

Allgemeines Physikalisches Kolloquium

Donnerstag, 24.06.2021 um 16 Uhr c.t.
Online-Kolloquium

Prof. Dr. Sarah Haigh

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Nanoexploring 2D Heterostructures: Applying atomic resolution scanning transmission electron microscopy for the investigation of novel 2D materials and the use of 2D heterostructures to advanced electron microscopy imaging

In this talk I will demonstrate how scanning transmission electron microscopy can provide a vital tool for uncovering structure property relationships in 2D materials and their stacked heterostructures. I will illustrate the talk with recent examples of work revealing Kagome lattice domains in twisted transition metal dichalcogenide bilayers, improved superconductive performance on aging in TaS₂ and unexpectedly fast ion uptake in 2D clays. In the second part of the talk I will demonstrate how the 2D heterostructure platform can be used to study gas and liquid flow and to allow atomic resolution imaging of the earliest stages of a liquid mixing induced chemical reaction.