

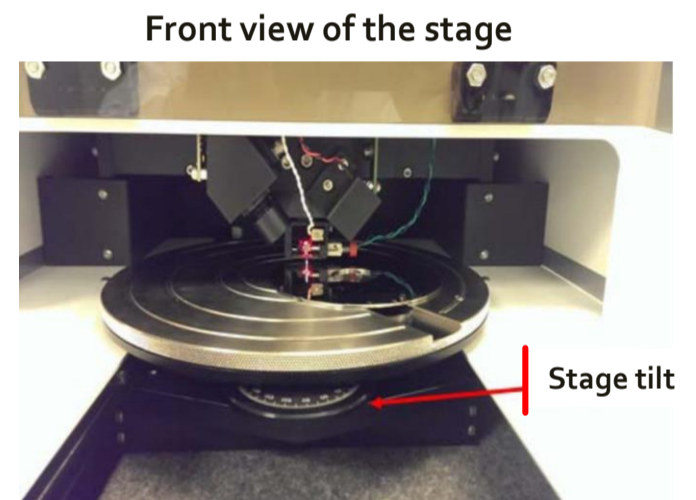
Mechanical Profilometer

THICKNESS MEASUREMENTS AND MAPPING

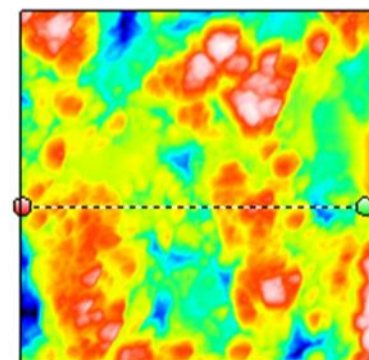
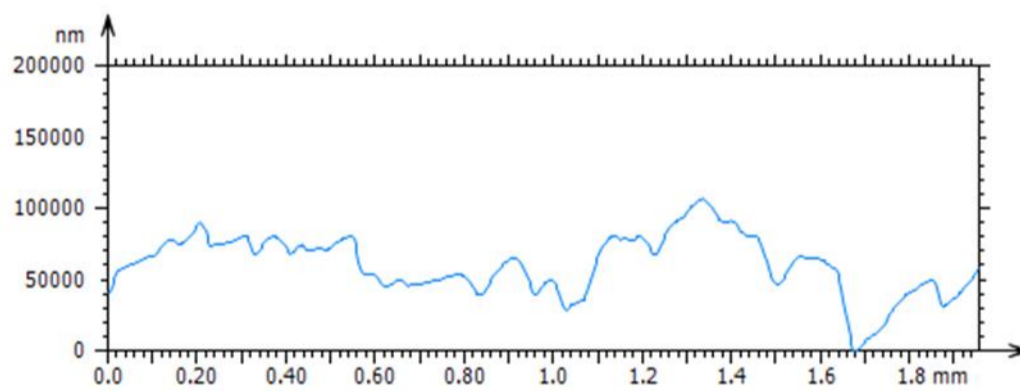
Film thickness is a fundamental parameter, which is important both for adjusting the deposition process (e.g. deposition rate and uniformity) and calculating the film volume for later quantitative characterization. Contact **STYLUS PROFILOMETRY** is one of the techniques often used for thickness measurements. It uses a diamond stylus that is pulled along the sample surface, determining the difference between the high and low point of the scanned surface (with a manometer resolution). This technique can be also applied to map the films thickness and characterizing surface parameters such as roughness, waviness, flaws etc. In fact the 2D and 3D profiling analysis enable topography studies in a broad range of applications, including thin films, soft materials, tall steps, bow, and stress.

ALPHA-STEP D-600 PROFILOMETER MEASUREMENT EXAMPLE

Surface evaluation of a piece of stone



height profile



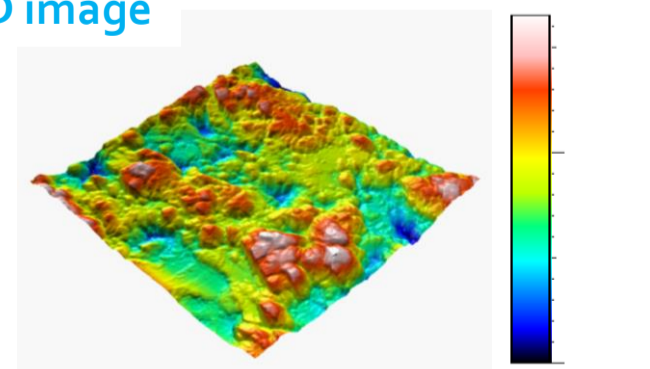
map

Extracted profile

Profilometer full tech specs

- Highest vertical range: 1200 μm
- Low force measurements: 0.03 to 15 mg
- Step height repeatability: 5 \AA on a 1 μm step
- 5 MP color camera with 4x digital zoom
- Analysis software with user friendly interface

3D image



Thin films Characterisation