

# Young's experiment question

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  - *Date:* 4 May 2005 16:48:37 -0700
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Hy!

I have a problem with one question about Young's experiment.  
I'm aware this is not really appropriate place to ask but I'm in a hurry  
so if anybody knows help me!

Don't know how to solve this :

In Young's experiment with 2 slits and monochromatic light  
(  $L=500\text{nm}$  )we have result with many maximums.  
In same experiment we put a thin transparent material (with  $n=1.6$  )  
behind one slit. Then zero maximum is at the same place where 15th  
maximum in 1st experiment was.  
Find the thickness of transparent material.

Now, I know this material somehow changes the waves that go through  
but i don't know how – is the phase different ?  
Or this material just translates the wave?  
If so, for given angle I can calculate the translation, but what angle?  
Please help!

[wellboy2@xxxxxx](mailto:wellboy2@xxxxxx)

Michael  
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- *Follow-Ups:*
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◇ *From:* Sam Goldwasser
  - ◆ **[Re: Young's experiment question](#)**  
◇ *From:* Leonard Migliore
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