

PHYWE

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HANDBOOK

Laser Physics III Interferometry



01401.02

**Handbook • Laser Physics III – Experiments with
coherent light – Interferometry • No. 01401.02
17 described Experiments**

- LPI 1 (13066)**
Michelson Interferometer
- LPI 2 (13067)**
Michelson Interferometer –
High Resolution
- LPI 3 (13068)**
Mach - Zehnder Interfero-
meter
- LPI 4 (13069)**
Sagnac Interferometer
- LPI 5 (13070)**
Doppler Effect with
Michelson Interferometer
- LPI 6 (13071)**
Magnetostriction with
Michelson interferometer
- LPI 7 (13072)**
Thermal Expansion of Solids
with Michelson Interferometer
- LPI 8 (13073)**
Refraction Index of CO₂-Gas
with Michelson Interferometer

- LPI 9 (13074)**
Refraction Index of Air with
Michelson Interferometer
- LPI 10 (13075)**
Refraction Index of Air with
Mach - Zehnder Interfero-
meter
- LPI 11 (13076)**
Refraction Index of of CO₂-
Gas with Mach -
Zehnder Interferometer
- LPI 12 (13077)**
Fabry - Perot Interferometer
– Determination of the
Wavelength of Laserlight
- LPI 13 (13078)**
Fabry - Perot Interferometer
– Optical Resonator Modes
- LPI 14 (22611)**
Fourier Optics –
2 f Arrangement

Experimental System Advanced Optics

This experimental system allows all important experiments in

- Geometrical optics
- Wave optics
- Holography
- Interferometry

to be performed.

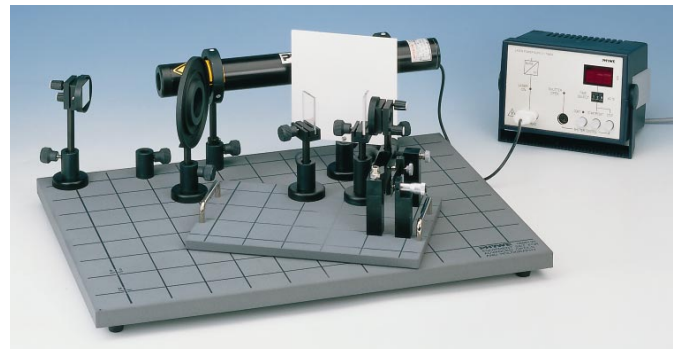
All experiments are supported by corresponding handbooks, which contain detailed descriptions of experimental set-ups and procedures, as well as results of measurements.

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 specially covers interferometer experiments.

**This HANDBOOK can be purchased separately.
It contains the experiments listed below. Please ask
for a complete equipment list. Ref No 22704**



Michelson Interferometer – High Resolution (LPI 2)

- LPI 15 (22612)**
Fourier Optics –
4 f Arrangement, Filtering
and Reconstruction
- LPI 16 (13079)**
Optical Determination of the
Velocity of Ultrasound in

Liquids – Phase Modulation
of Laserlight by Ultrasonic
Waves

LPI 17 (22605)
LDA – Laser Doppler
Anemometry

