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Comments on Lab 2: CE122L.001-F2011

1 message

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Thu, Oct 6, 2011 at 10:12 AM

Hi Class,

Here are my comments on Lab 2.

1. Most of you correctly answered that viscosity decreases with an increase in temperature for liquids while the opposite is true for gases. However, to complete this question, you should have shown equations that support your description. The appropriate equations may be found in Chapter 1 of your textbook.
2. A few of you made the mistake of averaging the viscosity values you obtained for two different temperatures. Since viscosity varies nonlinearly with temperature, this is not a valid average to take.
3. Similar to my "see MATLAB code" comment, remember that appendices are not always your friends. Even if you have attachments with extended calculations, you should have the equations you use in the body of your report. This mainly applied to the sensitivity and error analyses in this report. Also, don't forget to do a sensitivity analysis!
4. The best lab reports used all of the class data (without the outliers), plotting viscosity vs. temperature. This exercise allowed them to get a best-fit curve and have a viscosity value at the temperature needed to compare to known values.
5. The most common guess at the material was glycerin/glycerol. Given the information you had, this was indeed the best guess. The actual fluid was a 1000 centistoke Dow Corning 200 Fluid.

Let me know if you have any questions regarding these comments or other parts of your reports once you get them back.

Cheers,
Tiffany
