

A NEW APPROACH TO A REFLECTED LIGHT MODE MICROINTERFEROMETER

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The presented variable wavelength interferometry (VAWI) system belongs to an extended collection of devices based on the double-refracting principle of operation and continuously changing wavelength of the illumination system. The family of these methods has been proposed by Professor Pluta in the 1980s in the time when computer science was very limited especially in context of image processing and analysis. The instrument constitutes a new version of such a device from optical engineering and software point of view. It has been arranged in the reflected-light mode. Its design includes a new monochromator, actuators, and an auxiliary spectrometer for measuring the output wavelength. The software has been modified, so that more advanced algorithms, in reference to classical methods, can be applied. The design is illustrated by examples of measurement of optical features of optical components, which provides some insight to applications in research and industrial environment.