

Laser Ultrasound

Profile and Objective

Laser Ultrasound is a modern non-destructive method for material testing. Especially it is suited for the investigation of solid surfaces. In our laboratory, we use this method to determine the elastic properties of thin films. In the framework of an international cooperation, we investigate new physical effects in connection with the propagation of guided acoustic waves.

+ Equipment

- Nd: YAG pulse laser (pulse energy: 2.5 mJ at wavelength 1064 nm)
- cw-laser and probe beam deflection setup*
- optical table, optical components and measurement equipment / electronic devices*
- hardware and software for automated SAW dispersion measurements*

*Transfer from Institute of Physical Chemistry, University of Heidelberg

+ Scientists Involved

- Dr. Alexey M. Lomonosov, General Physics Institute, RAS, Moscow, Russian Federation
- Dr. Pavel D. Pupyrev, General Physics Institute, RAS, Moscow, Russian Federation
- Dr. (VAK Moskau) Elena A. Mayer, Offenburg University
- Prof. Dr. Peter Hess, Institute for Physical Chemistry, University of Heidelberg
- Prof. Dr. Andreas P. Mayer, Offenburg University