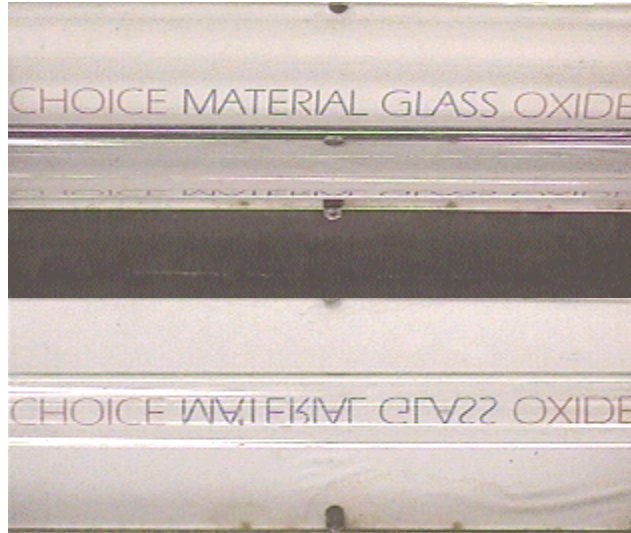


Question #12

The words "CHOICE MATERIAL GLASS OXIDE" are printed in block letters, with "CHOICE" and "OXIDE" in *red* and "MATERIAL GLASS" in *blue*. These words are photographed in the top half of the figure below. When the words are photographed through a glass rod immediately in front of them their appearance changes somewhat, as can be seen in the bottom half of the figure. (The top photograph is a view looking over the glass rod at the letters.)



The question is what is responsible for this rather unusual phenomenon?

- (a) The dispersive effect of the difference in color causes the focusing properties of the rod to be different from red to blue.
- (b) The rod might be different between the red and the blue letters, causing the focusing to change.
- (c) Polarization may play an important role in causing differences in internal reflectivity that lead to different focal properties.
- (d) Other.

Click here for [Answer #12](#) after May 15, 2000.

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For questions and comments regarding the *Question of the Week* contact [Dr. Richard E. Berg](#) by e-mail or using phone number or regular mail address

given on the [Lecture-Demonstration Home Page](#).