单分子质量光度仪之如何使用原始数据作图

1. 使用 Refeyn DiscoverMP 软件打开数据文件后,点击图 1.1 中三个点 后,选择 Export 的 events 导出原始数据 CSV 文件

Refeyn DiscoverMP			
File Help			
1 Measurements			
+ Open → Merge			
003_Ferritin-PBS 2	··· >		
Refeyn DiscoverMP		Palace Direction AD	
File Help		File Help	
2 Measurements	Analysis	3 Measurements	Analysis Figures Tables
+ Open → Merge 🔟		+ Open >> Merge	
		And Terring Las 5	Rename
UUS_PERTITIN-PBS 2	Rename		Export Results
	Delete 30	X	Events
	Export		Movie
	28	30	Figure
		The second second	Raw Frames



5	A(X)	B(Y)	C(Y)	D(Y)	E(Y)	F(Y)	G(Y)	H(Y)	I(Y)
.ong Name	frame_indices	x_coords	y_coords	contrasts	masses_kDa	fit_errors	diffblur_errors	neareast_neighbo ur_distances	selections
Units									
Comments									
F(x)=									
Sparklines				desire a super-				1	
					and the second s			يستحصب المالية الملاد	
37	30	80.47305	27.25735	-0.01956	503.28368	0.00977	0	9.78765	1
38	30	137.91397	47.93814	-0.00143	43.25373	0.40408	0	11.28508	1
39	30	122.6167	49.55432	-9.57632E-4	31.16297	0.46219	0	15.38241	1
40	31	9.92358	37.77962	-0.00345	94.46723	0.15747	0	24.49812	1
41	32	143.88203	38.36027	-0.01946	500.83719	0.01021	0	7.84224	1
42	33	132.36099	17.56716	-0.00297	82.2094	0.15367	0	16.21461	1
43	34	43.6311	35.6145	-0.00367	99.99876	0.16586	0	10.18673	1
44	35	28.21846	21.42106	-0.00304	84.05673	0.13008	0	11.43613	1
45	36	110.34124	10.89962	0.00166	-48.88493	0.33901	0	10.38905	1
46	37	20.75594	12.75528	-0.00377	102.62825	0.08118	0	11.43613	1
47	37	25.21567	39.05592	-0.00378	102.81401	0.1574	0	10.59604	1
48	37	94.80556	8.62409	-0.00342	93.71591	0.14038	0	9.92099	1
49	37	53.74254	36.85081	-0.01497	386.78772	0.00977	0	10.18673	1
50	39	51.41954	17.45337	-0.01931	497.14371	0.00847	0	19.53605	1
51	39	20.94598	48.75365	-0.01973	507.6913	0.01252	0	10.59604	1
52	40	77.86911	16.16605	-0.02589	663.96004	0.00711	0	18.53981	1
53	41	116.93911	18.92461	-0.01774	457.17179	0.02024	0	10.38905	1
54	41	101.14573	18.78214	-0.00355	97.01992	0.10614	0	10.27659	1
55	42	104.71289	9.14452	0.00148	-44.31138	0.35359	0	9.92099	1
56	42	130.09319	48.12994	-0.00202	58.06092	0.31667	0	32.03094	1
57	45	54.36561	42.09501	-0.03351	857.49932	0.00737	0	14.24916	1
58	45	20.495	13.95206	0.00154	-46.02613	0.4692	0	3.95266	1
59	46	59.27704	7.17199	-0.02052	527.76301	0.00999	0	3.58616	1
60	46	122.19788	7.81478	-0.00296	82.03518	0.23372	0	11.28838	1
61	47	32.57341	28.67124	-0.01937	498.48461	0.01181	0	6.30067	1
62	49	104.94512	10.49783	-0.04063	1038.18309	0.00515	0	13.36884	1
63	49	104.95608	23.86667	-0.00338	92.76866	0.18264	0	13.36884	1
64	50	19.10473	10.25197	-0.00753	197.93846	0.04215	0	3.95266	1
65	50	68.35775	39.40082	-0.01853	477.19771	0.00826	0	12.05954	1
66	50	125.6786	52.43288	-0.00366	99.79857	0.12325	0	11.99267	1
67	51	131.16791	34.42811	-0.0037	100.77673	0.15778	0	17.75781	1
68	51	122.19653	19.10316	-0.00274	76.44051	0.18618	0	11.28838	1
69	52	56.77377	42.754	-0.00251	70.51867	0.35835	0	12.05954	1
70	54	88.52663	5.19554	-0.01893	487.38194	0.01214	0	17.25344	1
71	54	89.68618	49.98466	-0.0193	496.65902	0.01459	0	21.83602	1
72	55	44.34563	13.78925	-0.03241	829.62463	0.00756	0	12.74885	1
73	55	79.03547	30.92228	-0.02022	520.17704	0.0183	0	7.12689	1
74	55	114.08891	49.35018	-0.01939	498.94187	0.08531	0	11.99267	1
75	56	138.9845	7.80644	-0.01906	490.74188	0.04439	0	9.86975	1
76	57	134.44066	16.56804	-0.03457	884.43497	0.0056	0	9.86975	1
77	58	107.66763	16.59877	-0.0036	98.21919	0.12351	0	22.2803	1
78	58	14.80349	23.46147	-0.00204	58.64859	0.26514	0	17.54111	1
79	58	20.62991	40.00667	-0.00283	78.5742	0.17556	0	10.78452	1
80	59	82.01911	24.45	-0.01792	461.77895	0.01639	0	7.12689	1
81	61	31.02039	37.11811	-0.00218	62.22664	0.18414	0	10.78452	1
75 76 77 78 79 80 81 82	56 57 58 58 58 58 59 61	138.9845 134.44066 107.66763 14.80349 20.62991 82.01911 31.02039 126.85608	7.80644 16.56804 16.59877 23.46147 40.00667 24.45 37.11811 45.41618	-0.01906 -0.03457 -0.0036 -0.00204 -0.00283 -0.01792 -0.00218 0.00135	490.74188 884.43497 98.21919 58.64859 78.5742 461.77895 62.22664 -41.07836	0.04439 0.0056 0.12351 0.26514 0.17556 0.01639 0.18414 0.37866	0 0 0 0 0 0 0 0	9.8697 9.8697 22.280 17.5411 10.7845 7.1268 10.7845 34.6213	5 5 3 1 2 9 2 7

2. 将原始 CSV 文件使用 origin 打开,如图 2 所示:

图 2 origin 打开原始数据后结果

- 3. 新建一个 worksheet 后,复制 masses_kDa 一栏至 B(Y)列
- 4. 点击 plot→statistical→Histogram。
- 5. 生成图片后双击柱形图数据,将 Data 里面的 Automatic binning 勾掉,设置 Bin Size 至 5.0/2.5 均可,根据结果调整 Begin 和 End 的数字,如图 3 所示。



图 3 Data 的 Bin Size 调整后的结果

6. 根据 DiscoverMP 结果图将 XY 轴调整到合适的尺寸,如图 4:

🔳 X Axis - Layer	r1 ? >	📧 Y Axis - Laye	r1	? ×
	Show Scale Tick Labels Title Grids Line and Ticks Special Ticks Reference Lines Breaks Rug		Show Scale Tick Labels Title Grids Line and Ticks Special Ticks Reference Lines Br	eaks Rug
	From		From	
Horizontal	To 600	Horizontal	То 500	
	Type Linear ~		Type Vincear	
Vertical	Rescale Vormal V	Vertical	Rescale Vormal V	
	Rescale Margin(%) 8		Rescale Margin(%) 8	
	Reverse		Reverse	
	Major Ticks		Major Ticks	
	Type By Increment \checkmark		Type By Increment \checkmark	
	Value 100		Value 100	
	Anchor Tick		Anchor Tick	
	Major tick intervals are calculated from Anchor Tick value.		Major tick intervals are calculated from Anchor Tick value.	
	Minor Ticks		Minor Ticks	
	Type By Counts 🗸		Type By Counts ~	
	Count 1		Count	
Select multiple axe	is to customize together.	Select multiple ax	es to customize together.	
	Apply To OK Cancel Apply	1 - C	Apply To OK Cancel	Apply
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图4X、Y轴调整