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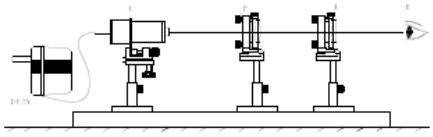
UO-06 Experimental system for polarized light

- √ Polarization of light due to reflection at a glass plate.
- √ Fresnel's law of reflection
- √ Polarization of light due to scattering
- √ Malu's law
- √ Brewster angle of sample
- √ Photo elasticity (option)

Compared with other important properties of light such as interference and diffraction, polarization is more abstract and relatively hard to understand. Without special equipment, human eyes or even optical detectors cannot recognize polarization phenomena.
Two systems have been developed to help students grasp the concept and mechanism of polarization. Both allows the student to measure different types of polarization and the working parameters of the optical elements involved.
The systems are also designed to be operated manually and can improve students' hands-on ability and consolidate the knowledge and skills they have learned. Experiment results collected can be graphed to schematically illustrate the theory on polarization. Students should acquire a fundamental understanding of polarisation and learn to explain the mechanism involved in polarization elements.



Observation of the intensity variation of a transmitted light

UO-06 Experimental system for polarized light consists of:

Items	Experimental system for polarized light .	Qty
1	100 cm optical rail	1
2	Carriage	5
3	Post holder	3
4	Polarizer/Analyzer set	1
5	Diode laser on post with power supply	1
6	Rotating table with sample holder	1
7	Photodiode on post	1
8	Multimeter with leads	1
9	Screen with base	1
	Options	1
1	Incandescent lamp with housing	1
2	Plastic samples for photo elasticity	3
3	He-Ne Laser 1-2 mW with power supply	1
4	He-Ne Laser holder	1