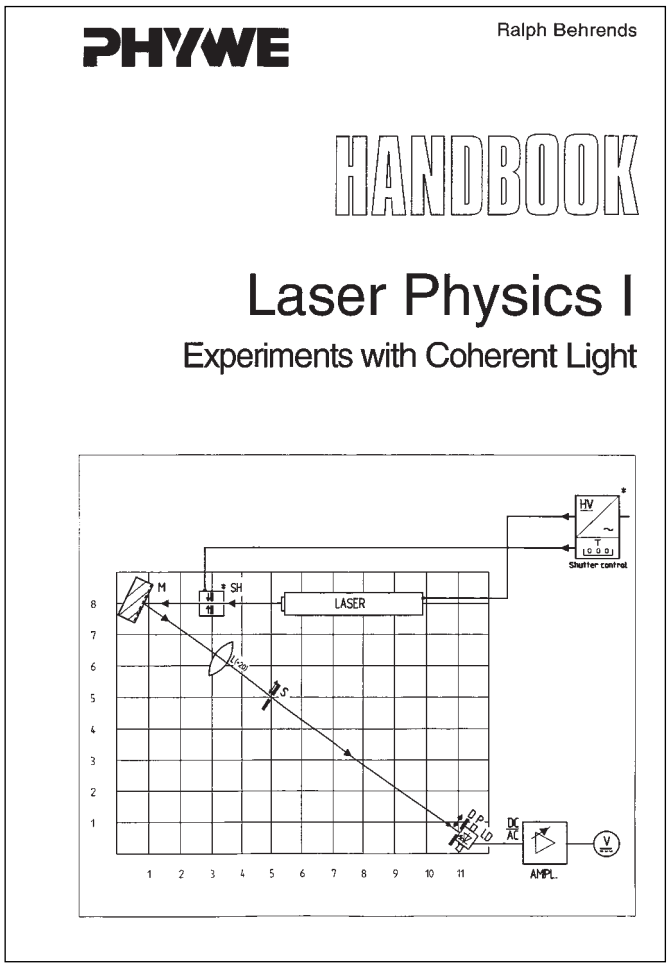


Experimental System Advanced Optics

This experimental system allows all important experiments in

- Geometrical optics
- Wave optics
- Holography
- Interferometry

to be performed.

All experiments are supported by corresponding handbooks, which contain detailed descriptions of experimental set-ups and procedures, as well as results of measurements.

By use of a base plate and magnetically held adjustment devices, which can be positioned jerkfree, 1 and 2 dimensional measuring set-ups with laser light sources can be quickly and dependably realized. By deflecting the light path, experiments with larger focal lengths can also be carried out on the base plate.

The high inherent stiffness and vibration damping of the base plate enables sensitive interferometer arrangements to be set up.

This handbook covers the basic experiments in the field of geometrical optics and wave optics.

This HANDBOOK can be purchased separately.
It contains the experiments listed below. Please ask for a complete equipment list. Ref No 22702

Handbook • Laser Physics I – Experiments with coherent light • No. 01179.02 • 16 described Experiments

LP 1.1 (12166)
Diffraction of light through a slit and at an edge.

LP 1.2 (12167)
Diffraction through a slit and Heisenberg's uncertainty principle.

LP 1.3 (12168)
Diffraction of light through a double slit or by a grid.

LP 1.4 (12169)
Diffraction of light through a slit and stripes, Babinet's theorem

LP 2.1 (12170)
Fresnel mirror and biprism

LP 2.2 (12171)
Michelson interferometer

LP 2.3 (12172)
Newton's rings

LP 3.1 (12173)
Fresnel's law, theory of reflection

LP 3.2 (12174)
Polarisation through $\lambda/4$ plates

LP 3.3 (12175)
Half shadow polarimeter, rotation of polarisation through an optically active medium

LP 3.3 (12176)
Kerr effect

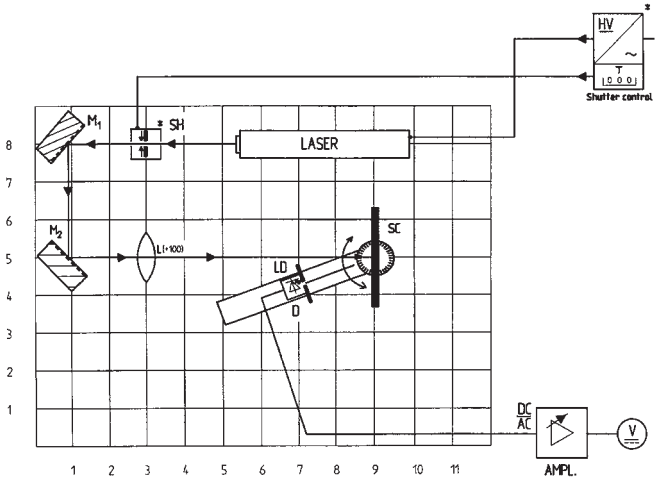
LP 3.5 (12177)
Faraday effect

LP 4.1 (12178)
Index of refraction *n* of a flint glass prism

LP 4.2 (12179)
Determination of the index of refraction of air with Michelson's interferometer

LP 4.3 (12180)
Determination of the index of refraction of CO_2 with Michelson's interferometer

LP 5.1 (12181)
Lambert's law of radiation



Experimental set-up for the qualitative verfication of Lambert's Law of radiation
(* only required for 5 mW laser)