

Index of Refraction Lab

Purpose: To determine the index of refraction of a glass block using Snell's Law $n = \frac{\sin i}{\sin r}$

Procedure:

1. Get materials, ruler, protractor, pins, cardboard, paper, glass block.
2. Pin paper down and trace block (center of paper)
3. Draw a perpendicular line to the edge of the block (bisector)
4. Place a pin on the perpendicular line next to the block, place another pin between the angles of 10-45 degrees (start with small angles)
5. Place a 3rd pin next to the block on the opposite side in line with the image of the 1st 2 pins
6. Remove the block, trace and draw the lines made by the pins.
7. Repeat for 5 trials
8. Measure the angles of incidence and angles of refraction. Record in data table.
9. Calculate "n" using snell's law. Record in data table.
10. Find the average "n" for your glass block.

Error Analysis

Conclusion