

Optical response of materials strongly depends on their magnetic properties. This phenomenon is also used in materials in the form of thin layers and multilayers. Using cited literature we summarize theory needed to calculate magneto-optical response of multilayers. The calculation is based on Maxwell equations and magnetic materials are described with effective permittivity tensor. Jones formalism is used to describe polarised light and Yeh formalism is used to describe multilayer response. A program using presented theory was developed and calculations for concrete structure were made. Multilayer parameters were chosen to correspond with those of a sample whose magneto-optical response was measured at the Department of Chemical Physics and Optics, MFF UK.