

PHYSICS
MINI-LAB: WAVELENGTH OF LIGHT
USING A DIFFRACTION GRATING

NAME _____
DATE _____ PERIOD _____

1. Note that the number of lines per inch is printed on the diffraction grating. Use this information to calculate the spacing between lines, in meters.

2. Use the method employed in the "Wavelength of Red Light" lab to determine the wavelength of **yellow** light, using an unfiltered filament.

3. Check your result in the Handbook of Chemistry and Physics (page will be marked or pre-identified in some way). The accepted value is given in Angstroms; 1 Angstrom = 10^{-10} meters. Show a unit analysis conversion of the accepted value from Angstroms to meters.

4. Express both the experimental and accepted values in nanometers. Show unit analysis conversions for each.

5. Calculate a percent error between your value and the accepted value.