

With increasing complexity of devices utilizing magnetic properties of materials grows the need to characterize and further examine these properties. One of the possible ways to do this is utilizing of magneto-optical Kerr effect with Kerr microscope. In the theoretical part of this thesis is at first described response of the electromagnetic wave to the magnetic field in reflection on the ferromagnetic material and then explained the possibility of using the effect in measurements of the response. After that in experimental part is designed and constructed measuring system which is capable of measuring the response and this system is then tested on provided samples.