Nonlinear Curve Fit (Voigt) (9/22/2020 14:05:50)

Parameters

		Value	Standard Error	t-Value	Prob>|t|	Dependency
Peak1(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	755.08772	0.85115	887.13824	0	0.94405
	A	17590.76859	100598.1325	0.17486	0.8612	0.99998
	wG	6.44014	20.85091	0.30887	0.75744	0.99914
	wL	7.0547	47.4952	0.14854	0.88193	0.99993
	FWHM	11.00023	17.24947			
Peak2(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	763.90977	314.53896	2.42867	0.0152	0.99998
	A	23493.27584	271759.51399	0.08645	0.93111	0.99999
	wG	58.55273	390.42571	0.14997	0.8808	0.99996
	wL	6.72633E-7	410.74624	1.63759E-9	1	0.99996
	FWHM	58.55273	213.3582			
Peak3(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	781.55388	--	--	--	1
	A	32157.05056	--	--	--	1
	wG	2928.88877	--	--	--	1
	wL	1.67074E-7	10428.11497	1.60215E-11	1	0.98881
	FWHM	2928.88877	--			
Peak4(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	777.14286	4.27507	181.78477	0	0.99619
	A	24136.86098	501386.50358	0.04814	0.96161	1
	wG	0.76972	447.89416	0.00172	0.99863	0.99969
	wL	14.36624	146.6251	0.09798	0.92195	0.99999
	FWHM	14.41044	96.4654			
Peak5(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	770.32581	49.76164	15.48031	2.27561E-52	0.99999
	A	51075.86483	497878.22718	0.10259	0.9183	1
	wG	25.83456	85.70041	0.30145	0.76309	0.99998
	wL	7.69787E-24	--	--	--	--
	FWHM	25.83456	85.70041			
Peak6(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	793.98496	0.0691	11489.75851	0	0.95948
	A	221124.5369	530340.47151	0.41695	0.67674	1
	wG	4.23411	6.50819	0.65058	0.51536	0.99993
	wL	7.562	14.12023	0.53554	0.59231	1
	FWHM	9.54843	6.76186			
Peak7(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	808.42105	762.61988	1.06006	0.28919	1
	A	173673.18345	1.3966E8	0.00124	0.99901	1
	wG	23.14255	1630.75901	0.01419	0.98868	1
	wL	7.3195E-6	7915.30693	9.24728E-10	1	1
	FWHM	23.14256	2730.61904			
Peak8(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	817.64411	--	--	--	1
	A	-4398318.6922	7.86695E8	-0.00559	0.99554	1
	wG	66502.7596	4.37421E8	1.52034E-4	0.99988	1
	wL	11390.80781	2.08301E8	5.46842E-5	0.99996	1
	FWHM	72803.25003	2.84823E8			
Peak9(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	826.06516	1283.45871	0.64362	0.51986	1
	A	85329.80828	2.95256E8	2.89003E-4	0.99977	1
	wG	18.2068	8576.29129	0.00212	0.99831	1
	wL	0.00404	37948.27267	1.06347E-7	1	1
	FWHM	18.20896	11929.41631			
Peak10(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	830.07519	154302.33724	0.00538	0.99571	1
	A	32537.68128	6.17421E8	5.26993E-5	0.99996	1
	wG	33.01101	146310.17687	2.25623E-4	0.99982	1
	wL	10.41851	42443.97106	2.45465E-4	0.9998	1
	FWHM	38.93495	157034.06848			
Peak11(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	839.29825	18861.67876	0.0445	0.96451	1
	A	17353.66894	1.12524E9	1.54222E-5	0.99999	1
	wG	14.61468	24712.2906	5.91393E-4	0.99953	1
	wL	1.30747	168213.14066	7.77269E-6	0.99999	1
	FWHM	15.32632	79775.16416			
Peak12(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	842.90727	76783.80987	0.01098	0.99124	1
	A	49609.35643	1.19484E9	4.15198E-5	0.99997	1
	wG	15.50887	37445.8517	4.14168E-4	0.99967	1
	wL	3.68016	14116.63215	2.60696E-4	0.99979	1
	FWHM	17.57057	33607.18931			
Peak13(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	856.14035	1667.12112	0.51354	0.6076	1
	A	52815.821	--	--	--	1
	wG	14.26906	--	--	--	1
	wL	3.13408	--	--	--	1
	FWHM	16.0189	--			
Peak14(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	864.5614	488.99941	1.76802	0.07714	1
	A	27868.58121	8.59654E7	3.24184E-4	0.99974	1
	wG	9.7862	7135.96354	0.00137	0.99891	1
	wL	7.64487	27214.25889	2.80914E-4	0.99978	1
	FWHM	14.49986	12146.31048			
Peak15(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	871.37845	809.4755	1.07647	0.28179	1
	A	24357.47057	5.41769E7	4.49591E-4	0.99964	1
	wG	12.20055	5676.02466	0.00215	0.99829	1
	wL	5.36545	18691.65666	2.87051E-4	0.99977	1
	FWHM	15.32184	6166.923			
Peak16(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	882.60652	1089.15348	0.81036	0.41779	1
	A	49455.77514	7672240.10371	0.00645	0.99486	1
	wG	23.70201	515.49679	0.04598	0.96333	1
	wL	7.69801E-24	1.31545E16	5.85201E-40	1	--
	FWHM	23.70201	515.49679			
Peak17(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	891.82957	37.60589	23.71516	1.36994E-115	0.99998
	A	23648.46604	678230.30544	0.03487	0.97219	1
	wG	9.96461	225.86787	0.04412	0.96481	1
	wL	5.66672	467.63937	0.01212	0.99033	1
	FWHM	13.33714	86.96043			
Peak18(Smoothed Y1)	y0	-60.33921	--	--	--	1
	xc	898.64662	0.68667	1308.69782	0	0.97444
	A	13344.12651	57815.27316	0.23081	0.81748	0.99996
	wG	3.39828	7.82947	0.43404	0.66429	0.99798
	wL	4.20925	17.6268	0.2388	0.81128	0.99984
	FWHM	6.17276	7.31613			

Reduced Chi-sqr = 46541.768404
COD(R^2) = 0.994604325114523
Iterations Performed = 12
Total Iterations in Session = 12
Fit converged. Chi-Sqr tolerance value of 1E-9 was reached.
Standard Error was scaled with square root of reduced Chi-Sqr.
FWHM are derived parameter(s).

Statistics

	Smoothed Y1
Number of Points	3648
Degrees of Freedom	3575
Reduced Chi-Sqr	46541.7684
Residual Sum of Squares	1.66387E8
R-Square (COD)	0.9946
Adj. R-Square	0.9945
Fit Status	Succeeded(100)

Fit Status Code :
100 : Fit converged. Chi-Sqr tolerance value of 1E-9 was reached.

Summary

	y0		xc		A		w G		w L		FWHM		Statistics	
	Value	Standard Error	Value	Standard Error	Value	Standard Error	Value	Standard Error	Value	Standard Error	Value	Standard Error	Reduced Chi-Sqr	Adj. R-Square
Peak1(Smoothed Y1)	-60.33921	--	755.08772	0.85115	17590.76859	100598.1325	6.44014	20.85091	7.0547	47.4952	11.00023	17.24947	46541.7684	0.9945
Peak2(Smoothed Y1)	-60.33921	--	763.90977	314.53896	23493.27584	271759.51399	58.55273	390.42571	6.72633E-7	410.74624	58.55273	213.3582		
Peak3(Smoothed Y1)	-60.33921	--	781.55388	--	32157.05056	--	2928.88877	--	1.67074E-7	10428.11497	2928.88877	--		
Peak4(Smoothed Y1)	-60.33921	--	777.14286	4.27507	24136.86098	501386.50358	0.76972	447.89416	14.36624	146.6251	14.41044	96.4654		
Peak5(Smoothed Y1)	-60.33921	--	770.32581	49.76164	51075.86483	497878.22718	25.83456	85.70041	7.69787E-24	--	25.83456	85.70041		
Peak6(Smoothed Y1)	-60.33921	--	793.98496	0.0691	221124.5369	530340.47151	4.23411	6.50819	7.562	14.12023	9.54843	6.76186		
Peak7(Smoothed Y1)	-60.33921	--	808.42105	762.61988	173673.18345	1.3966E8	23.14255	1630.75901	7.3195E-6	7915.30693	23.14256	2730.61904		
Peak8(Smoothed Y1)	-60.33921	--	817.64411	--	-4398318.69227	7.86695E8	66502.7596	4.37421E8	11390.80781	2.08301E8	72803.25003	2.84823E8		
Peak9(Smoothed Y1)	-60.33921	--	826.06516	1283.45871	85329.80828	2.95256E8	18.2068	8576.29129	0.00404	37948.27267	18.20896	11929.41631		
Peak10(Smoothed Y1)	-60.33921	--	830.07519	154302.33724	32537.68128	6.17421E8	33.01101	146310.17687	10.41851	42443.97106	38.93495	157034.06848		
Peak11(Smoothed Y1)	-60.33921	--	839.29825	18861.67876	17353.66894	1.12524E9	14.61468	24712.2906	1.30747	168213.14066	15.32632	79775.16416		
Peak12(Smoothed Y1)	-60.33921	--	842.90727	76783.80987	49609.35643	1.19484E9	15.50887	37445.8517	3.68016	14116.63215	17.57057	33607.18931		
Peak13(Smoothed Y1)	-60.33921	--	856.14035	1667.12112	52815.821	--	14.26906	--	3.13408	--	16.0189	--		
Peak14(Smoothed Y1)	-60.33921	--	864.5614	488.99941	27868.58121	8.59654E7	9.7862	7135.96354	7.64487	27214.25889	14.49986	12146.31048		
Peak15(Smoothed Y1)	-60.33921	--	871.37845	809.4755	24357.47057	5.41769E7	12.20055	5676.02466	5.36545	18691.65666	15.32184	6166.923		
Peak16(Smoothed Y1)	-60.33921	--	882.60652	1089.15348	49455.77514	7672240.10371	23.70201	515.49679	7.69801E-24	1.31545E16	23.70201	515.49679		
Peak17(Smoothed Y1)	-60.33921	--	891.82957	37.60589	23648.46604	678230.30544	9.96461	225.86787	5.66672	467.63937	13.33714	86.96043		
Peak18(Smoothed Y1)	-60.33921	--	898.64662	0.68667	13344.12651	57815.27316	3.39828	7.82947	4.20925	17.6268	6.17276	7.31613		

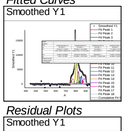
ANOVA

		DF	Sum of Squares	Mean Square	F Value	Prob>F
Smoothed Y1	Regression	72	3.06707E10	4.25982E8	9152.6767	0
	Residual	3575	1.66387E8	46541.7684		
	Uncorrected Total	3648	3.65038E10			
	Corrected Total	3647	3.08371E10			

At the 0.05 level, the fitting function is significantly better than the function y=constant.

Fitted Curves

Smoothed Y1



Residual Plots

Smoothed Y1