

## Prof. Dr. Ute Kaiser

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## Materials Science Transmission Electron Microscopy @ UUIm

Over the last few years the performance of electron microscopes has undergone a revolution in instrumental resolution. This has been made possible through the development of electron optical components for the correction of the intrinsic aberrations present in conventional electromagnetic round lenses. On the example of materials research @ UUIm, this talk will emphasize the new insights that these instrumental advances can provide. However, the final resolution on the experimental image is determined by the instrumental resolution limit and the specimen resolution limit. We will show, on the example of single-layer BN, the importance of operating the microscope below its threshold for atom displacement.



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