

# Re: Ways of measuring refractive index of liquid

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- *From:* "OG" <[owen@xxxxxxxxxxxxxxxxxxxx](mailto:owen@xxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Tue, 19 Sep 2006 22:38:12 +0100
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"Panther" <[black@xxxxxxx](mailto:black@xxxxxxx)> wrote in message  
[news:pqadnYcdb6XCYPLYnZ2dnUVZ8t2dnZ2d@xxxxxxx](mailto:news:pqadnYcdb6XCYPLYnZ2dnUVZ8t2dnZ2d@xxxxxxx)

"Sam Wormley" <[swormley1@xxxxxxx](mailto:swormley1@xxxxxxx)> wrote in message  
[news:EpSPg.976763\\$084.303493@xxxxxxx](mailto:news:EpSPg.976763$084.303493@xxxxxxx)

Panther wrote:

hi

I need to find an accurate, inexpensive way of measuring the refractive index of a liquid in a high school lab.

my teacher suggests using a convex lens in water with a mirror and a pin, how does this work? what is it called?

PLEASE HELP.

Sounds overly complex. How about a Laser pointer entering a flat fish tank?

Measure incident angle and refracted angle with a ruler and protractor confirming Snell's law

A little vapor to scatter the beam above water and, similarly, a slight amount of milk in the water.

That sounds too simple, I have to make a 20 page report on it, so something harder is needed. Thanks though.

Please don't top post.

## Re: Ways of measuring refractive index of liquid

Using the equipment suggested by your teacher . . .

Using a convex lens and a mirror in air you can measure the focal length of the lens

You can repeat the measurement in water and then in the liquid.

Assume that the refractive index of air is 1

The refractive index of water is around 1.33 – this is temperature dependent, which will add to the experimental rigour

Using results in Air and in Water, you should have enough to work with.