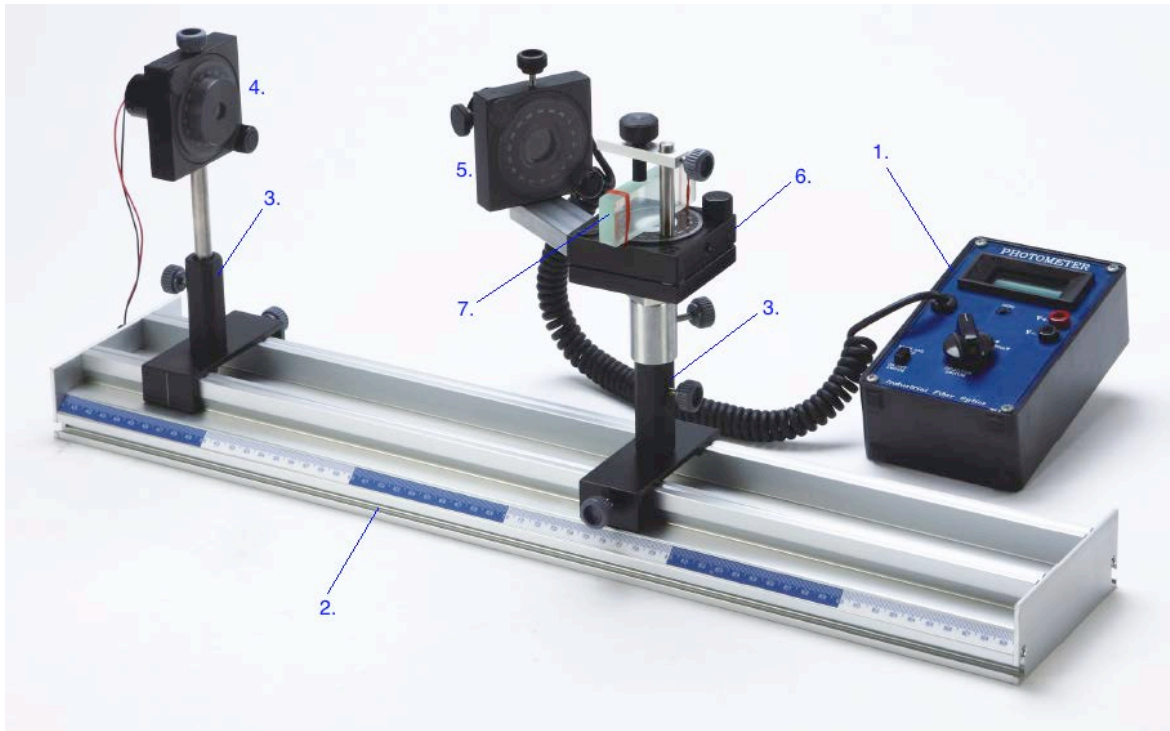


## F21 Polarization of Light



## F21 Polarization of Light

### **Experiments:**

1. Malus' Law of Polarization
2. Brewster's angle

### **Specification:**

#### 1. laser power meter

1-1. Optical sensor : Si photodiode ( $\Phi$  9mm)

1-2. Wavelength range: 400nm~1100nm

1-3. Wavelength: 633nm(He-Ne laser) reference wavelength

Convert by a table of spectral

1-4. Display: Numeric 3999 full scale, Bargraph: 42-segment

1-5. Sampling rate: Digital display Approx. 2 times/sec. Bar graph display

Approx. 20 times/sec.

1-6.Measuring range: (0.01 $\mu$ W -39.99mW)      40.00 $\mu$ W/400.0 $\mu$ W/4.000mW/40.00mW

1-7.Max / Min hold

1-8.Auto power save (30min.)

1-9.Accuracy:  $\pm 5\%$ (1mW: 4mW range 633nm) 23°C $\pm 2^\circ$ C

1-10.Battery: SR-44 or LR-44x2

1-11.Size/weight: 117x76x18mm / 120g

2. Aluminum experimental platform x1

Aluminum alloy, a 3 D biconvex guide track ,on the top surface, is fastened by U-shaped clips at below and both sides, one of which is adhered to an meter of inclination of 45-degree. And the type of three-point level-supporter of the size 60 x12x4.5cm, at both ends, is subjected.

3. Alum. slide x2

4. Diode laser and polarizer in a stage x1

4-1. Light source: Diode laser 1mW/650nm Red.

4-2. Alum. rotary position stage with stainless rod. X1

It offers a  $\Phi 70$ mm stage smooth continuous adjustment over a full 360° travel range. It could be drive at exact singular position and lock in place. It can be mounted in a horizontal or vertical position.

Laser fixed in a collimator with 6 screws to do alignment.

Size, 65x65x65mm

5.Analyzing polarizer in a stage with a rotary arm. X1

Alum. rotary position stage with stainless rod. X1

It offers a  $\Phi 70$ mm stage smooth continuous adjustment over a full 360° travel range.

It could be drive at exact singular position and lock in place. It can be mounted in a horizontal or vertical position. Sixe 65x65x17mm

6, Heavy load capacity rotary position stage x1

Alum. rotary position stage with stainless rod. X1

It offers a  $\Phi 70$ mm stage smooth continuous adjustment over a full 360° travel range.

It could be drive at exact singular position and lock in place. It can be mounted in a horizontal or vertical position. Include a prism holder, Size 65x65x80mm

7. Glass slide x1

