

Apparent depth-imaging analysis for refractive index measurement

ABSTRACT

In this work we present a simple optical method, to measure the refractive index of thin glass by means of the images produced by a travelling microscope in the apparent depth experimental setup. The imaging analysis technique is based on comparison between captured images as the travelling microscope moved vertically upward. This approach may overcome the problem arises in identifying the best focused images when using naked eye. With the assist of high resolution CCD and available imaging software the imaging analysis can be affectively accomplished.

Keyword: Apparent depth; Imaging analysis; Refractive index