Emerging trends in surface metrology

Recent advancements and some emerging trends in the methods and instruments used for surface and near surface characterisation are presented, considering the measurement of both topography and physical properties. In particular, surfaces that present difficulties in measurement or require new procedures are considered, with emphasis on measurements approaching the nanometre scale. Examples of new instruments and promising innovations for roughness measurement and surface integrity characterisation are presented. The new needs for tolerancing, traceability and calibration are also addressed.

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