

Available
Technologies

Quantitative Phase Imaging by Digital Holographic Tomography

Applications:

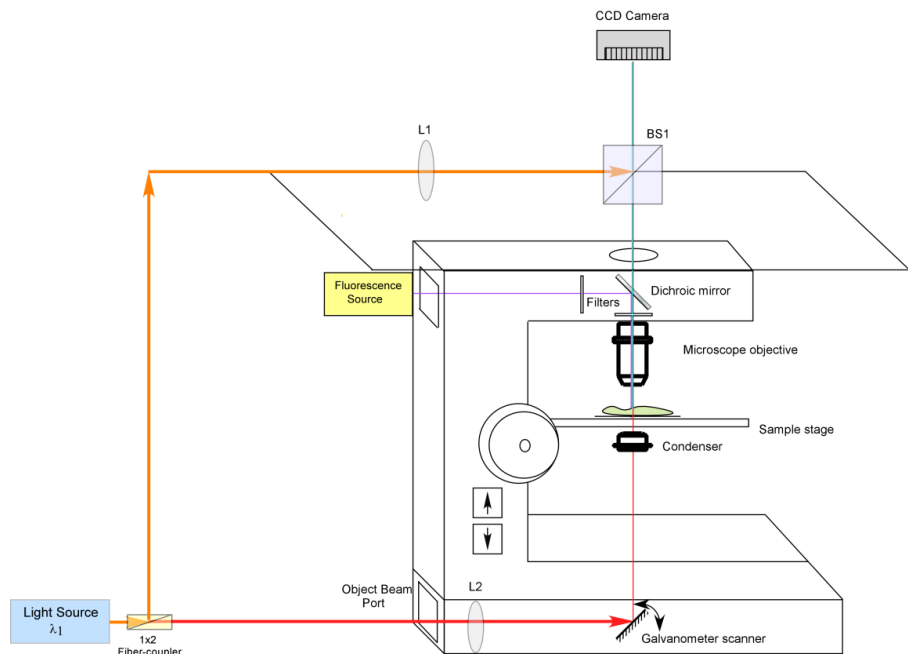
- Quantitative phase tomographic microscope
- Imaging of live cells
- Measuring internal structures of a specimen
- Can be integrated with epi-fluorescence to identify structures and functional details

Advantages:

- Minimally-invasive, real-time study
- Fast image acquisition
- High precision, consistent results
- Decreased experimental and processing complexity

Contact:

Mark Reeves
Oak Ridge National Laboratory
P.O. Box 2008, Mail Stop 6196
Oak Ridge, TN 37831
(865)576.2577
reevesme@ornl.gov
www.ornl.gov/partnerships



Single-wavelength implementation of digital holographic tomography integrated into a conventional fluorescence microscope

Summary:

Technology Description

A tomographic microscope that provides a means of obtaining non-invasive, quantitative information about the 3-D position of structures within a sample. This information can be provided at high speed, and with a number of unique capabilities offered by the digital holographic technique.

Technology Application

Quantitative phase tomographic microscope for imaging living cells.

Stage of Development: Proof of Principle

Patent Status: Patent application in progress

Licensing Status: Available for licensing in specific fields of use