In-situ transmission electron microscopy: An introduction

tutorial

April 10, 2019 | 4:00 pm Lecture Hall MPI | B.1.11

Abstract

Transmission electron microscopy (TEM) in its two flavours conventional TEM and scanning TEM (STEM) is known to be capable to resolve the local structure of suitable samples down to the atomic level.

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Additionally, it can be combined with spectroscopic techniques to determine the elemental composition at about the same atomic level. These capabilities are used widely to solve materials science problems.

The next step is now to introduce working devices or environments into the microscopes and investigate these in situ. I will talk about basic challenges in this endavour and show state-of-the-art examples.

