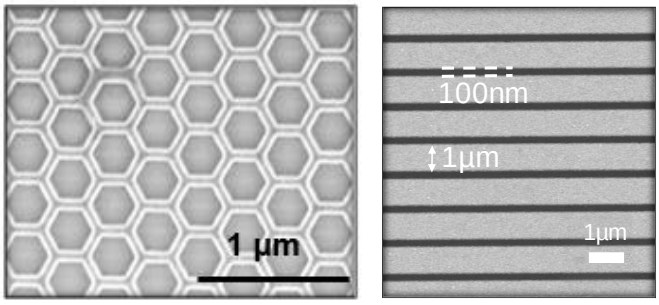
TECHNISCHE UNIVERSITÄT DRESDEN

complex nano materials

Master Thesis

Development of new top-down nanostructures for ultrasensitive biosensing

Use of high resolution techniques for the fabrication of reproducible nanotransducers



The most modern nanofabrication tools provide the opportunity to create structures with ultrasmall features with high reproducibility. Their extremely high surface-to-volume ratio ensures the best sensitivity when applied to biosensing applications. In this thesis the aim is to develop protocols for the fabrication of new structures using such top-down techniques. The first part of the work will consist on the optimization of fabrication procedures. The second part includes their integration in electronic platforms for the characterization of their electrical properties..

The **research plan** will include:

1.Design of the nanopatterns.
2.Fabrication and morphological characterization
3.Electrical characterization

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