

Title: Experiments in optics for secondary school

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Abstract: Within the frame of this thesis has created 12 structured instruction for physical experiments in optics usable in secondary schools teaching. These experiments can be divided into chapters *Geometrical optics* and *Physical optics*. Crucial for the creation of this work was repeated testing of experiments to enrich the instructions of the technical notes and recommendations for the preparation and execution. All instructions will be gradually available on the electronic collection of physics experiments which is developed by Department of Physics Education FMP CU. The work also includes classification of experiments and a brief overview of the available materials, printed and electronic, which deal with physical experiments in optics.

Keywords: Physics experiment, electronic collection, geometrical optics, physical optics.