

Instructions for the use of Bausch and Lomb Spec-20

Done by TAs:

- 1. Check that the instrument is plugged in.
- 2. Rotate the light control knob counter clockwise. This will avoid the possibility of blowing the phototube if the intensity is set too high.
- 3. Set the wavelength using the wavelength control knob.
- 4. Turn the power control knob clockwise sufficiently to turn on the instrument and to move the needle to the right of 0%T. The pilot lamp will light. Allow the instrument to warm up for at least 20 minutes before use.

Done by Students:

- 5. With the sample compartment (sample holder) empty and closed, adjust the power / zero control knob until the needle reads infinite absorbance ($A = \infty$, 0% T) on the scale.
- 6. Open the sample compartment and place a Spec-20 cuvette containing the blank, into the sample holder. When inserting any cuvette, make certain that the outside of the tube is clean, free of fingerprints, dust and drips. Align the reference mark on the cuvette with the line on the sample holder. After the cuvette is in the holder, close the lid.
- 7. Rotate the light control knob until the needle reads 0.000 absorbance (A = 0, 100% T).
- 8. Open the sample-compartment lid, remove the "blank" cuvette and replace it with the first "experimental" sample (follow all the precautions outlined in step #6), close the lid, and read the absorbance of the tube. Repeat with all "experimental" samples.