RP-Well 测量的数据处理

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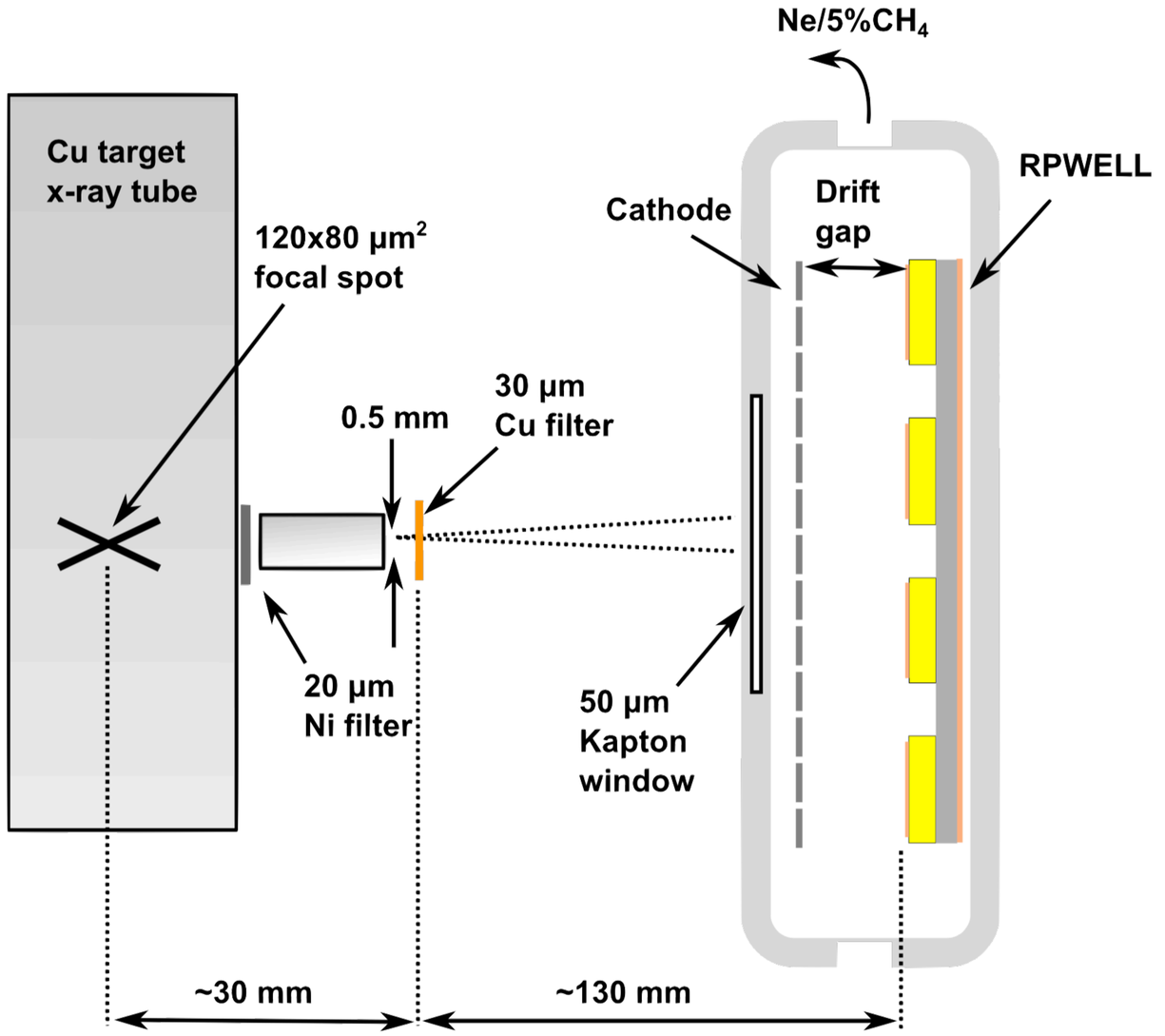
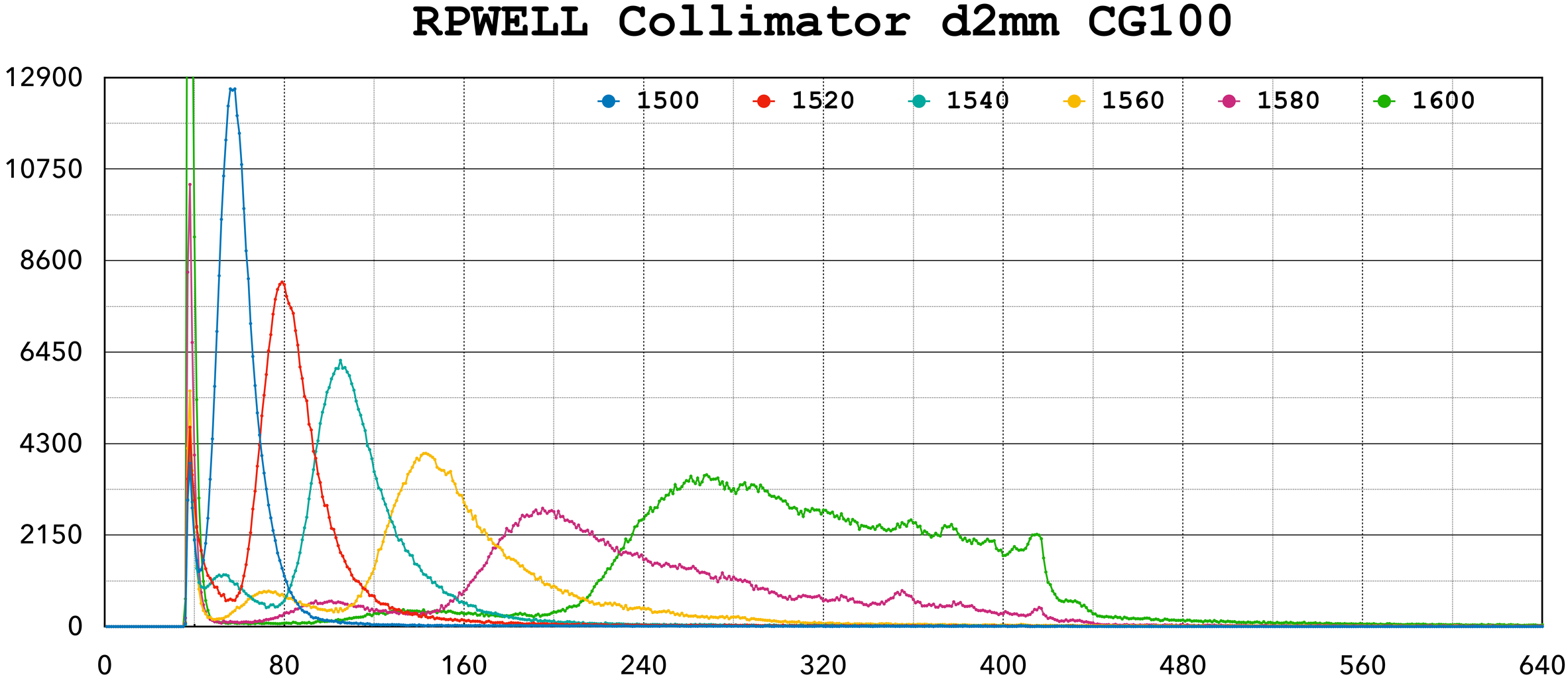
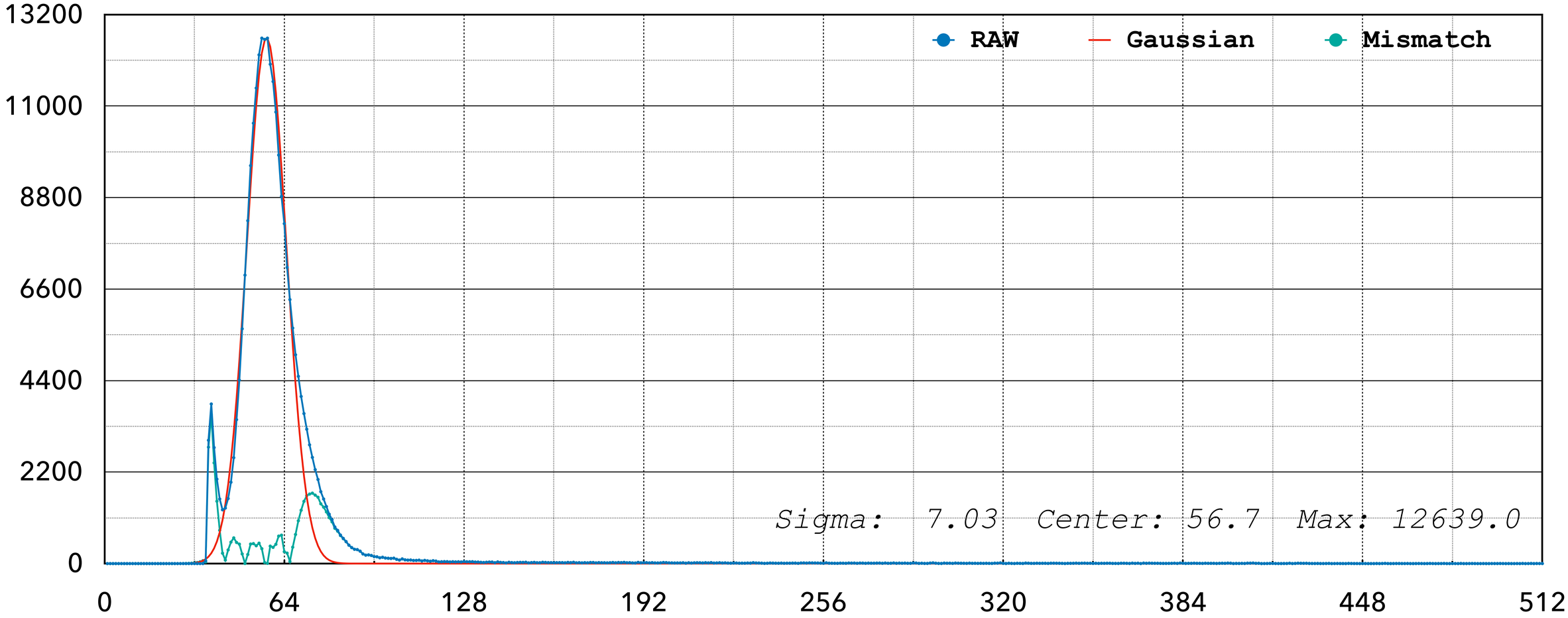
实验原理及分析步骤

1. 绘制能谱
2. 高斯拟合
3. 电压-极值点拟合
4. 通道-电荷拟合
5. 极值点-电荷换算

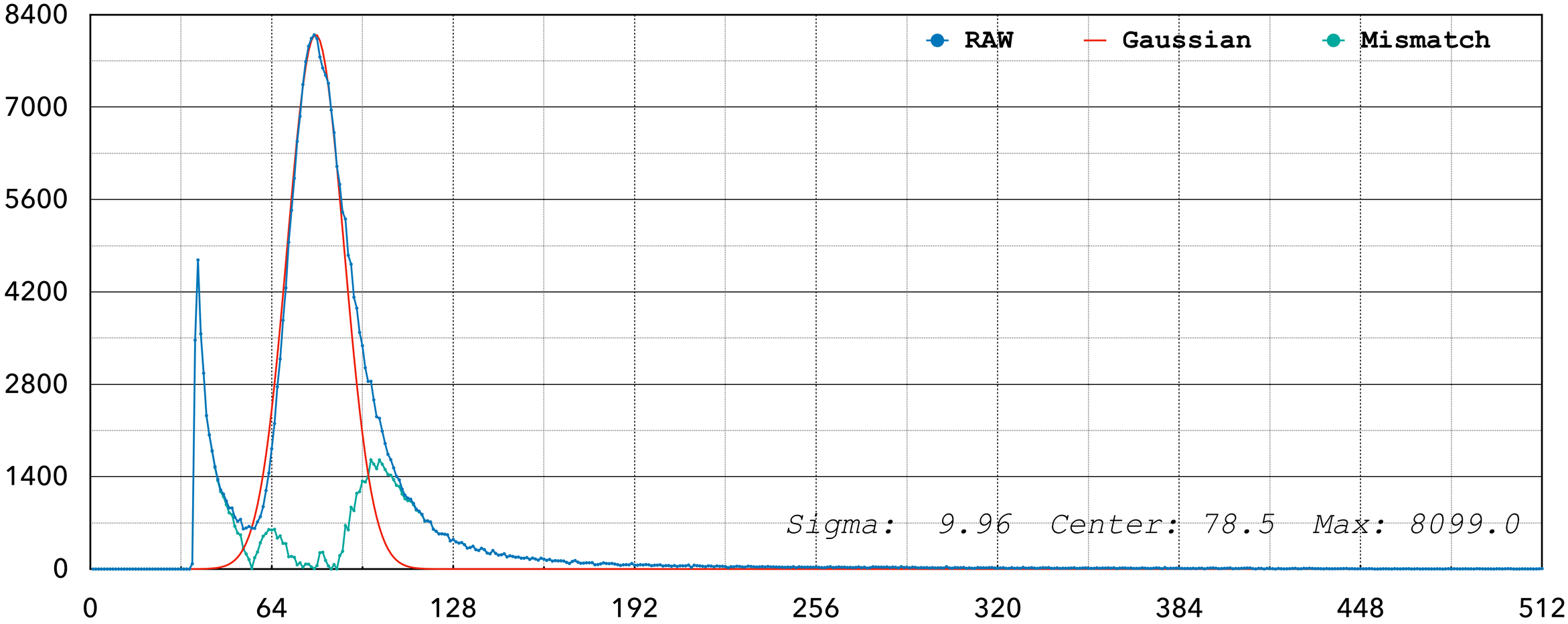



RPWELL Collimator d2mm CG100
1500
1520
1540
1560
1580
1600
12900
10750
8600
6450
4300
2150
0
0
80
160
240
320
400
480
560
640

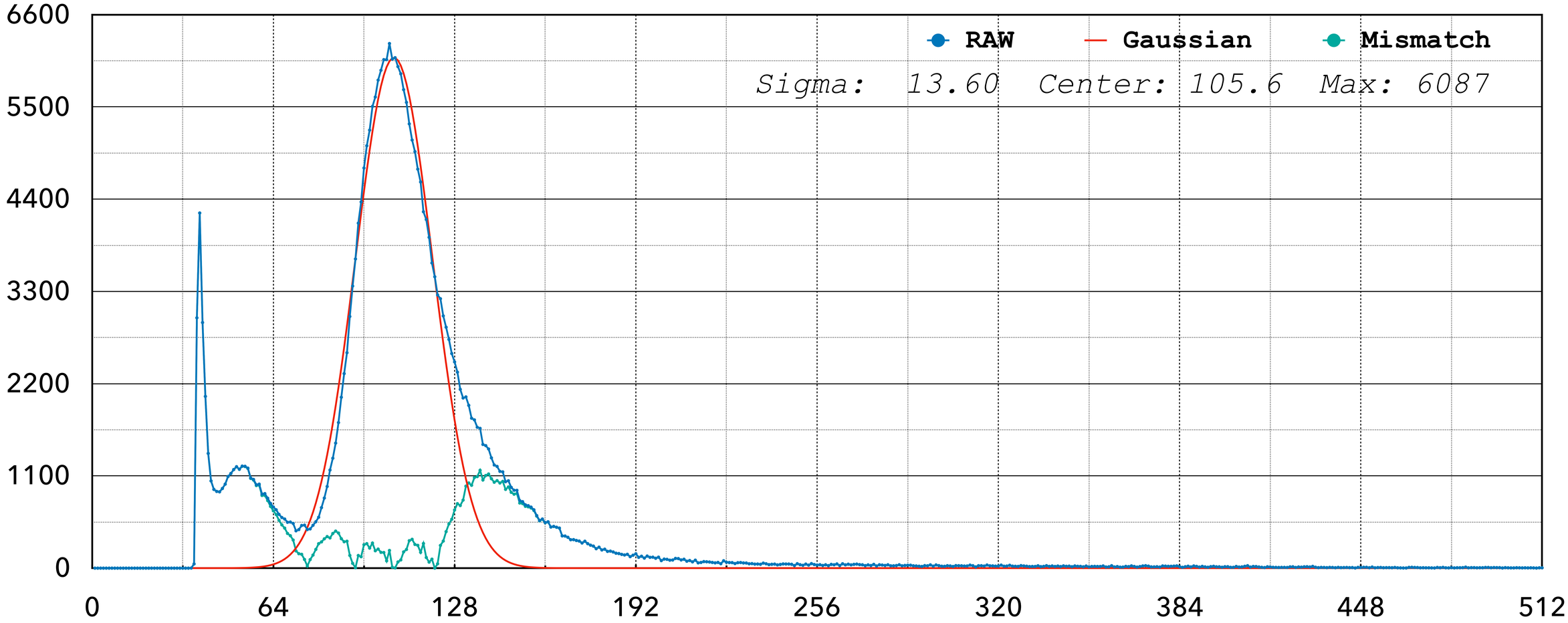
RPWELL Collimator d2mm CG100 1500V



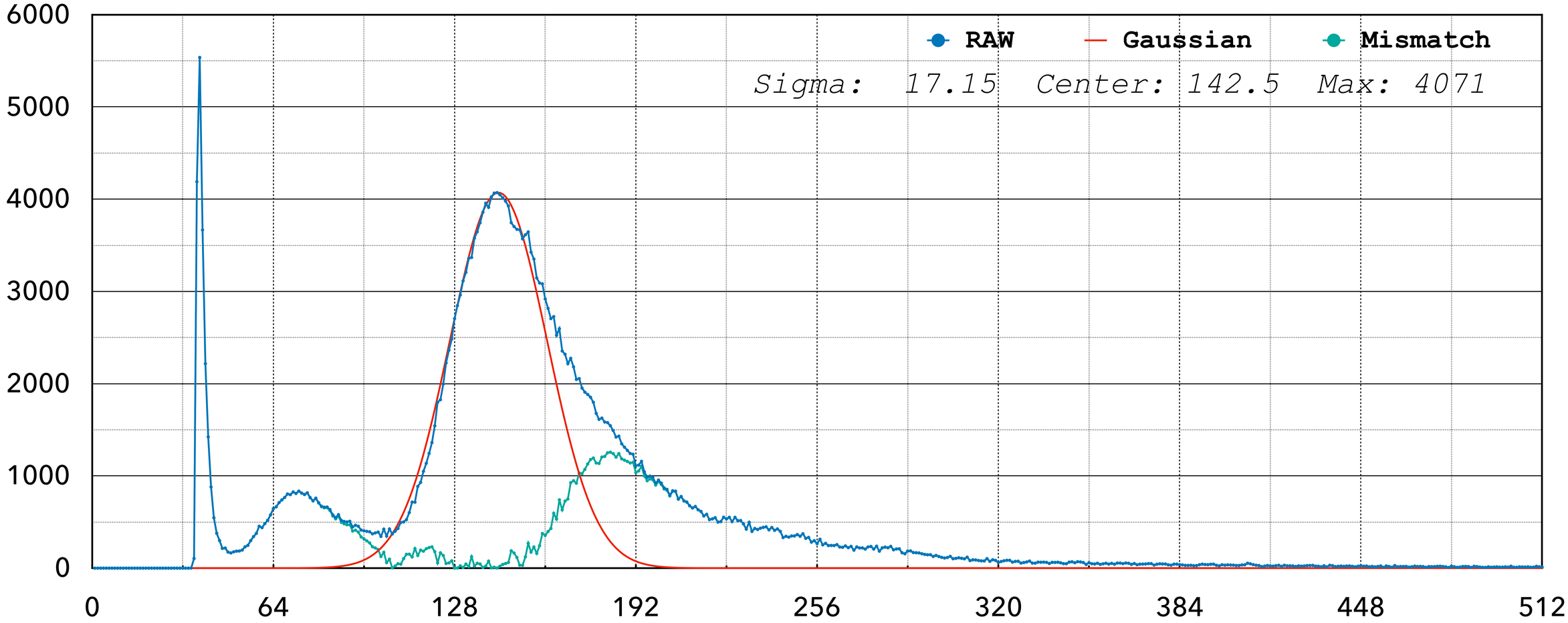
RPWELL Collimator d2mm CG100 1520V



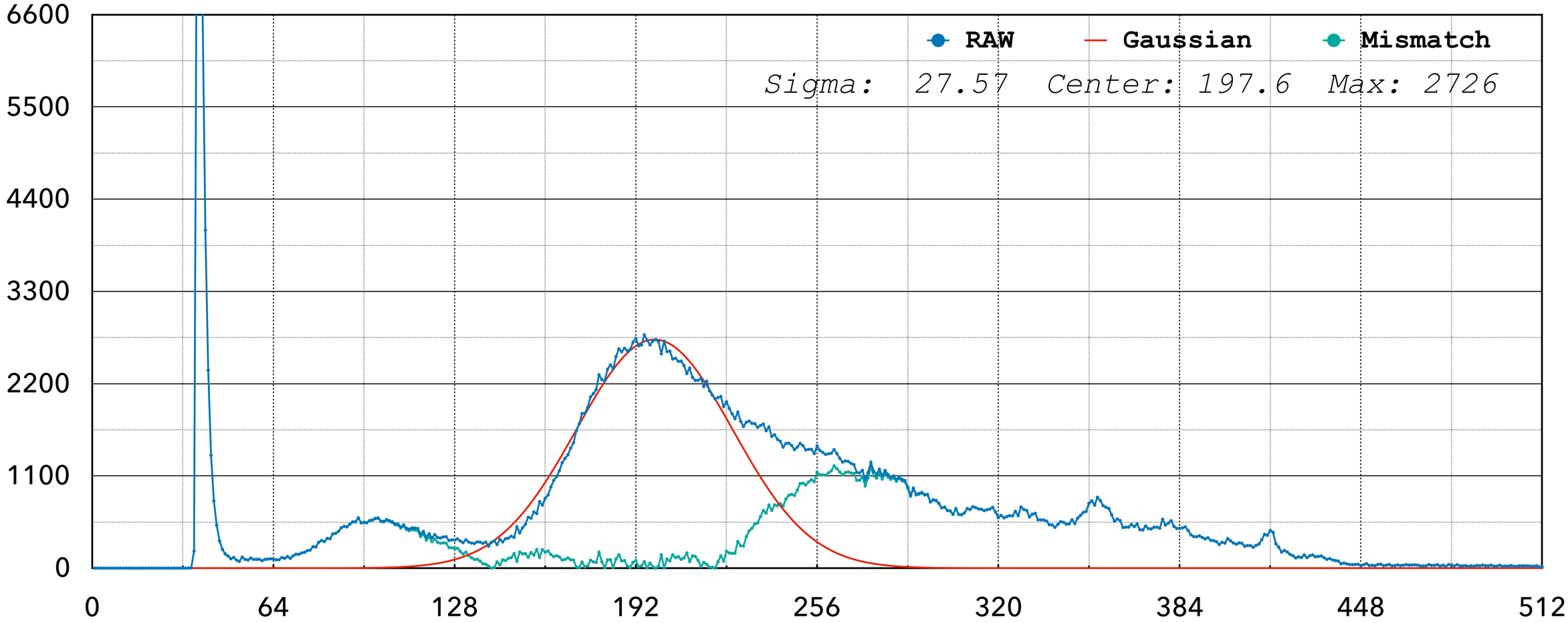
RPWELL Collimator d2mm CG100 1540V



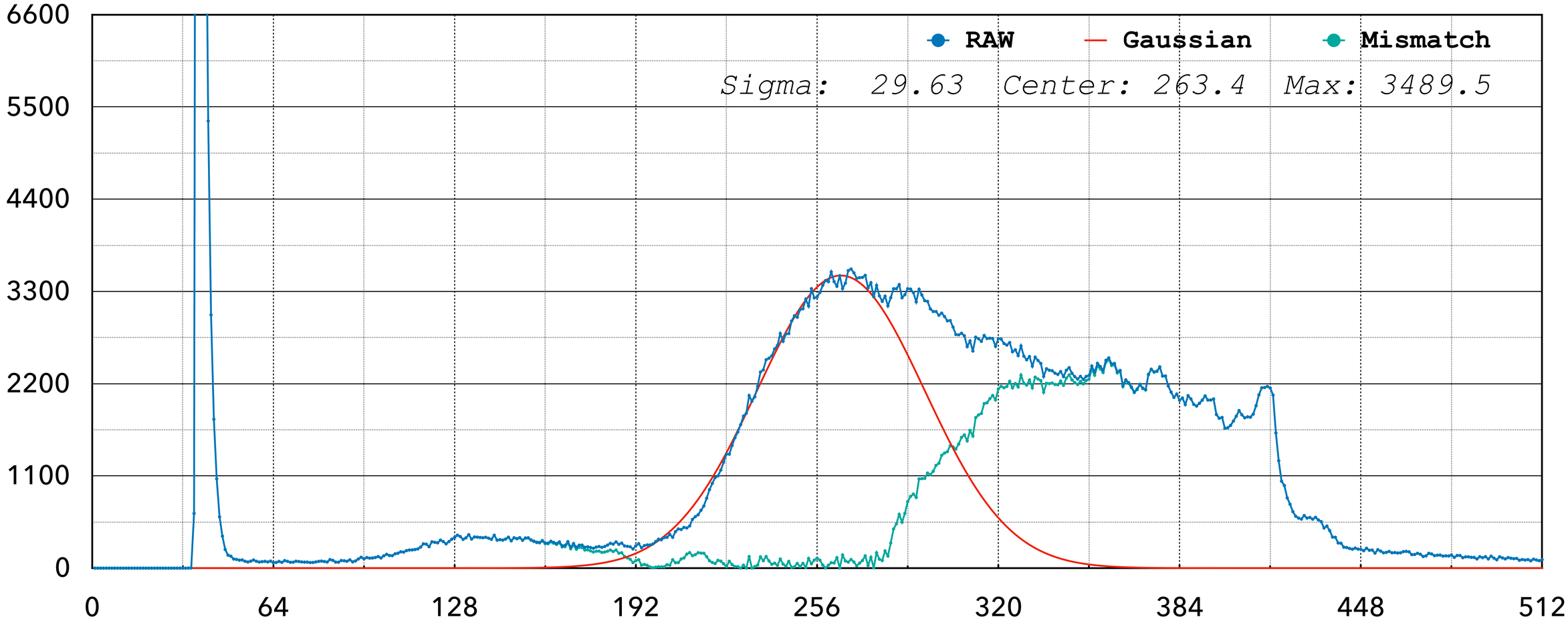
RPWELL Collimator d2mm CG100 1560V



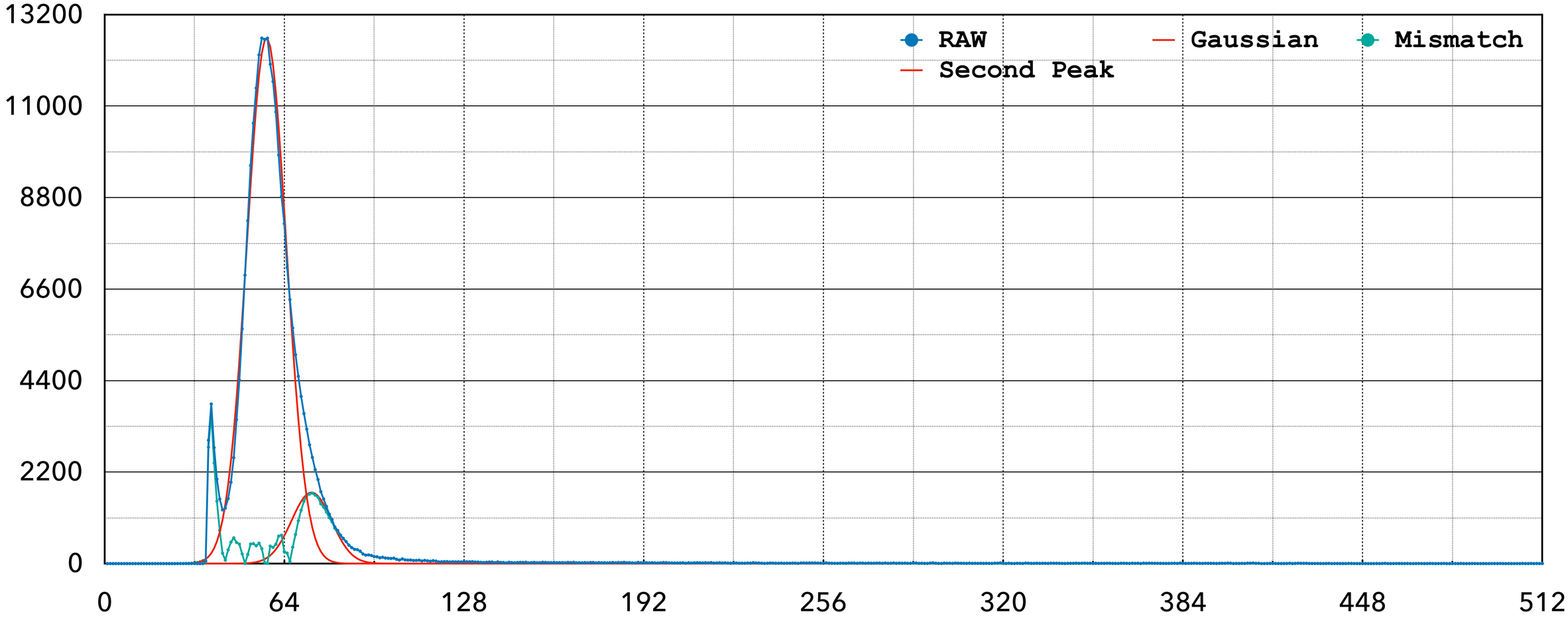
RPWELL Collimator d2mm CG100 1580V



RPWELL Collimator d2mm CG100 1600V

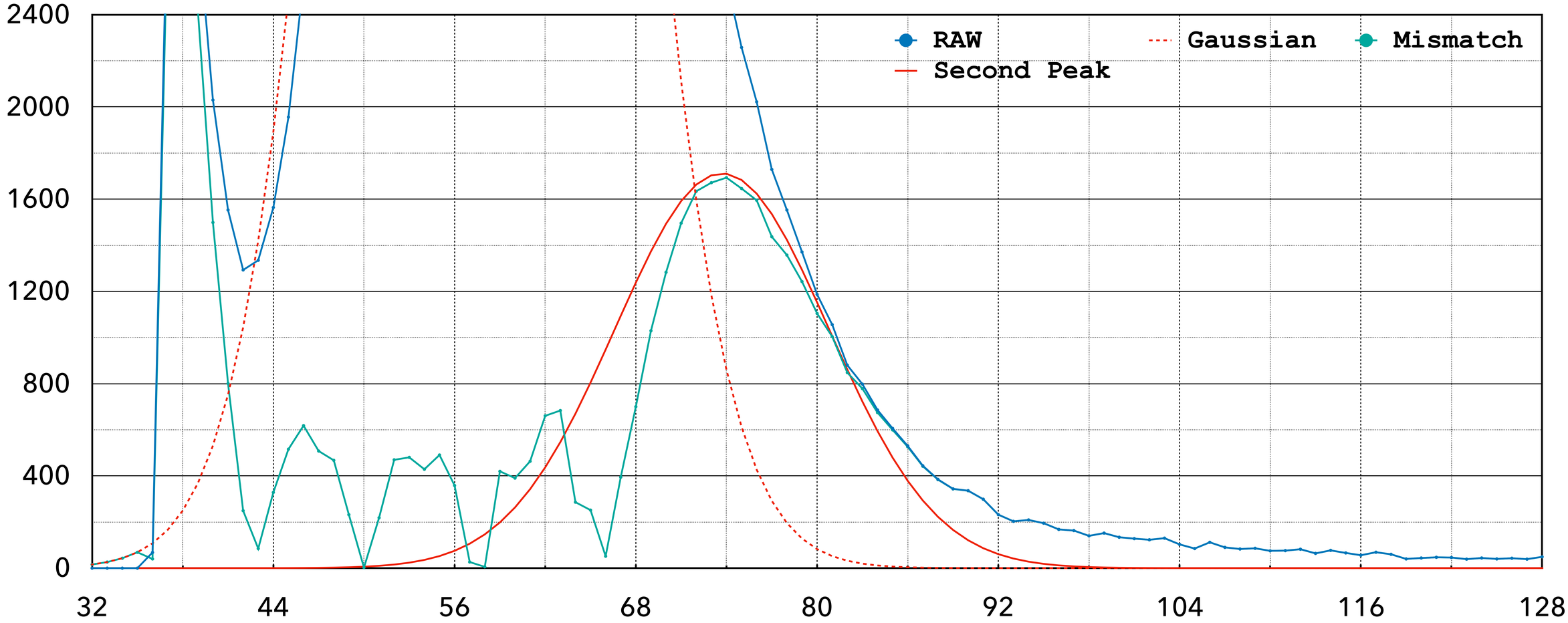


Second Gaussian Peak



Major *Sigma:7.03* *Center:56.7* *Max:12639.0* **5.9 KeV**
Minor *Sigma:7.08* *Center:72.7* *Max:1712* **6.5 Kev**

Zoom In



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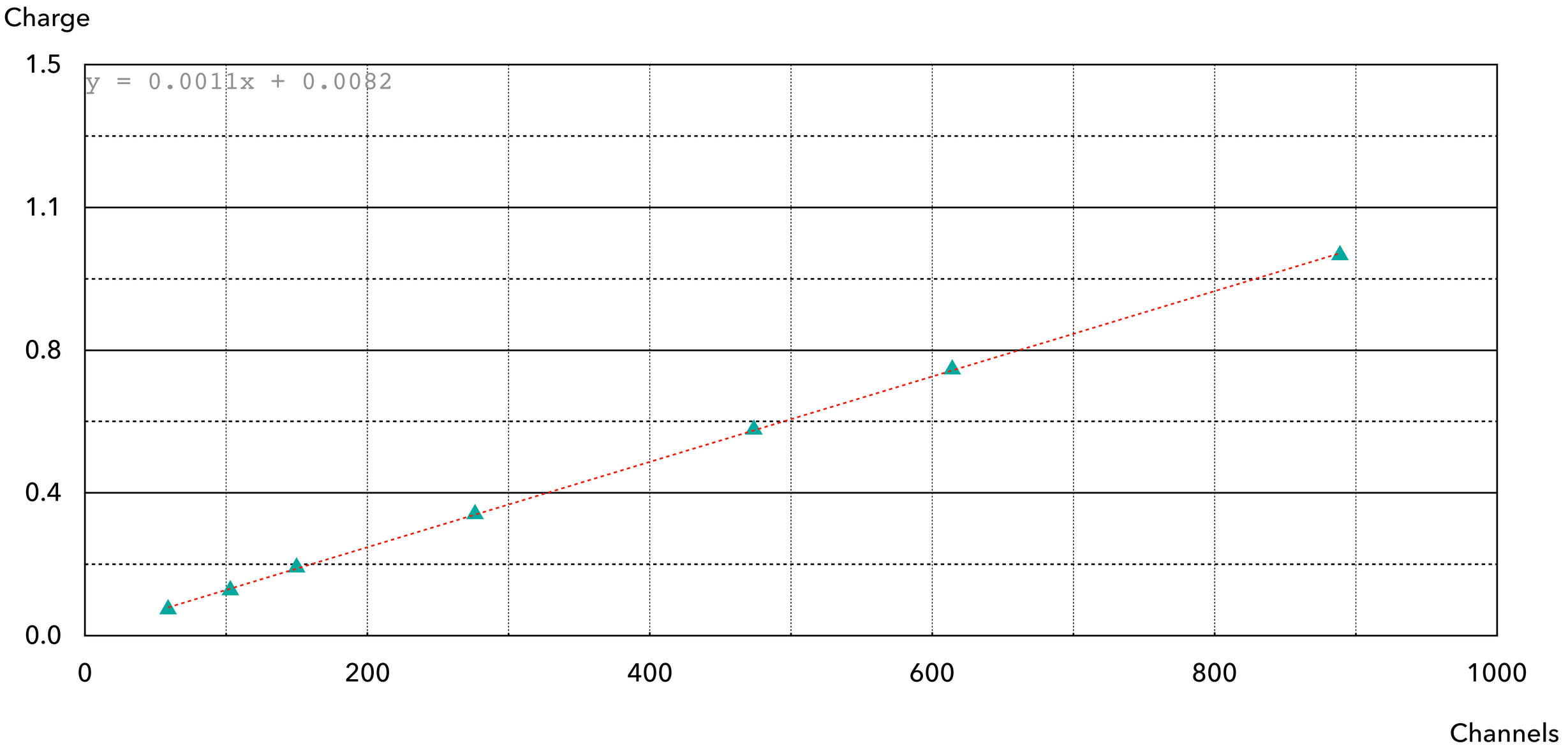
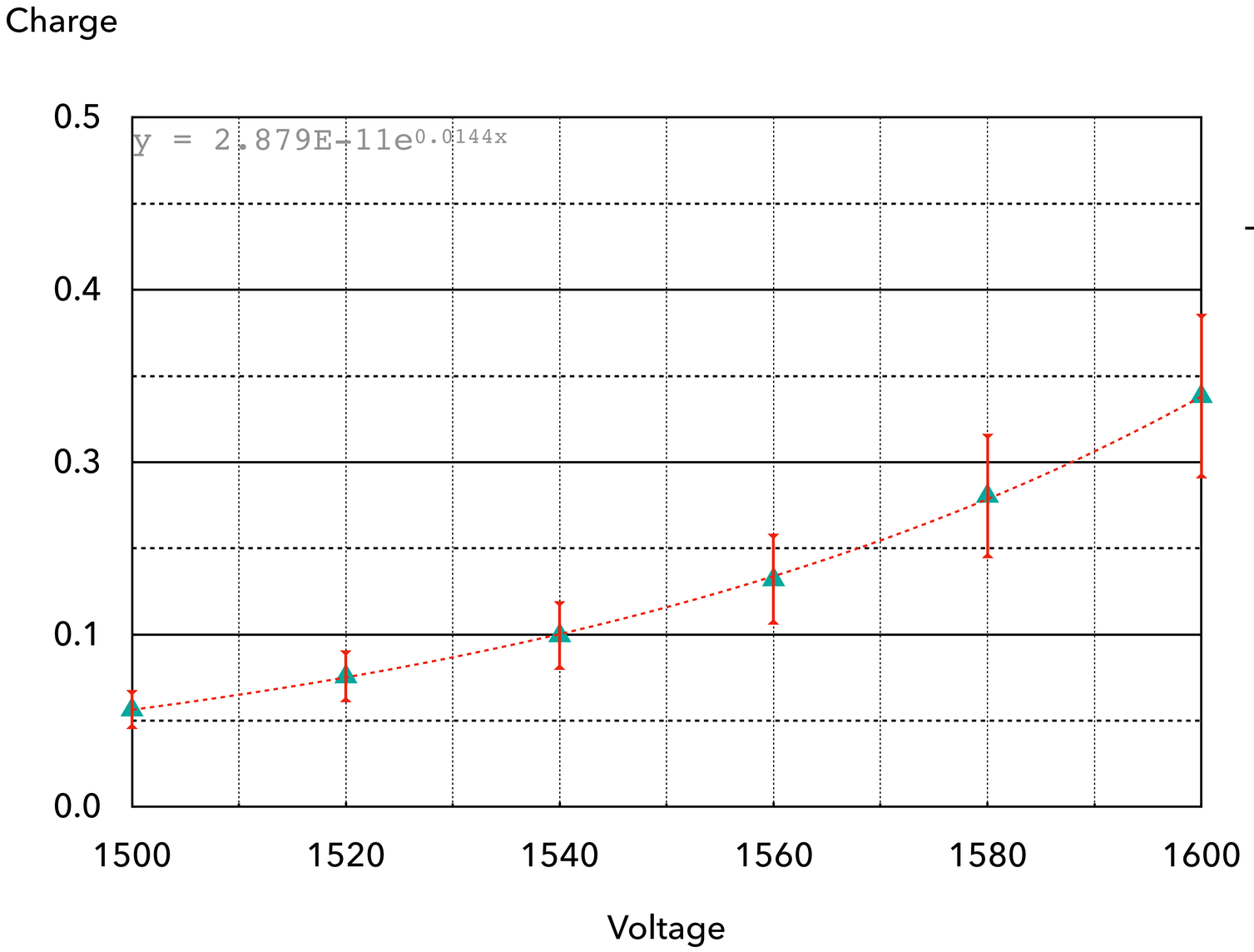
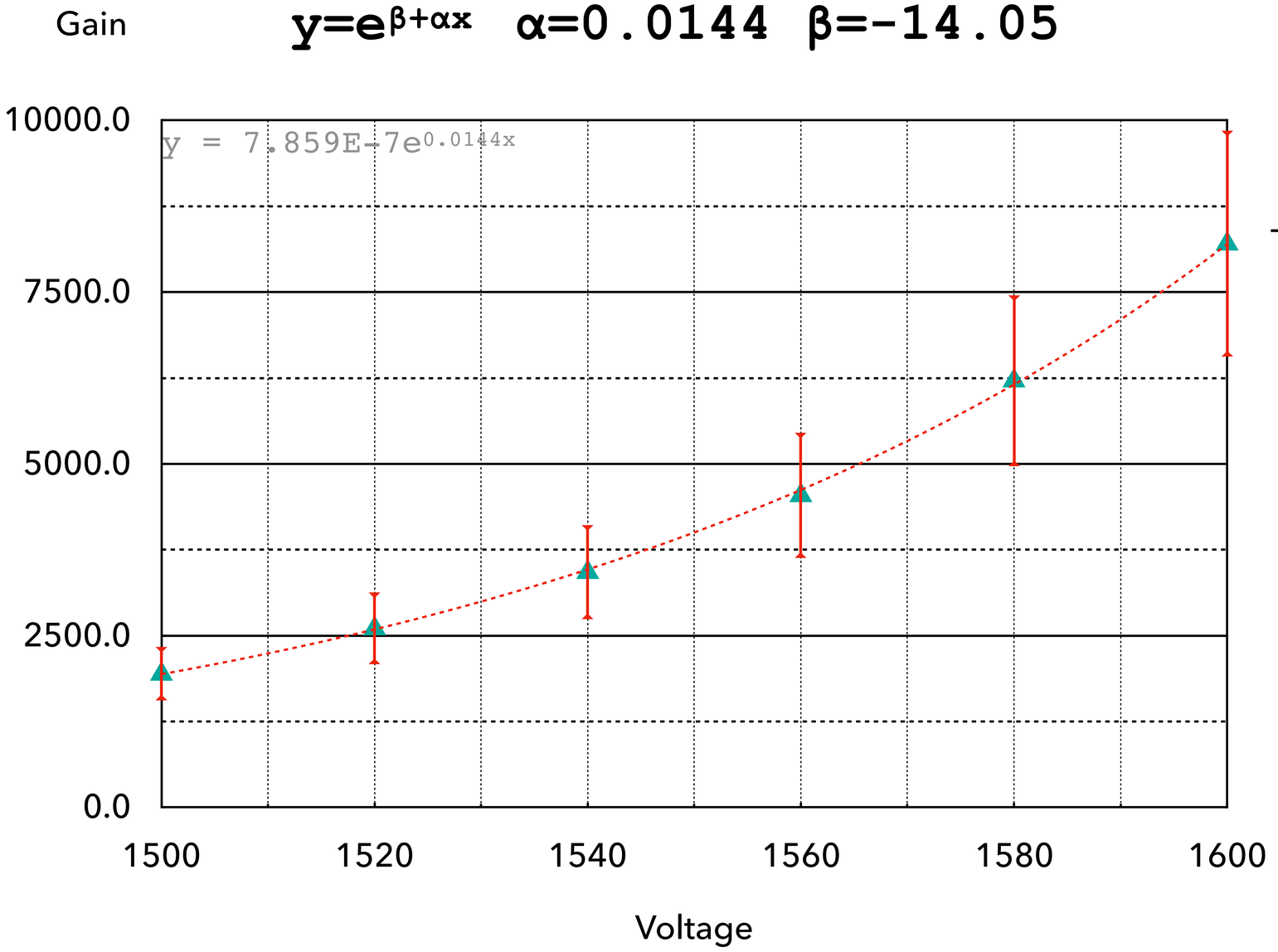

Charge
y = 0.0011x + 0.0082
1.5
1.1
0.8
0.4
0.0
0
200
400
600
800
1000
Channels



Statistics

Voltage	Center	Charge	Sigma
1600	263.4	0.2979	29.63
1580	197.6	0.2256	27.57
1560	142.5	0.1650	17.15
1540	105.6	0.1244	13.6
1520	78.5	0.0946	9.96
1500	56.7	0.0706	7.03



Statistics

Voltage	Charge	Origin	Gain
1600	0.2979	3.63E-05	8205.97
1580	0.2256	3.63E-05	6212.46
1560	0.1650	3.63E-05	4543.11
1540	0.1244	3.63E-05	3425.17
1520	0.0946	3.63E-05	2604.13
1500	0.0706	3.63E-05	1943.67