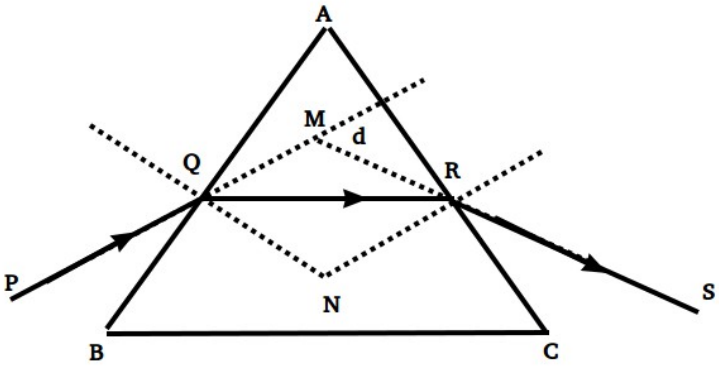
Experiment No: Date:

Refraction through a Prism

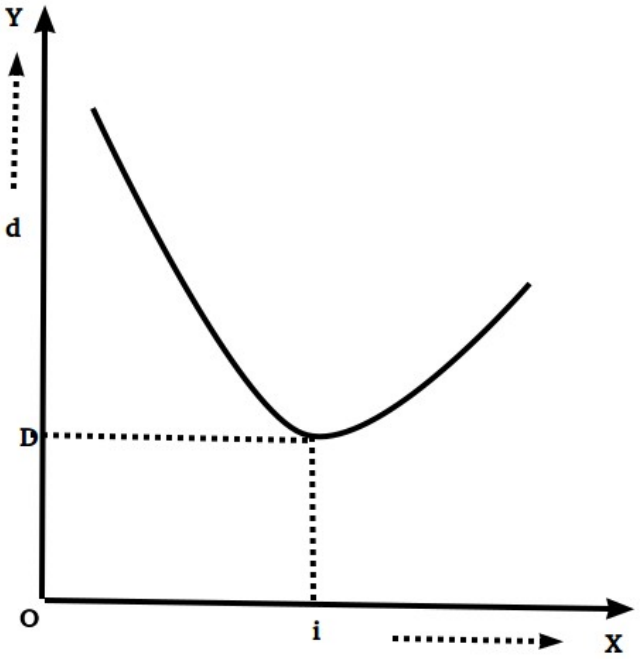
Aim:

1. To study the variation of the angle of deviation (d) with an angle of incidence (i) and to find the angle of minimum deviation from the I-d curve.
2. To find the refractive index of the material of the prism



Apparatus:

Glass Prism, Drawing board, Protractor, etc



Theory:

The refractive index of the material of the prism

$$n = \frac{\sin\frac{(A+B)}{2}}{\sin\frac{A}{2}}$$

Where A is the angle of the prism and D is the angle of minimum deviation. The angle of minimum deviation can be found from the I-d curve.

Observations:

Sl No	Angle of Incidence (i)	Angle of deviation (d)
1	35	
2	40	
3	45	
4	50	
5	55	
6	60	

Calculations:

From the graph D = degree

Refractive index $n = \frac{\sin\frac{(A+B)}{2}}{\sin\frac{A}{2}}$ =

=

Result: Refractive index of the material of the Prism =