxic. Another task is to embed nanoparticles in hydrogels in order to make the hydrogel conductive. Therefore, I prepared zinc oxide (ZnO) tablets first. The zinc oxide used has a tetrapod like morphology and is produced by Flame Transport Synthesis. The zinc oxide is weighed, pressed to tablets and sintered afterwards. The prepared ZnO-tablets are coated with nanodots and embedded in polyacrylamide afterwards. The polyacrylamide has to be synthesized previously. After curing, the ZnO can be removed by using hydrochloric acid leaving a highly porous hydrogel.