

Fluid-FM – a versatile method in biomaterials research

C. Müller-Renno, L. Hofherr, D. Remmel, N. Davoudi, A. Elmeligy, C. Ziegler

RPTU Kaiserslautern, Department of Physics, Erwin-Schrödinger-Straße 56, 67653 Kaiserslautern

cmueller@physik.uni-kl.de

The scanning force microscope (SFM), respectively scanning force spectroscopy (SFS) are powerful tools for investigating the interaction of biological molecules and organisms with surfaces. The Fluid-FM add-on was introduced recently, giving access to many new applications. It consists of special micro- and nanopipettes, which serve as hollow cantilevers with openings between 300 nm and 8 μm . They are combined with a fluid reservoir and a pump. This combination allows it to suck and to spot, all under imaging conditions and force control.

In this contribution, particular emphasis will be given to applications of the Fluid-FM in the field of biomaterials and nanobiotechnology. These comprise, e.g., single-cell adhesion measurements, colloidal particle adhesion, and nano spotting [1-5]. The advantages and challenges of this versatile technique will be discussed.

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