

Optics | Technology Offer

Measuring moving phase objects using confocal transmission microscopy

Current Status of Technology and its Market

The focusing process in the confocal transmission microscopy should as far as possible not involve any moving parts. In this way, recording times can be reduced to such an extent that even moving objects can be captured.

Secure Your Advantage through Innovation

At the University of Stuttgart, a novel process was developed for the transmission confocal microscopy which makes it possible to measure moving phase objects. The process is ideal for the determination of optical thickness and depth position of living cells or chromosomes. For transparent and opaque micro particles it is possible to determine quantitatively the special distribution and the lateral dimensions.

A further application is the reading of optical volume memory by means of transmitted light.

The optical depth resolution is in the nanometer range.

Patent Situation

Granted German Patent 10 2006 023 887 B3

Innovation

Confocal light transmission microscopy with polychromatic or tunable light source, respectively with micro aperture or scanning micro-optics, for the quantitative testing and measurement of stationary and moving phase objects. The chromatically generated depth representation in the object space makes it possible to observe and measure phase objects at different depths.

Your Advantage at a Glance:

- Measurement of optical thickness and depth position of stationary and moving phase objects, such as
 - Living cells
 - Transparent and opaque micro particles etc
- Polychromatic or tunable light source
- Recording with a camera in the detection light path
- Short measurement times
- Optical depth resolution of a few nanometers

Technology Transfer

The Technologie-Lizenz-Büro GmbH has been charged with the commercialization and now offers companies the opportunity to obtain a license to exploit this new technology.

For further information on: "Confocal Transmission Microscopy", please contact

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