

methanol,ammonia,water.xlsx

"Viscosity"

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart Insert Sparklines Data Chart Quick Layouts Chart Styles

Column Line Pie Bar Scatter Other Line Column Win/Loss Select Switch Plot

1R x 2C fx 649.8933

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	IR spectra of Methanol		IR spectra of NH3				IR spectra of H2O									
2	Wave Number	%Transmittance	Wave Number	%Transmittance	Wave Number	%Transmittance										
3	(cm ⁻¹)		(cm ⁻¹)		(cm ⁻¹)											
4	649.8933	67.01316	649.8933	36.14643	649.8933	33.30706										
5	651.8218	67.20155	651.8218	35.68167	651.8218	32.91391										
6	653.7502	67.07855	653.7502	35.0081	653.7502	32.95427										
7	655.6787	67.00452	655.6787	34.87323	655.6787	33.43892										
8	657.6072	67.44474	657.6072	35.5428	657.6072	33.79055										
9	659.5356	68.46865	659.5356	36.46855	659.5356	34.16638										
10	661.4641	69.66104	661.4641	37.2854	661.4641	35.02722										
11	663.3926	70.20745	663.3926	37.96226	663.3926	35.9567										
12	665.321	69.54869	665.321	38.05239	665.321	36.28067										
13	667.2495	68.29515	667.2495	37.12171	667.2495	35.95652										
14	669.178	68.37101	669.178	36.49408	669.178	35.51315										
15	671.1064	69.65686	671.1064	37.40126	671.1064	35.45639										
16	673.0349	70.58659	673.0349	38.66124	673.0349	35.92218										
17	674.9634	70.87532	674.9634	39.29173	674.9634	36.86336										
18	676.8918	70.84436	676.8918	39.20654	676.8918	37.78823										
19	678.8203	70.871	678.8203	38.76209	678.8203	38.32168										
20	680.7488	71.27828	680.7488	38.41033	680.7488	38.58323										
21	682.6772	71.77254	682.6772	38.43829	682.6772	38.49179										
22	684.6057	71.6698	684.6057	38.65821	684.6057	37.97049										
23	686.5342	71.12164	686.5342	38.71103	686.5342	37.59151										
24	688.4626	70.94073	688.4626	38.66319	688.4626	37.75473										
25	690.3911	71.1296	690.3911	38.856	690.3911	38.01763										
26	692.3196	71.26601	692.3196	39.5373	692.3196	38.08606										
27	694.248	71.71612	694.248	40.58514	694.248	38.3717										
28	696.1765	72.8077	696.1765	41.43882	696.1765	39.08917										
29	698.105	73.81134	698.105	41.67833	698.105	39.92738										
30	700.0334	73.88645	700.0334	41.57518	700.0334	40.52301										
31	701.9619	73.24559	701.9619	41.24701	701.9619	40.7065										
32	703.8904	72.75173	703.8904	40.32998	703.8904	40.54541										
33	705.8188	72.94682	705.8188	39.23542	705.8188	40.33952										
34	707.7473	73.69662	707.7473	39.08671	707.7473	40.30997										
35	709.6758	74.46078	709.6758	39.95293	709.6758	40.51417										
36	711.6042	74.99014	711.6042	40.77699	711.6042	40.98202										
37	713.5327	75.40279	713.5327	41.20399	713.5327	41.58019										
38	715.4612	75.69688	715.4612	41.62602	715.4612	41.9772										
39	717.3896	75.81773	717.3896	42.06058	717.3896	42.13819										
40	719.3181	75.96279	719.3181	42.22618	719.3181	42.31057										

Given that you have over 1700 cells to highlight, let's do this efficiently fast. Start off by highlighting cells A4 and B4. While holding your "shift" key down, start tapping your "page down" key until you come to the very end of your data. You may have to use "arrow up" and "arrow down" keys to get it just right.

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"Viscosity"

Home		Layout		Tables		Charts		SmartArt		Formulas		Data		Review		
Column		Line		Pie		Bar		Scatter		Other		Line		Column		
A4		fx	649.8933													
1729	3976.499	99.7333		C	3976.499	95.7042		G	3976.499	93.59081		I		K		P
1730	3978.427	99.91518		D	3978.427	95.93288		H	3978.427	93.96142		J		L		M
1731	3980.355	100.0621		E	3980.355	95.99547			3980.355	94.12388			N		O	
1732	3982.284	100.0682		F	3982.284	95.96716			3982.284	94.00041						
1733	3984.212	100.0089		G	3984.212	95.96755			3984.212	93.87384						
1734	3986.141	100.1171		H	3986.141	96.04241			3986.141	93.98124						
1735	3988.069	100.3245		I	3988.069	96.06537			3988.069	94.12489						
1736	3989.998	100.2875		J	3989.998	95.89175			3989.998	93.99498						
1737	3991.926	100.0094		K	3991.926	95.6671			3991.926	93.70237						
1738	3993.855	99.79739		L	3993.855	95.63886			3993.855	93.52911						
1739	3995.783	99.73777		M	3995.783	95.80522			3995.783	93.51778						
1740	3997.712	99.7228		N	3997.712	95.99582			3997.712	93.57735						
1741	3999.64	99.76505		O	3999.64	96.13982			3999.64	93.66138						
1742																
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If you've done it correctly you should end up at the bottom of your data columns as shown here. If not, try again.

A4

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Insert Chart Insert Sparklines Data Chart Quick Layouts Chart Styles

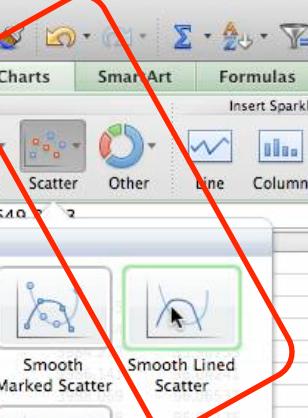
Column Line Pie Bar Area Scatter Other Line Column Win/Loss Select Switch Plot

Scatter

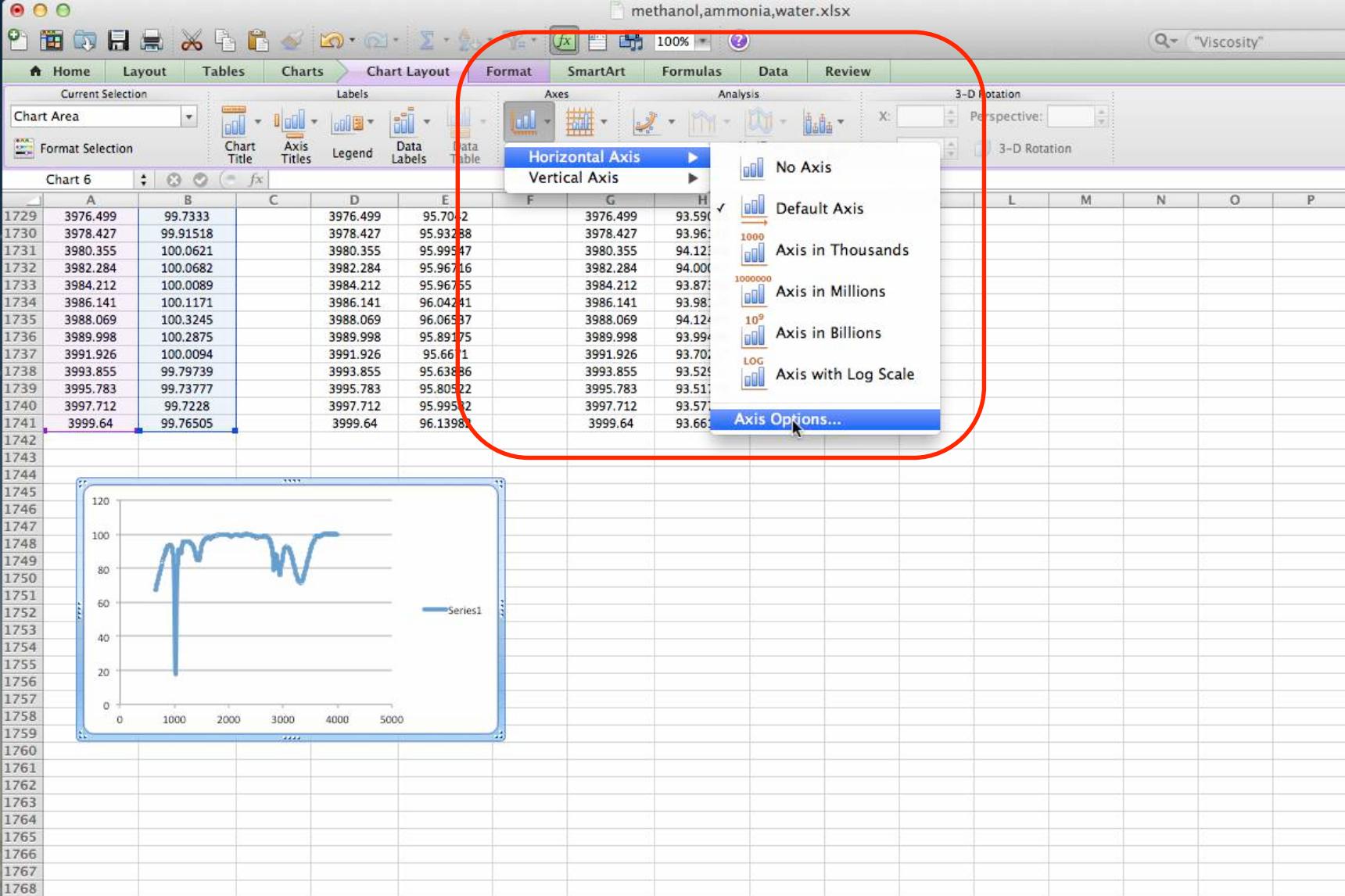
Marked Scatter Smooth Marked Scatter Smooth Lined Scatter

Straight Marked Scatter Straight Lined Scatter

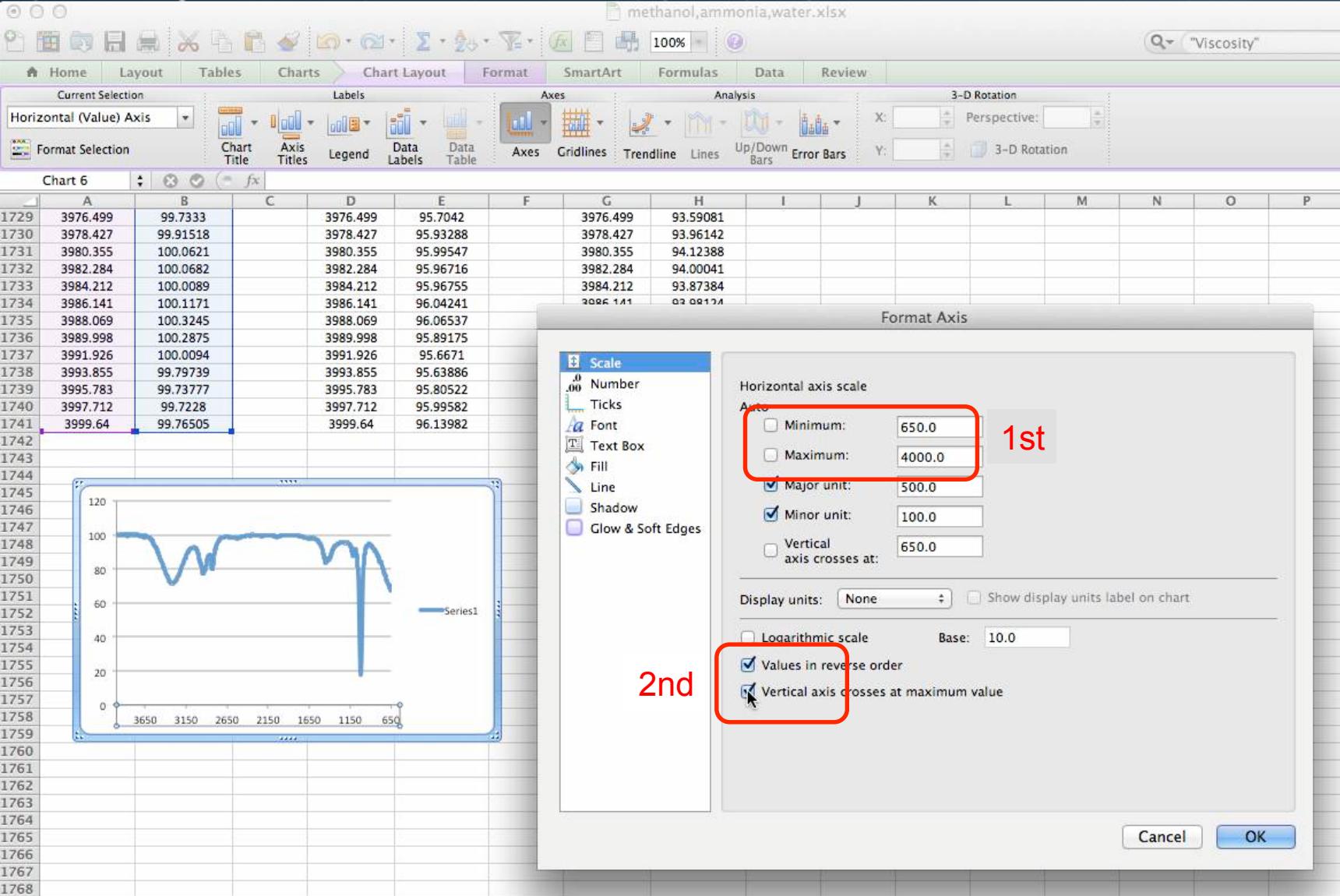
	F	G	H	I	J	K	L	M	N	O	P
1729	3976.499	93.59081									
1730	3978.427	93.96142									
1731	3980.355	94.12388									
1732	3982.284	94.00041									
1733	3984.212	93.87384									
1734	3986.141	93.98124									
1735	3988.069	94.12489									
1736	3989.998	93.99498									
1737	3991.926	93.70237									
1738	3993.855	93.52911									
1739	3995.783	93.51778									
1740	3997.712	93.57735									
1741	3999.64	93.66138									
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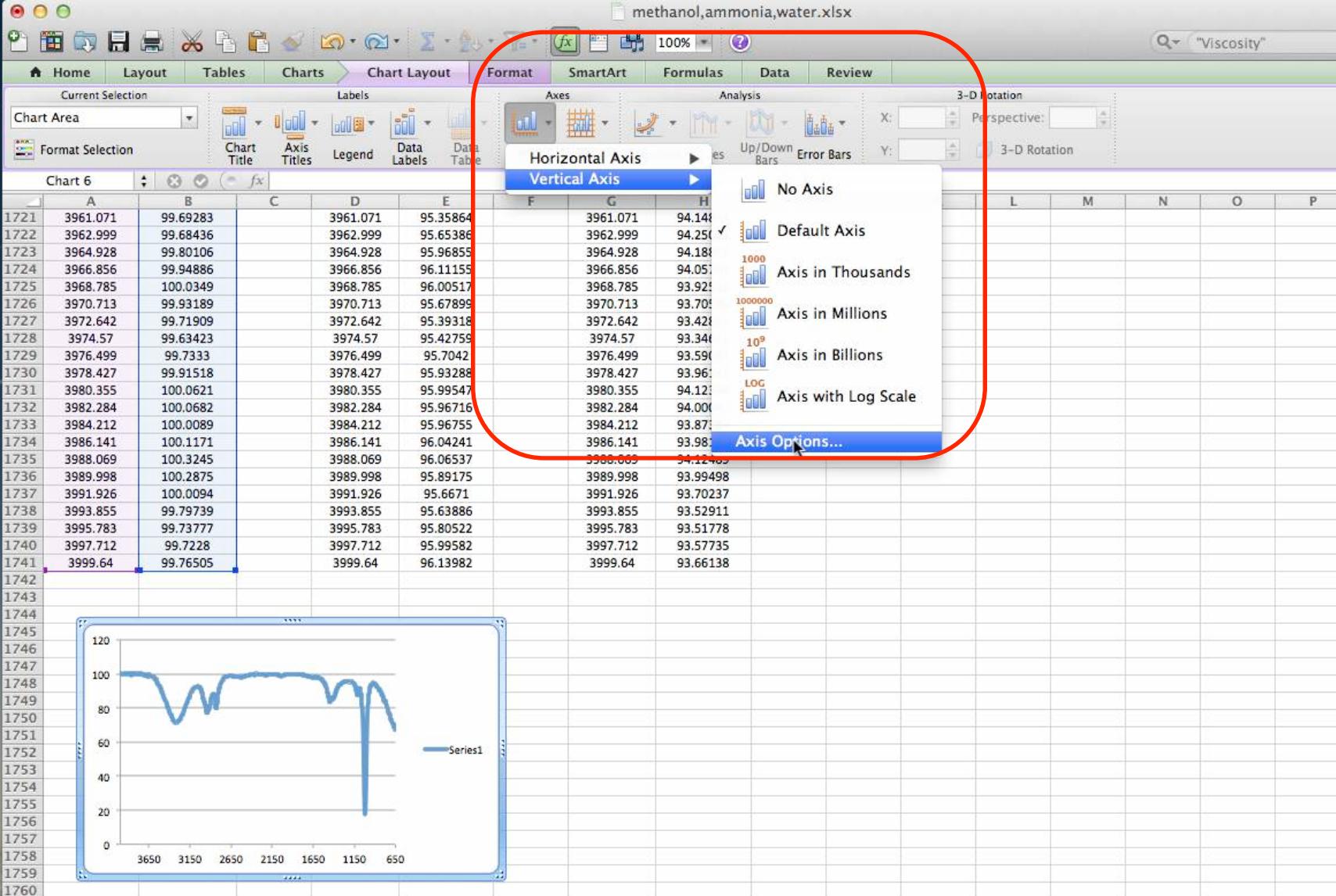
Insert a “Scatter” plot except in this case use the “Smooth Lined Scatter”. The next gallery will show you the wisdom of choosing this style versus “Marked Scatter”.



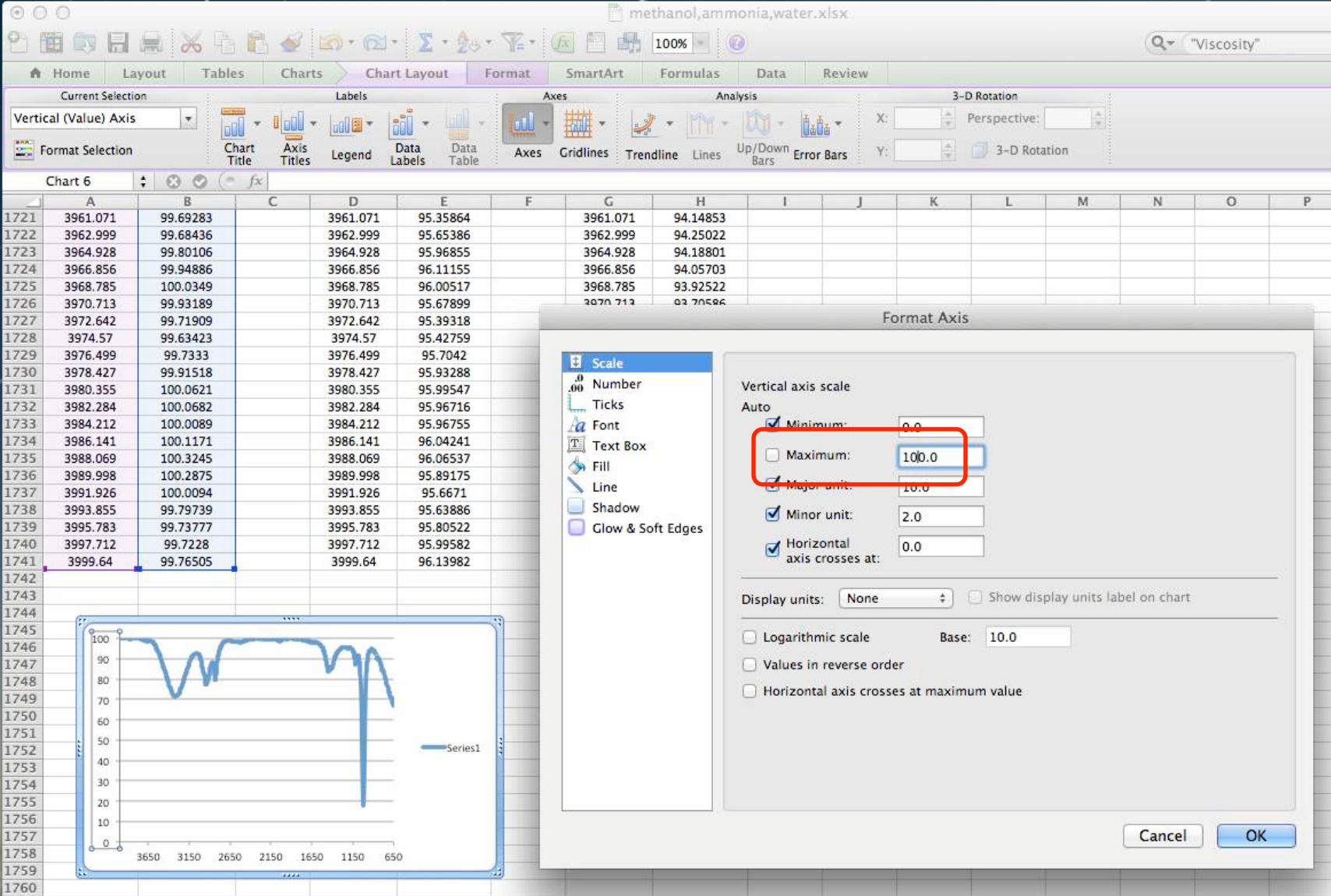
Smooth Line!!! Much better than 1700+ markers. Let's trim and reverse the x-axis. Under the "Chart Layout" thumbnail, find "Axes" drop down menu. Go to "Horizontal Axis" and then to "Axis Options...".



Looking at your x-data, the smallest value is about 650 and your maximum is about 4000. Make sure you have "Scale" highlighted. Type these in. Then put check marks in both the "values in reverse order" and "vertical axis crosses at maximum value". Notice how your plot changes. By tradition, IR Spectra are numbered from biggest wave number to smallest wave number.



Now trim the y-axis by going to the “Chart Layout” thumbnail. Find “Axes” drop down menu, then “Vertical Axis”, then “Axis Options...”.



Looking at our y-data, the maximum is about 100%. Make sure you have "Scale" highlighted, change the maximum to 100.