

The Chair of Materials for Additive Manufacturing at the University of Wuppertal is now assigning a

Master thesis: »Investigation on upscaling Yttria (Y₂O₃) nano particle production by Laser Ablation in Liquid«

The research of the Chair of Materials Science and Additive Manufacturing deals with a combination of materials science, laser technology, manufacturing technology, technical chemistry and particle technology. Within the framework of a research project, optimization of LAL setup for oxide nano particle production, also oxide NPs deposition are to be realized and tested. The aim of the work is to increase the production rate of nano particles, for both types of targets (metal and oxide), and to achieve optimum deposition of the oxide nano particles on the surface of metal powders.

Your tasks

- Optimization of experimental setup of oxide nano particle production using laser ablation in liquid method
- Supporting of the oxide nano particles on the surface of metal powders using liquid media with the help of electrostatic attraction of the metallic and ceramic powder components
- Independent implementation of experiments
- Characterization, evaluation and interpretation of the test results
- Documentation and presentation of the results within the framework of a Master's thesis

What you bring along

- Studies in mechanical engineering or comparable engineering subject
- Enthusiasm for current research in the field of laser technology, and nano materials production
- Motivation, ability to work in a team and independently
- Enjoyment of practical, experimental work
- Good English language skills
- Ideally previous knowledge in the field of additive manufacturing and laser technology

What to expect

- Intensive and dedicated support
- Collaboration in a motivated and collegial team
- High degree of independent work
- Flexible working hours

We are looking forward to receiving your application:

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