

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1																			
2			Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5											
3			Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000										
4	Group 1:		Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8										
5	Efflux time vs MW		Trial 2 (sec)	157.8	168.7	177.1	185.1	205.3	239.3										
6			Trial 3 (sec)	157	168.9	177	185	202.5	243.5										
7																			
8																			
9																			
10																			
11	Group 2:		Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22										
12	Efflux time vs MW		Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74										
13			Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7										
14																			
15																			
16																			
17																			
18	Group 3:		Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4										
19	Efflux time vs MW		Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2										
20			Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5										
21																			
22																			
23																			
24																			
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37																			
38																			

Highlight the cells for Group 1 - Molecular Weights & Trial 1

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart: Column, Line, Pie, Bar, Area, Scatter, Other

Insert Sparklines: Line, Column, Win/Loss

Data: Select, Switch Plot

Chart Quick Layouts

Chart Styles

Scatter

- Marked Scatter
- Smooth Marked Scatter
- Smooth Lined Scatter
- Straight Marked Scatter
- Straight Lined Scatter

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
1																				
2																				
3			Molecular Weight (g/mol)					polymer 4												
4	Group 1:	Trial 1 (sec)						50,000												
5	Efflux time vs MW	Trial 2 (sec)						205.3												
6		Trial 3 (sec)						203.5												
7								202.5												
8																				
9																				
10																				
11	Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22												
12	Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74												
13		Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7												
14																				
15																				
16																				
17																				
18	Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4												
19	Efflux time vs MW	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2												
20		Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5												
21																				
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Insert a Marked Scatter Plot

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts Chart Layout Format SmartArt Formulas Data Review

Change Series Chart Type: Column, Line, Pie, Bar, Area, Scatter, Other

Insert Sparklines: Line, Column, Win/Loss

Data: Select, Switch, Plot

Chart Quick Layouts

Chart Styles

D3 3000

Change the chart data range

		Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5
	Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000
Group 1: Efflux time vs MW	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8
	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5
	Trial 3 (sec)	157	168.9	177	185	202.5	243.5
Group 2: Efflux time vs MW	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22
	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74
	Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7
Group 3: Efflux time vs MW	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4
	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2
	Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5

Select Data Source

Chart data range: =Sheet1!\$D\$3:\$H\$4

Switch Row/Column

Series Name: []

X values: =Sheet1!\$D\$3:\$H\$3

Y values: =Sheet1!\$D\$4:\$H\$4

Add Remove

Category (X) axis labels: []

Hidden and Empty Cells

Show empty cells as: Gaps

Show data in hidden rows and columns

Cancel OK

Under the “Charts” Thumbnail you should find an icon call “Select”. Click on it to open the “Select Data Source” box

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart Insert Sparklines Data Chart Quick Layouts Chart Styles

D3 3000

		Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5
	Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000
Group 1:	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8
Efflux time vs MW	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5
	Trial 3 (sec)	157	168.9	177	185	202.5	243.5
Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22
Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74
	Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7
Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4
Efflux time vs MW	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2
	Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5

Select Data Source

Chart data range: =Sheet1!\$D\$3:\$H\$4

Switch Row/Column

Series Name: Group 1

X values: =Sheet1!\$D\$3:\$H\$3

Y values: =Sheet1!\$D\$4:\$H\$4

Category (X) axis labels:

Hidden and Empty Cells: Gaps

1st

2nd

Cancel OK

First, rename Series1 as “Group 1” and then click on the “Add” button to add a second series of data.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart Insert Sparklines Data Chart Quick Layouts Chart Styles

D3 3000

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1																			
2			Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5											
3			Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000										
4	Group 1:	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8											
5	Efflux time vs MW	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5											
6		Trial 3 (sec)	157	168.9	177	185	202.5	243.5											
7																			
8																			
9																			
10																			
11	Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22											
12	Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74											
13		Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7											
14																			
15																			
16																			
17																			
18	Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4											
19	Efflux time vs MW	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2											
20		Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5											
21																			
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Select Data Source

Chart data range: []

The Chart Data Range is too complex to be displayed. If a new Data Range is selected, it will replace all of the series on the Series Panel.

Switch Row/Column

Series

Name: Group 2

X values: []

Y values: []

Add Remove

Category (X) axis labels: []

Hidden and Empty Cells

Show empty cells as: Gaps

Show data in hidden rows and columns

Cancel OK

1st

2nd

Now you see that the legend has Group 1 properly displayed and a second series is added, but it just hasn't been properly defined. Rename it "Group 2" and then click on the "X values" icon over to the right.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart Insert Sparklines Data Chart Quick Layouts Chart Styles

D3 3000

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5											
2			Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000										
3	Group 1:	Trial 1 (sec)	156.5	173.7	177.9	183.9	203.5	237.6											
4	Efflux time vs MW	Trial 2 (sec)	157.8	166.7	177.1		203.5	235.5											
5		Trial 3 (sec)	157	168.9	177		202.5	243.5											
6																			
7						1st													
8																			
9																			
10																			
11	Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22											
12	Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74											
13		Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7											
14																			
15																			
16																			
17																			
18	Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4											
19	Efflux time vs MW	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2											
20		Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5											
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34																			
35																			
36																			
37																			
38																			

Select Data Source

=Sheet1!\$D\$3:\$H\$3

2nd

Now highlight the cells that you want to insert as your x values and then click on the icon that you see to the right.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart: Column, Line, Pie, Bar, Area, Scatter, Other

Insert Sparklines: Line, Column, Win/Loss

Data: Select, Switch Plot

Chart Quick Layouts

Chart Styles

D3 3000

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1																			
2			Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5											
3			Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000										
4	Group 1:	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8											
5	Efflux time vs MW	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5											
6		Trial 3 (sec)	157	168.9	177	185	202.5	243.5											
7																			
8																			
9																			
10																			
11	Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22											
12	Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74											
13		Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7											
14																			
15																			
16																			
17																			
18	Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4											
19	Efflux time vs MW	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2											
20		Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5											
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38																			

Select Data Source

Chart data range: []

The Chart Data Range is too complex to be displayed. If a new Data Range is selected, it will replace all of the series on the Series Panel.

Switch Row/Column

Series

Name: Group 2

X values: =Sheet1!\$D\$3:\$I\$3

Y values: = {1}

Add Remove

Category (X) axis labels: []

Hidden and Empty Cells

Show empty cells as: Gaps

Show data in hidden rows and columns

Cancel OK

Click on the “Y values” icon over on the right.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart: Column, Line, Pie, Bar, Area, Scatter, Other

Insert Sparklines: Line, Column, Win/Loss

Data: Select, Switch Plot

Chart Quick Layouts

Chart Styles

D11 3000

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1																			
2			Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5	Select Data Source										
3		Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000	=Sheet1!\$D\$11:\$H\$11										
4	Group 1:	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8											
5	Efflux time vs MW	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5											
6		Trial 3 (sec)	157	168.9	177	185	202.5	243.5											
7																			
8																			
9																			
10																			
11	Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22											
12	Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74											
13		Trial 3 (sec)	191.19	201.49	205.28	248.62	293.7												
14																			
15																			
16																			
17																			
18	Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4											
19	Efflux time vs MW	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2											
20		Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5											
21																			
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36																			
37																			
38																			

1st

2nd

Highlight the cells that you want to use as the y values. In this case we want the efflux times for Group 2, Trial 1. Then click on the icon on the right.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart Insert Sparklines Data Chart Quick Layouts Chart Styles

D3 3000

		Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5
	Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000
Group 1:	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8
Efflux time vs MW	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5
	Trial 3 (sec)	157	168.9	177	185	202.5	243.5
Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22
Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74
	Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7
Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4
Efflux time vs MW	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2
	Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5

Select Data Source

Chart data range: []

The Chart Data Range is too complex to be displayed. If a new Data Range is selected, it will replace all of the series on the Series Panel.

Switch Row/Column

Series Name: []

X values: []

Y values: [={1}]

Category (X) axis labels: []

Series List: Group 1, Group 2, **Series3**

Buttons: Add, Remove

Hidden and Empty Cells: Show empty cells as: Gaps

Show data in hidden rows and columns

Cancel OK

Notice that your plot now has the 2nd series added. You will now add the 3rd series. Click on the "Add" icon.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart Insert Sparklines Data Chart Quick Layouts Chart Styles

D3 3000

		Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5
	Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000
Group 1:	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8
Efflux time vs MW	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5
	Trial 3 (sec)	157	168.9	177	185	202.5	243.5
Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22
Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74
	Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7
Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4
Efflux time vs MW	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2
	Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5

Select Data Source

Chart data range: []

The Chart Data Range is too complex to be displayed. If a new Data Range is selected, it will replace all of the series on the Series Panel.

Switch Row/Column

Series

Name: Group 3

X values: []

Y values: []

Category (X) axis labels: []

Add Remove

Hidden and Empty Cells

Show empty cells as: Gaps

Show data in hidden rows and columns

Cancel OK

1st

2nd

Let's rename it "Group 3", then click on the "X values" icon on the right.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart Insert Sparklines Data Chart Quick Layouts Chart Styles

D3 3000

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	S
1			Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5	Select Data Source									
2			Molecular Weight (g/mol)	3,000	13,000	25,000	50,000	90,000	=Sheet1!\$D\$3:\$H\$3									
3	Group 1:	Trial 1 (sec)	156.5	173.7	177.8	185.6	205.3	237.0										
4	Efflux time vs MW	Trial 2 (sec)	157.8	166.7	177.1	185.6	203.5	235.5										
5		Trial 3 (sec)	157	168.9	177	185.6	202.5	243.5										
6																		
7																		
8																		
9																		
10																		
11	Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22										
12	Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74										
13		Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7										
14																		
15																		
16																		
17																		
18	Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4										
19	Efflux time vs MW	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2										
20		Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5										
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36																		
37																		
38																		

1st

2nd

Highlight the Molecular weight cells as you have done previously. Then click on the x values icon on the right.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart Insert Sparklines Data Chart Quick Layouts Chart Styles

D3 fx 3000

		Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5
	Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000
Group 1:	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8
Efflux time vs MW	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5
	Trial 3 (sec)	157	168.9	177	185	202.5	243.5
Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22
Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74
	Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7
Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4
Efflux time vs MW	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2
	Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5

Select Data Source

Chart data range: []

The Chart Data Range is too complex to be displayed. If a new Data Range is selected, it will replace all of the series on the Series Panel.

Switch Row/Column

Series

Name: Group 3

X values: =Sheet1!\$D\$3:\$H\$3

Y values: ={1}

Category (X) axis labels: []

Add Remove

Hidden and Empty Cells

Show empty cells as: Gaps

Show data in hidden rows and columns

Cancel OK

Click on the "Y values" icon on the right.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart: Column, Line, Pie, Bar, Area, Scatter, Other

Insert Sparklines: Line, Column, Win/Loss

Data: Select, Switch Plot

Chart Quick Layouts

Chart Styles

D18 3000

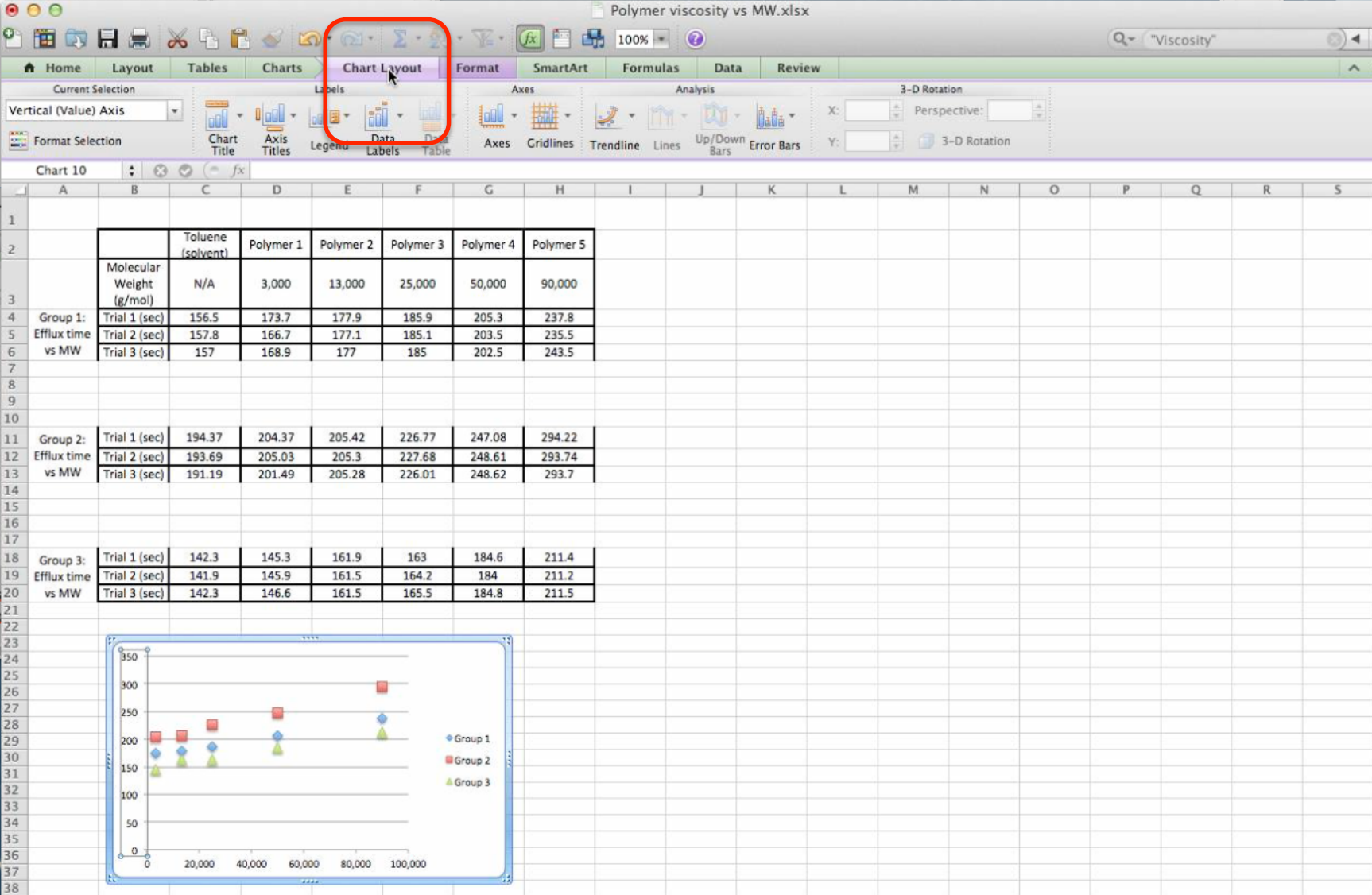
		Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5
	Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000
Group 1:	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8
Efflux time vs MW	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5
	Trial 3 (sec)	157	168.9	177	185	202.5	243.5
Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22
Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74
	Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7
Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4
Efflux time vs MW	Trial 2 (sec)	141.9	143.9	161.5	164.2	184	211.2
	Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5

Select Data Source: =Sheet1!\$D\$18:\$H\$18

2nd

1st

Highlight the y values, in this case you want the efflux times of Group 3, Trial 1. Then click on the y values icon on the right.



Notice that all three groups' data are now on the plot and identified in the legend with colors and shapes, Group 1, Group 2, and Group 3. But let's trim off some of the y-axis that isn't being used. The minimum y value appears to be around 120. So we'll trim off anything below 120.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts Chart Layout Format SmartArt Formulas Data Review

Vertical (Value) Axis

Horizontal Axis

Vertical Axis

- No Axis
- ✓ Default Axis
- Axis in Thousands
- Axis in Millions
- Axis in Billions
- Axis with Log Scale

Axis Options...

		Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5
	Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000
Group 1:	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8
Efflux time vs MW	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5
	Trial 3 (sec)	157	168.9	177	185	202.5	243.5
Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22
Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74
	Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7
Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4
Efflux time vs MW	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2
	Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5

350
300
250
200
150
100
50
0

0 20,000 40,000 60,000 80,000 100,000

Group 1
Group 2
Group 3

In the “Chart Layout” thumbnail you will see the “Axes” icon. Click on it and trace your way down “Vertical Axis”, to “Axis Options...”. Click on “Axis Options...”

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts Chart Layout Format SmartArt Formulas Data Review

Current Selection: Vertical (Value) Axis

Format Selection: Chart Title, Axis Titles, Legend, Data Labels, Data Table, Axes, Gridlines, Trendline, Lines, Up/Down Bars, Error Bars

3-D Rotation: X: Perspective: Y: 3-D Rotation

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1																			
2			Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5											
3			Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000										
4	Group 1:	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8											
5	Efflux time vs MW	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5											
6		Trial 3 (sec)	157	168.9	177	185	202.5	243.5											
7																			
8																			
9																			
10																			
11	Group 2:	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22											
12	Efflux time vs MW	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74											
13		Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7											
14																			
15																			
16																			
17																			
18	Group 3:	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4											
19	Efflux time vs MW	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2											
20		Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5											
21																			
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36																			
37																			
38																			

Format Axis

Scale

- Number
- Ticks
- Font
- Text Box
- Fill
- Line
- Shadow
- Glow & Soft Edges

Vertical axis scale

Auto

Minimum: 1200.0

Maximum: 320.0

Major unit: 20.0

Minor unit: 4.0

Horizontal axis crosses at: 120.0

Display units: None Show display units label on chart

Logarithmic scale Base: 10.0

Values in reverse order

Horizontal axis crosses at maximum value

Cancel OK

The "Format Axis" window opens up. Make sure "Scale" is selected and then change the minimum Y value to "1200". Click OK. Notice how the un-used portion of the y-axis has been trimmed off.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts Chart Layout Format SmartArt Formulas Data Review

Current Selection: Series "Group 1"

Format Selection: Chart 10

Chart Element Styles: Fill, Line, Effects

Text Styles: Font, Paragraph, Text Styles

Arrange: Reorder, Group, Align, Rotate

Size: Height, Width

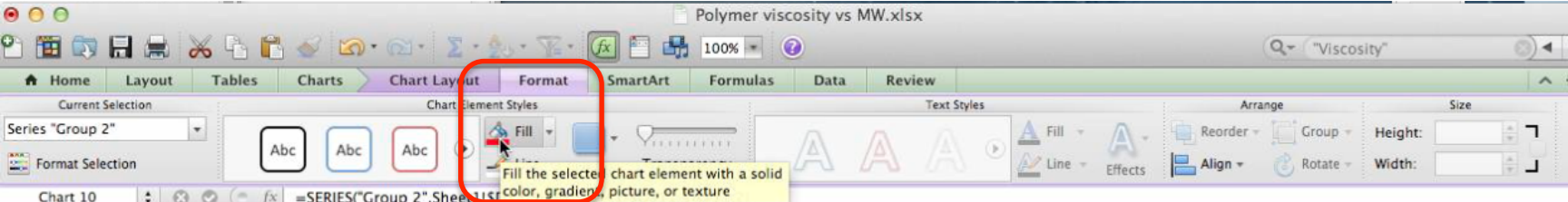
Fill: Automatic, No Fill, Theme Colors, Standard Colors, More Colors..., Fill Effects...

2nd

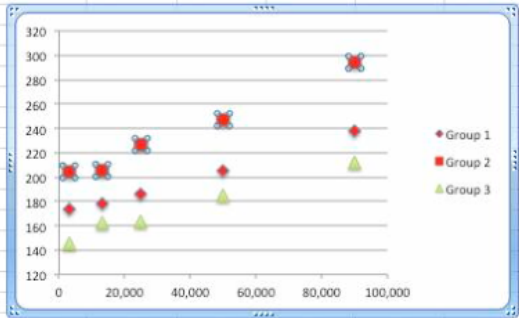
		Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	
	Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	
Group 1: Efflux time vs MW	Trial 1 (sec)	156.5	173.7	177.9	185.1	185.1	
	Trial 2 (sec)	157.8	166.7	177.1	185.1	185.1	
	Trial 3 (sec)	157	168.9	177	185.1	185.1	
Group 2: Efflux time vs MW	Trial 1 (sec)	194.37	204.37	205.42	206.77	247.08	294.22
	Trial 2 (sec)	193.69	205.03	205.3	227.08	248.61	303.74
	Trial 3 (sec)	191.19	201.49	205.28	226.01	247.08	303.74
Group 3: Efflux time vs MW	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4
	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2
	Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5

1st

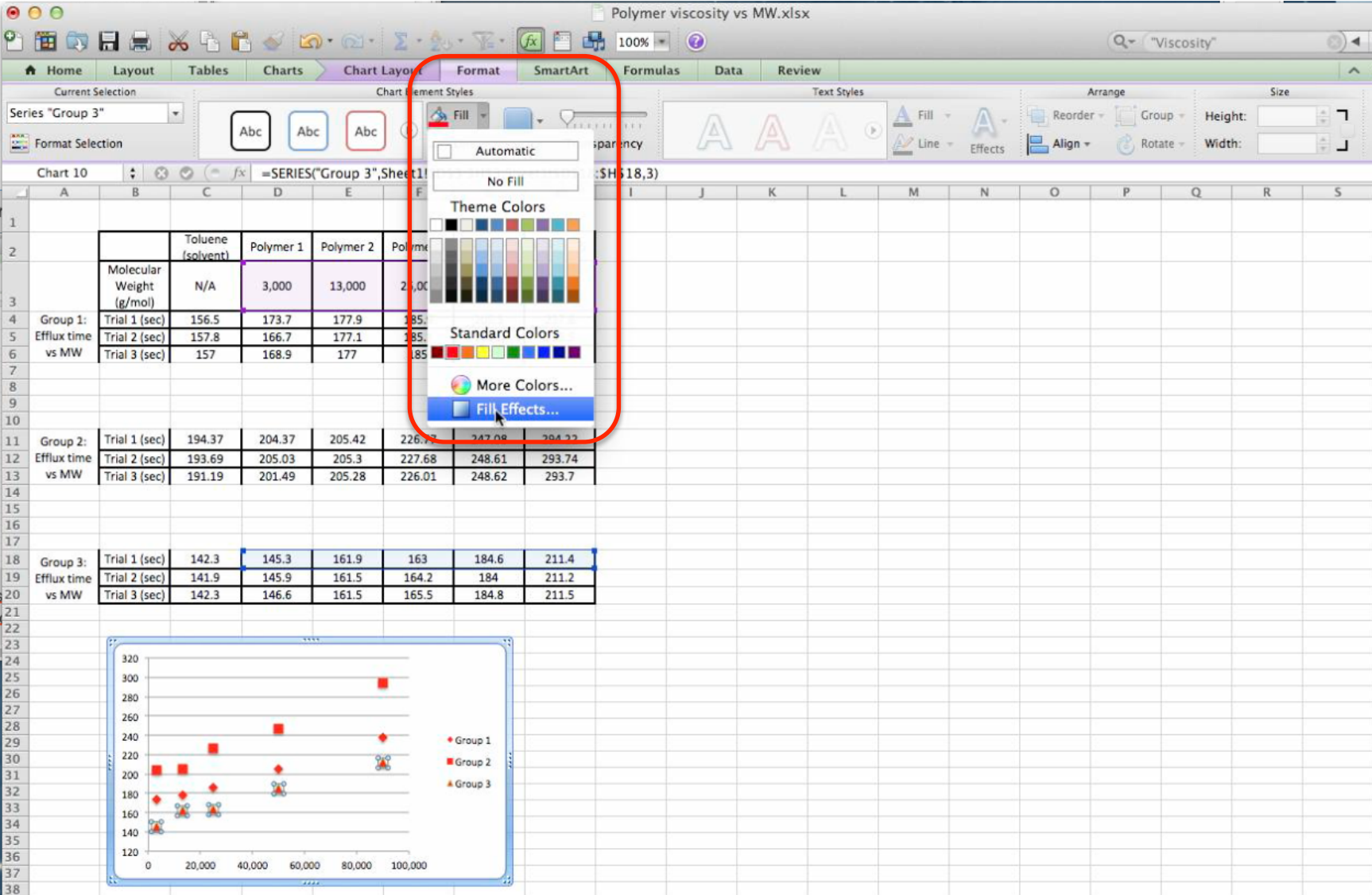
If you want to change the color of the marker, click on one of them. Then go to the "Format" thumbnail, find the "Fill" icon, click on the drop down arrow, and an options window will open. Select whatever color you wish. In this example the blue diamonds will be changed to red.



		Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5
	Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000
Group 1: Efflux time vs MW	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8
	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5
	Trial 3 (sec)	157	168.9	177	185	202.5	243.5
Group 2: Efflux time vs MW	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22
	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74
	Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7
Group 3: Efflux time vs MW	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4
	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2
	Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5



The red squares are changed to a darker red that matches the diamonds. Just click on the red bucket "Fill" icon.



The green triangles were changed to the same color of red. Furthermore, each marker has an outline around it. You can change that effect. In the "Fill" drop down menu, "Fill Effects..." was selected.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts Chart Layout Format SmartArt Formulas Data Review

Current Selection: Series "Group 3"

Chart Element Styles: Fill, Line, Effects, Transparency

Text Styles: A, A, A

Arrange: Reorder, Group, Height, Width, Align, Rotate

Chart 10: =SERIES("Group 3",Sheet1!\$D\$3:\$H\$3,Sheet1!\$D\$18:\$H\$18,3)

		Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5
	Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000
Group 1: Efflux time vs MW	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8
	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5
	Trial 3 (sec)	157	168.9	177	185	202.5	243.5
Group 2: Efflux time vs MW	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22
	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74
	Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7
Group 3: Efflux time vs MW	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4
	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2
	Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5

Format Data Series

Axis

- Order
- Error Bars
- Marker Fill
- Marker Line
- Marker Style
- Line
- Shadow
- Glow & Soft Edges
- 3-D Format

Color: Automatic

Transparency: No Line 0%

Theme Colors

Standard Colors

More Colors...

In this example, "Marker Line" is selected, the outline around the marker is changed to "No Line". The outline should disappear.

Polymer viscosity vs MW.xlsx

Home Layout Tables Charts Chart Layout Format SmartArt Formulas Data Review

Current Selection: Series "Group 1"

Chart Element Styles: Fill, Line, Effects, Transparency

Text Styles: A, A, A

Arrange: Reorder, Group, Height, Width, Align, Rotate

Chart 10: =SERIES("Group 1",Sheet1!\$D\$3:\$H\$3,Sheet1!\$D\$4:\$H\$4,1)

		Toluene (solvent)	Polymer 1	Polymer 2	Polymer 3	Polymer 4	Polymer 5
	Molecular Weight (g/mol)	N/A	3,000	13,000	25,000	50,000	90,000
Group 1: Efflux time vs MW	Trial 1 (sec)	156.5	173.7	177.9	185.9	205.3	237.8
	Trial 2 (sec)	157.8	166.7	177.1	185.1	203.5	235.5
	Trial 3 (sec)	157	168.9	177	185	202.5	243.5
Group 2: Efflux time vs MW	Trial 1 (sec)	194.37	204.37	205.42	226.77	247.08	294.22
	Trial 2 (sec)	193.69	205.03	205.3	227.68	248.61	293.74
	Trial 3 (sec)	191.19	201.49	205.28	226.01	248.62	293.7
Group 3: Efflux time vs MW	Trial 1 (sec)	142.3	145.3	161.9	163	184.6	211.4
	Trial 2 (sec)	141.9	145.9	161.5	164.2	184	211.2
	Trial 3 (sec)	142.3	146.6	161.5	165.5	184.8	211.5

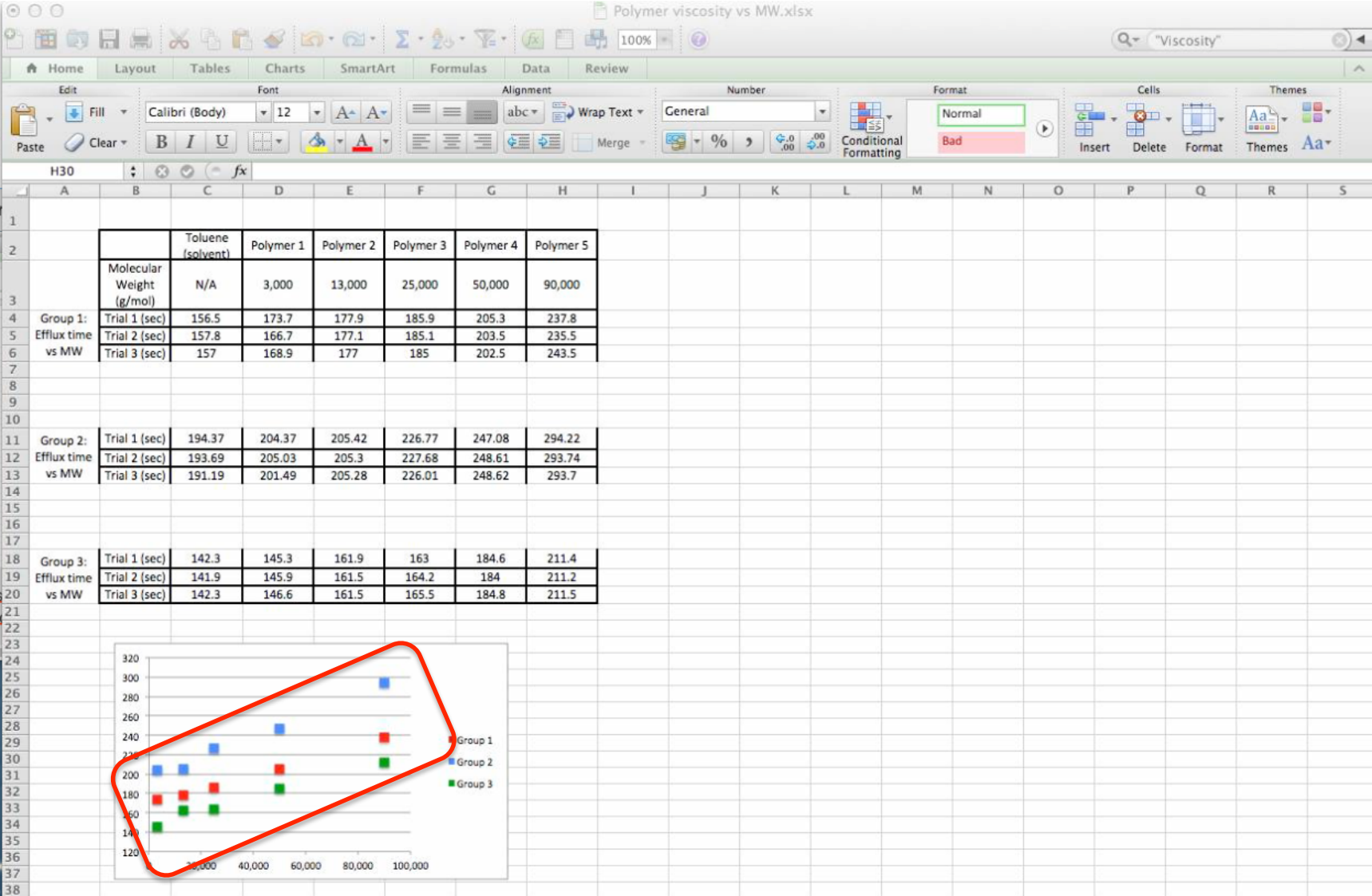
Format Data Series

- Axis
- Order
- Error Bars
- Marker Fill
- Marker Line
- Marker Style
- Line
- Shadow
- Glow & Soft Edges
- 3-D Format

Style: No Marker, Automatic, Size: 9

Cancel OK

Suppose you want all of the markers to be the same shape, but different colors, as seen in Figure 2.2 at the beginning of the Overlay Section. Change your squares to blue. Click on a red diamond and let's change it to a red square. You should already know how to change the color of it, let's change it to a square. Go to the "Fill" drop down menu, highlight "Marker style", then select the square shape.



Lastly, the red triangles are changed to green squares. Although all of these colors look great on a computer screen, it could be irrelevant when it comes to printing. Do you have a color printer? If not, then all you'll get is varying shades of gray for each type of marker that may be indistinguishable.