

Spintronics is a fast developing branch of electronics, which uses for data storage and processing not only the electric charge of electrons, but also their spin. However, for a research of materials which can be used for a construction of spintronic devices it is necessary to use experimental methods that are able to achieve both high temporal and spatial resolutions. In Laboratory of Optospintronics at the Department of Chemical Physics and Optics there is currently developed a method based on Kerr microscope, which is expected to achieve a high spatial resolution and in a future also a high temporal resolution. The goal of this thesis is to characterize some parts of the experimental setup: Namely, a characterization of the laser speckle reducer LSR-3005-24D made by Optotune and a characterization of the piezo-driven mirror mount CONEX-AG-M100D made by Newport.