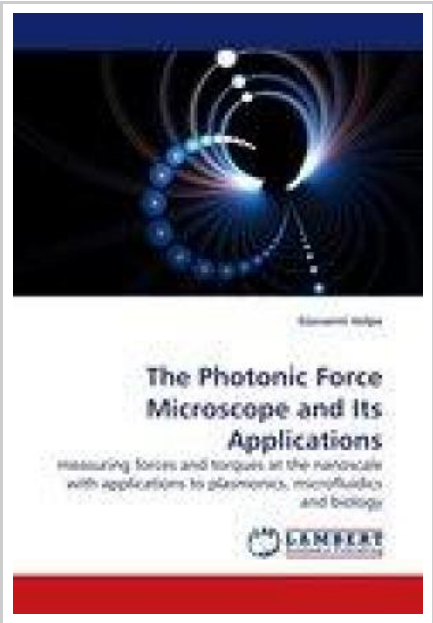

The Photonic Force Microscope and Its Applications

By Giovanni Volpe

LAP Lambert Acad. Publ. Okt 2009, 2009. Taschenbuch. Book Condition: Neu. 220x150x11 mm. This item is printed on demand - Print on Demand Neuware - The ability of detecting forces and torques at the micro- and nano- scale is of fundamental importance. The photonic force microscope (PFM) had been employed to measure forces in the range of femto- to pico-Newton in many di erent elds with exciting applications in biophysics, thermodynamics of small systems, and colloidal physics. Here, after an introductive overview of a typical PFM setup, we discuss the three main aspects necessary to understand the PFM, i.e. optical trapping, Brownian motion in an optical trap, and position detection. In the second part of the book, we describe some applications of the PFM: the measurement of plasmon radiation forces, the photonic torque microscope and the measurement of the torque produced by a vortex light beam, the measurement of the characteristics of microscopic ows, and some applications with trapped cells. 188 pp. Englisch.

Reviews

An extremely wonderful book with lucid and perfect information. It is one of the most awesome publication i have read. Your life period will probably be enhance the instant you total looking at this pdf.

-- ***Prof. Dan Windler MD***

It is really an amazing publication i actually have at any time read. It is really simplistic but unexpected situations inside the 50 percent of your pdf. Its been written in an exceptionally simple way in fact it is just right after i finished reading this ebook where actually transformed me, alter the way i really believe.

-- ***Dr. Celestino Spinka III***