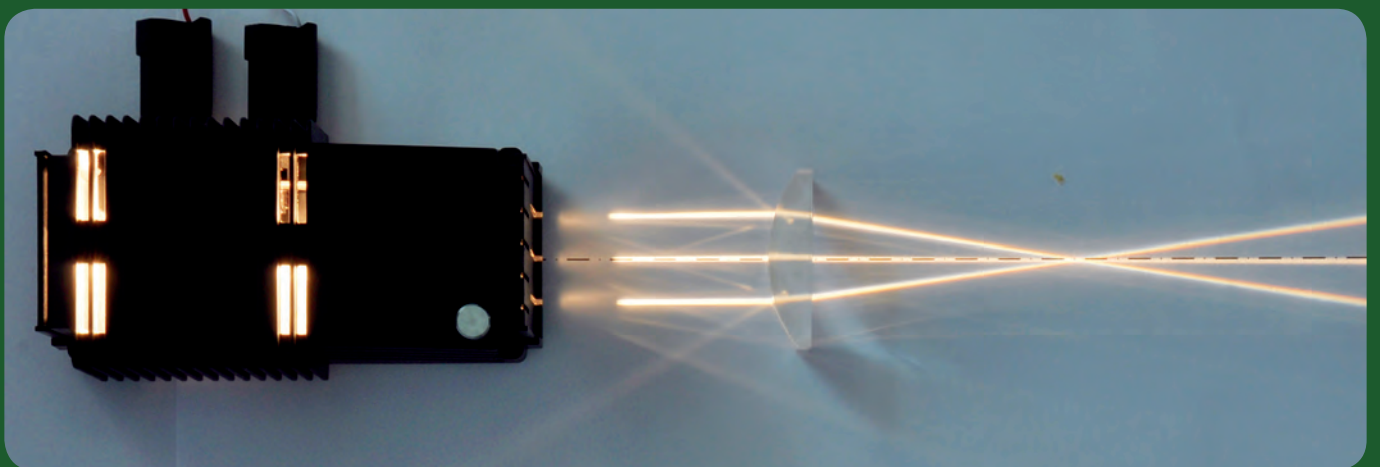


Student Experiments

Manual

OPTICS 1

P9160-5G



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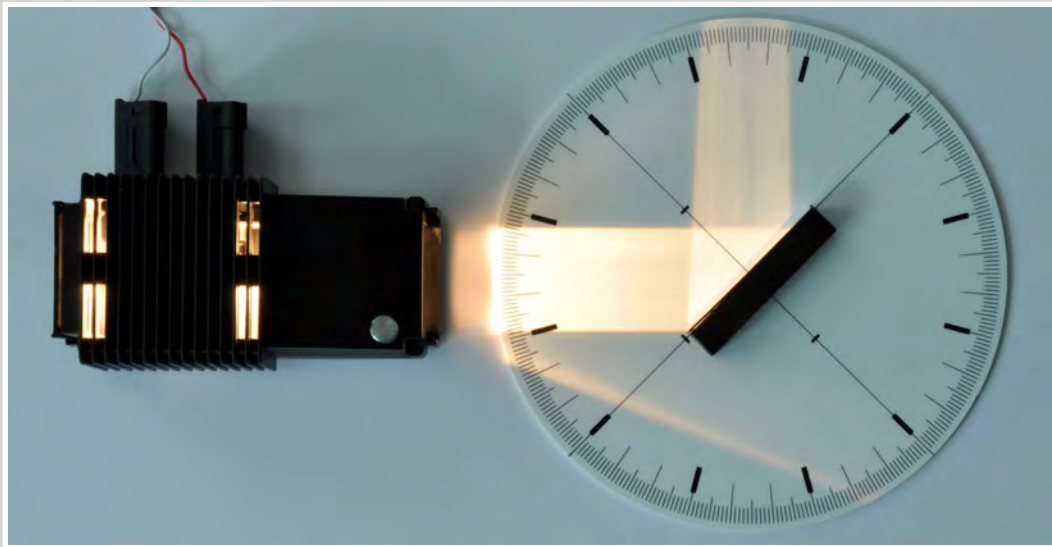
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Required Kit:
P9901-4L Optics 1



Material:
1x Light source
1x Optical disk
1x Mirror plane
1x Shutter with 1 and 2 slits

Additionally required:
Connecting cables
Power supply



Preparation:

The optical disk is put in front of the experimental lamp. It is used with the rectangular light opening. For this experiment parallel light is used. For parallel light the implanted lens is turned into the ray of light. The plane mirror on block is put on the optical disk along the system of coordinates in such a way that the mirror is placed in front of the line just for the width of the glass.

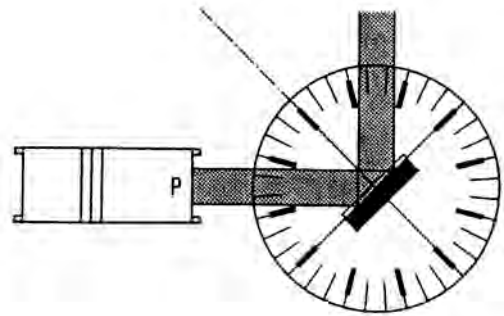
1st Experiment:



The parallel luminous beam strikes the mirror and is reflected in itself.

The lamp is rotated along the optical disk (center of this rotation is the system of coordinates), so that the light strikes the mirror in an oblique way.

It is to be noted that the reflected light forms a parallel luminous beam as well.



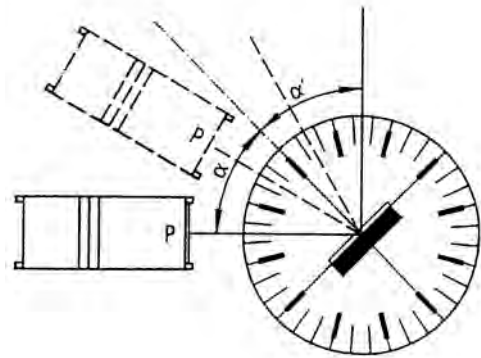
2nd Experiment:



The single slit is mounted on the experimental lamp.

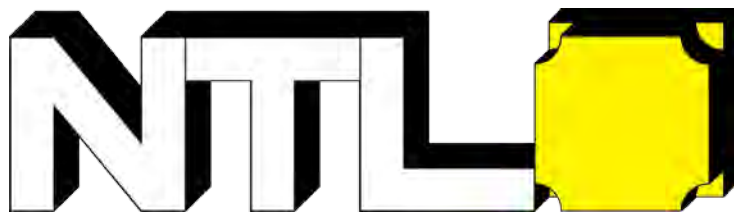
The luminous beam is directed exactly to the center of the optical disk.

The angle of incidence (metered against the vertical!) and the angle of reflection are metered and the measuring is repeated for different angles of incidence.



Conclusions:

1. A parallel beam of light is also reflected as a parallel beam of light.
2. The angle of reflection equals the angle of incidence.



Student Experiments

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