

Data analysis procedure

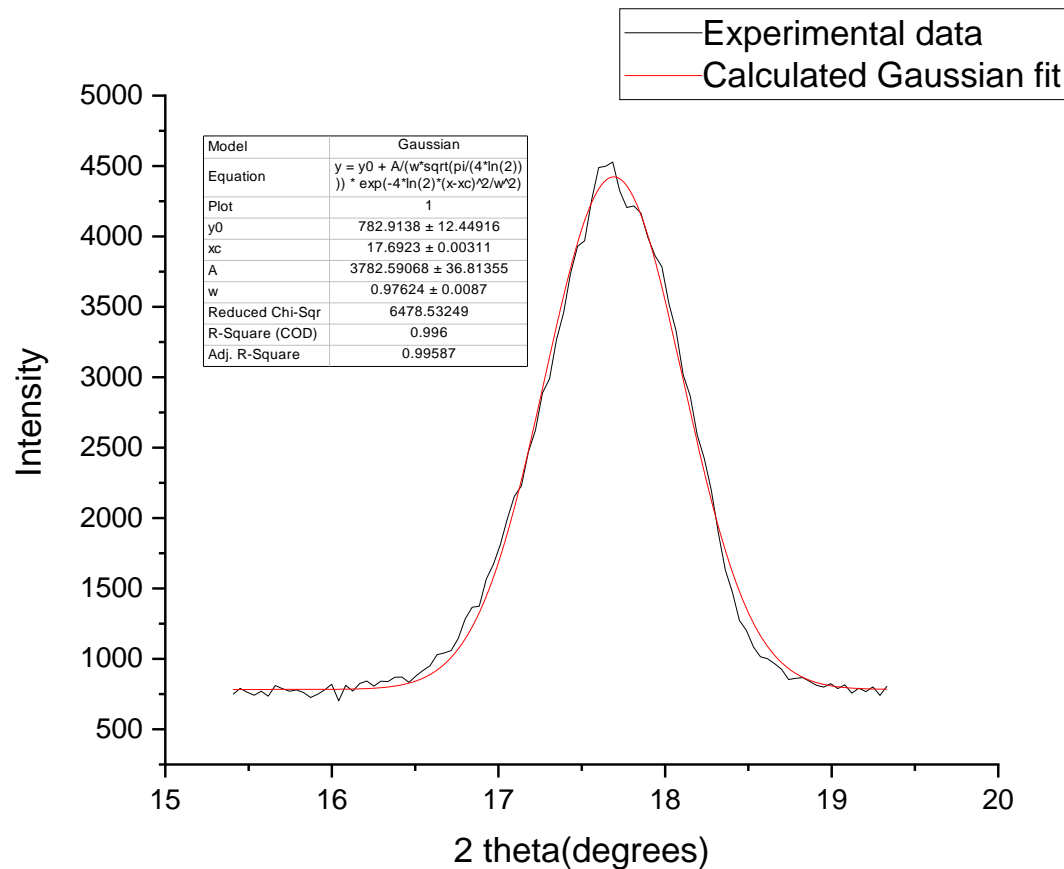
Guled Abukar

Peak 1

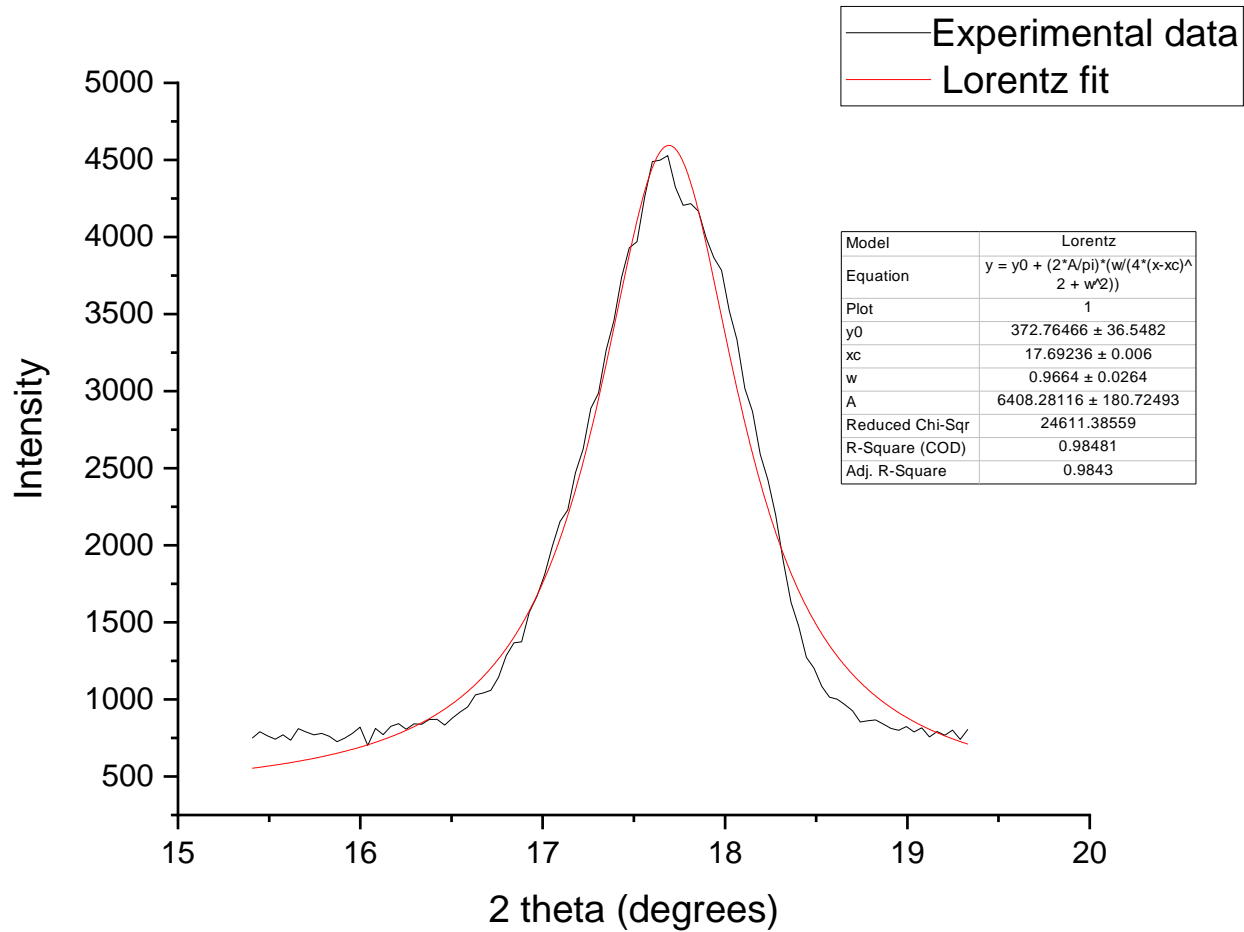
Guled Abukar

First peak analysis for choice of peak function

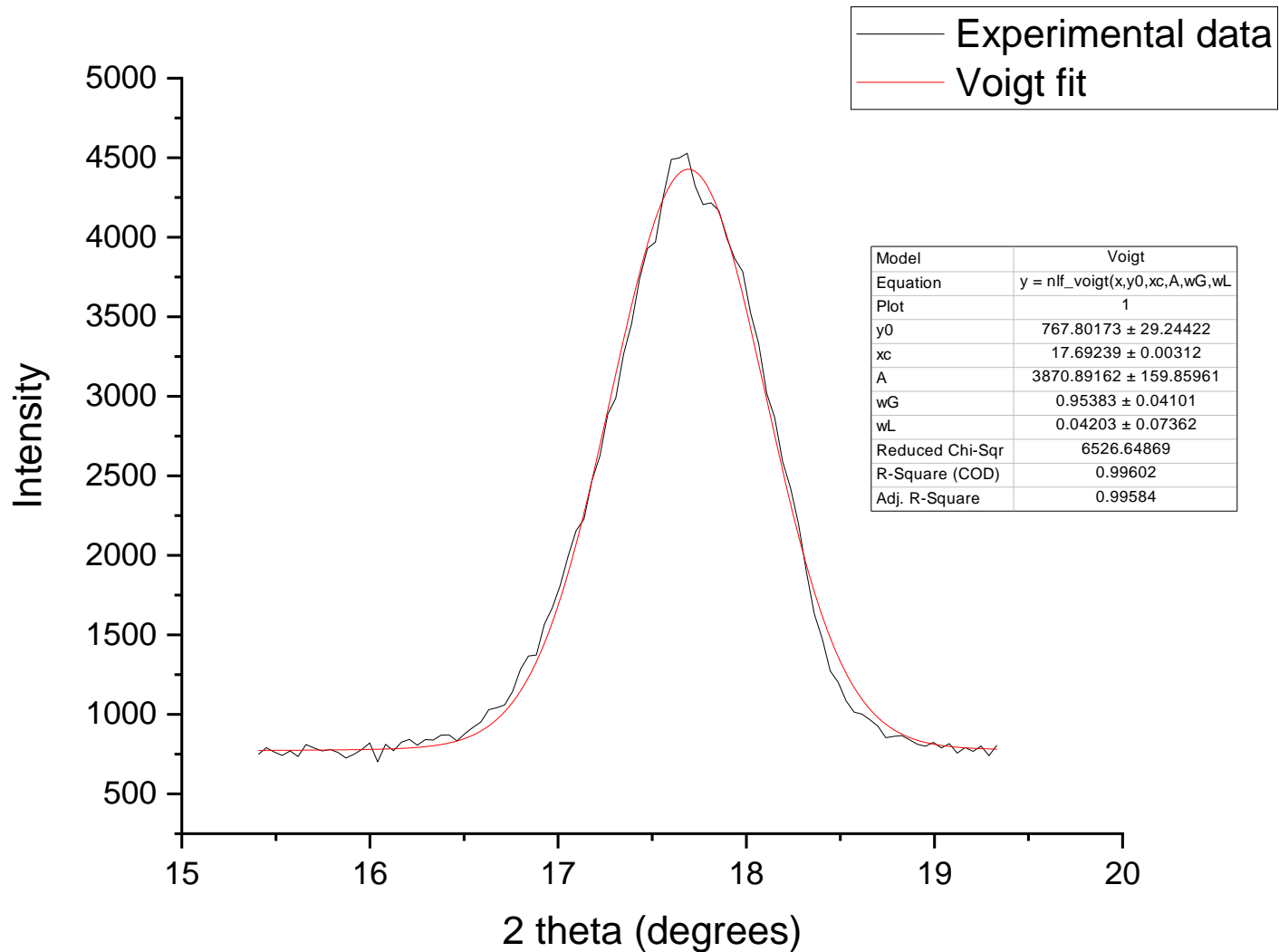
- Gaussian fit



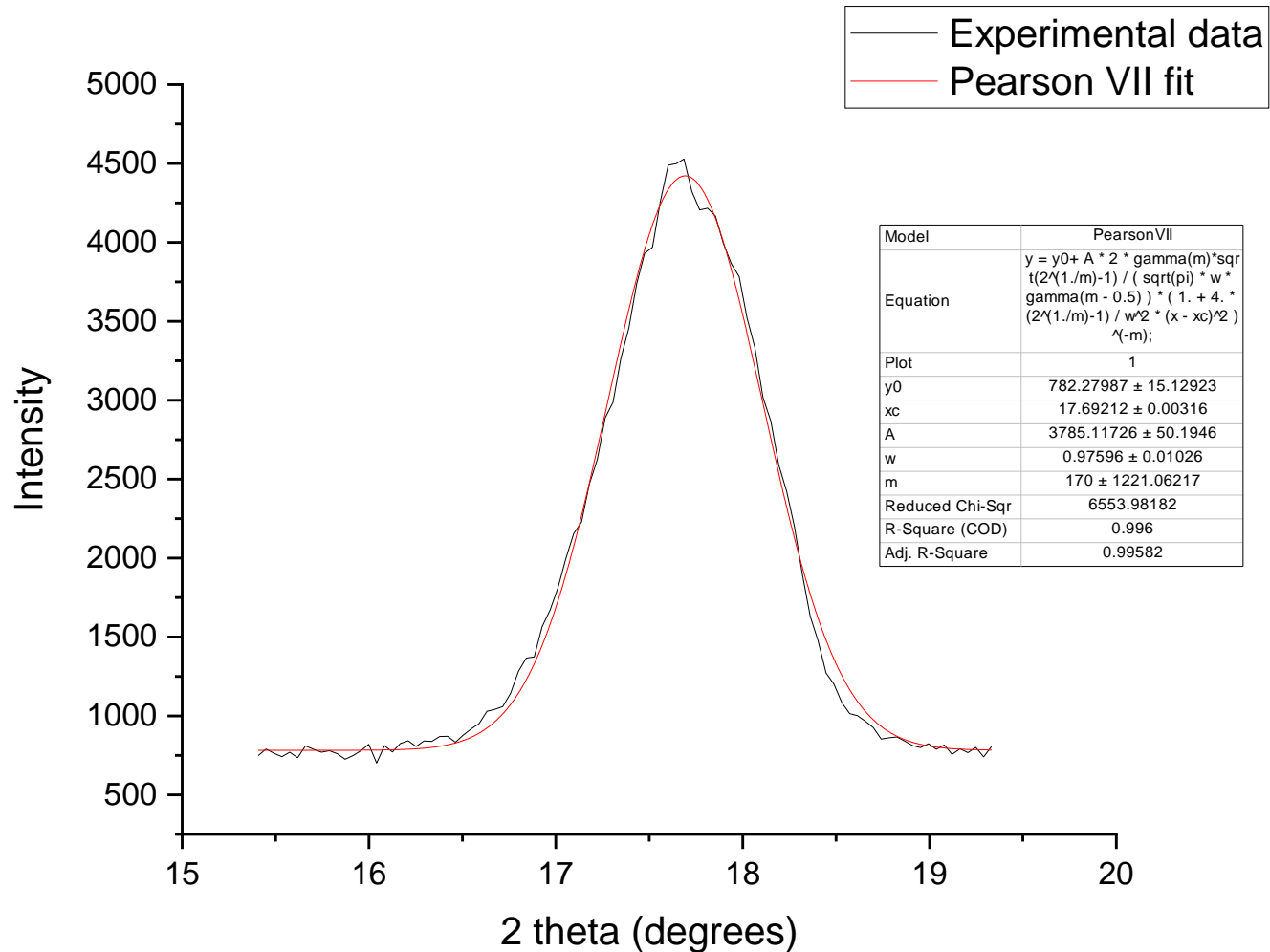
Peak function: Lorentz



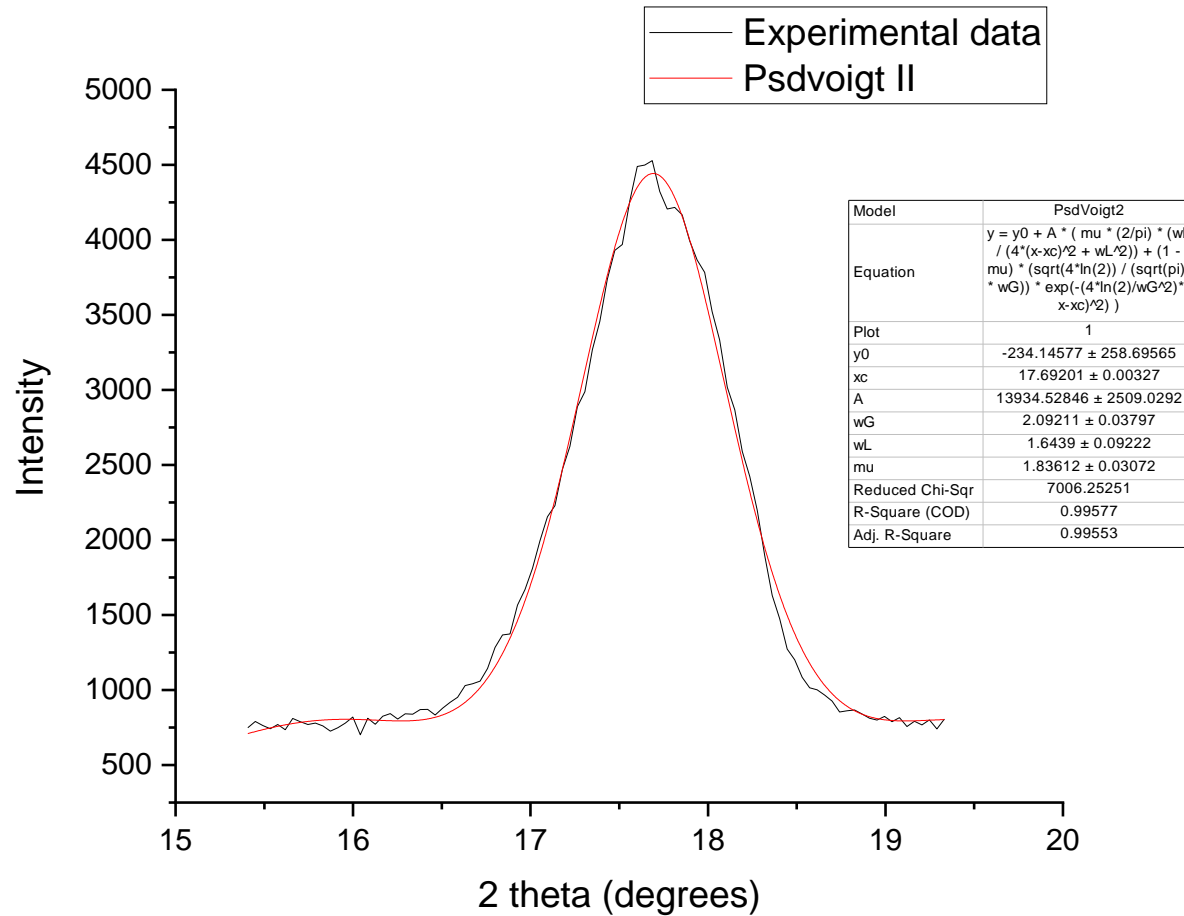
Peak function: Voigt



Peak function: Pearson VII



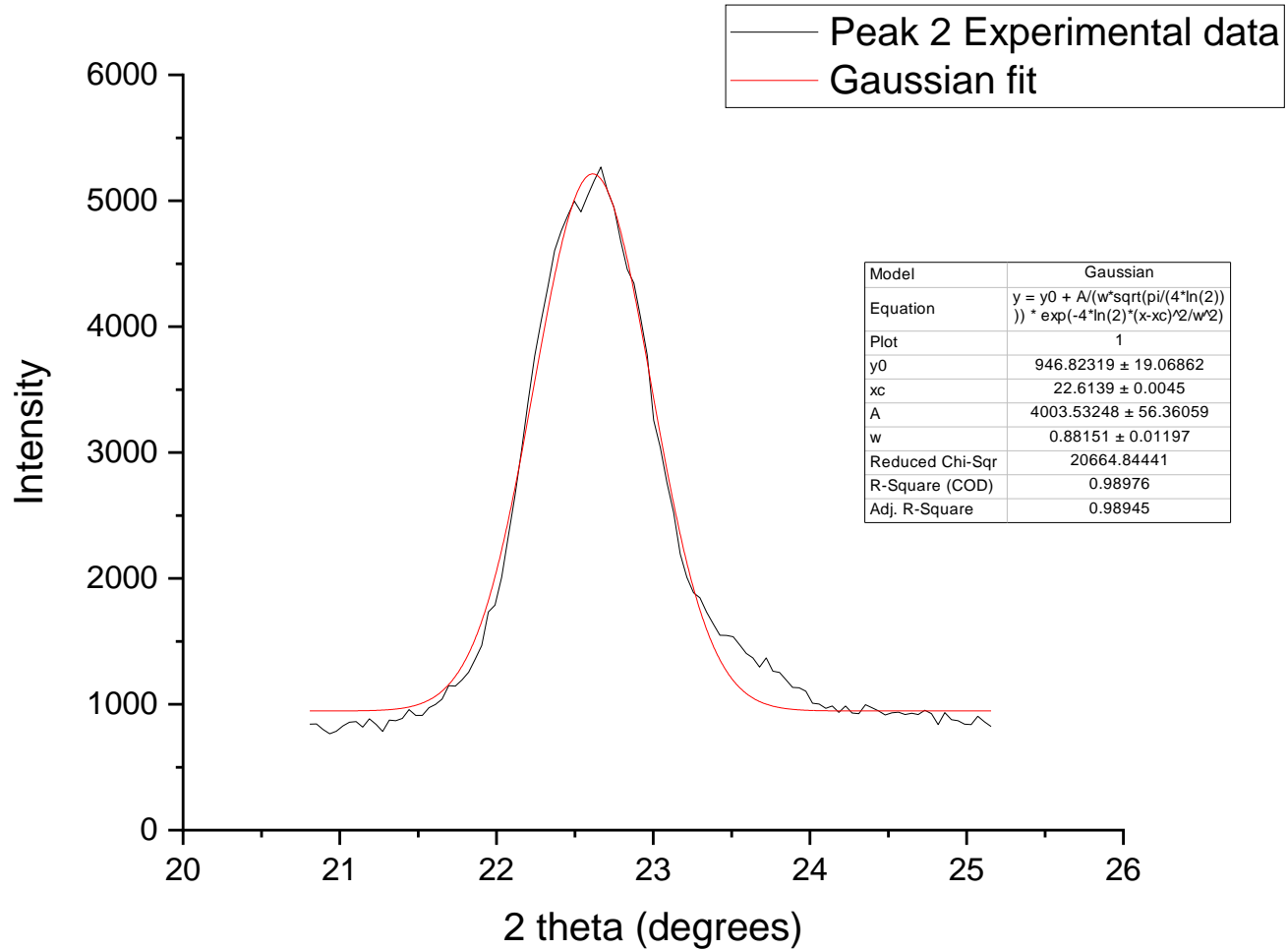
Peak function: Psdvoigt II



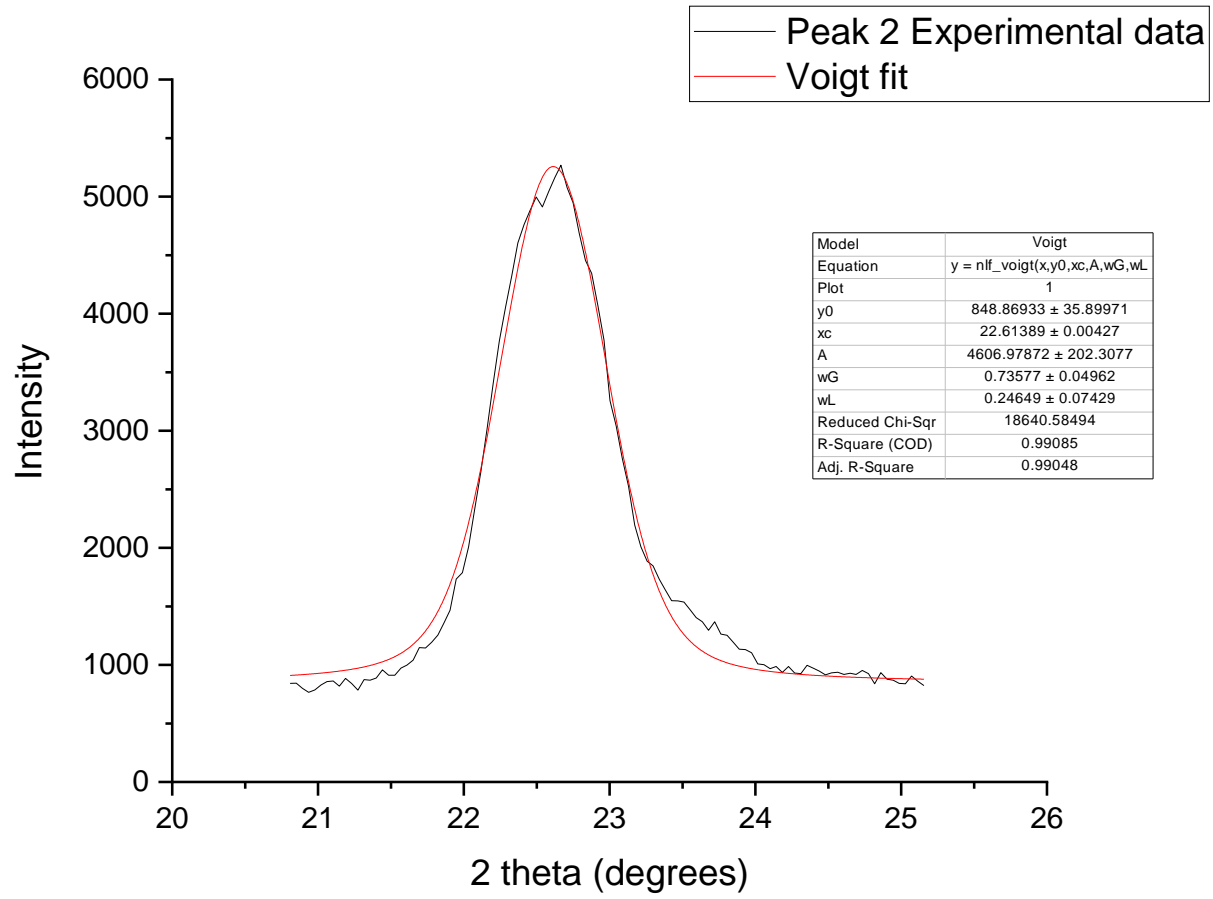
Peak 2

Guled Abukar

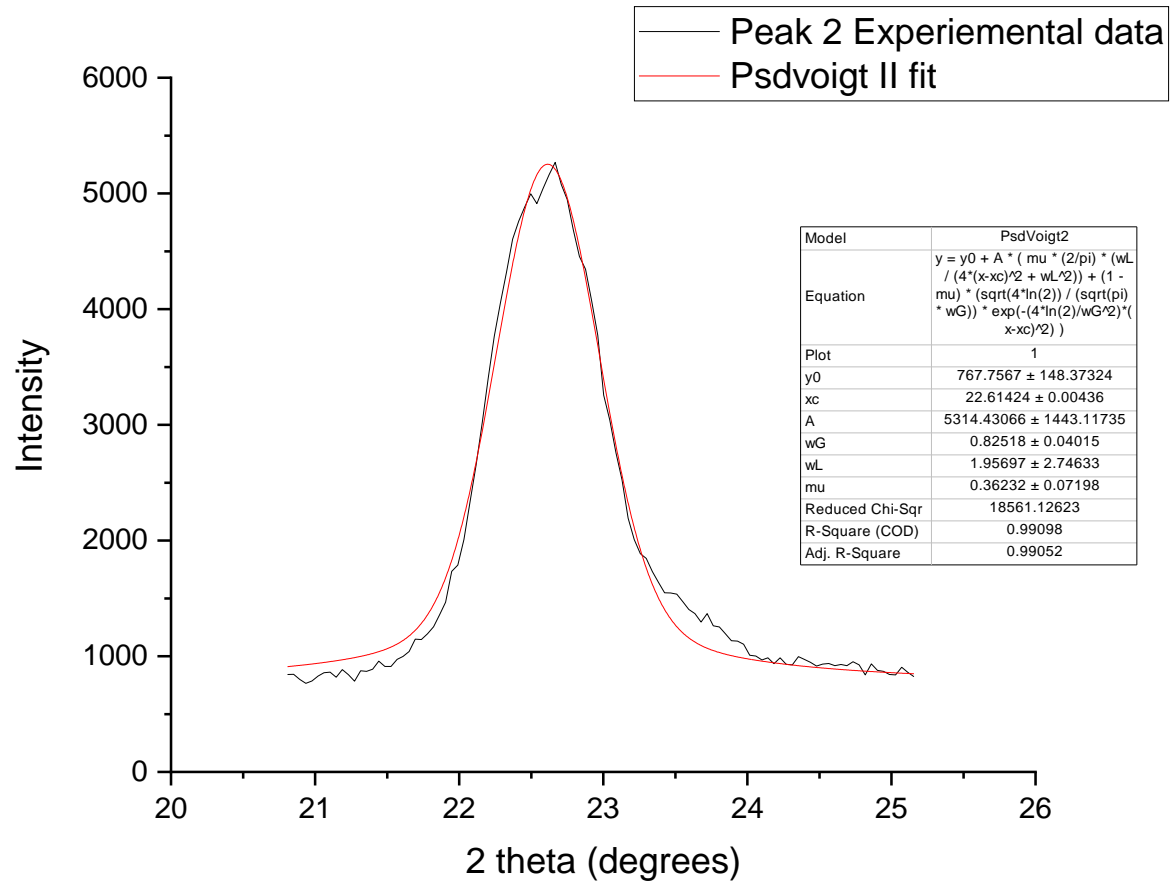
Gaussian



Voigt



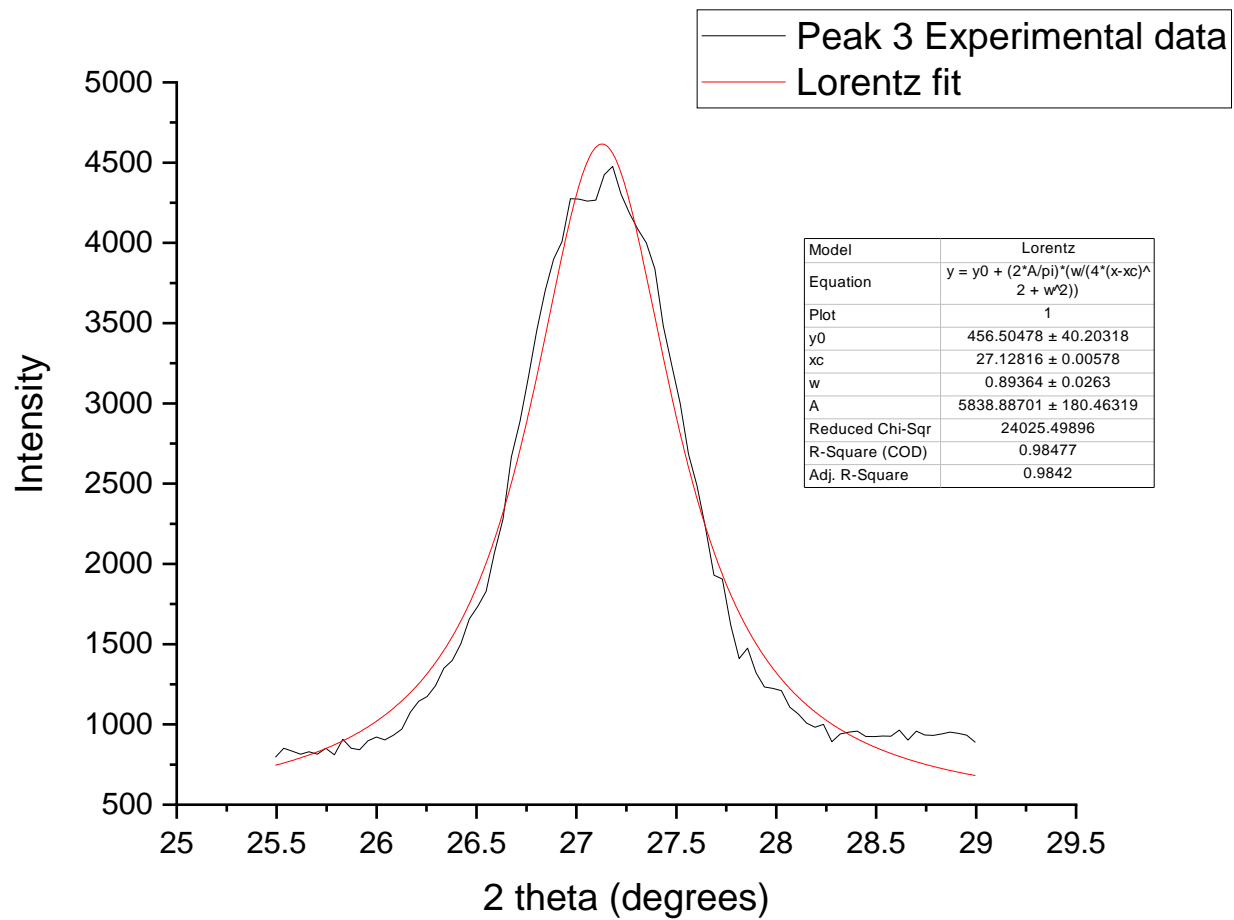
Psdvoigt II



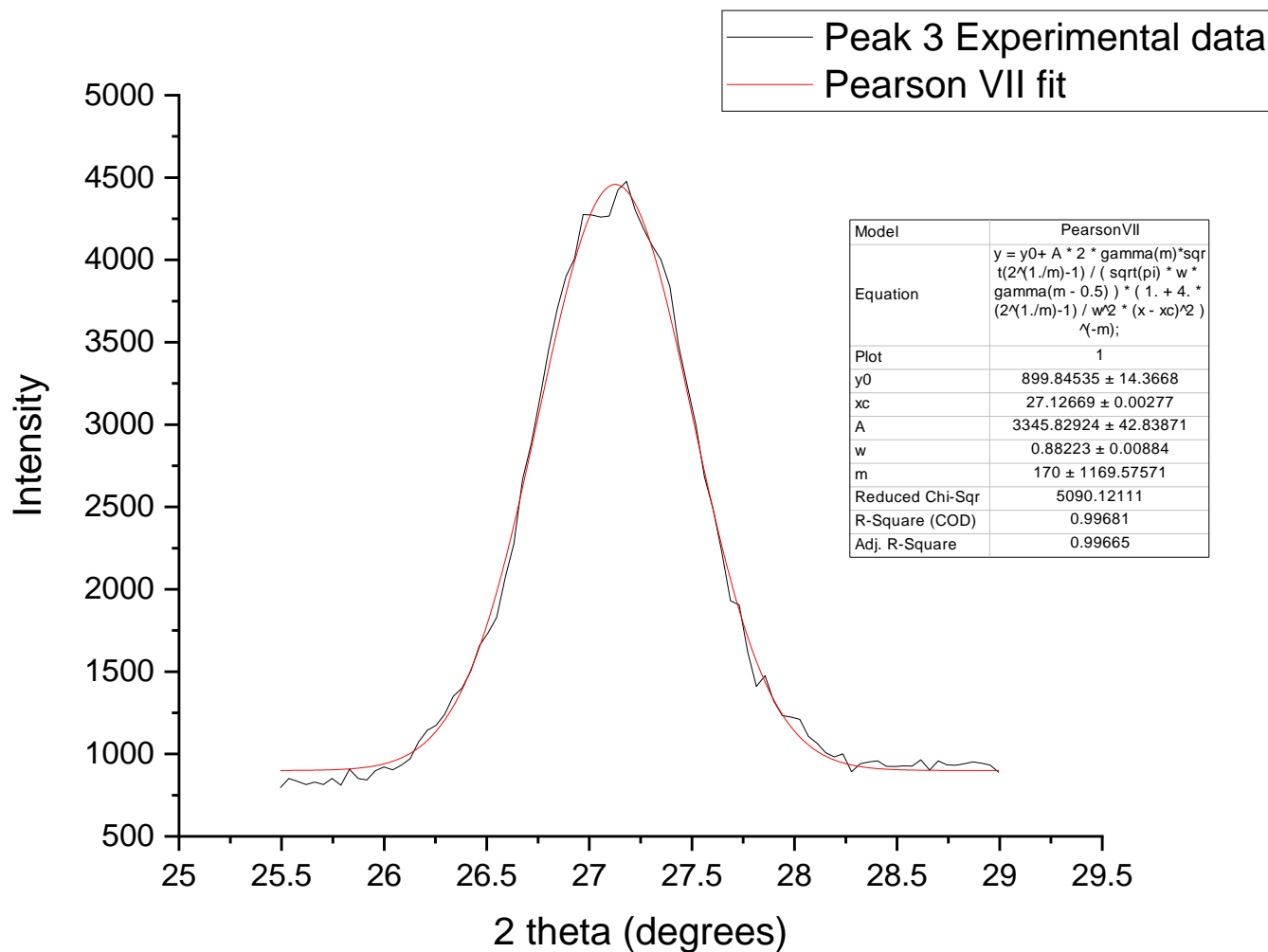
Peak 3

Guled Abukar

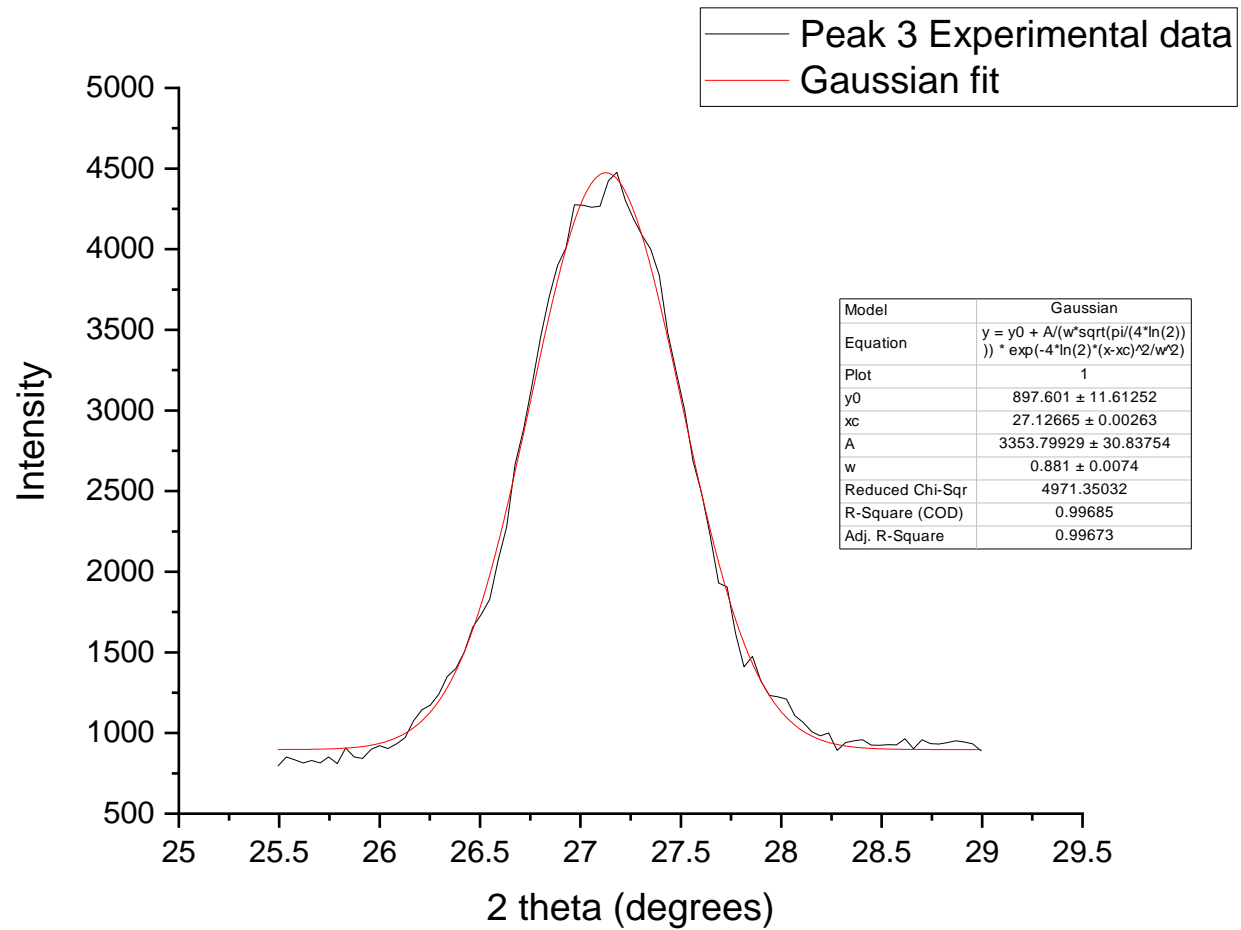
Lorentz



Pearson VII



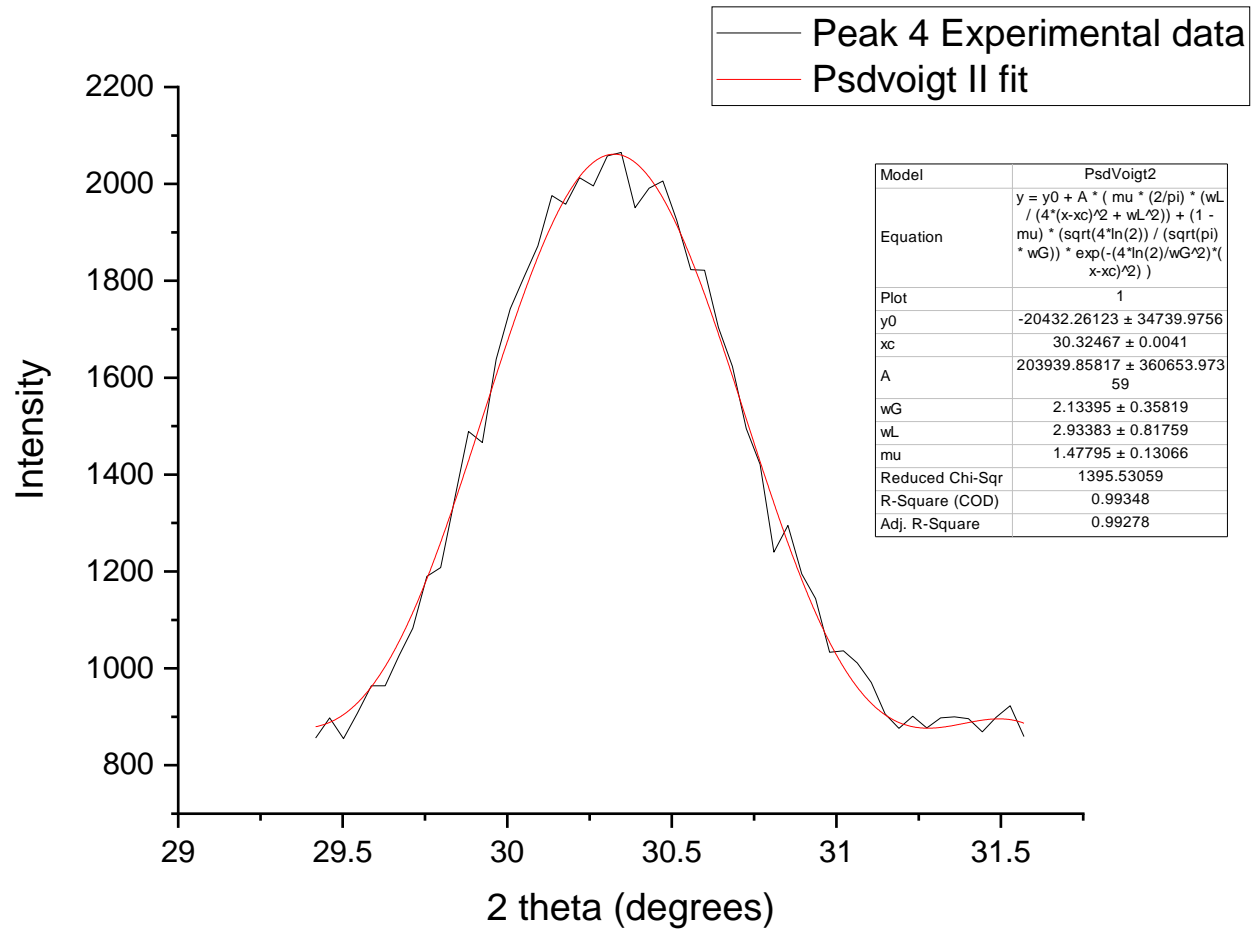
Gaussian



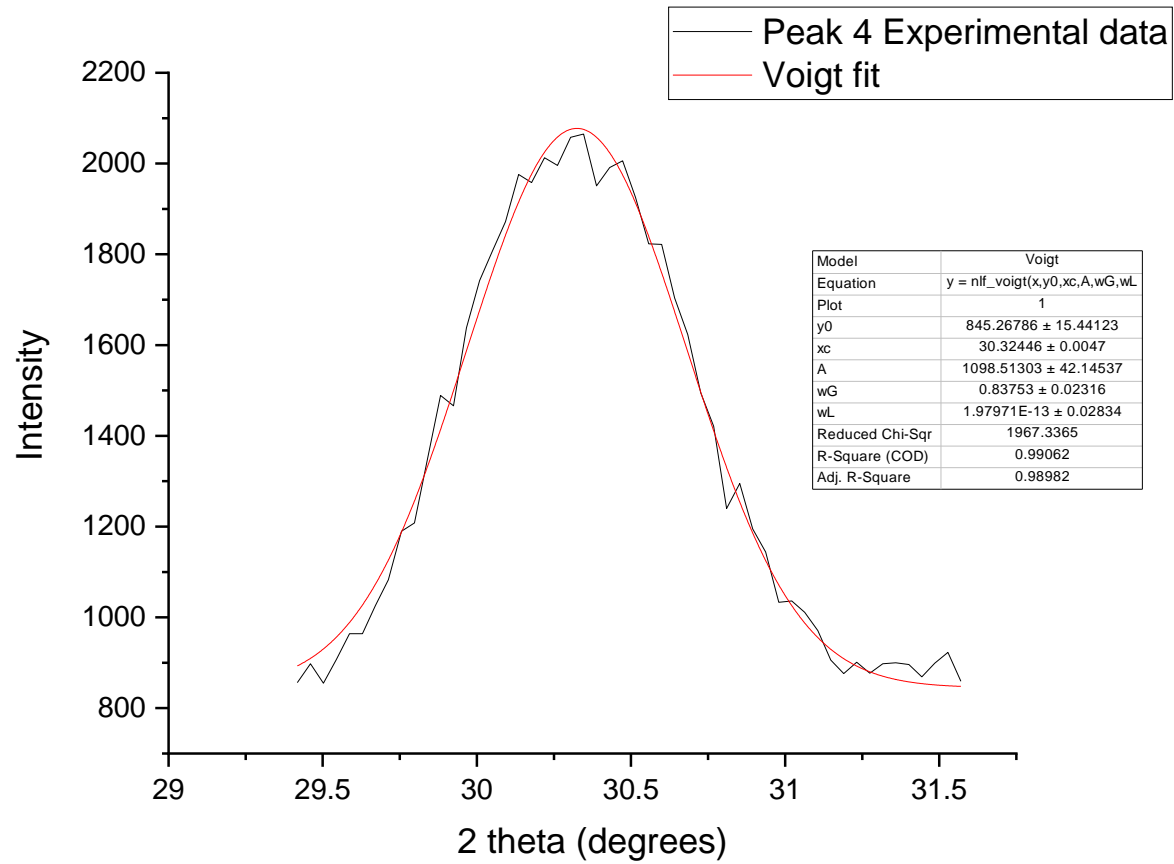
Peak 4

Guled Abukar

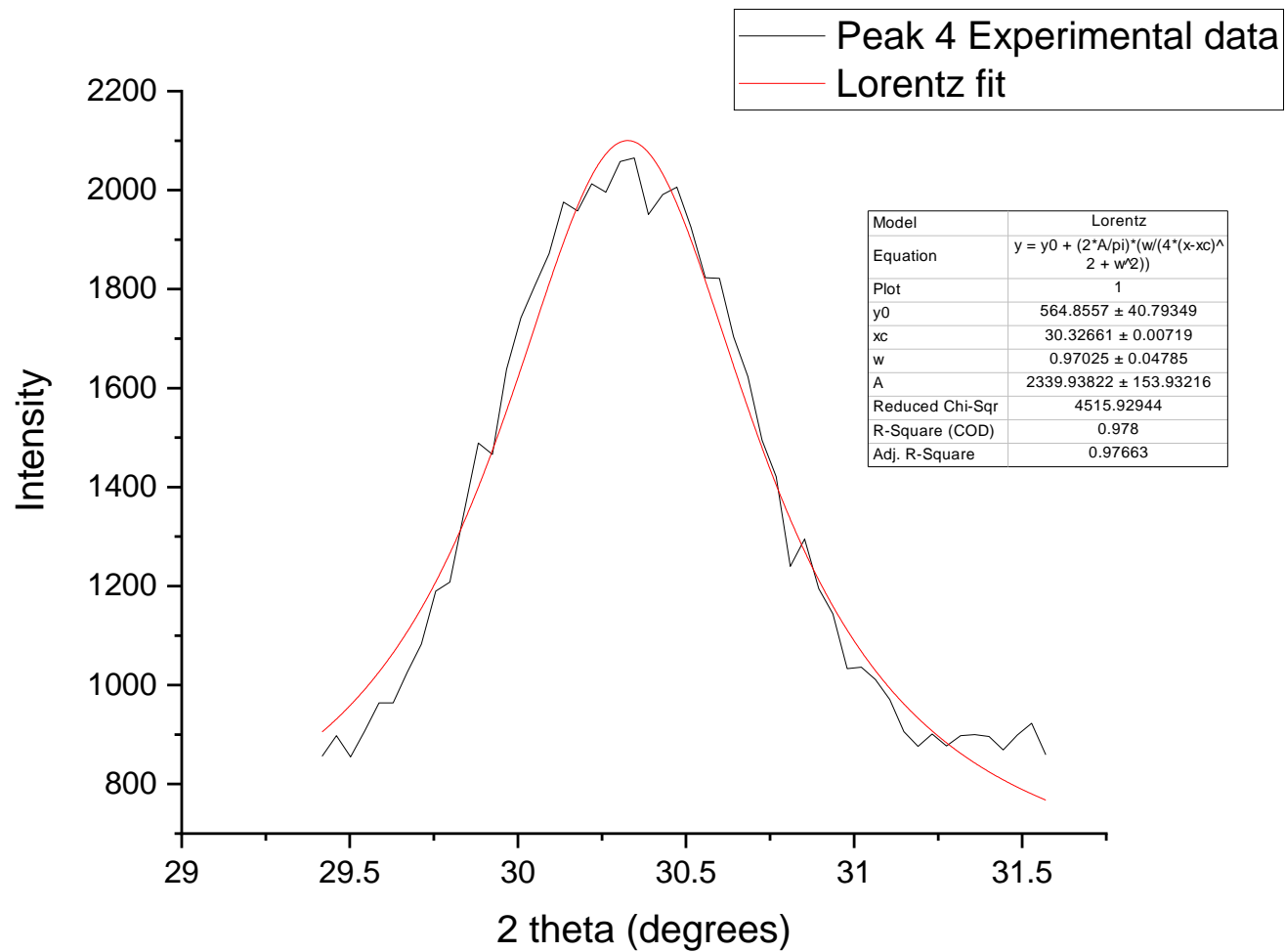
Psdvoigt II



Voigt



Lorentz



Multiple peak fittings

As you can see below, you can find all the multiple peak fittings by clicking on the 'project explorer' tab on the far left for access

Project Explorer (1)

All multiple peak fittings of main data set for MgB.opju

Folder1

Name	Size	Comments
AandADpe...	110KB	
AandAEpe...	142KB	
AandAFpe...	131KB	
AandAGpe...	142KB	
AandAHpe...	152KB	
AandAlpea...	131KB	
AandAlpe...	152KB	
AandAKpe...	142KB	
AandCpeaks	110KB	
AandDpeaks	120KB	
AandEpeaks	131KB	
AandFpeaks	183KB	
AandGpeaks	152KB	
AandHpeaks	143KB	
AandIpeaks	173KB	
AandJpeaks	173KB	
AandKpeaks	152KB	
AandLpeaks	142KB	
AandMpea...	163KB	
AandNpeaks	110KB	
AtoALpeaks	140KB	
AtoAMpea...	150KB	
Cordierite...	36KB	
Maindatas...	6MB	

Object Manager

Apps

Add Apps

Stats Advisor

Simple Fit

Sequential Fit

Send Graphs to Word

Send Graphs to PowerP...

Graph Maker

All multiple peak fittings of main data set for MgB is saved.

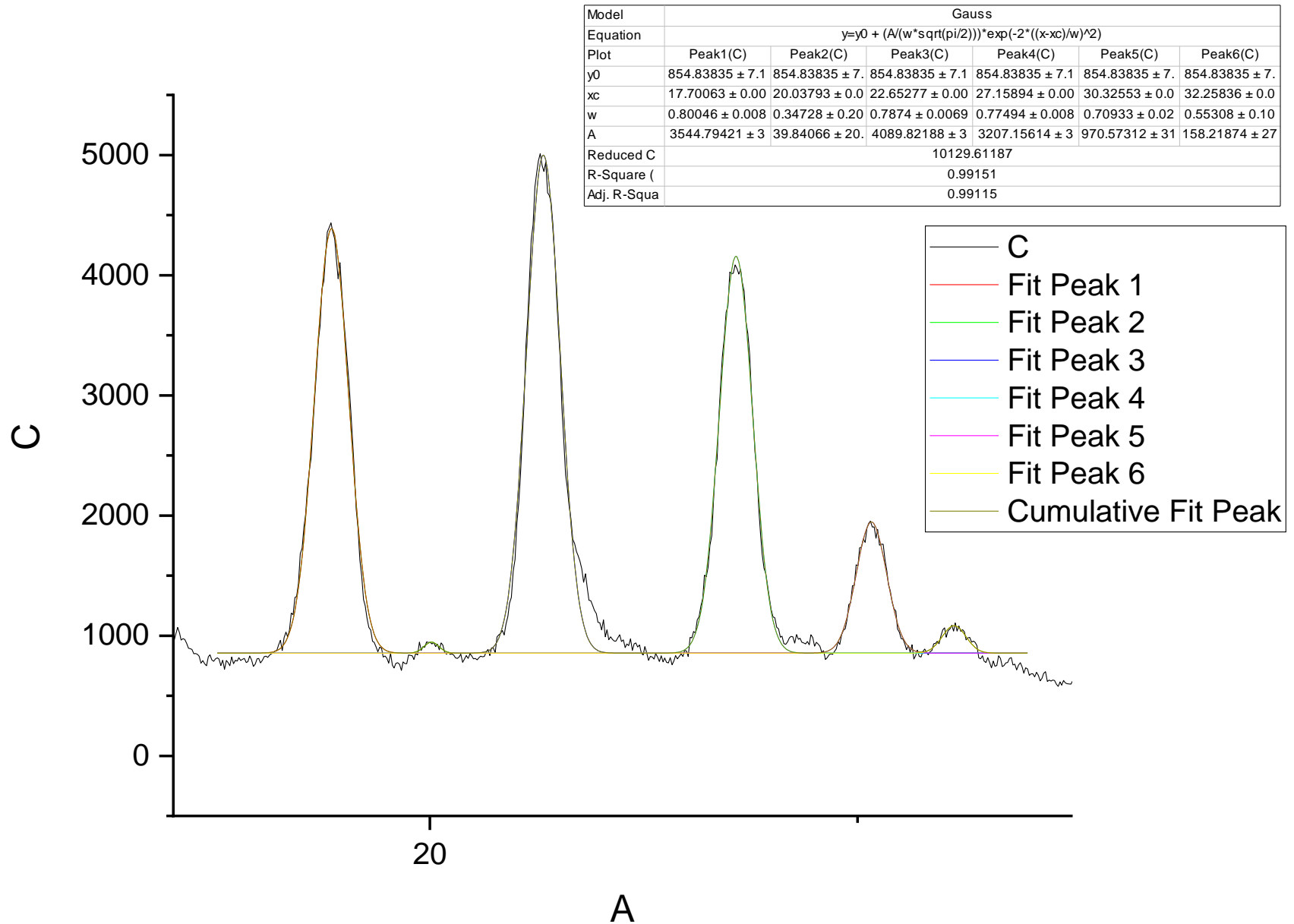
AU : ON

1:[MaindatasetMg]Sheet1Col(AO)[1:2250] 1:[Cordieritepeaks]1:1 Radian

17:59

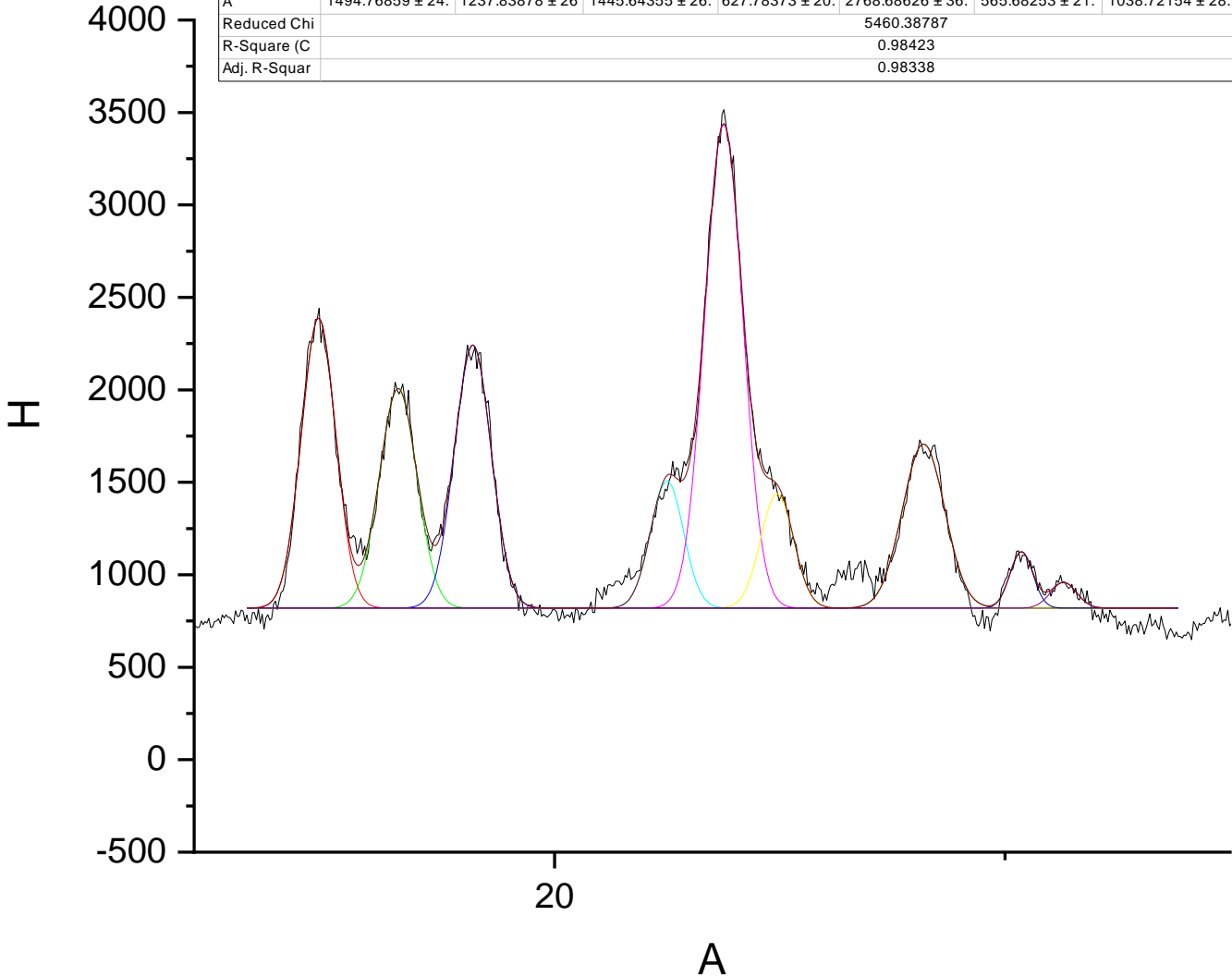
04/08/2020

A and C

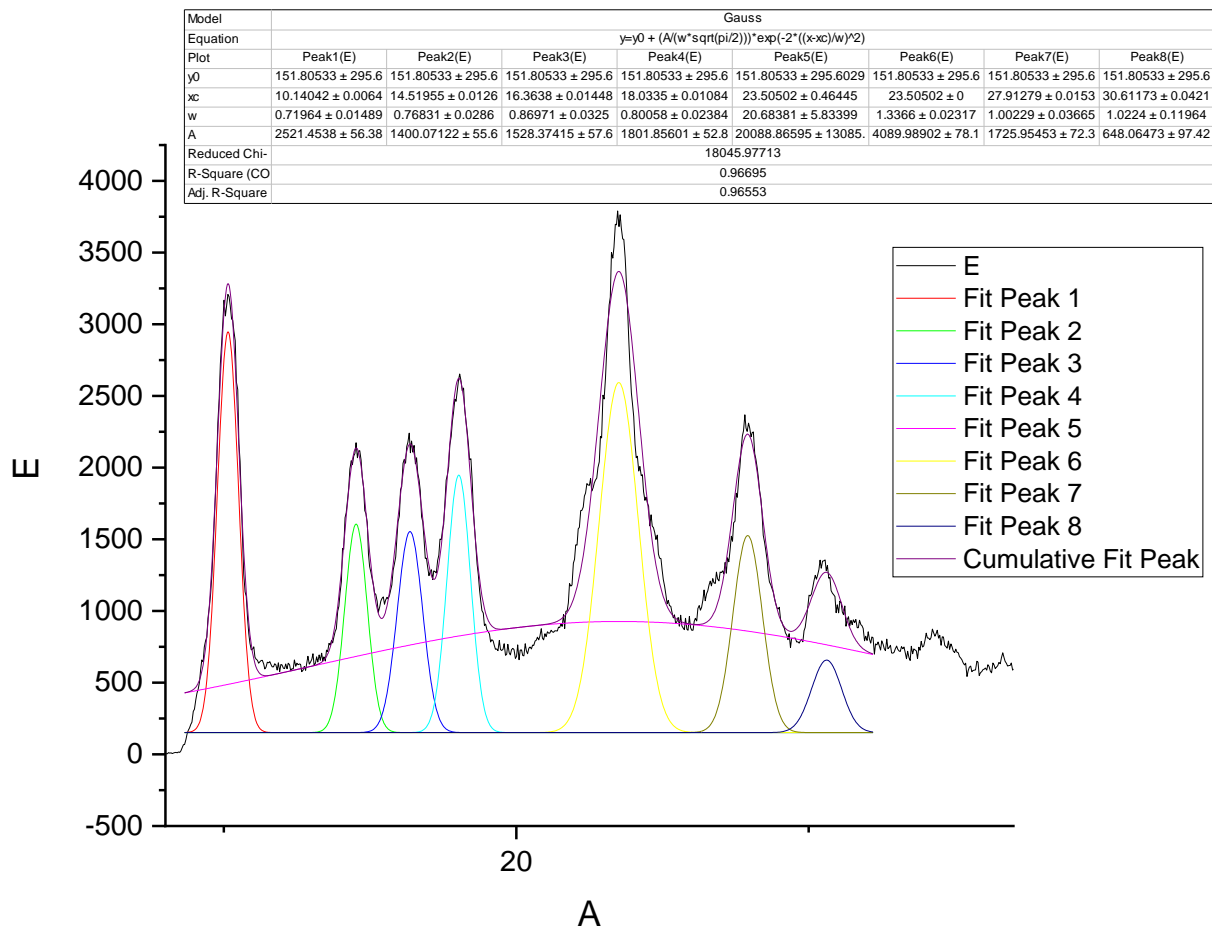


A and H

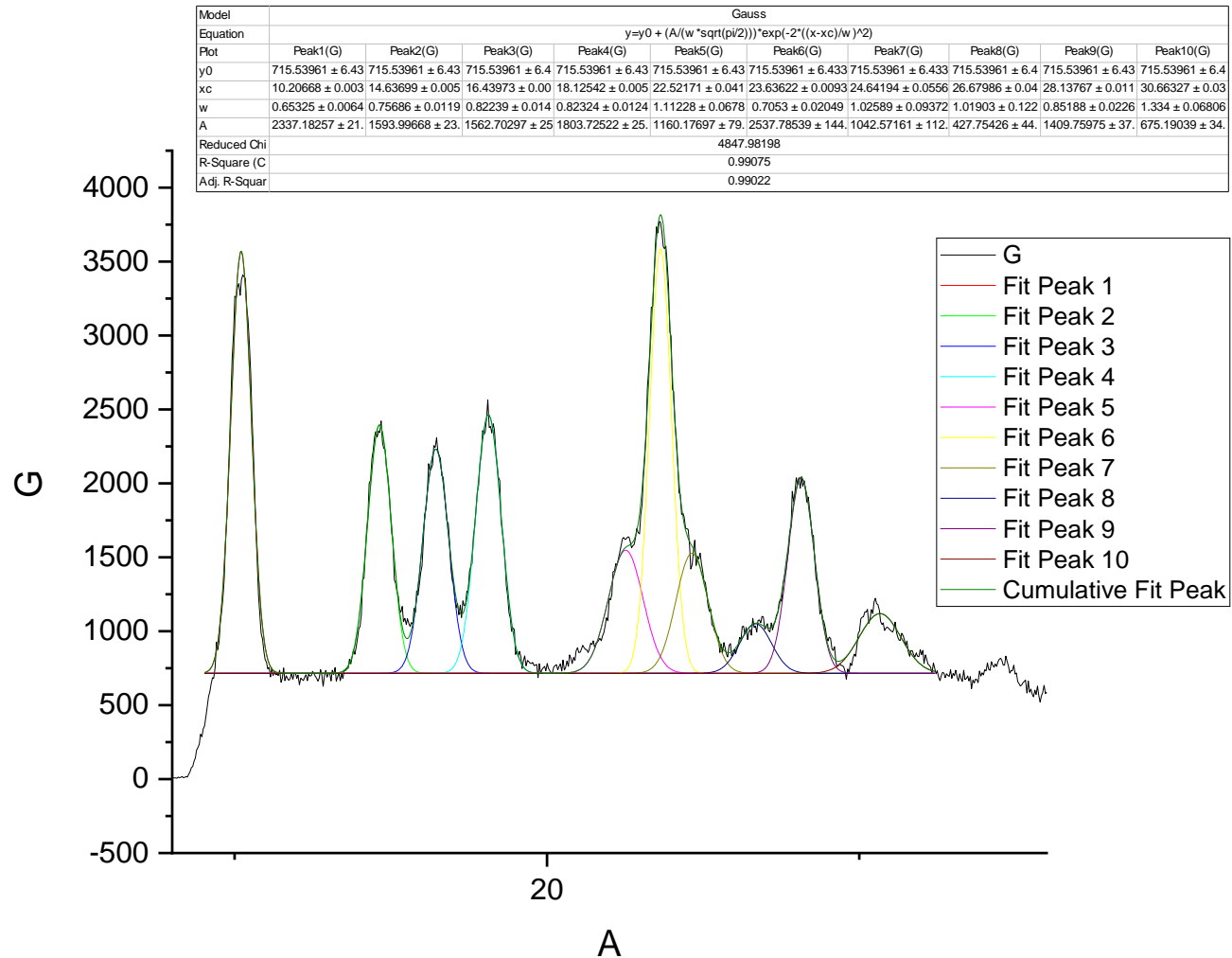
Model	Gauss									
Equation	$y=y_0 + (A/(w*\sqrt{\pi/2})) * \exp(-2*((x-xc)/w)^2)$									
Plot	Peak1(H)	Peak2(H)	Peak3(H)	Peak4(H)	Peak5(H)	Peak6(H)	Peak7(H)	Peak8(H)	Peak9(H)	
y0	819.84935 ± 5.93	819.84935 ± 5.9	819.84935 ± 5.93	819.84935 ± 5.9	819.84935 ± 5.93	819.84935 ± 5.9	819.84935 ± 5.93	819.84935 ± 5.9	819.84935 ± 5.9	819.84935 ± 5.9
xc	14.76232 ± 0.006	16.5286 ± 0.009	18.18668 ± 0.007	22.49927 ± 0.01	23.75725 ± 0.004	24.94171 ± 0.02	28.19293 ± 0.012	30.36665 ± 0.03	31.30149 ± 0.07	
w	0.76118 ± 0.0136	0.83203 ± 0.020	0.81112 ± 0.0161	0.72948 ± 0	0.84496 ± 0.0128	0.73005 ± 0	0.9344 ± 0.02635	0.50804 ± 0.067	0.57748 ± 0.162	
A	1494.76859 ± 24.	1237.83878 ± 26	1445.64355 ± 26.	627.78373 ± 20.	2768.68626 ± 36.	565.68253 ± 21.	1038.72154 ± 28.	193.75105 ± 23.	100.70185 ± 24.	
Reduced Chi	5460.38787									
R-Square (C	0.98423									
Adj. R-Squar	0.98338									



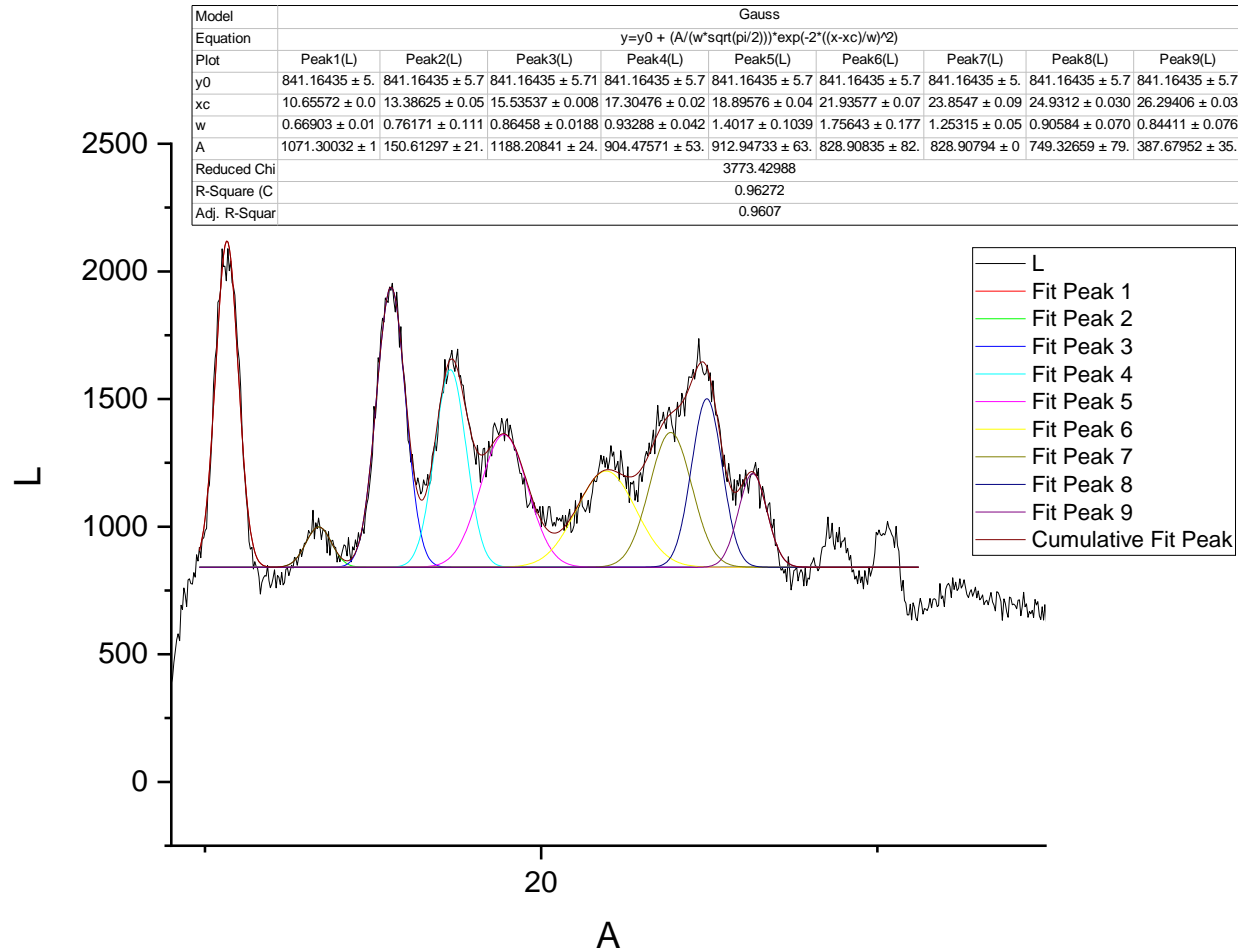
A and E



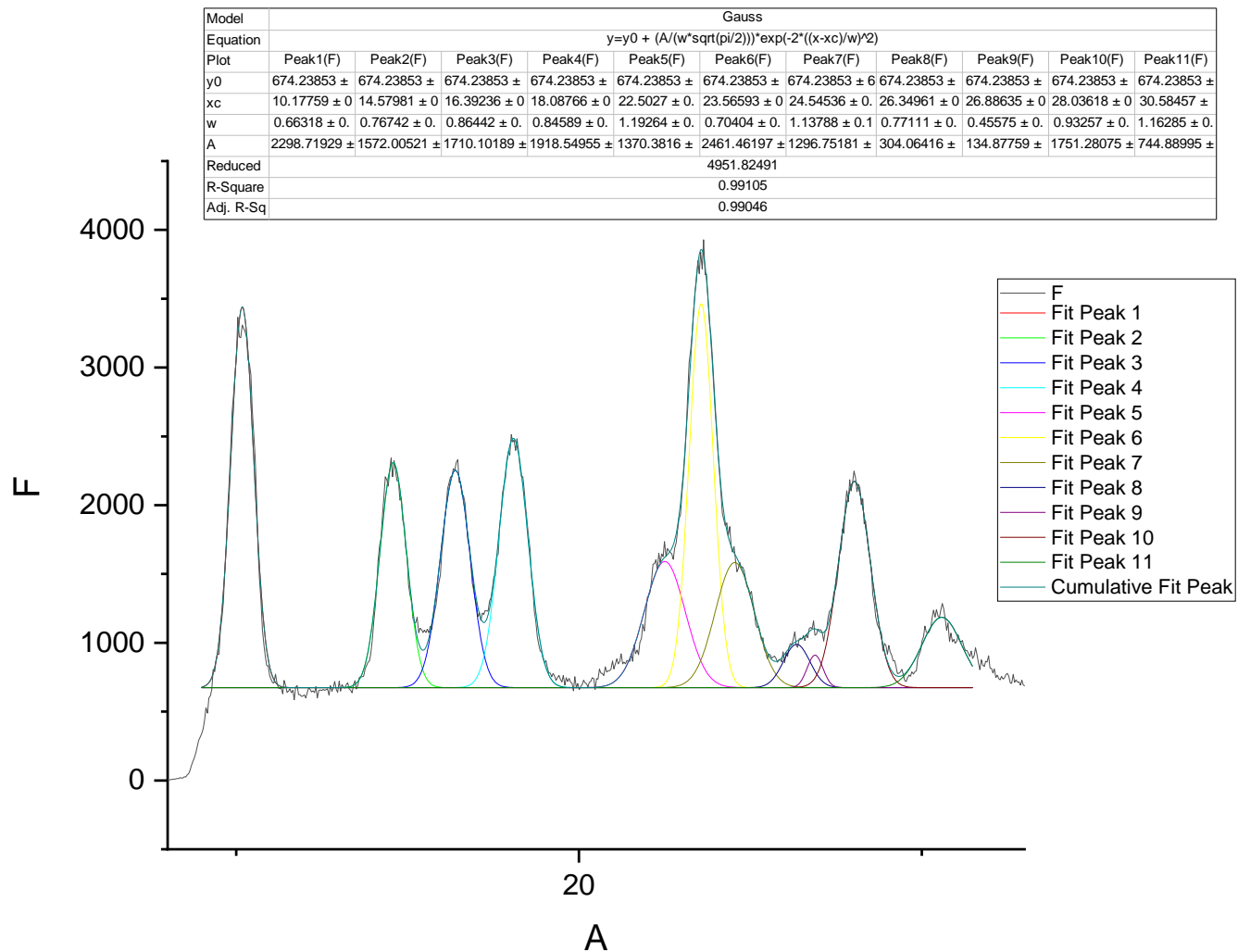
A and G



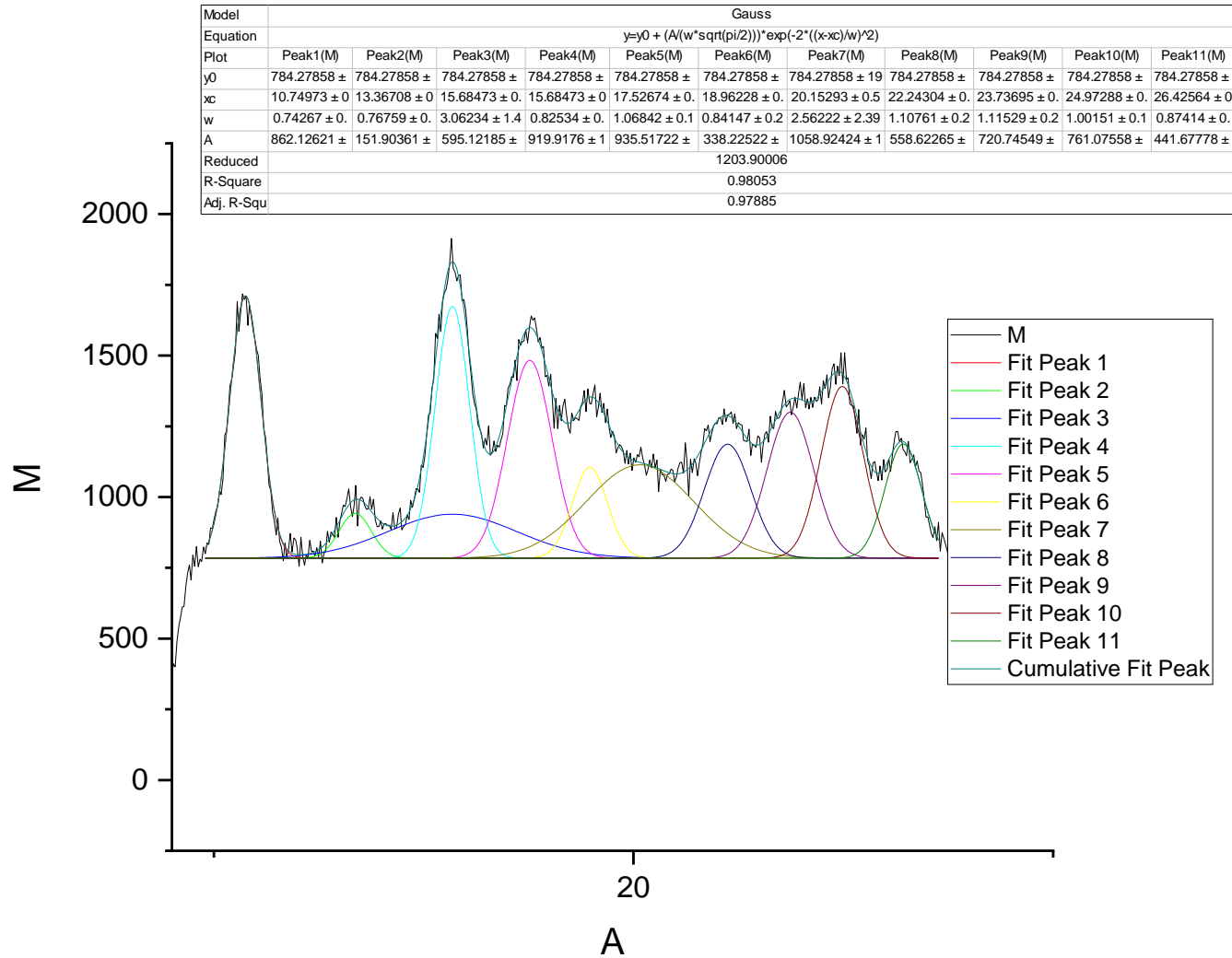
A and L



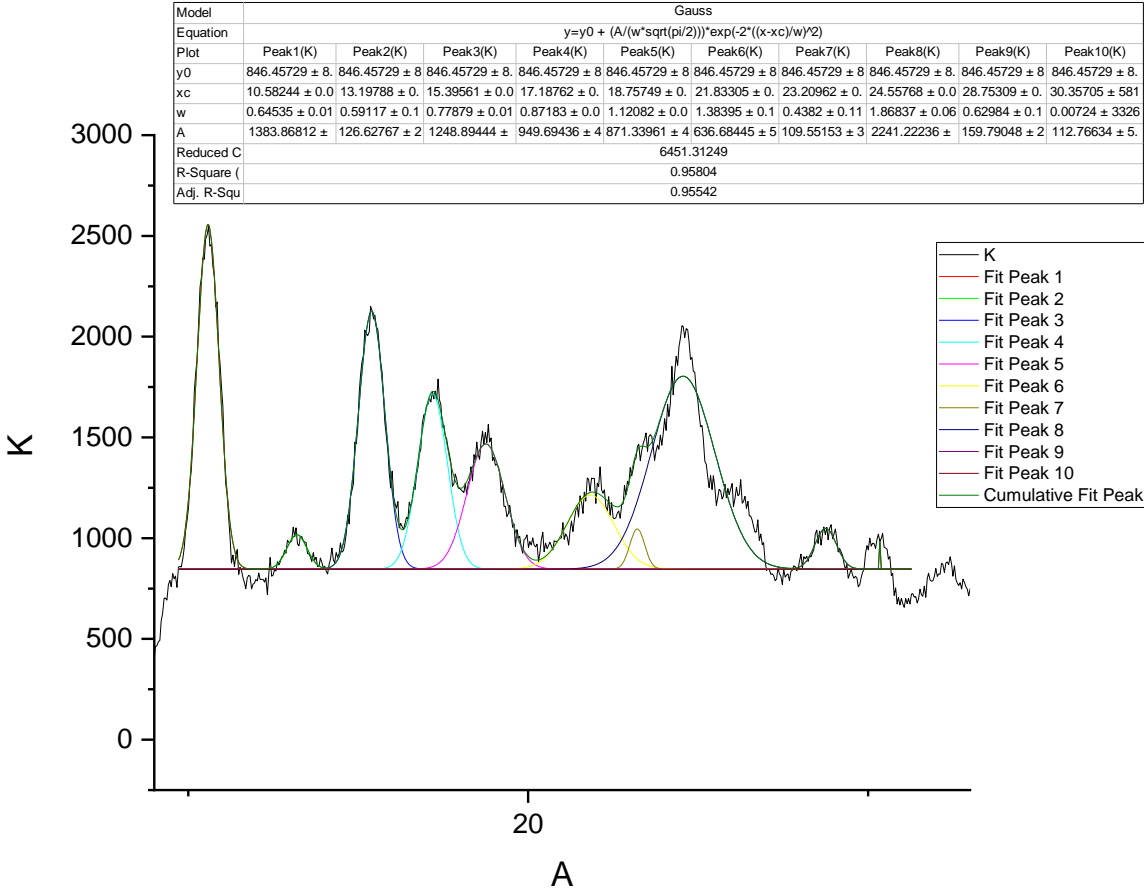
A and F



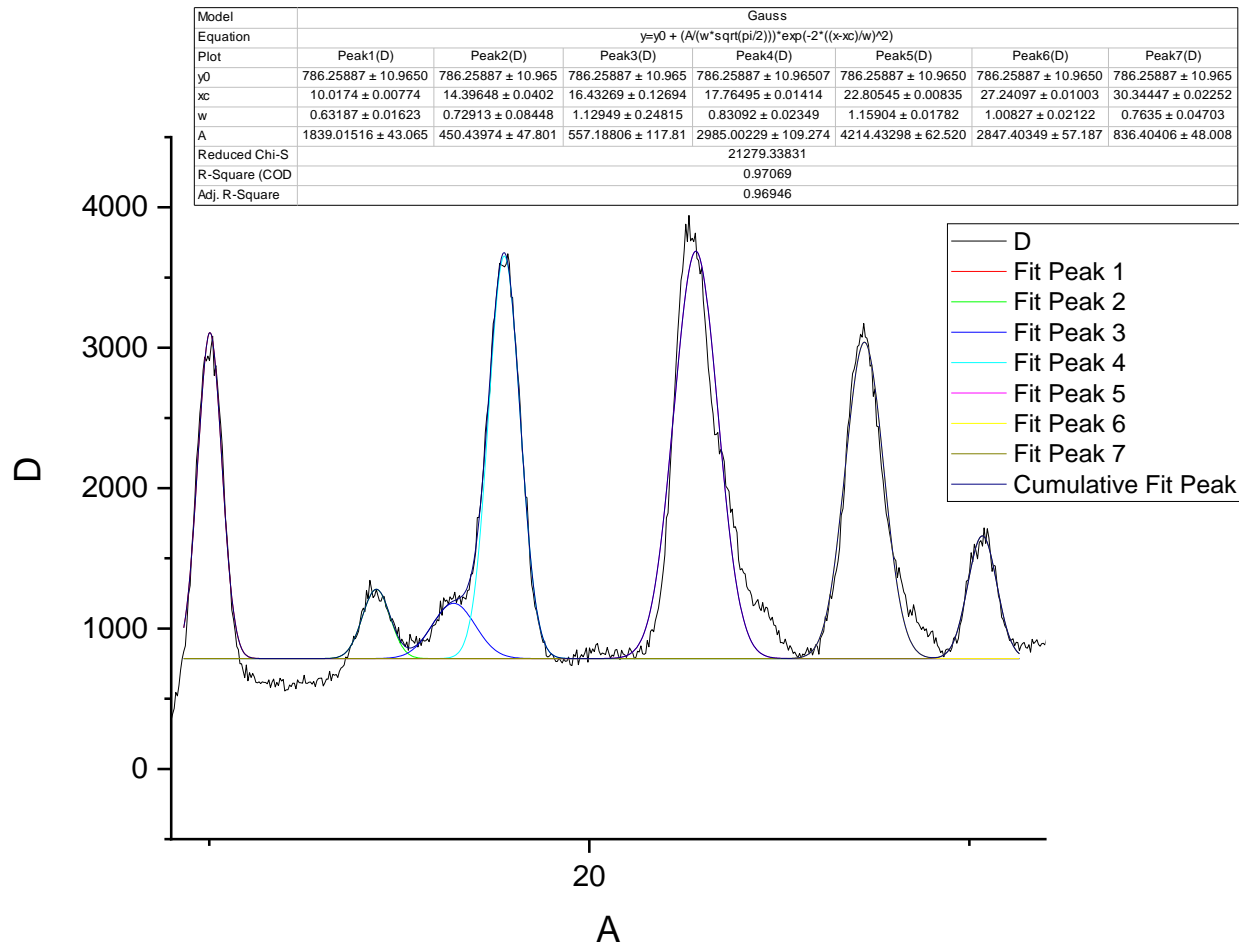
A and M



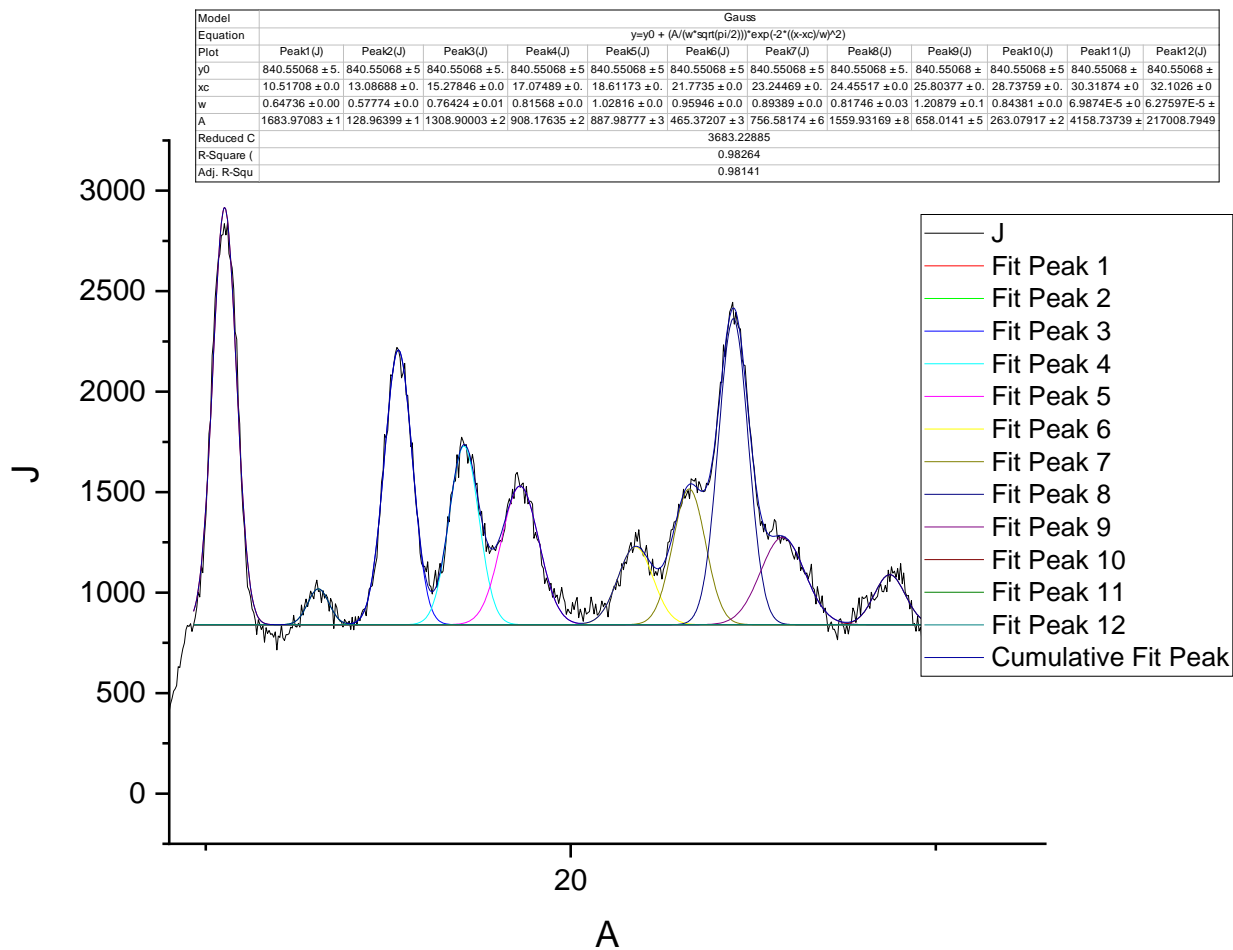
A and K



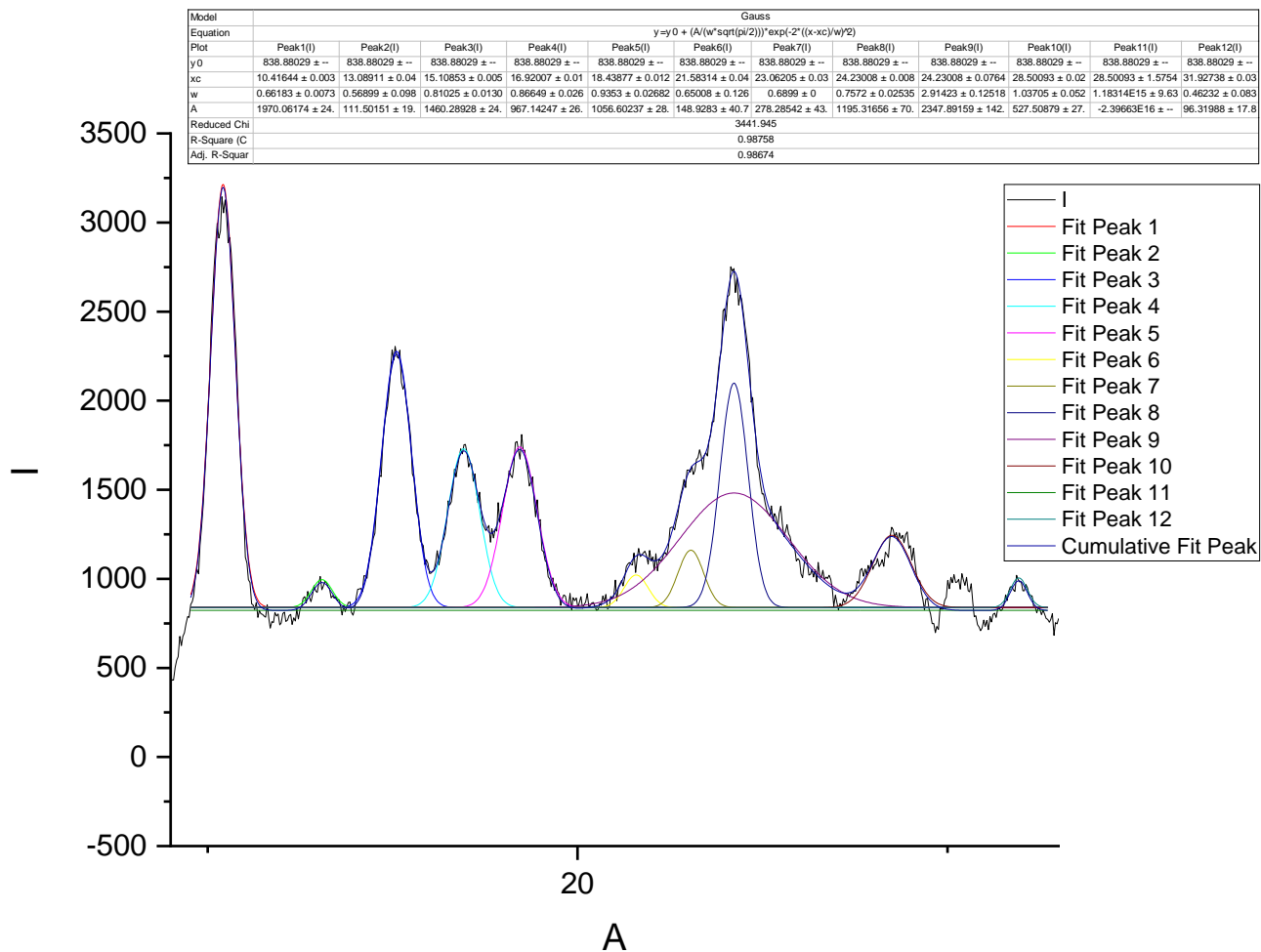
A and D



A and J



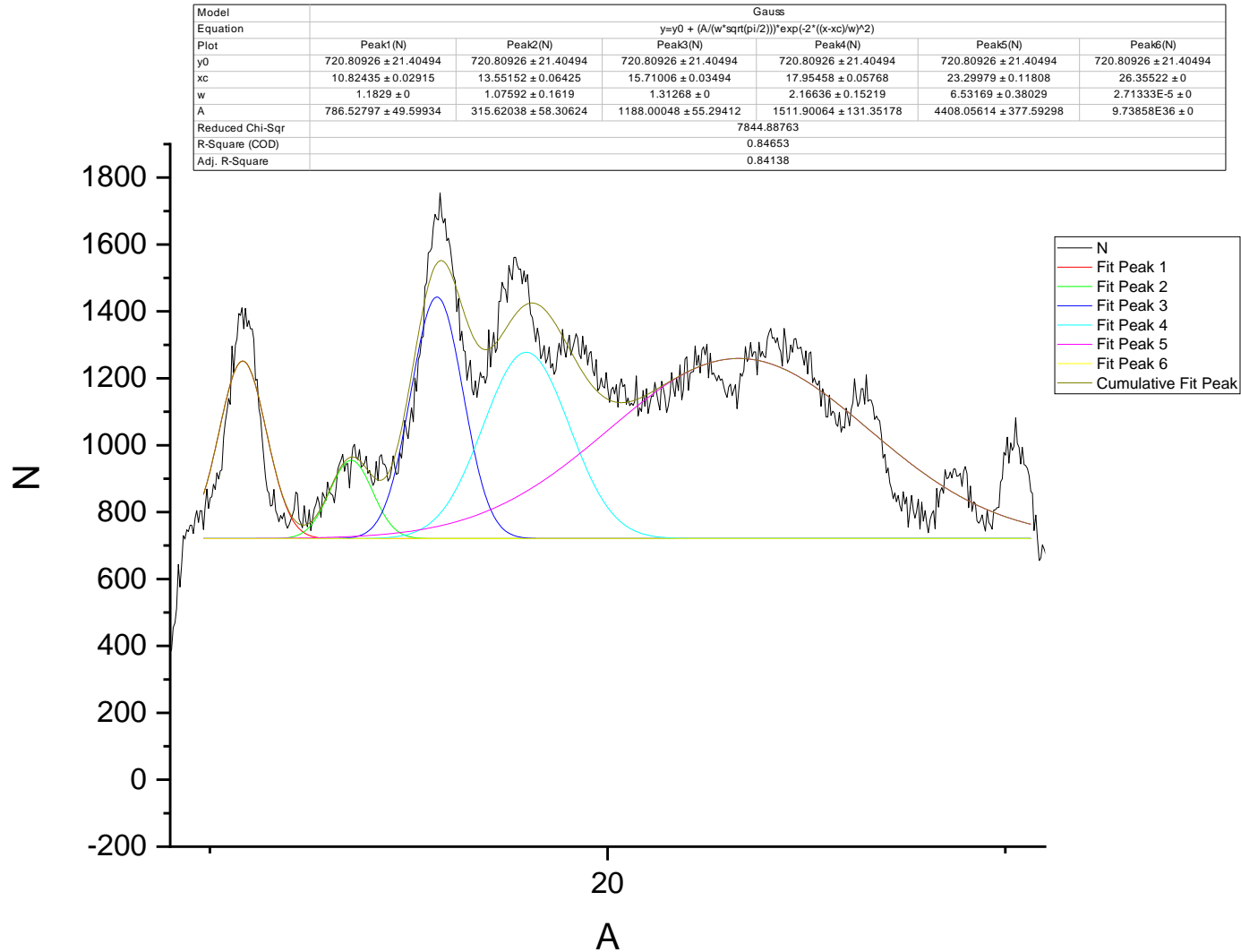
A and I



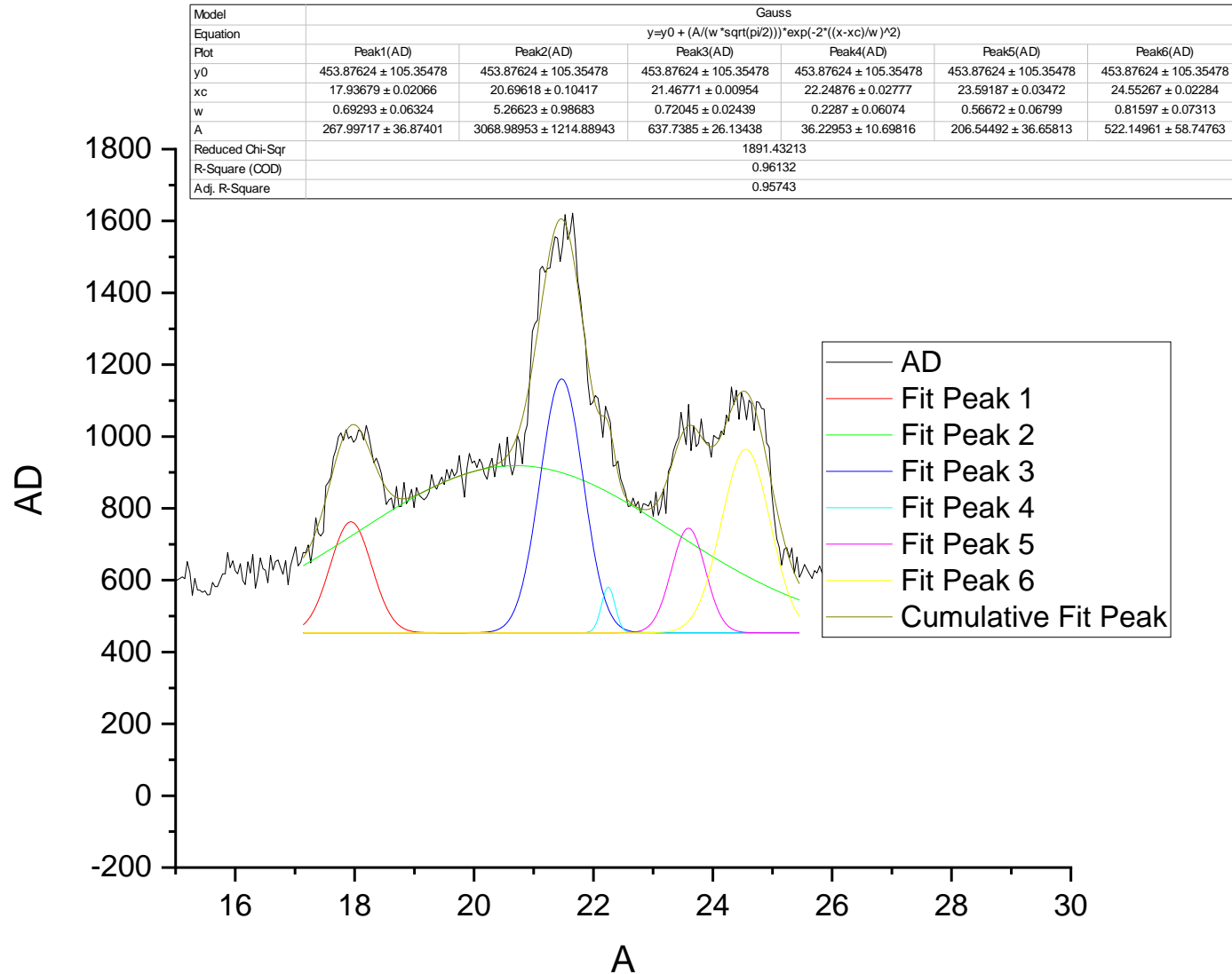
Amorphous data i.e. not clear defined peaks as other data sets

- A and S
- A and O
- A and R
- A and Q
- A and P
- A and T
- A and V
- A and W
- A and U
- A and X
- A and Y
- A and Z
- A and AC

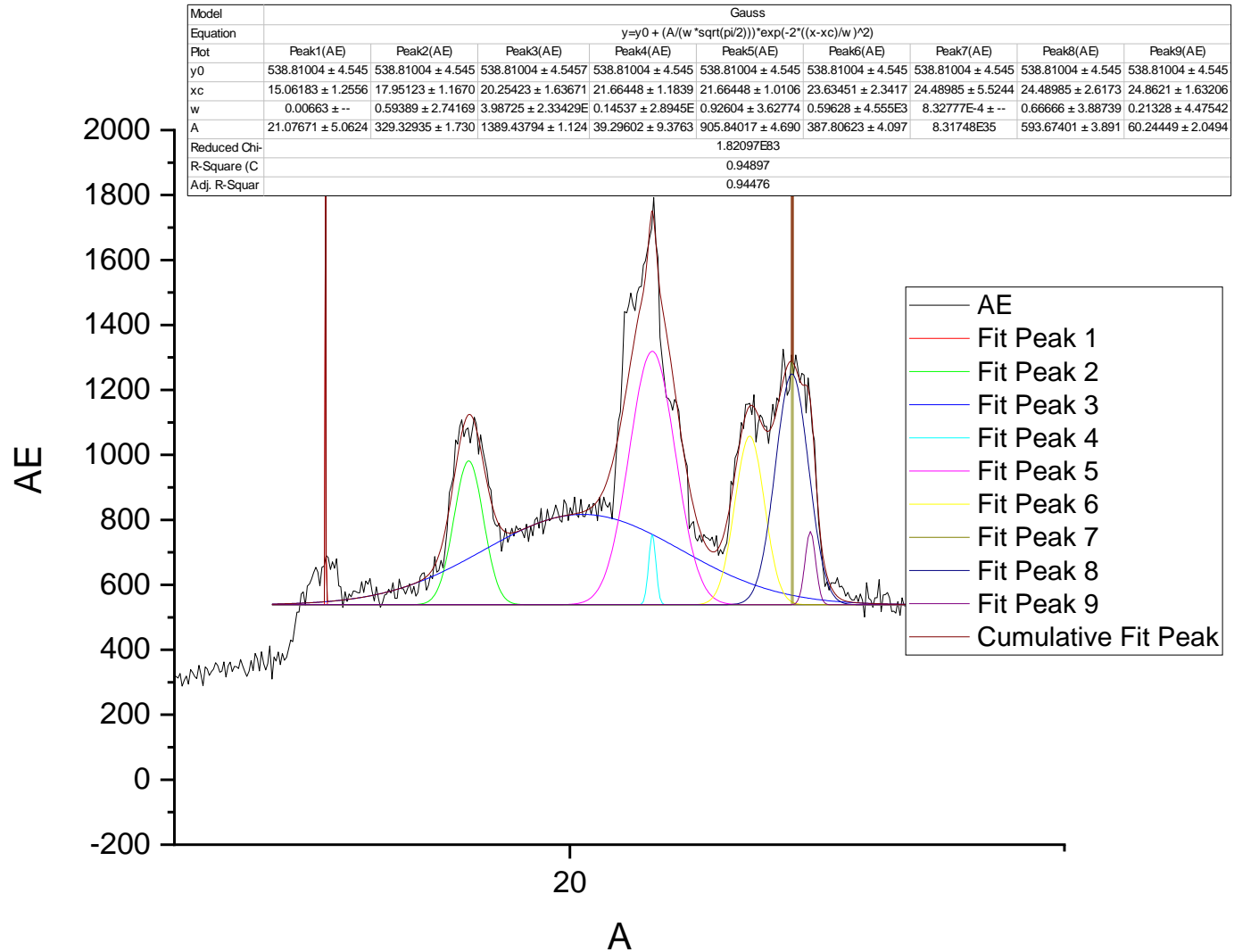
A and N



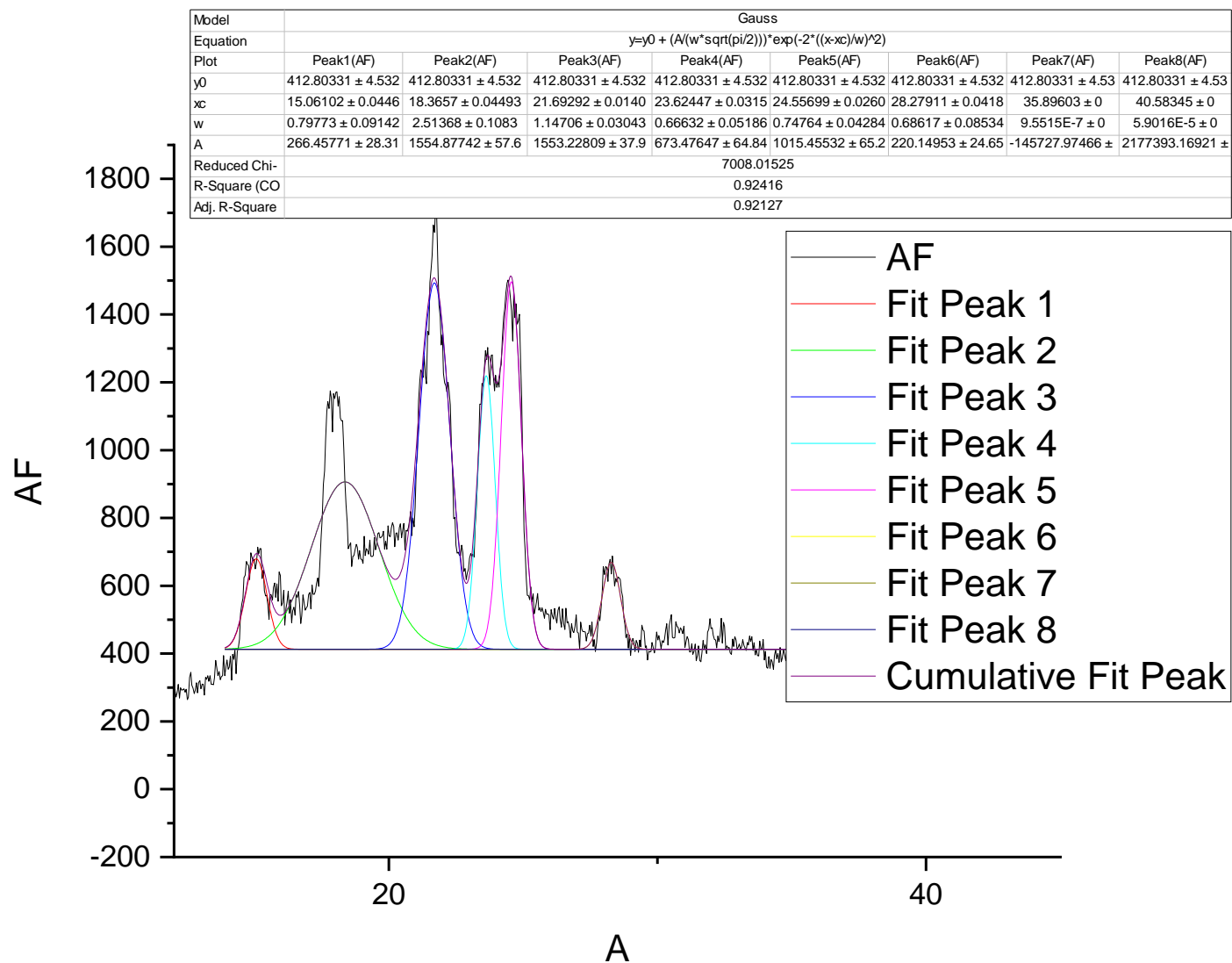
A and AD



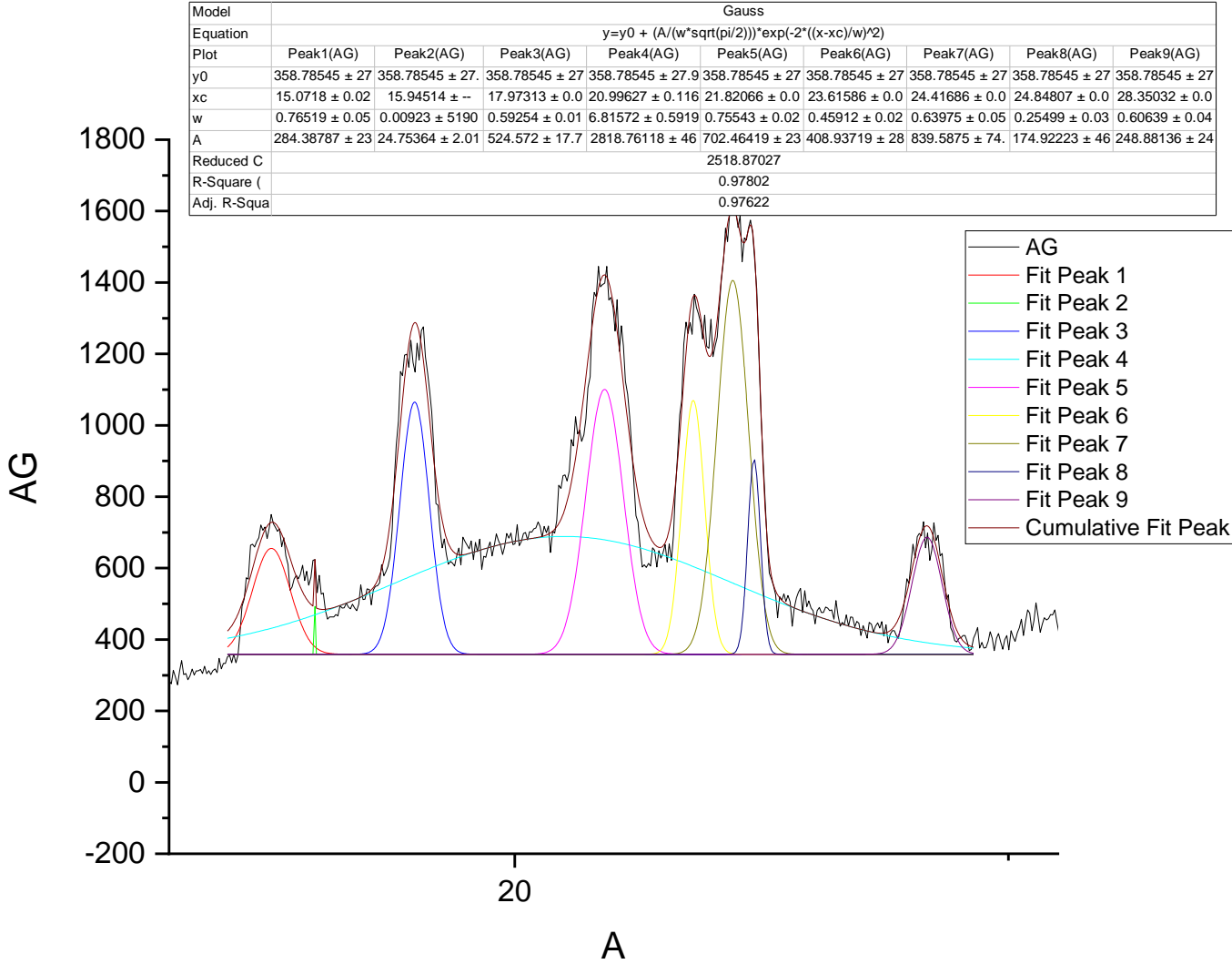
A and AE



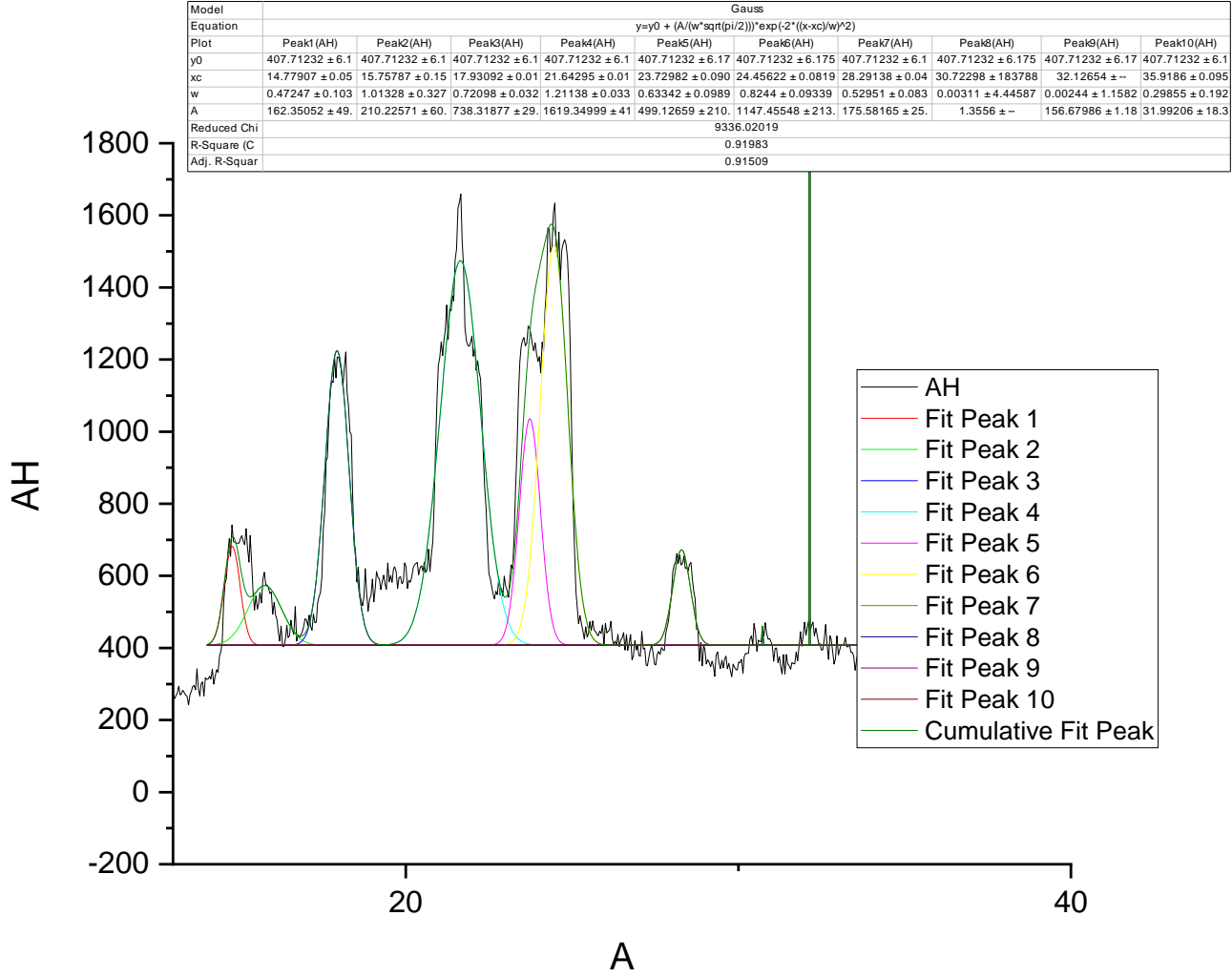
A to AF



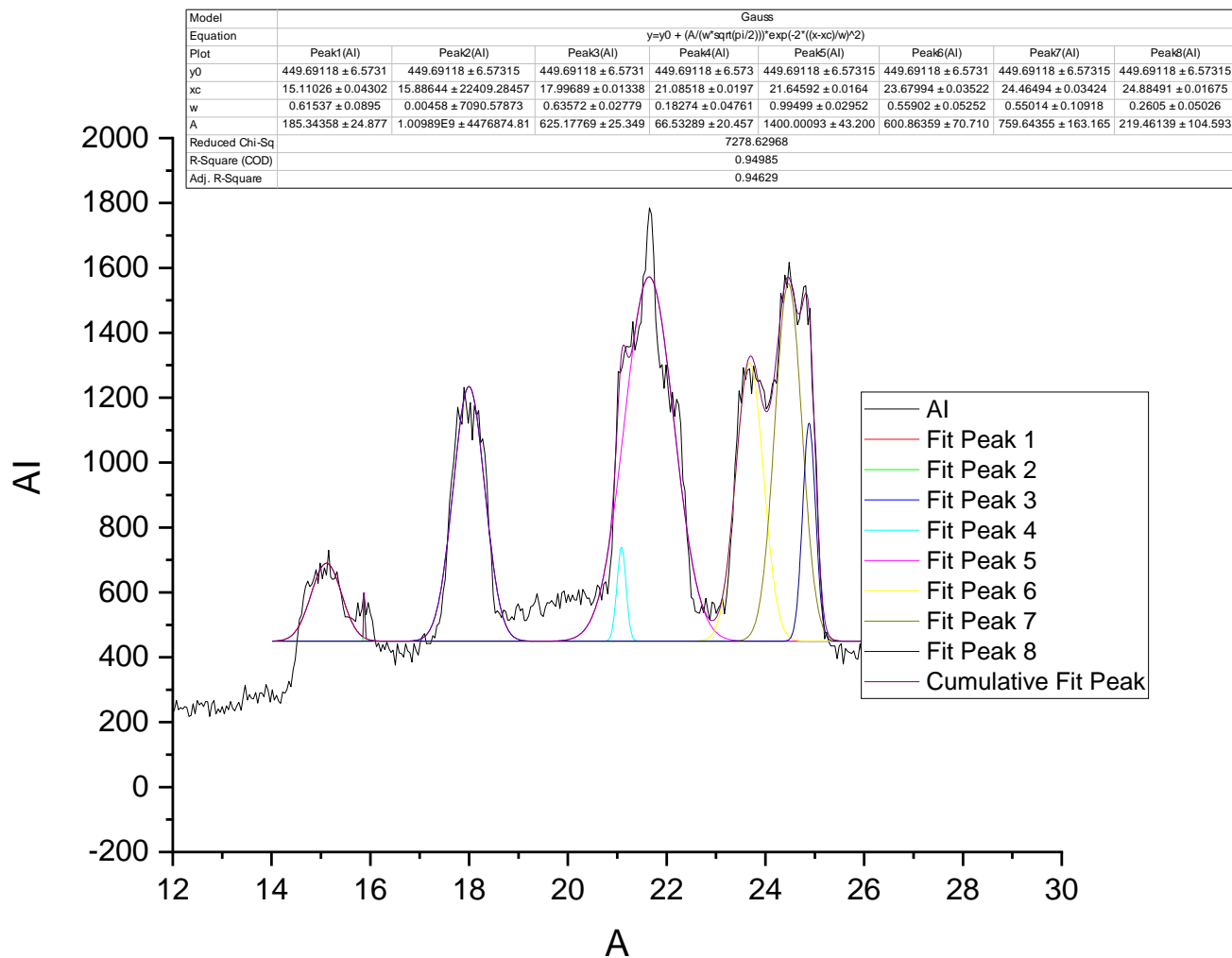
A to AG



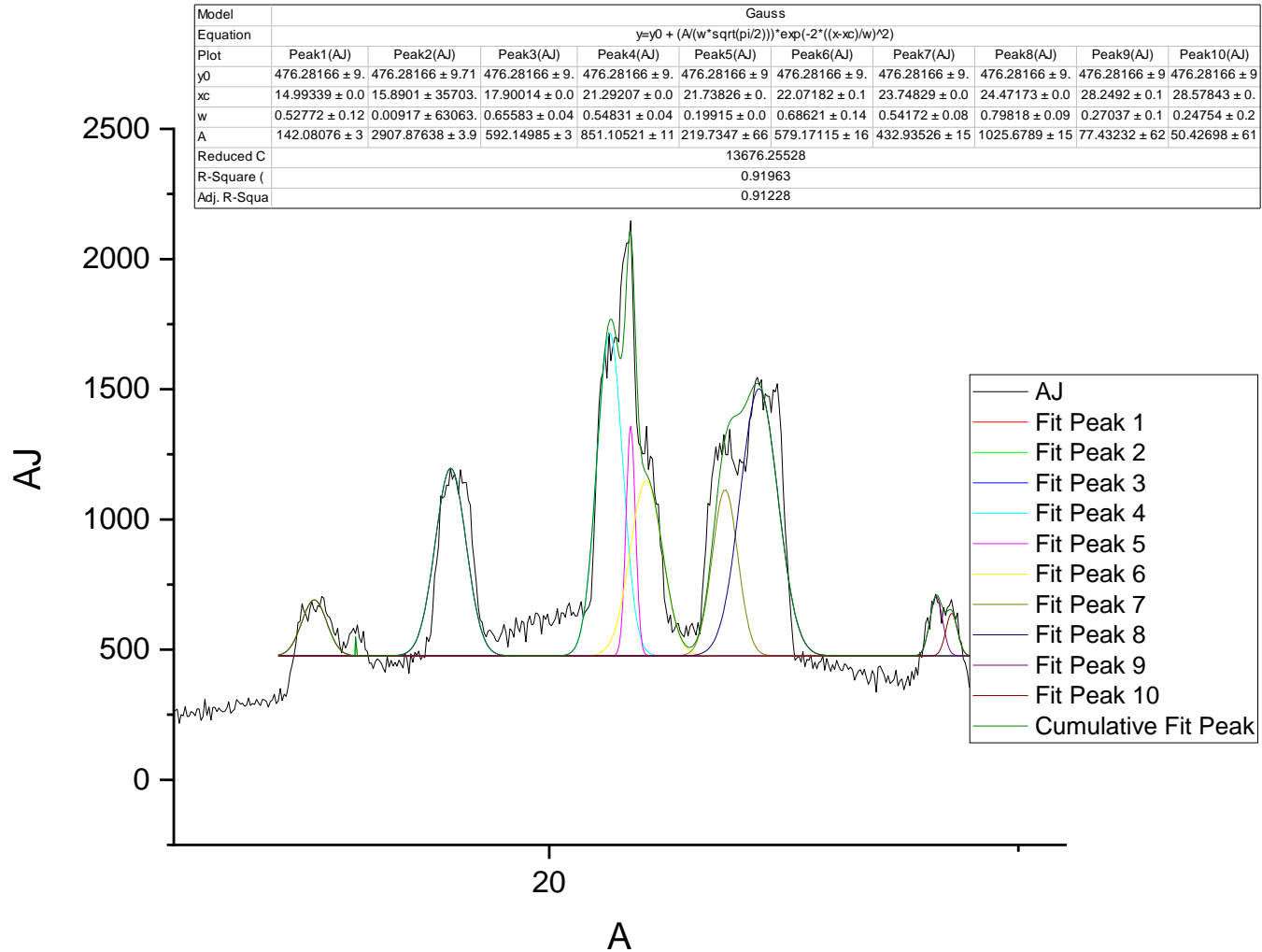
A to AH



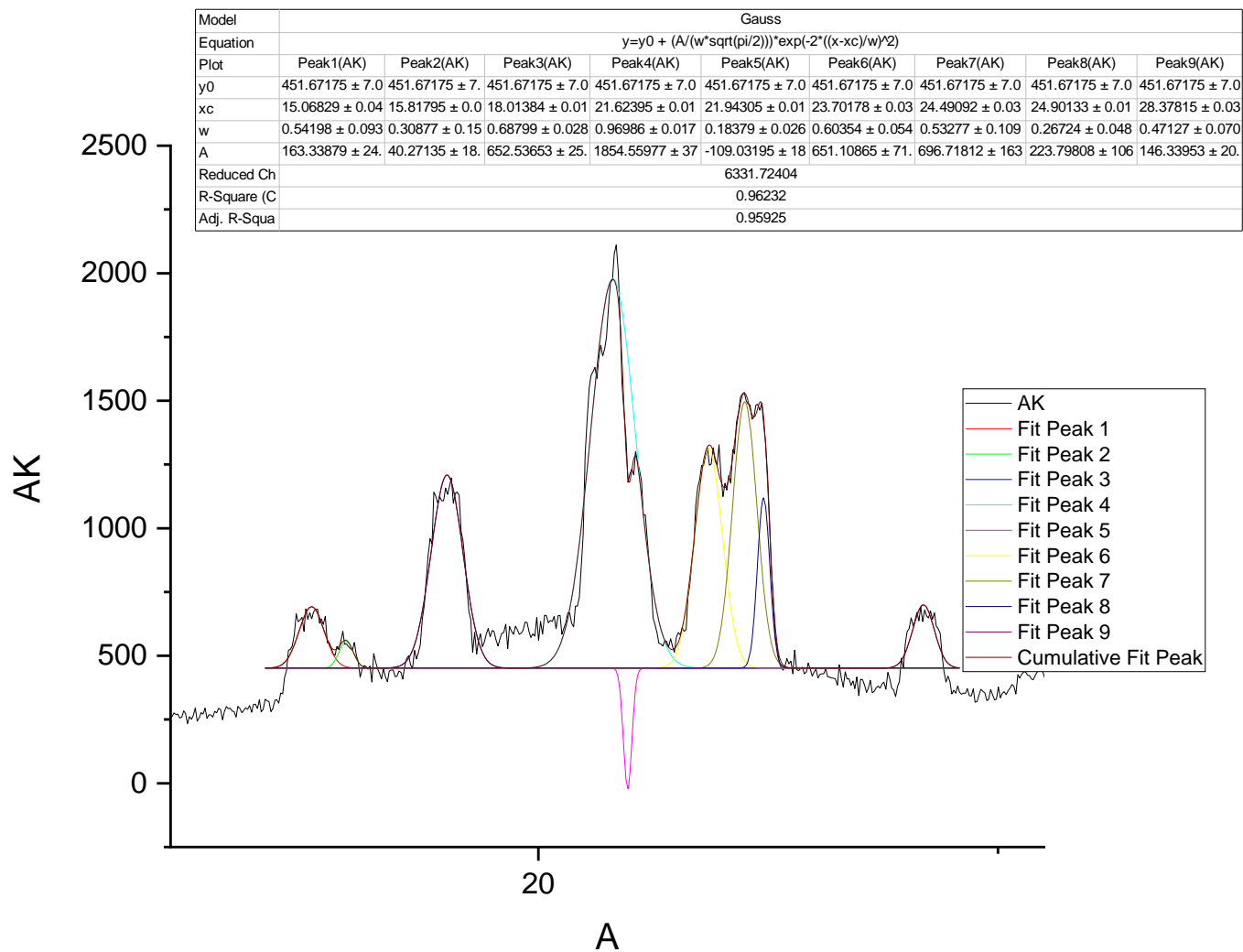
A to Al



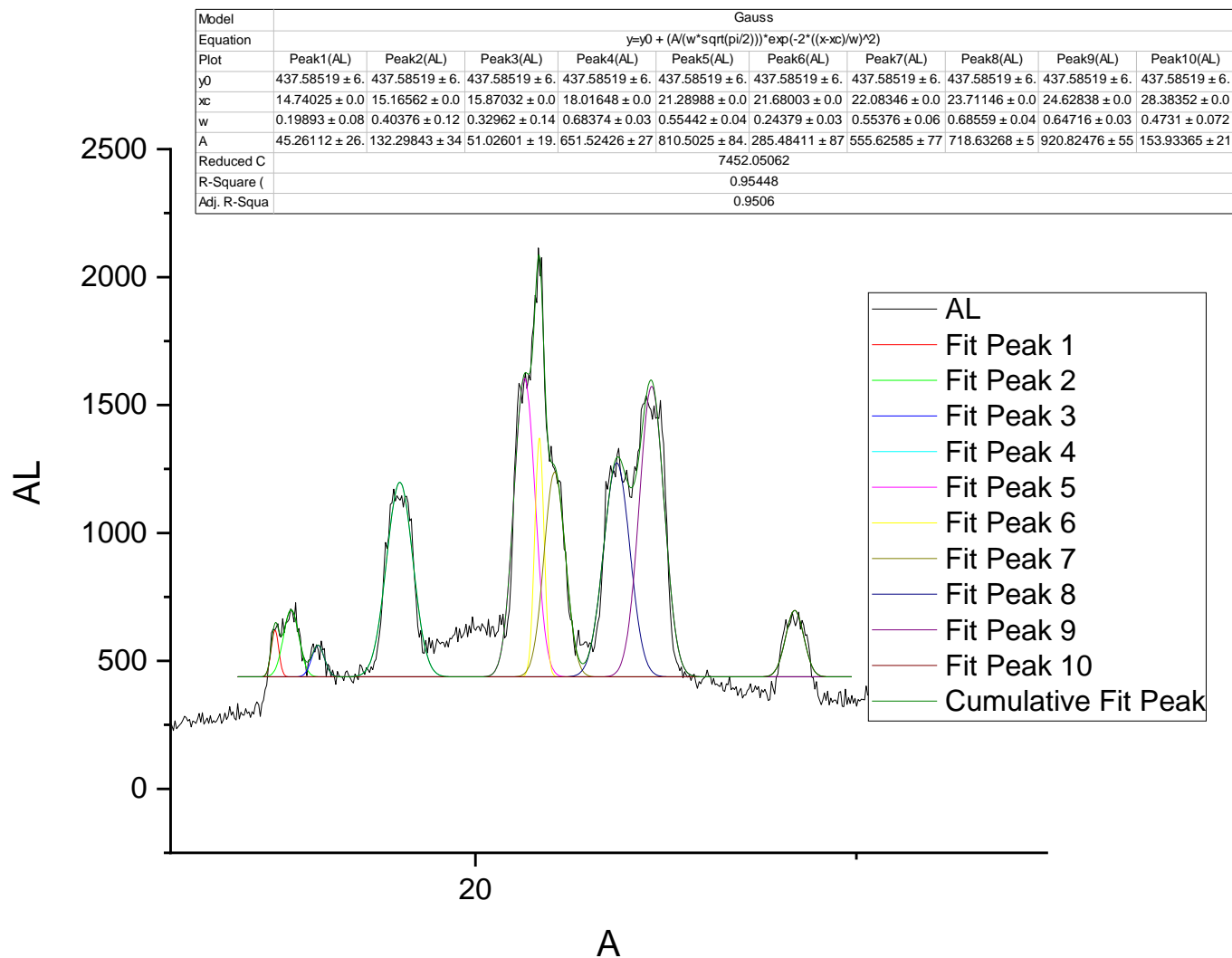
A to AJ



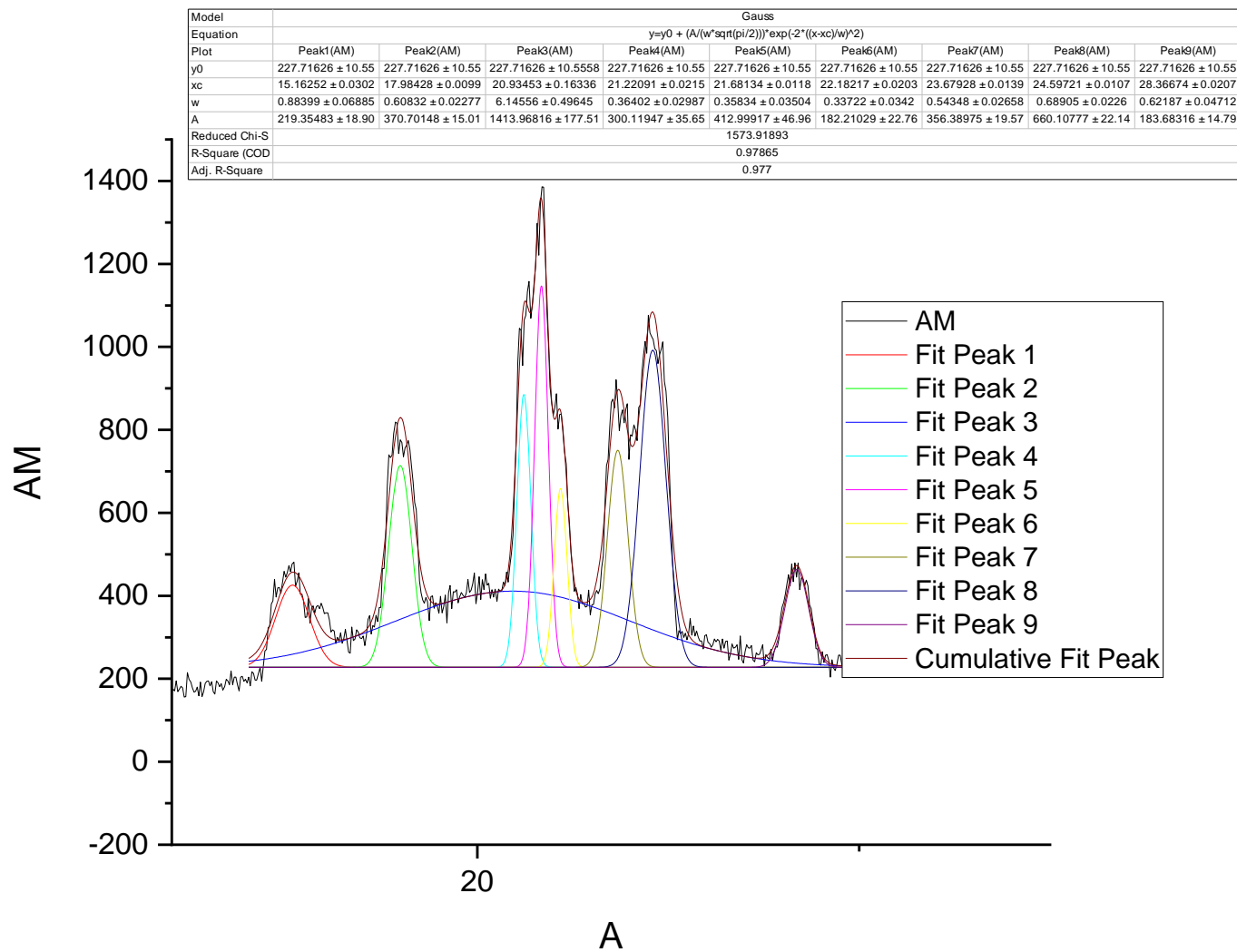
A to AK



A to AL



A to AM



Cordierite reference peak

