



ARTIDIS measurements on living cultured cells

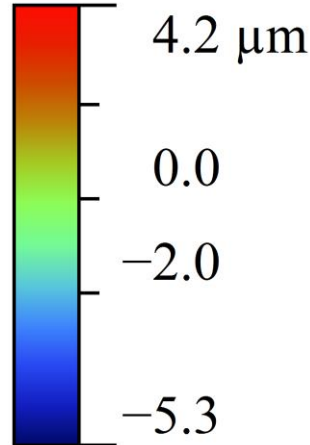
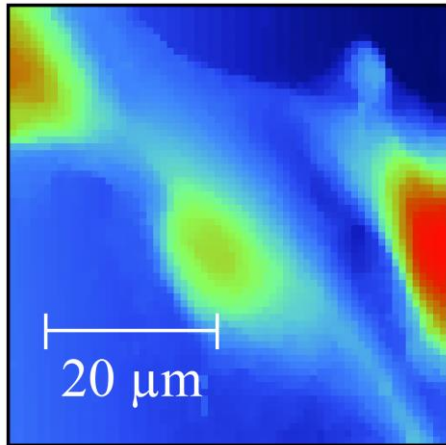
Nanosurf

Measurement conditions

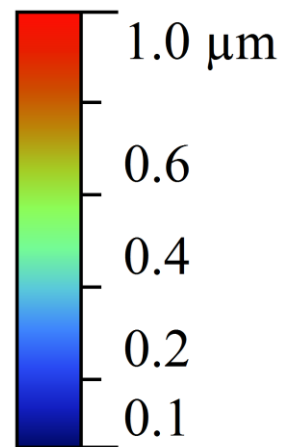
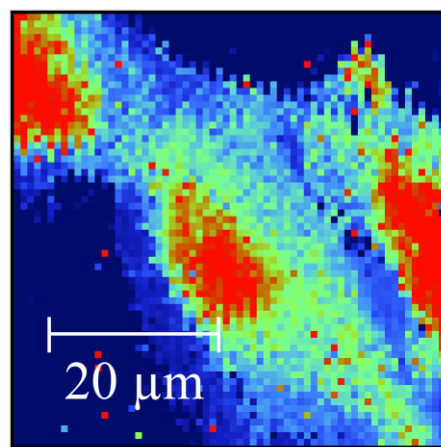
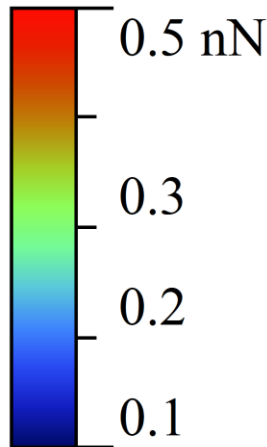
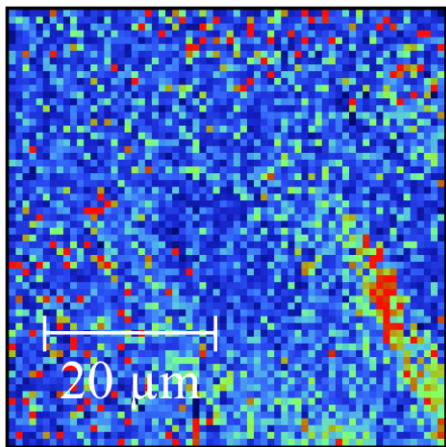
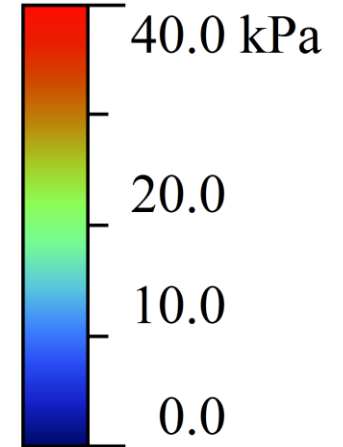
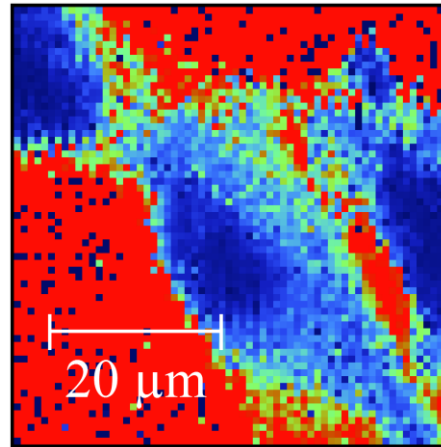
- For the ARTIDIS experiments cell were grown in a Petri dish in cell culture medium
- Measurements have been performed in cell culture medium at room temperature
- FlexAFM scan head, C3000 controller
- DNP cantilever ($k=0.082$ N/m)
- Frame size: $50\ \mu\text{m} \times 50\ \mu\text{m}$
- Resolution: $64\ \text{px} \times 64\ \text{px}$
- Ramp speed $16\ \mu\text{m/s}$
- Ramp size $4\ \mu\text{m}$
- Measurements done at the Biozentrum of Basel University

2D maps of height, adhesion, modulus and indentation derived from a 64x64 pixel force map

height



modulus



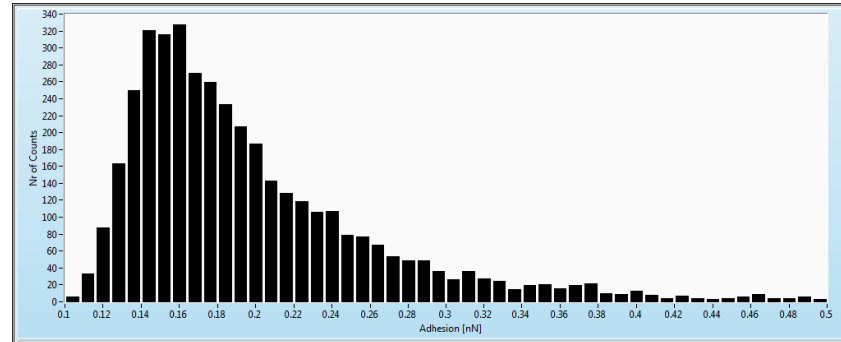
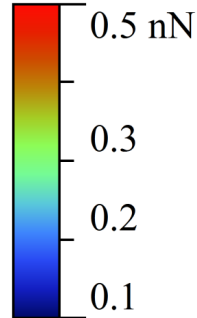
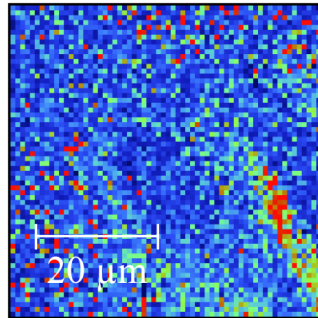
adhesion

indentation

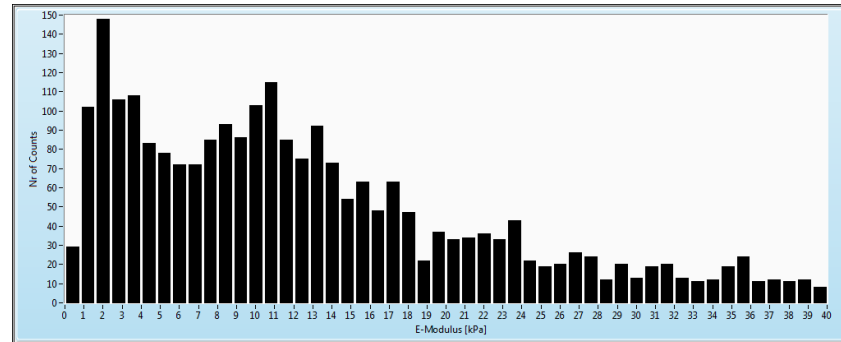
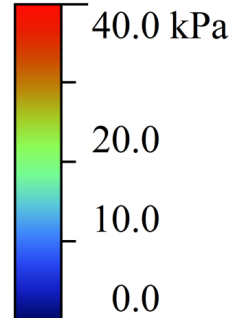
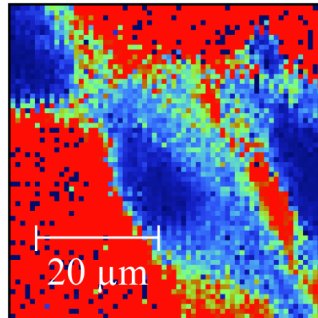


Histograms of adhesion, modulus, and indentation

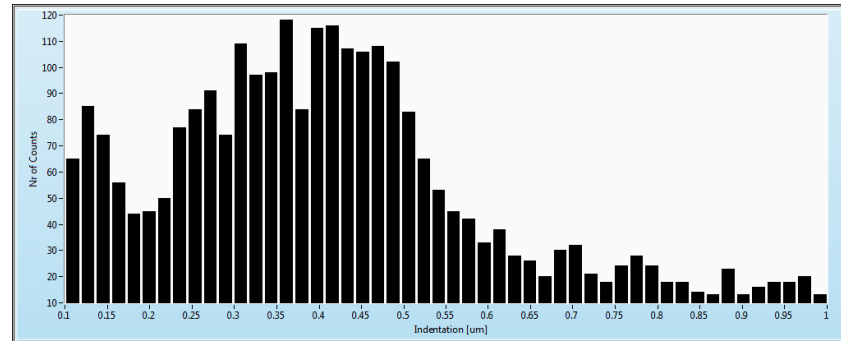
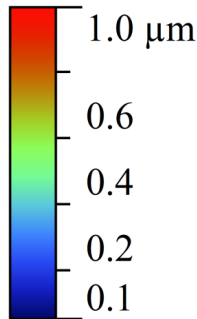
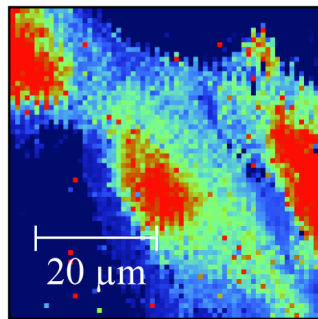
adhesion



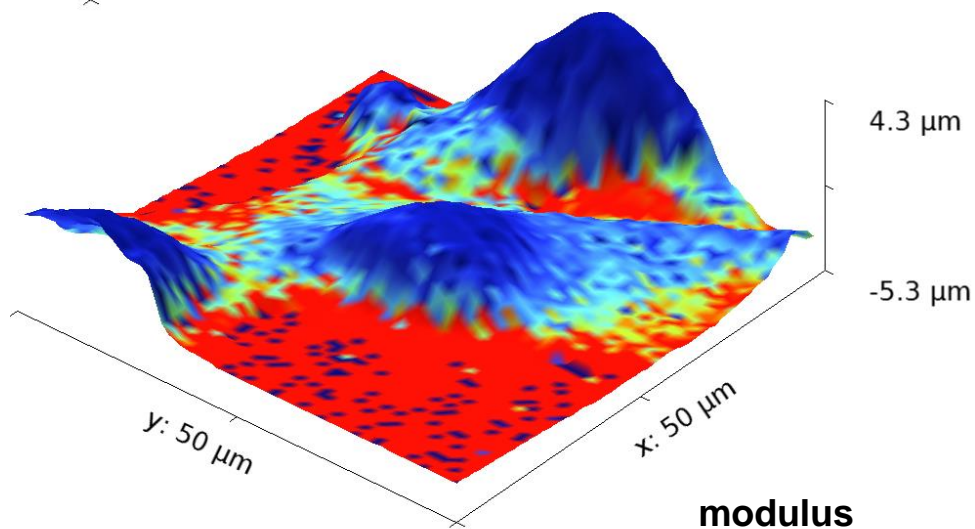
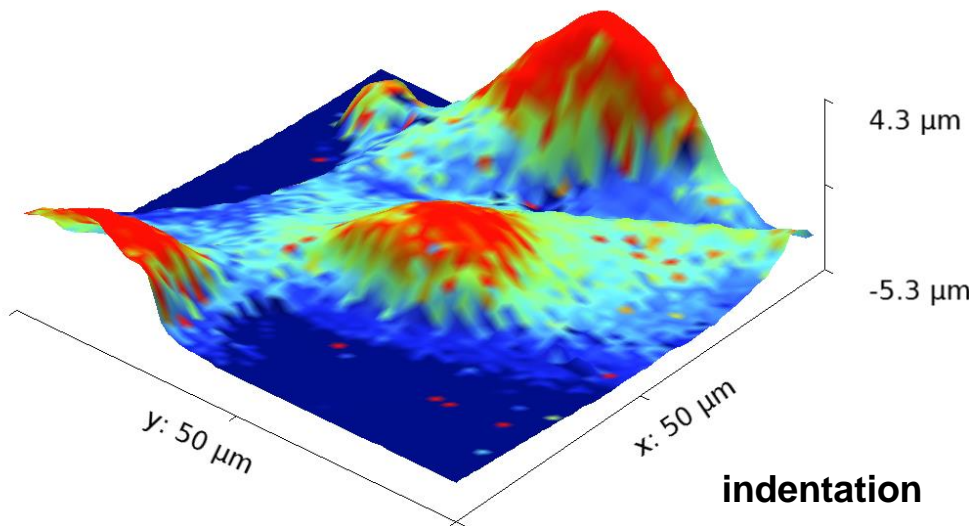
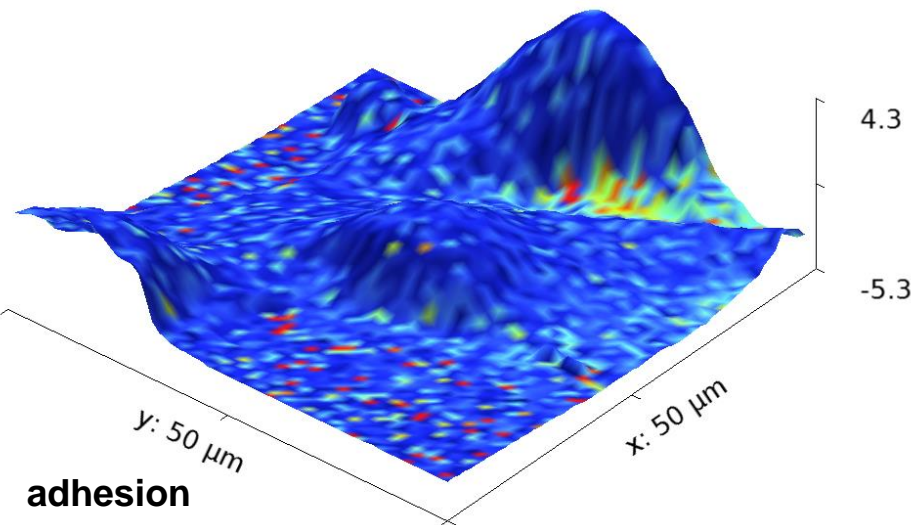
modulus



indentation

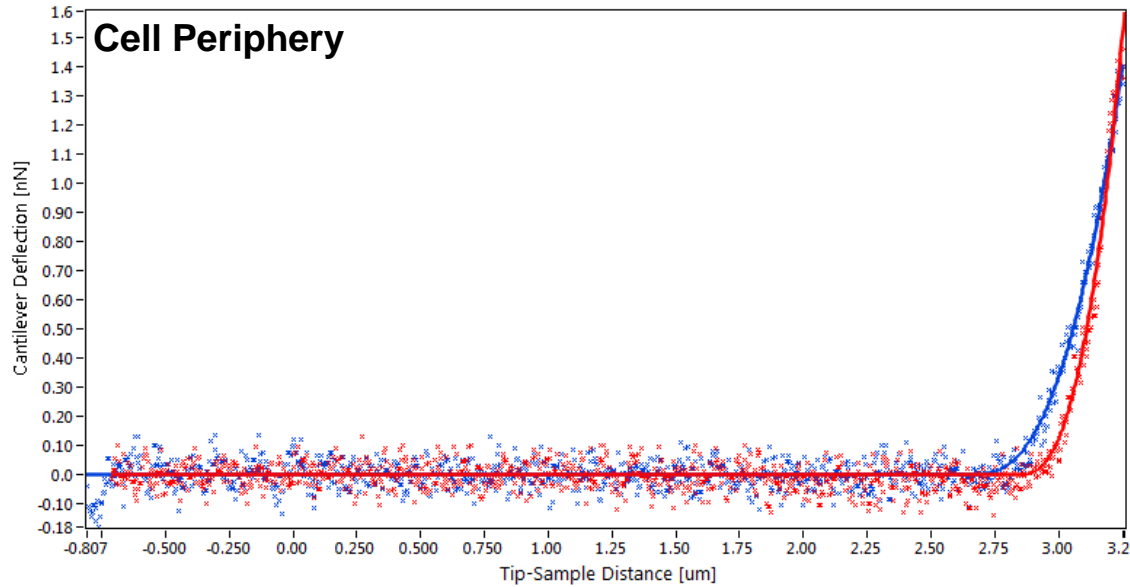


3D representation of the cells overlaid with adhesion, modulus, and indentation information

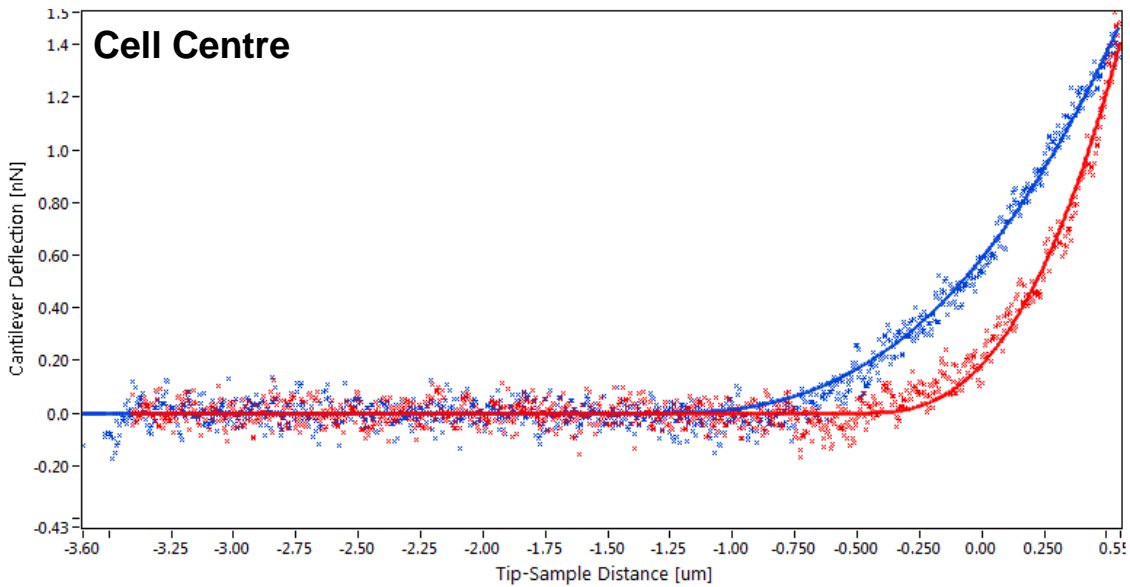




Example force-distance curves



- BWD Processed/ Fitted
 - FWD Processed
 - BWD Raw
 - FWD Raw
-
- The legend shows four data series: BWD Processed/ Fitted (red line with triangles), FWD Processed (blue line with triangles), BWD Raw (red line with crosses), and FWD Raw (blue line with crosses).



- BWD Processed/ Fitted
 - FWD Processed
 - BWD Raw
 - FWD Raw
-
- The legend shows four data series: BWD Processed/ Fitted (red line with triangles), FWD Processed (blue line with triangles), BWD Raw (red line with crosses), and FWD Raw (blue line with crosses).