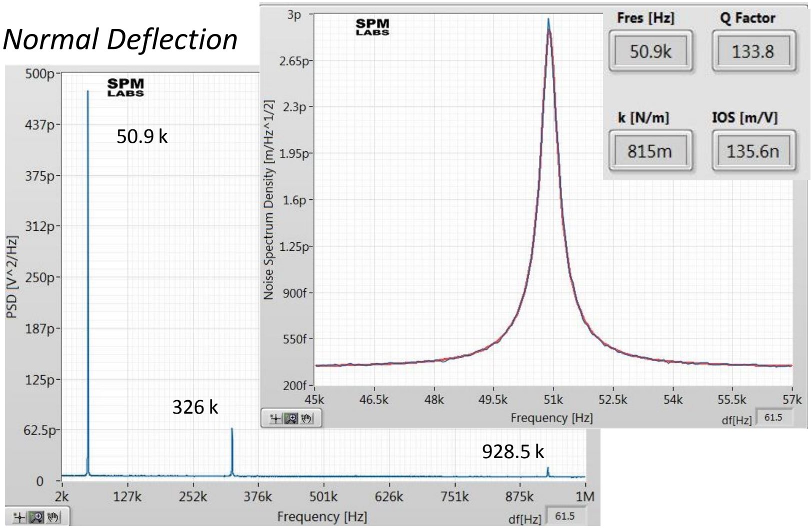
AFM Probes: Si – 190/35/1

Thermal Tune Data obtained with DCC accessory

Normal Deflection



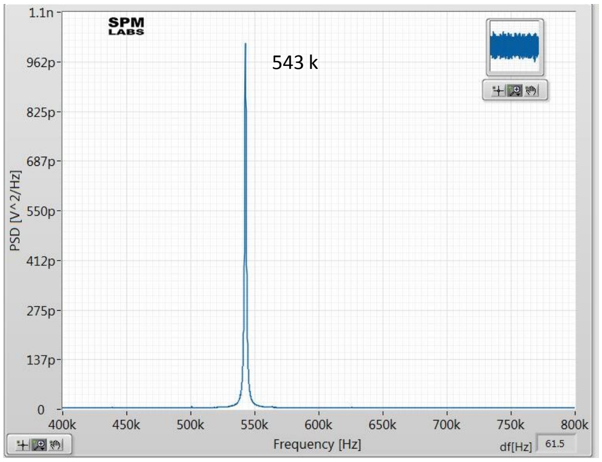
Fres [Hz]: 50.9k

Q Factor: 133.8

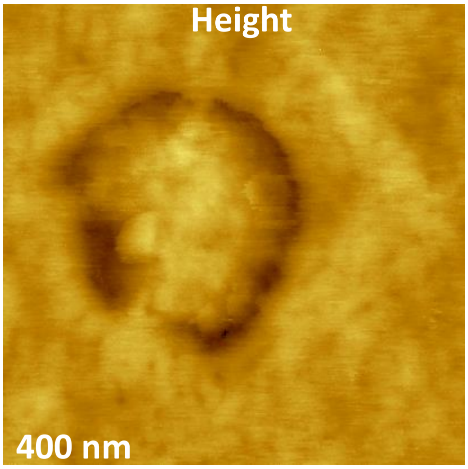
k [N/m]: 815m

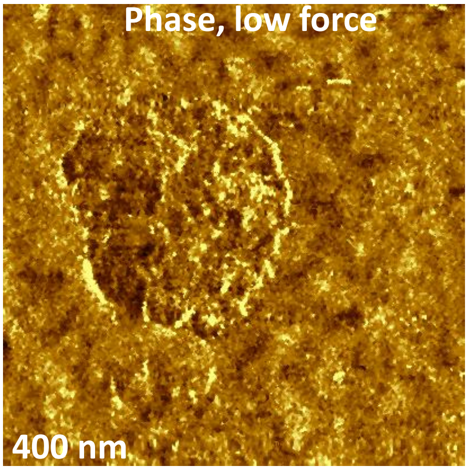
IOS [m/V]: 135.6n

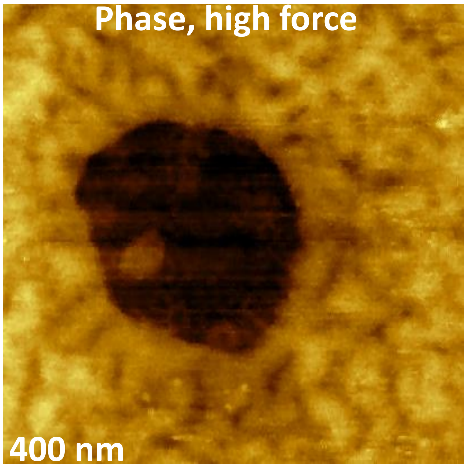
Lateral Deflection



The 190/35/1 Si probe can be used for AM-PI imaging of soft samples with elastic modulus <100 MPa. Such an application is illustrated by images of a polymer blend of ethylene-octene copolymer with density 0.86 g/cm^3 and polybutadiene – PE86/PB. With the increase of tip-force PD domain inside PE86 matrix exhibits a much darker phase contrast. The phase variation in the matrix are related to a small lamellae population common to PE86. The capability of Si tips to profile surfaces with corrugations up to 1 μm is shown in this height image and its profile recorded on the surface of a nitrocellulose membrane.



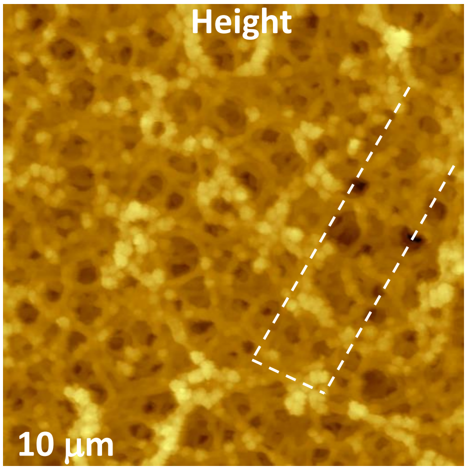


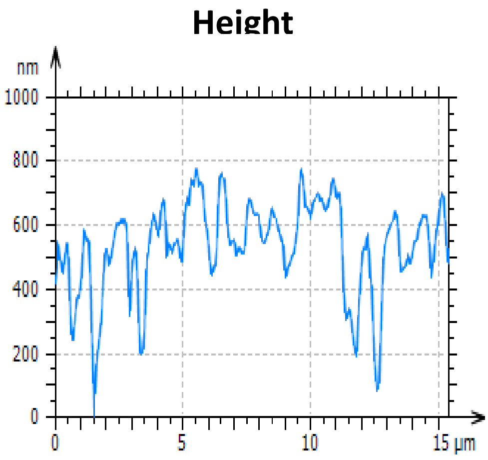


↑

Polymer blend PE86/PB

Nitrocellulose membrane →

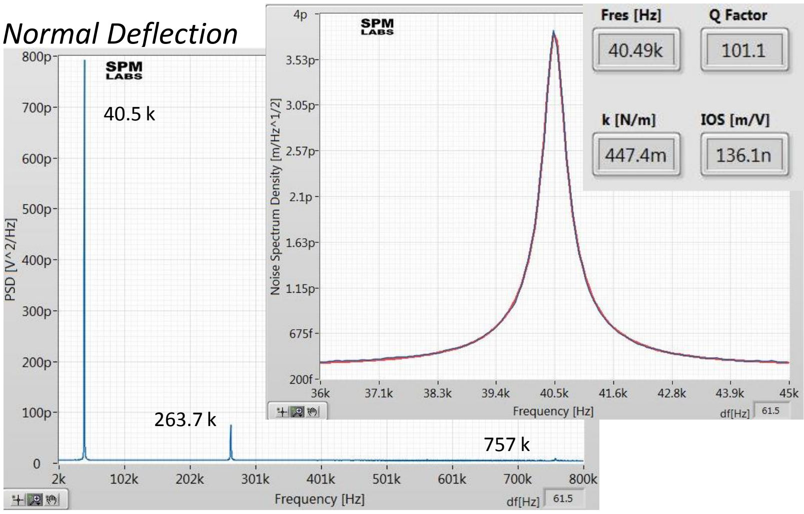




AFM Probes: Si – 190/35/1

Thermal Tune Data obtained with DCC accessory

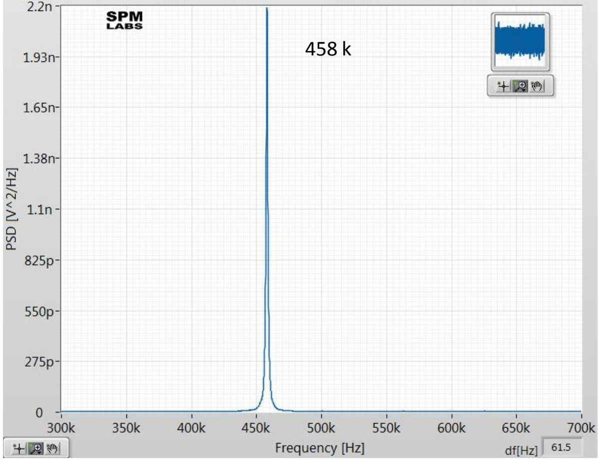
Normal Deflection



Fres [Hz]	Q Factor
40.49k	101.1

k [N/m]	IOS [m/V]
447.4m	136.1n

Lateral Deflection



Is this redundant ?