SURFACE METROLOGY - STANDARDS, TRACEABILITY, AND APPLICATION

KOENDERS Ludger Dr.

PTB

Abstract

Nanotechnology is based on new properties of material in a small volume or thin film of nanometre size. To achieve knowledge about its properties it is mandatory to investigate geometrical as well as analytical properties in the nanometre range. To achieve a reliable and traceable measurement result the instrument, like SFM, optical or electron microscope, used has to be calibrated by standards.

- for dimensional and analytical properties. The PTB has developed together with others 1D, 2D and 3D standards for dimensional calibration of instruments. The need for such standards, their calibration and the application of standards to calibrate instruments traceable to the SI units of length and of force will be shown as well as the agreement of results of international comparisons. Examples of resolution standards for surface analytical techniques will be given, too.

Keywords:

Author did not supply full text of the paper/poster