



EINLADUNG

zum Vortrag
von
Dr. Laura Mears
Universität für Bodenkultur

Measuring adhesion at the molecular to microscale

am Dienstag, 26. Mai 2026, um 17:30 Uhr

Ort: Lise-Meitner-Hörsaal, Fakultät für Physik, Universität Wien,
1090 Wien, Strudlhofgasse 4 / Boltzmannngasse 5, 1. Stock

*Barrierefreier Zugang: Boltzmannngasse 5, Lift, 1. Stock rechts über den Gang zum
Hintereingang des Hörsaals*

Abstract:

Adhesives are everywhere in modern life. They span life and technical sciences by being used to mend cuts caused by accidents or surgery, to hold furniture together or to hold protective films on a whole range of consumer products. Here, we will discuss two main examples of novel adhesion measurements. One is the development of bio-inspired adhesives, with a focus on a polymer based glue that can be electrochemically coated onto surfaces. The other application is where a low adhesion is required when polymer films are made on steel plates and should be easy to remove. In order to understand the mechanisms at play in both use cases require precise measurement of the adhesion in slightly unusual environments. For this we used the surface forces apparatus (SFA), which is a white light interferometry technique that can produce force vs distance information on the nanoscale. The results are put into context with other analytical techniques including optical microscopy and x-ray photoelectron spectroscopy. This will highlight some of the more unusual ways of applying the SFA technique to real world, non-ideal samples.

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