3D optical computational microscopy in reflection configuration

Naikesh Kumar*, Guillaume MAIRE**, Philippe ROBERT**
1. IMIER, CNRS, Strasbourg, France, 2. IMIER, CNRS, Strasbourg, France

Introduction

The complex refractive index (CRN) can be probed in 3D using common optical techniques. The CRN is a complex parameter that contains information about the structure and composition of materials. By measuring the CRN, it is possible to obtain information about the optical properties of materials, which can be used to design and develop new materials for various applications. In this study, we present a novel method for measuring the CRN of materials using a confocal microscope. The method involves the use of a confocal microscope to scan the material surface and collect data at different depths. The data collected is then used to calculate the CRN of the material. The method is non-destructive and allows for the measurement of the CRN of materials in a non-invasive manner. This method can be used to measure the CRN of materials in a variety of applications, including the design of new materials for optical devices and the characterization of materials for medical and industrial applications.