

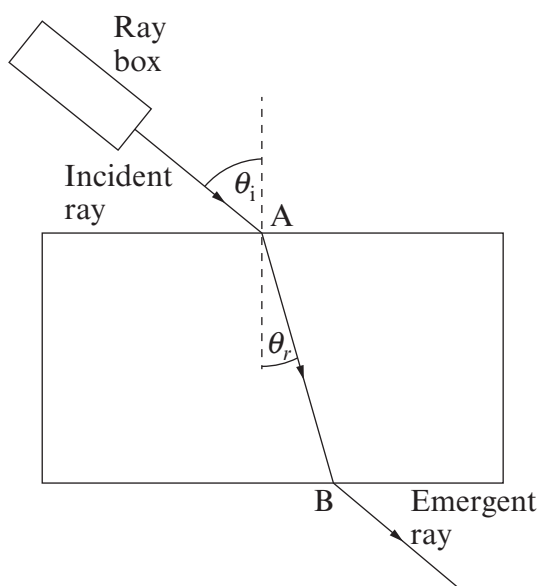
Task A2 (15 minutes)

In this task you are going to measure the refractive index of glass.

The refractive index, n of glass is given by the equation

$$n = \frac{\sin \theta_i}{\sin \theta_r}$$

where n = refractive index, θ_i is the angle of incidence and θ_r is the angle of refraction as shown for the following arrangement.



The angle of refraction, θ_r , can be measured by first drawing in the line AB joining incident and emergent rays.

- (a) Using the apparatus, measure the angle of refraction and calculate a value for the refractive index for an angle of incidence of 30° using the above equation. **Repeat readings are not required.** [2]

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