

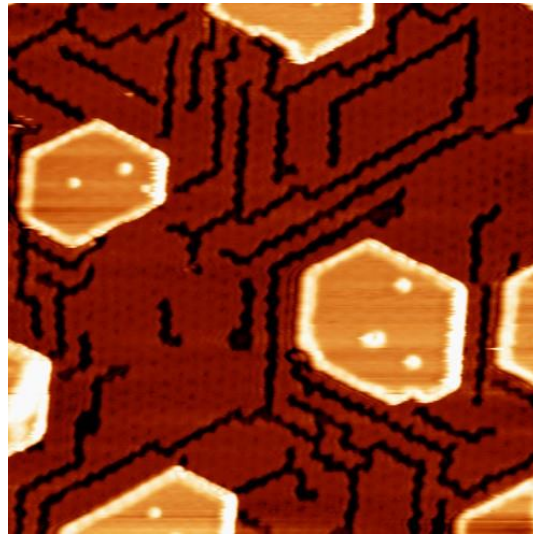
AG Festkörperphysik

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Interested?
More info via mail,
phone (3583) or in
person (ENC-B 009)

Master Thesis (Physik)

Edge states in two-dimensional molybdenum disulfide



STM image of MoS₂-islands with well-developed edge state

The edges of nanometer-sized islands of ultrathin MoS₂ have a special property: Even though MoS₂ is a semiconductor, the edges are metallic. This is due to a special electronic state at the edge, which constitutes a one-dimensional conductor. We have found a way to enhance this state. Your task is to make this process more controlled and investigate the properties of this one-dimensional wire.