

A	B	C	D	E	F	G	H
n	$1/n^2$	λ (nm)	$\Delta\lambda$ (nm)	$1/\lambda$ (cm^{-1})	$\Delta(1/\lambda)$ (cm^{-1})	λ_{calc} (nm)	residual
3		659.5	5.0				
4		483.2	4.0				
5		434.9	3.0				
6		407.1	2.0				
7		398.1	1.0				
8		389.6	0.5				
9		384.1	0.2				
10		379.6	0.2				
where $\Delta(1/\lambda)$ (cm^{-1}) is the uncertainty in the wavenumber $1/\lambda$ (note that these are in cm^{-1});							
λ_{calc} (nm) is the value calculated using the least squares result for R_H ;							
and the residual is the value of column C minus column G.							
Don't forget to round the values in column E consistent with column F.							
Have the spread sheet plot column E versus column B.							
Obtain the intercept and slope and their standard errors (these are the ones which only account for the scatter).							
On the plot you must draw in by hand the error bars and the least-squares fit line (EXCEL's drawing tool box can do this).							
Using the error bars and the scatter, draw in the high and low limiting slope lines as discussed in the lab lecture on error analysis.							
Finally, in a results legend on your graph, report the experimental value of $R_H \pm \Delta R_H$							
Compare it to the literature value in Handout H (where it's called the calculated value).							