

Figure S1-1. Curve fitting of FTIR spectrum in the amide I region of Concanavalin A aqueous solution (replication 1); (left) curve fitted, second derivative and residual plot (right) peak analysis result

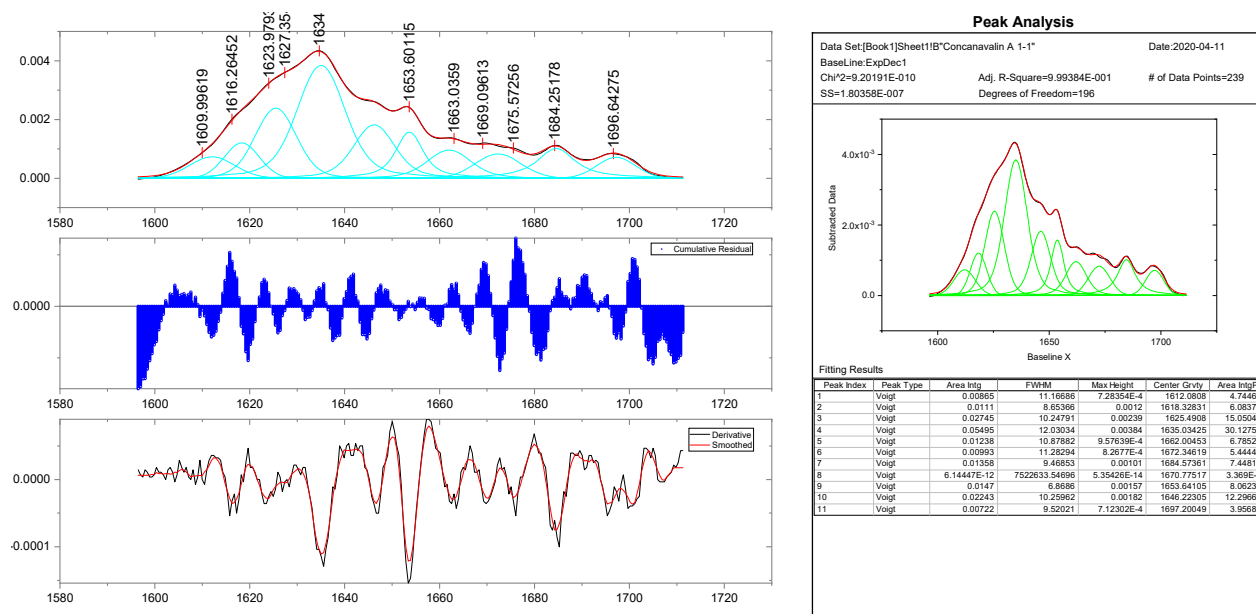


Table S1-1. Statistical analysis of curve fitting performed on FTIR spectrum of Concanavalin A aqueous solution (replication 1)

Number of Points	239
Degrees of Freedom	196
Reduced Chi-Sqr	9.20191E-10
Residual Sum of Squares	1.80358E-7
R-Square (COD)	0.99949
Adj. R-Square	0.99938
Fit Status	Succeeded(100)

Figure S1-2. Curve fitting of FTIR spectrum in the amide I region of Concanavalin A aqueous solution (replication 2); (left) curve fitted, second derivative and residual plot (right) peak analysis result

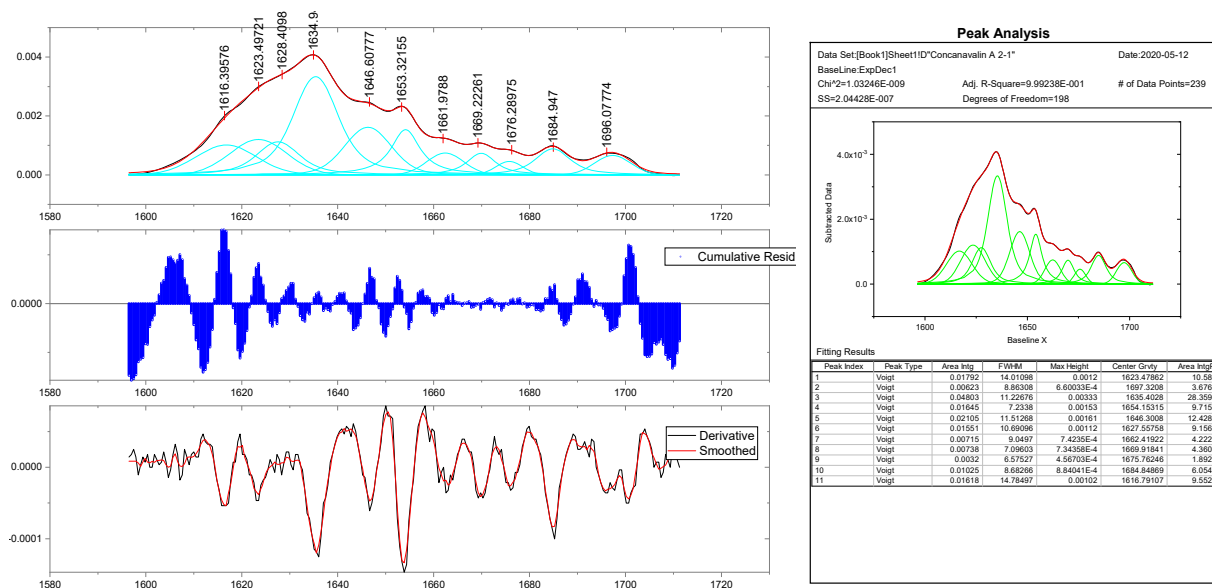


Table S1-2. Statistical analysis of curve fitting performed on FTIR spectrum of Concanavalin A aqueous solution (replication 2)

Number of Points	239
Degrees of Freedom	198
Reduced Chi-Sqr	1.03246E-9
Residual Sum of Squares	2.04428E-7
R-Square (COD)	0.99937
Adj. R-Square	0.99924
Fit Status	Succeeded(100)

Figure S1-3. Curve fitting of FTIR spectrum in the amide I region of Concanavalin A aqueous solution (replication 3); (left) curve fitted, second derivative and residual plot (right) peak analysis result

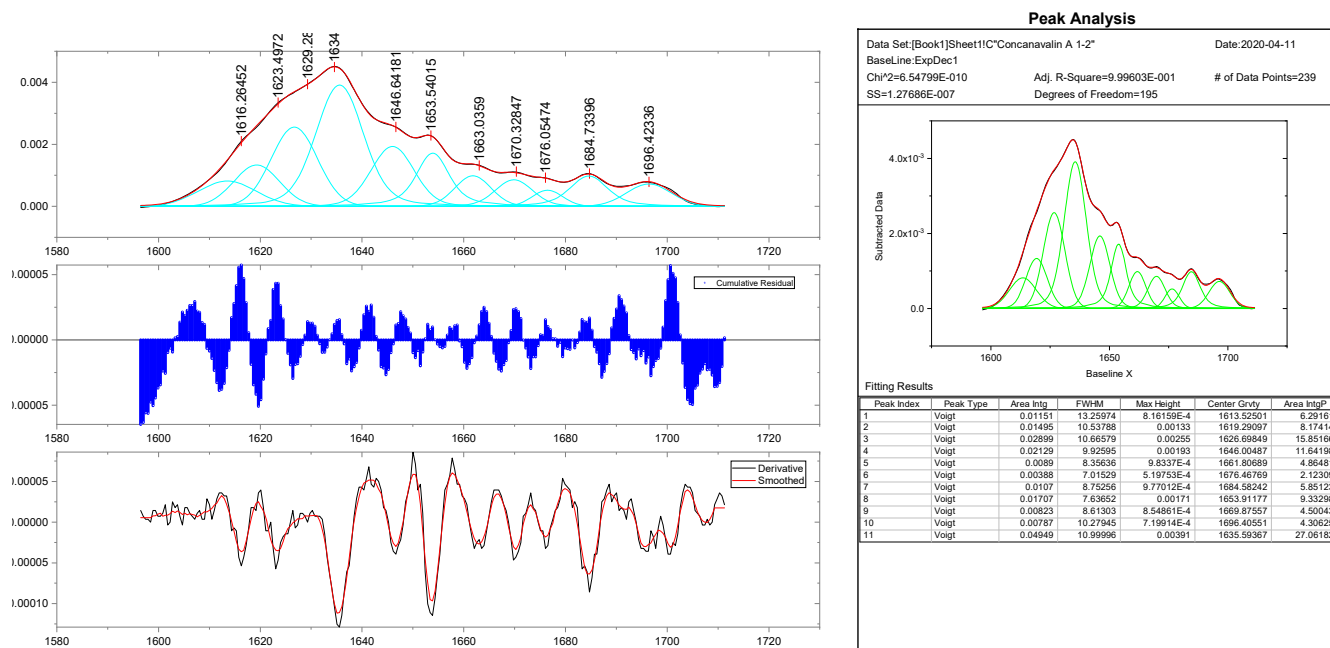


Table S1-3. Statistical analysis of curve fitting performed on FTIR spectrum of Concanavalin A aqueous solution (replication 3)

Number of Points	239
Degrees of Freedom	195
Reduced Chi-Sqr	6.54799E-10
Residual Sum of Squares	1.27686E-7
R-Square (COD)	0.99967
Adj. R-Square	0.9996
Fit Status	Succeeded(100)

Figure S1-4. Curve fitting of FT-Raman spectrum in the amide I region of Concanavalin A aqueous solution; (left) curve fitted, second derivative and residual plot (right) peak analysis result

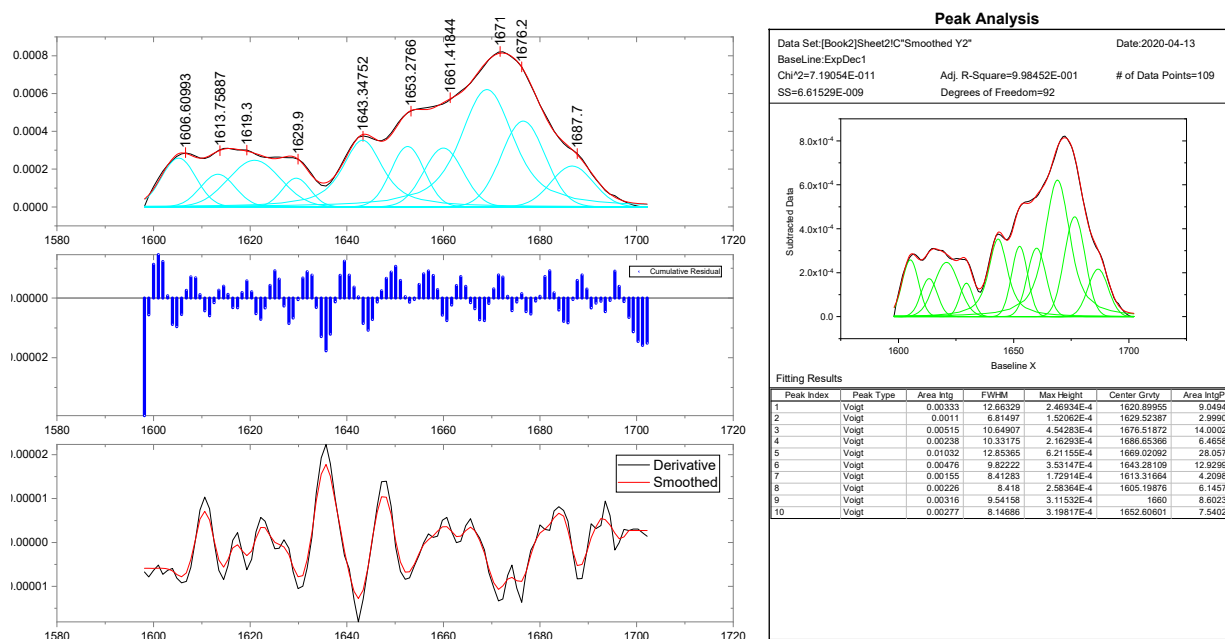


Table S1-4. Statistical analysis of curve fitting performed on FT-Raman spectrum of Concanavalin A aqueous solution

Number of Points	109
Degrees of Freedom	92
Reduced Chi-Sqr	7.19054E-11
Residual Sum of Squares	6.61529E-9
R-Square (COD)	0.99868
Adj. R-Square	0.99845
Fit Status	Succeeded(100)

Figure S1-5. Curve fitting of FTIR spectrum in the amide I region of Lysozyme aqueous solution (replication 1); (left) curve fitted, second derivative and residual plot (right) peak analysis result

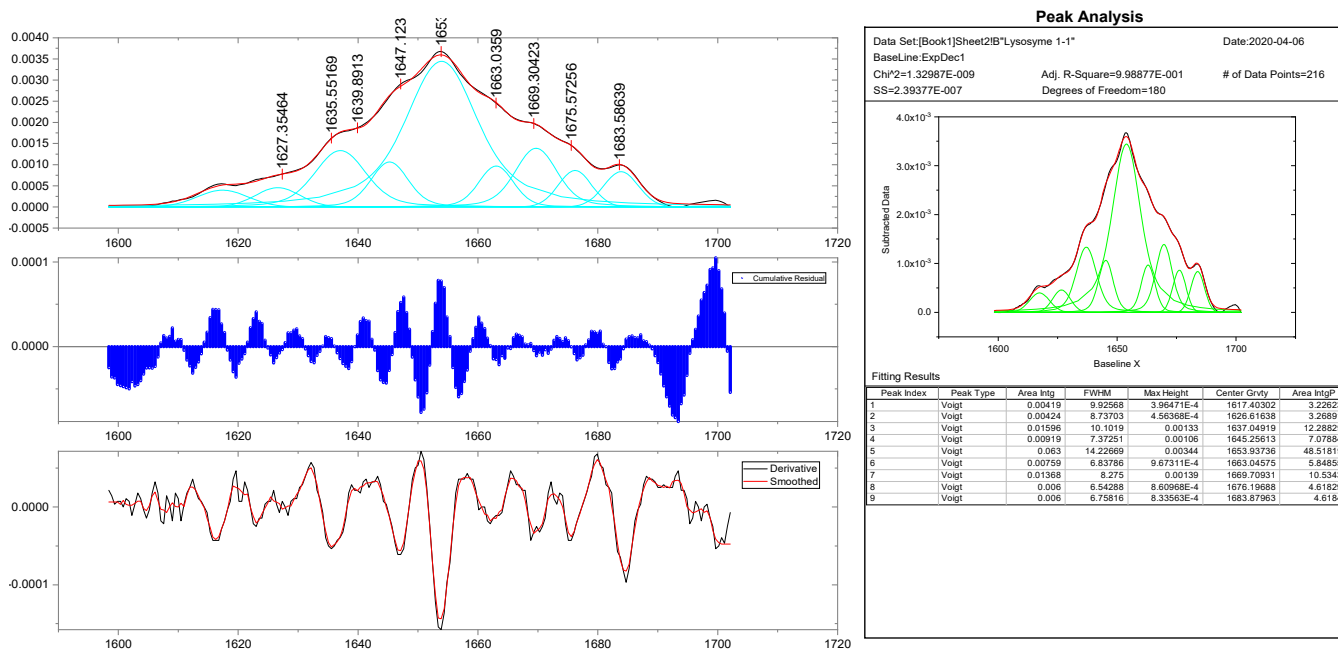


Table S1-5. Statistical analysis of curve fitting performed on FTIR spectrum of Lysozyme aqueous solution (replication 1)

Number of Points	216
Degrees of Freedom	180
Reduced Chi-Sqr	1.32987E-9
Residual Sum of Squares	2.39377E-7
R-Square (COD)	0.99906
Adj. R-Square	0.99888
Fit Status	Succeeded(100)

Figure S1-6. Curve fitting of FTIR spectrum in the amide I region of Lysozyme aqueous solution (replication 2); (left) curve fitted, second derivative and residual plot (right) peak analysis result

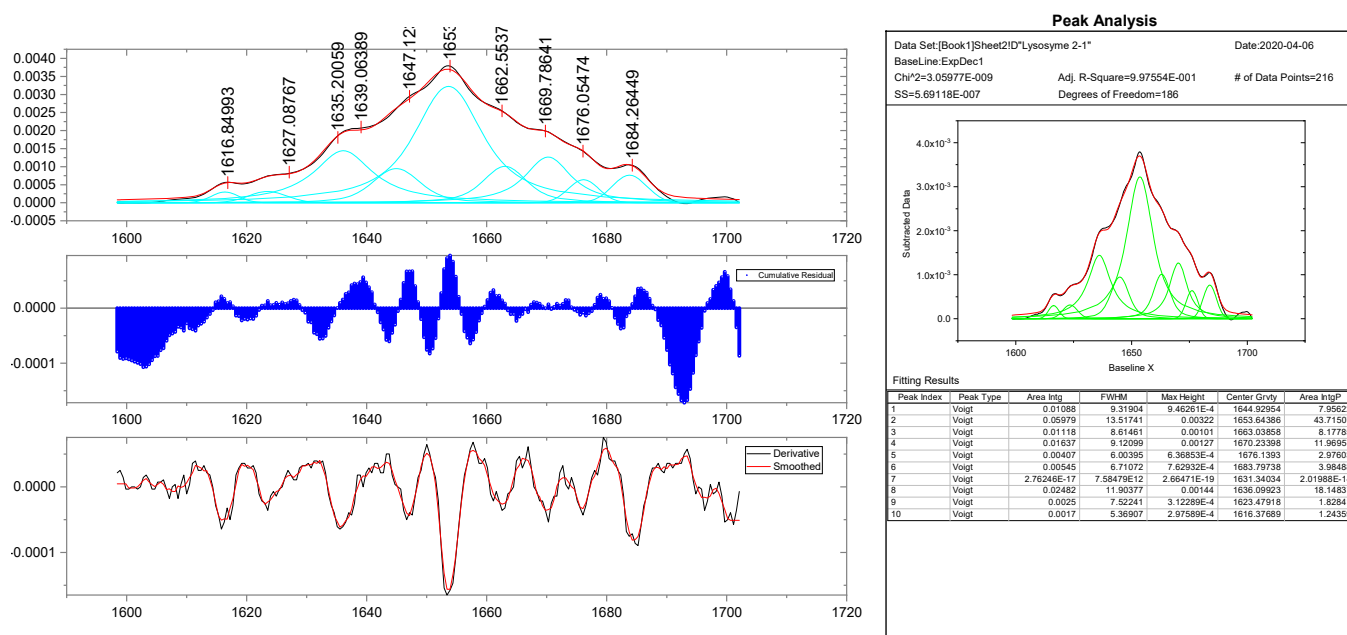


Table S1-6. Statistical analysis of curve fitting performed on FTIR spectrum of Lysozyme aqueous solution (replication 2)

Number of Points	216
Degrees of Freedom	186
Reduced Chi-Sqr	3.05977E-9
Residual Sum of Squares	5.69118E-7
R-Square (COD)	0.99788
Adj. R-Square	0.99755
Fit Status	Succeeded(100)

Figure S1-7. Curve fitting of FTIR spectrum in the amide I region of Lysozyme aqueous solution (replication 3); (left) curve fitted, second derivative and residual plot (right) peak analysis result

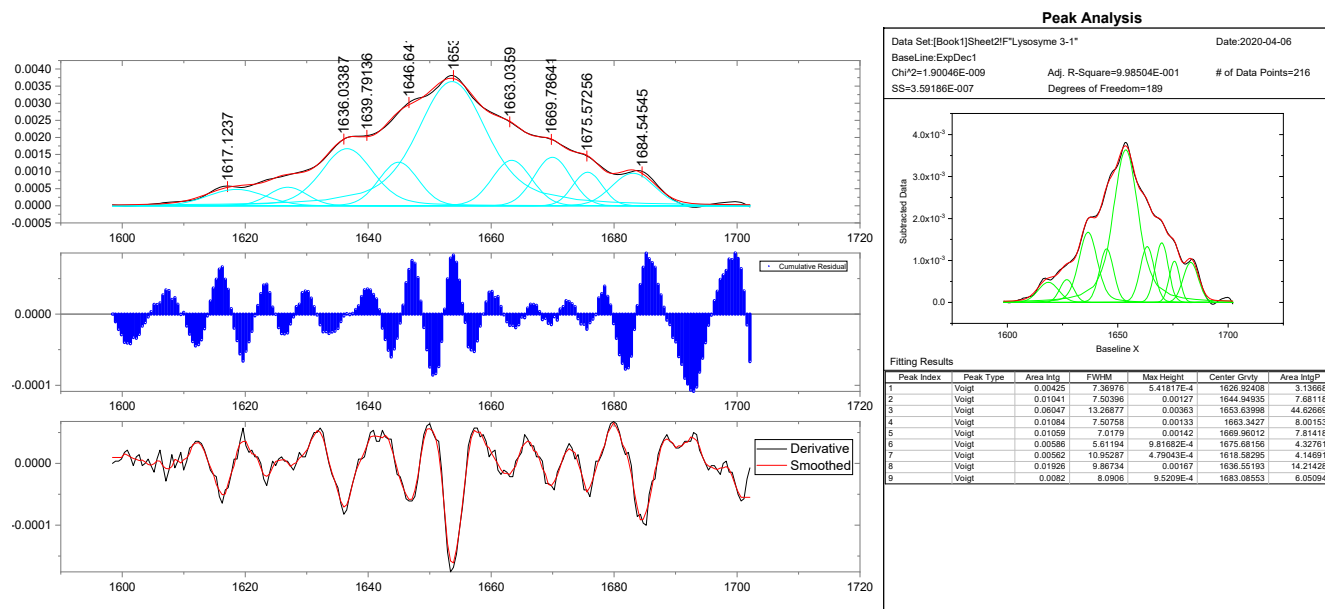


Table S1-7. Statistical analysis of curve fitting performed on FTIR spectrum of Lysozyme aqueous solution (replication 3)

Number of Points	216
Degrees of Freedom	189
Reduced Chi-Sqr	1.90046E-9
Residual Sum of Squares	3.59186E-7
R-Square (COD)	0.99868
Adj. R-Square	0.9985
Fit Status	Succeeded(100)

Figure S1-8. Curve fitting of FT-Raman spectrum in the amide I region of Lysozyme aqueous solution; (left) curve fitted, second derivative and residual plot (right) peak analysis result

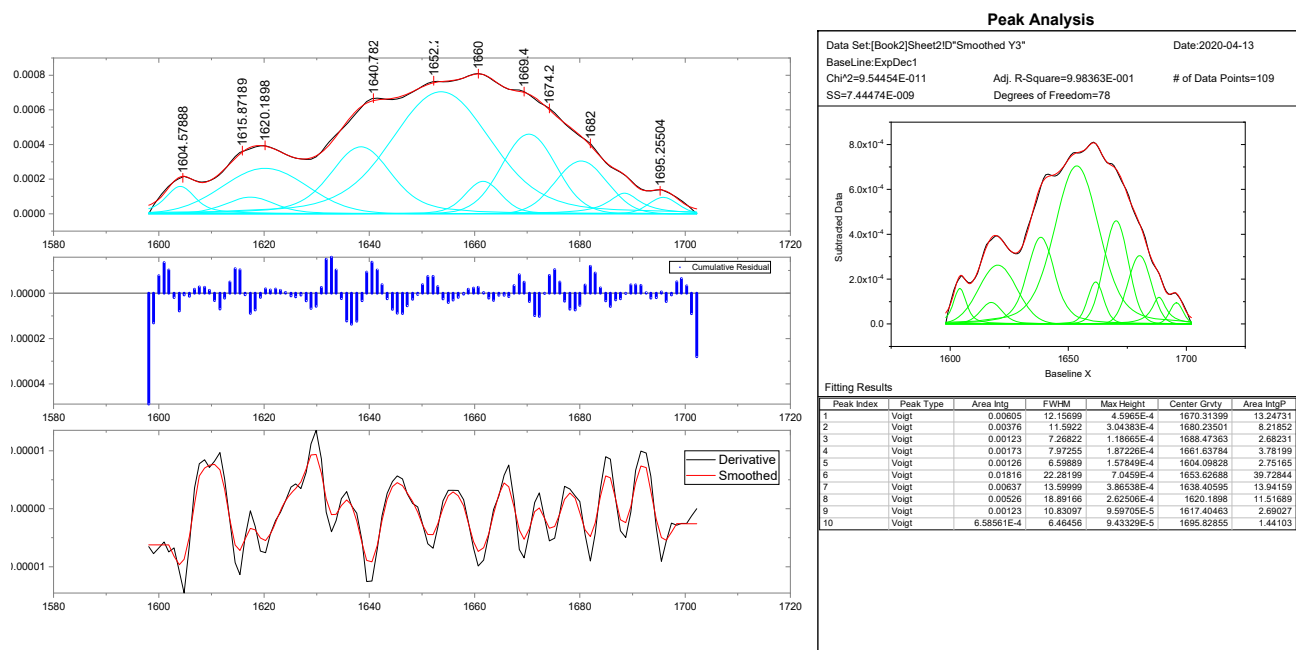


Table S1-8. Statistical analysis of curve fitting performed on FT-Raman spectrum of Lysozyme aqueous solution

Number of Points	109
Degrees of Freedom	78
Reduced Chi-Sqr	9.54454E-11
Residual Sum of Squares	7.44474E-9
R-Square (COD)	0.99882
Adj. R-Square	0.99836
Fit Status	Succeeded(100)

Figure S1-9. Curve fitting of FTIR spectrum in the amide I region of trypsin aqueous solution (replication 1); (left) curve fitted, second derivative and residual plot (right) peak analysis result

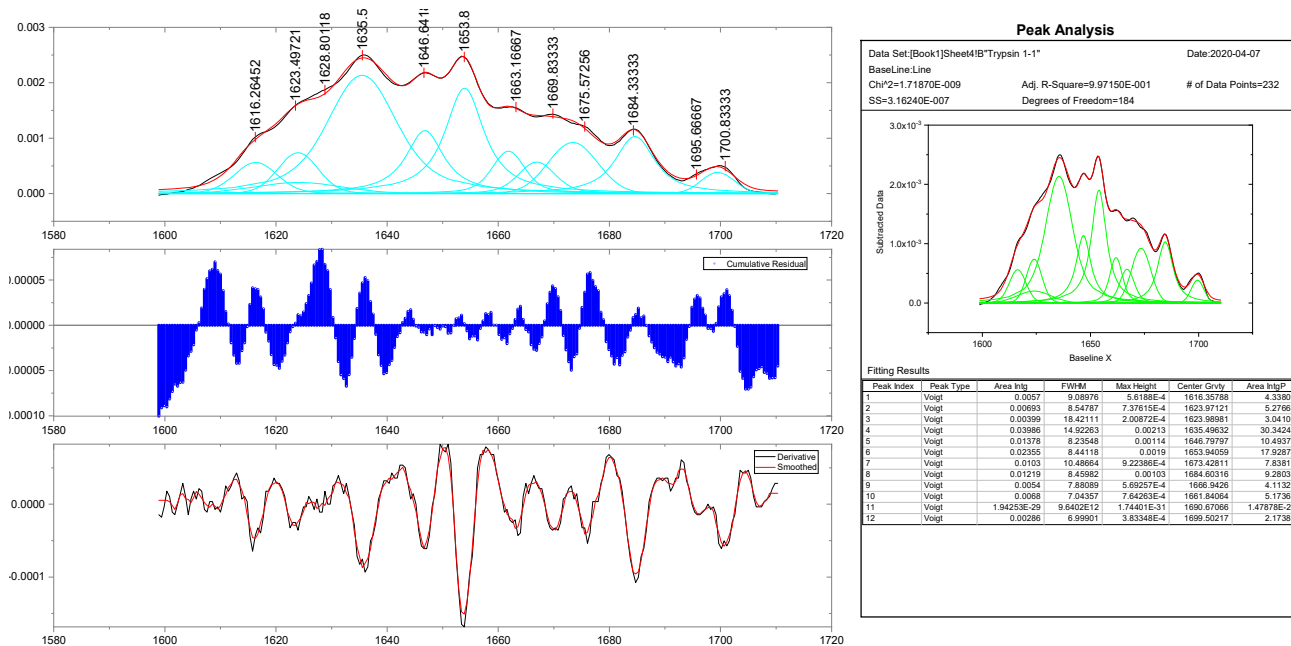


Table S1-9. Statistical analysis of curve fitting performed on FTIR spectrum of trypsin aqueous solution (replication 1)

Number of Points	232
Degrees of Freedom	184
Reduced Chi-Sqr	1.7187E-9
Residual Sum of Squares	3.1624E-7
R-Square (COD)	0.99773
Adj. R-Square	0.99715
Fit Status	Succeeded(100)

Figure S1-10. Curve fitting of FTIR spectrum in the amide I region of trypsin aqueous solution (replication 2); (left) curve fitted, second derivative and residual plot (right) peak analysis result

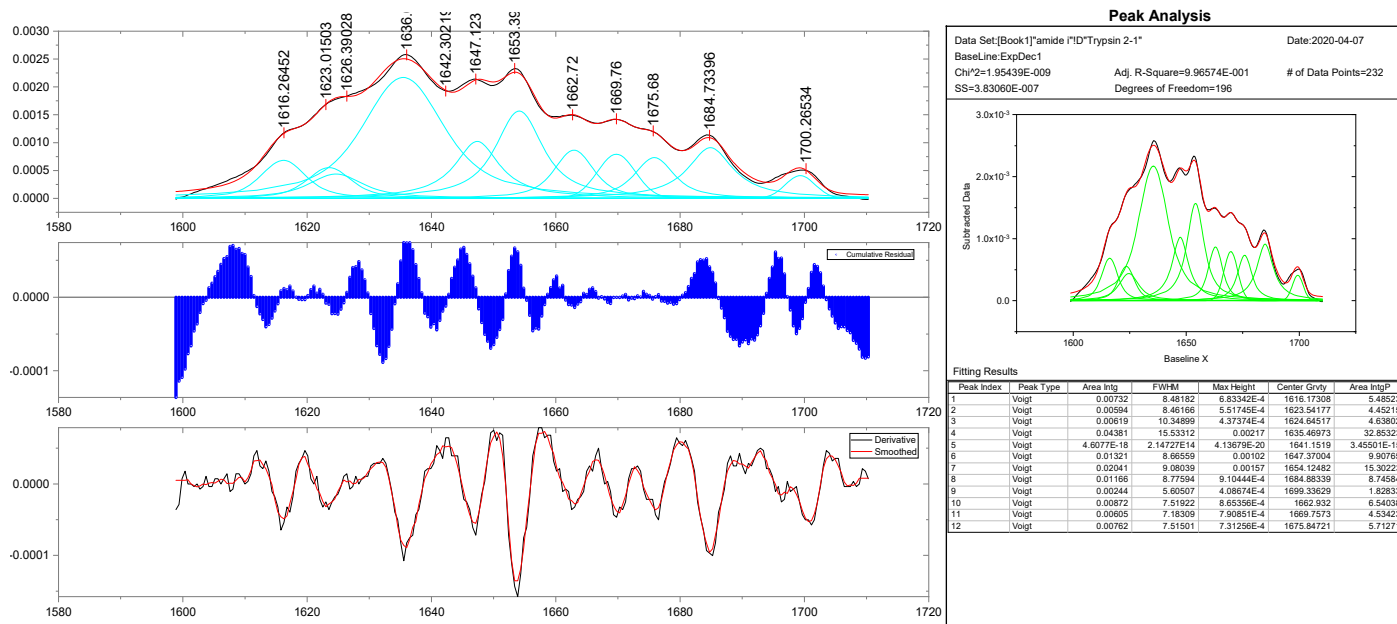


Table S1-10. Statistical analysis of curve fitting performed on FTIR spectrum of trypsin aqueous solution (replication 2)

Number of Points	232
Degrees of Freedom	196
Reduced Chi-Sqr	1.95439E-9
Residual Sum of Squares	3.8306E-7
R-Square (COD)	0.99709
Adj. R-Square	0.99657
Fit Status	Succeeded(100)

Figure S1-11. Curve fitting of FTIR spectrum in the amide I region of trypsin aqueous solution (replication 3); (left) curve fitted, second derivative and residual plot (right) peak analysis result

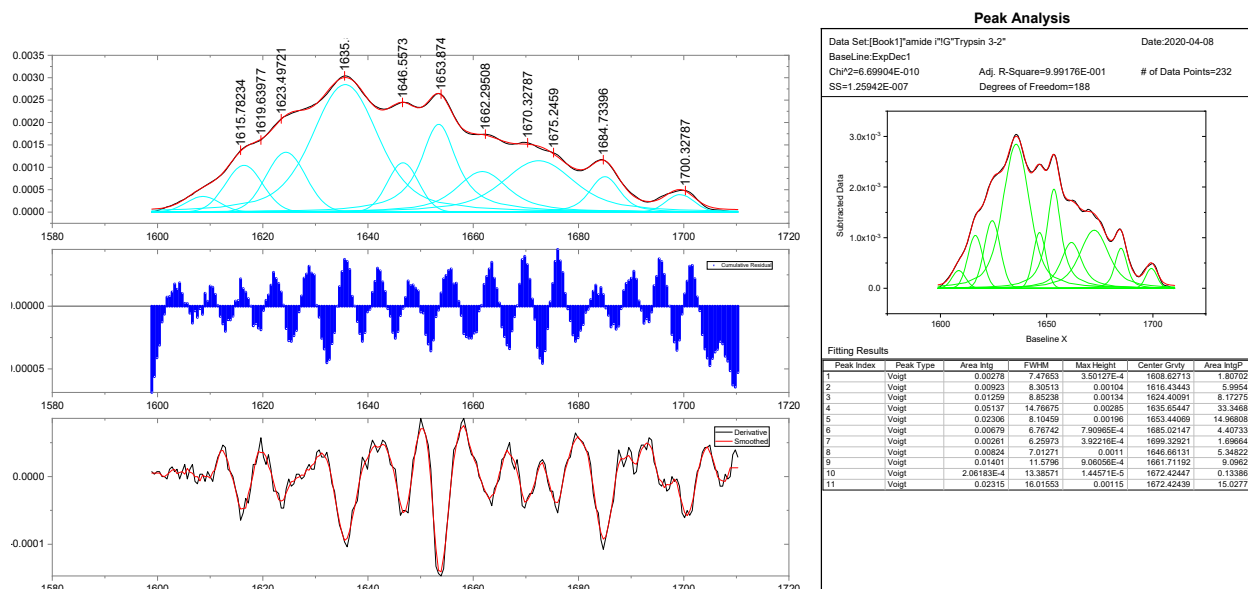


Table S1-11. Statistical analysis of curve fitting performed on FTIR spectrum of trypsin aqueous solution (replication 3)

Number of Points	232
Degrees of Freedom	188
Reduced Chi-Sqr	6.69904E-10
Residual Sum of Squares	1.25942E-7
R-Square (COD)	0.99933
Adj. R-Square	0.99918
Fit Status	Succeeded(100)

Figure S1-12. Curve fitting of FT-Raman spectrum in the amide I region of trypsin aqueous solution; (left) curve fitted, second derivative and residual plot (right) peak analysis result

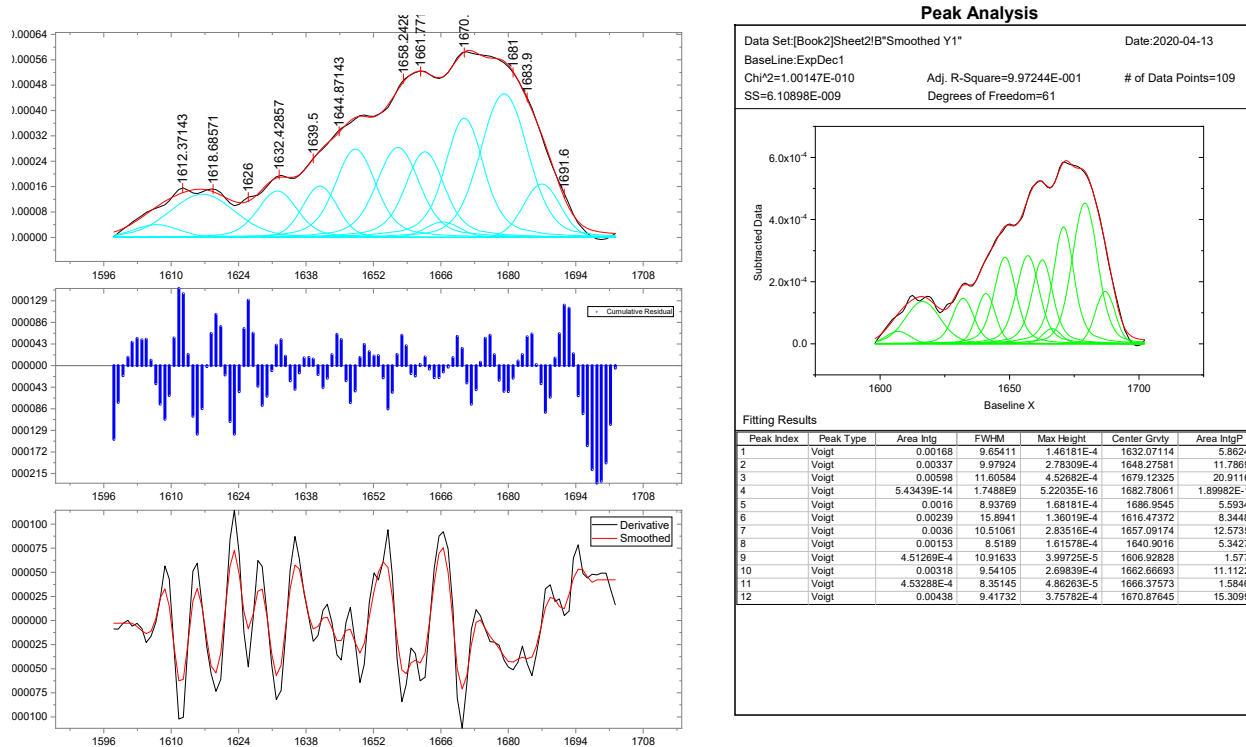


Table S1-12. Statistical analysis of curve fitting performed on FT-Raman spectrum of trypsin aqueous solution

Number of Points	109
Degrees of Freedom	61
Reduced Chi-Sqr	1.00147E-10
Residual Sum of Squares	6.10898E-9
R-Square (COD)	0.99844
Adj. R-Square	0.99724
Fit Status	Succeeded(100)

Figure S1-13. Curve fitting of FTIR spectrum in the amide I region of Immunoglobulin G aqueous solution (replication 1); (left) curve fitted, second derivative and residual plot (right) peak analysis result

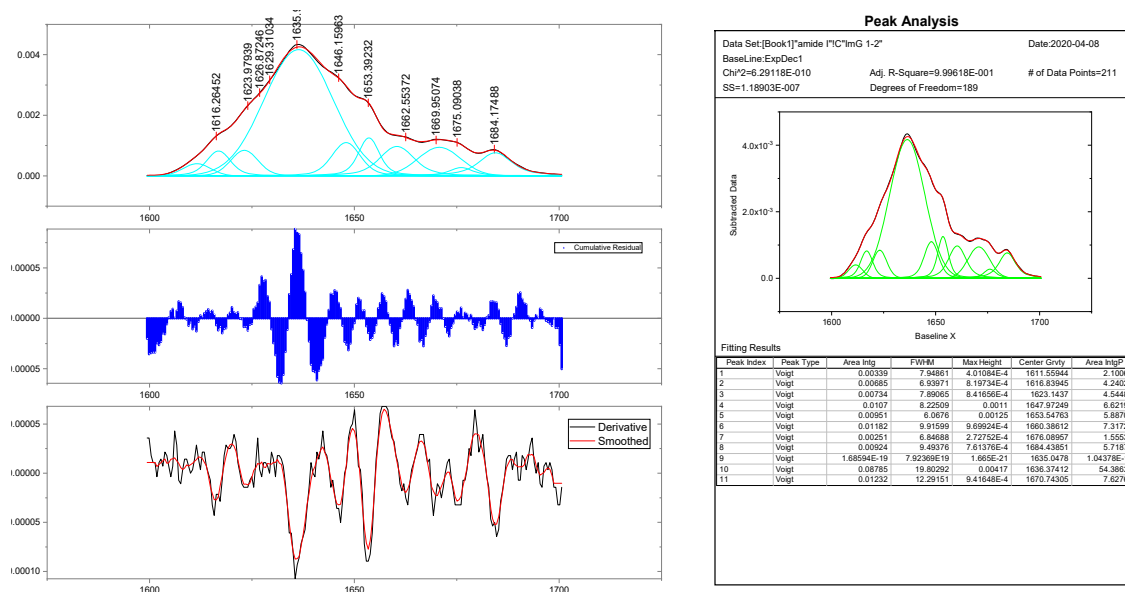


Table S1-13. Statistical analysis of curve fitting performed on FTIR spectrum of Immunoglobulin G aqueous solution (replication 1)

Number of Points	211
Degrees of Freedom	189
Reduced Chi-Sqr	6.29118E-10
Residual Sum of Squares	1.18903E-7
R-Square (COD)	0.99966
Adj. R-Square	0.99962
Fit Status	Succeeded(100)

Figure S1-14. Curve fitting of FTIR spectrum in the amide I region of Immunoglobulin G aqueous solution (replication 2); (left) curve fitted, second derivative and residual plot (right) peak analysis result

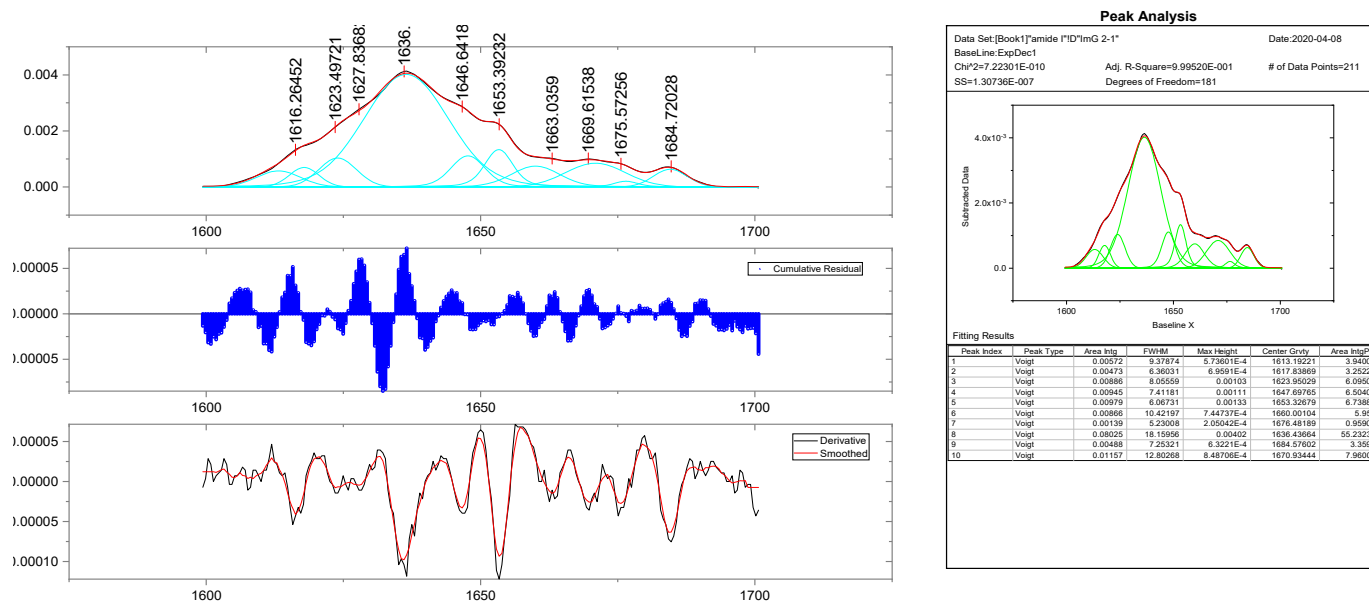


Table S1-14. Statistical analysis of curve fitting performed on FTIR spectrum of Immunoglobulin G aqueous solution (replication 2)

Number of Points	211
Degrees of Freedom	181
Reduced Chi-Sqr	7.22301E-10
Residual Sum of Squares	1.30736E-7
R-Square (COD)	0.99959
Adj. R-Square	0.99959
Fit Status	Succeeded(100)

Figure S1-15. Curve fitting of FTIR spectrum in the amide I region of Immunoglobulin G aqueous solution (replication 3); (left) curve fitted, second derivative and residual plot (right) peak analysis result

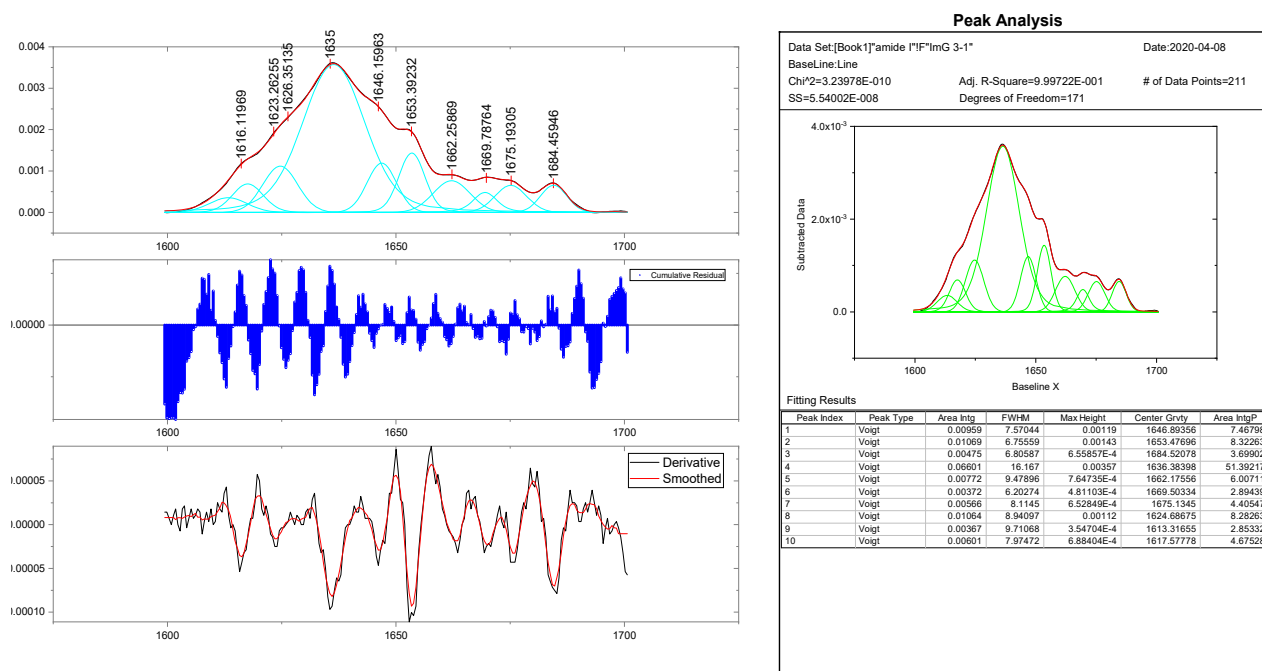


Table S1-15. Statistical analysis of curve fitting performed on FTIR spectrum of Immunoglobulin G aqueous solution (replication 3)

Number of Points	211
Degrees of Freedom	171
Reduced Chi-Sqr	3.23978E-10
Residual Sum of Squares	5.54002E-8
R-Square (COD)	0.99977
Adj. R-Square	0.99972
Fit Status	Succeeded(100)

Figure S1-16. Curve fitting of FT-Raman spectrum in the amide I region of Immunoglobulin G aqueous solution; (left) curve fitted, second derivative and residual plot (right) peak analysis result

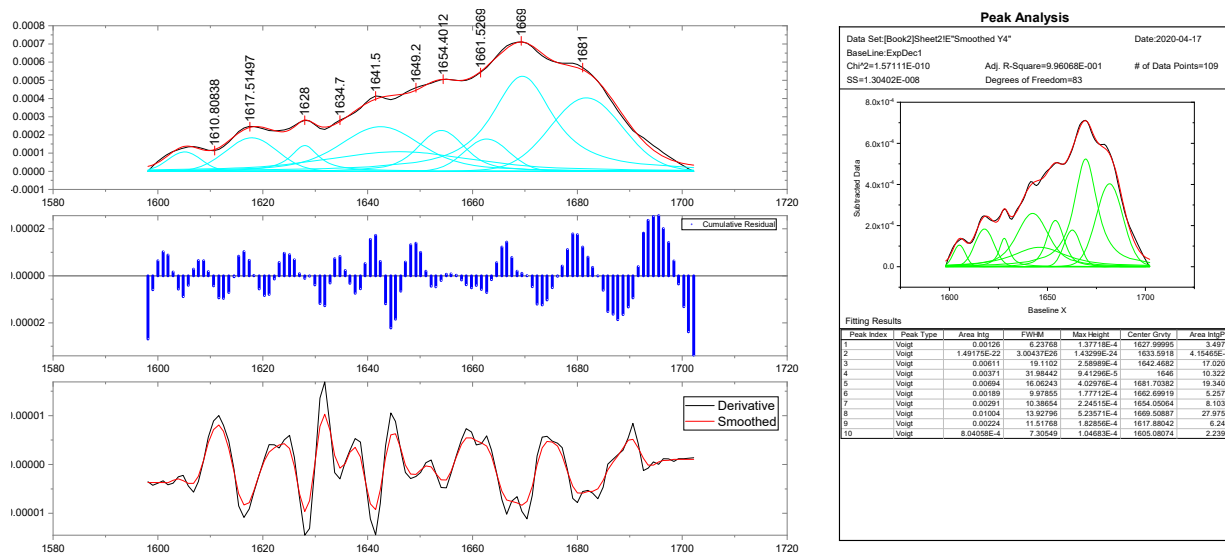


Table S1-16. Statistical analysis of curve fitting performed on FT-Raman spectrum of Immunoglobulin G aqueous solution

Number of Points	109
Degrees of Freedom	83
Reduced Chi-Sqr	1.57111E-10
Residual Sum of Squares	1.30402E-8
R-Square (COD)	0.99698
Adj. R-Square	0.99607
Fit Status	Succeeded(100)

Figure S2-1. Curve fitting of FTIR spectrum in the amide I region of hydrated gluten (replication 1); (left) curve fitted, second derivative and residual plot (right) peak analysis result

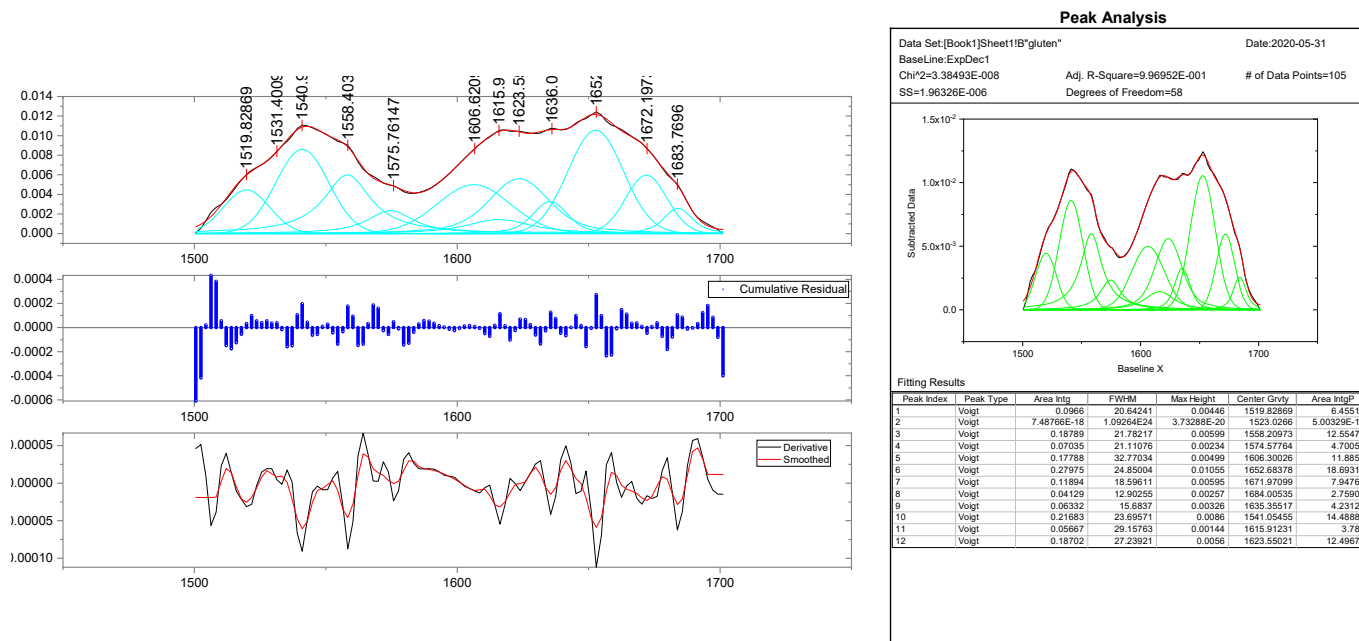


Table 2. Statistical analysis of curve fitting performed on FTIR spectrum of hydrated gluten (replication 1).

Number of Points	105
Degrees of Freedom	58
Reduced Chi-Sqr	3.38493E-8
Residual Sum of Squares	1.96326E-6
R-Square (COD)	0.9983
Adj. R-Square	0.99695
Fit Status	Succeeded(100)

Figure 2. Curve fitting of FTIR spectrum in the amide I region of hydrated gluten (replication 2); (left) curve fitted, second derivative and residual plot (right) peak analysis result.

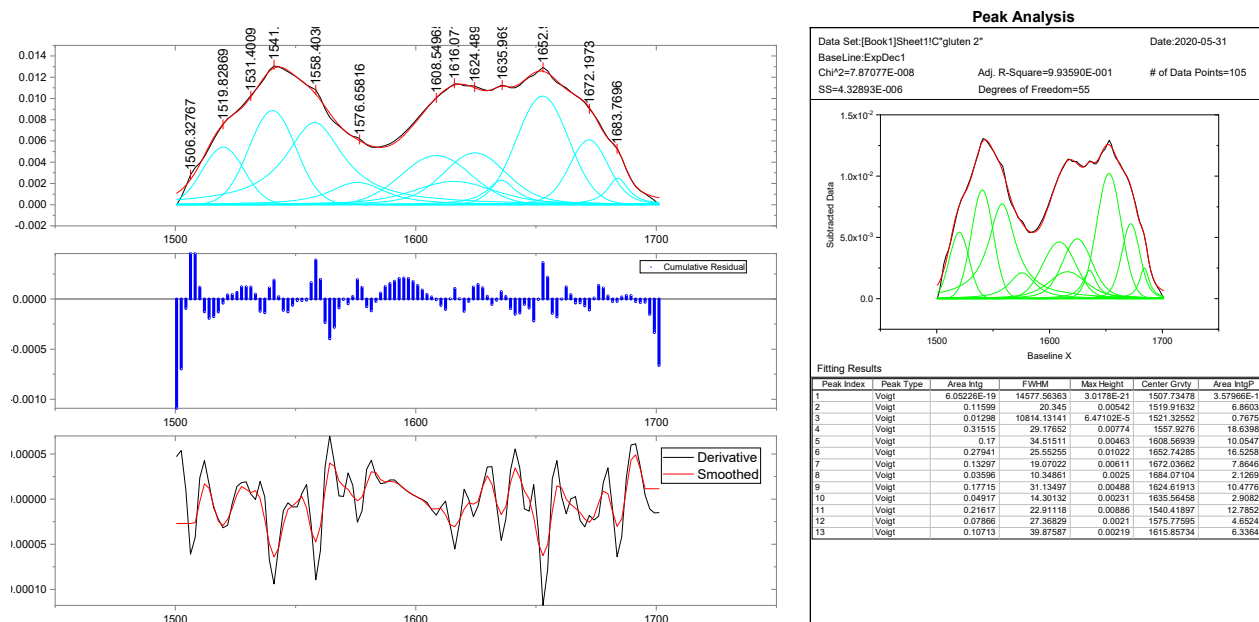


Table S2-2. Statistical analysis of curve fitting performed on FTIR spectrum of hydrated gluten (replication 2)

Number of Points	105
Degrees of Freedom	55
Reduced Chi-Sqr	7.87077E-8
Residual Sum of Squares	4.32893E-6
R-Square (COD)	0.99661
Adj. R-Square	0.99359
Fit Status	Succeeded(100)

Figure S2-3. Curve fitting of FTIR spectrum in the amide I region of hydrated gluten (replication 3); (left) curve fitted, second derivative and residual plot (right) peak analysis result

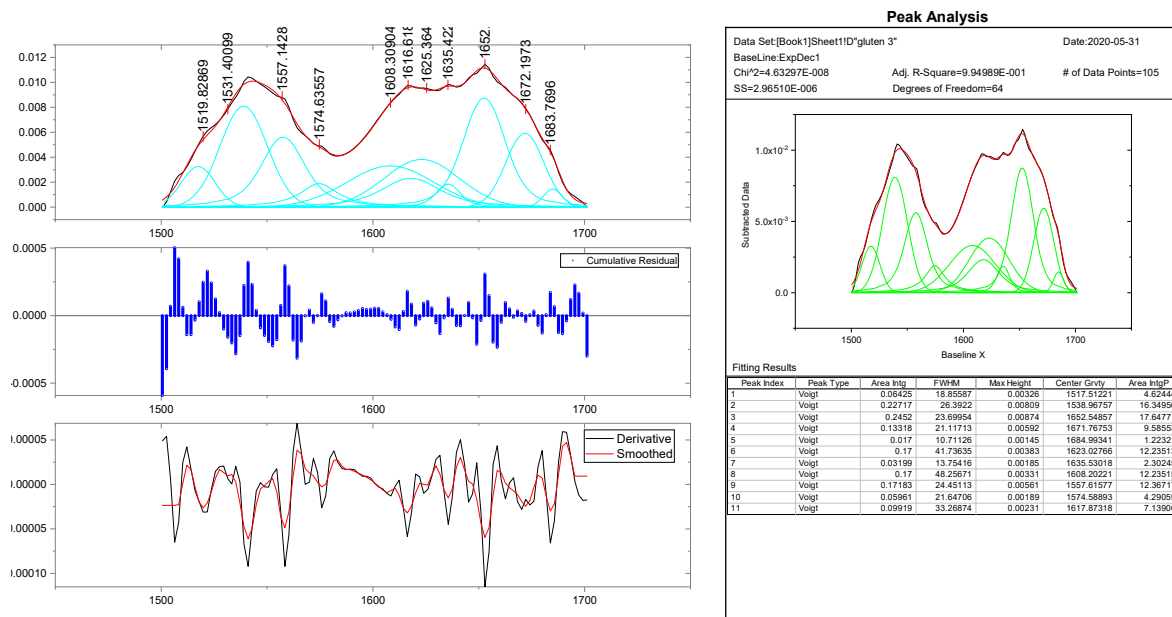


Table S2-3. Statistical analysis of curve fitting performed on FTIR spectrum of hydrated gluten (replication 3)

Number of Points	105
Degrees of Freedom	64
Reduced Chi-Sqr	4.63297E-8
Residual Sum of Squares	2.9651E-6
R-Square (COD)	0.99692
Adj. R-Square	0.99499
Fit Status	Succeeded(100)

Figure S2-4. Curve fitting of FT-Raman spectrum in the amide I region of hydrated gluten (replication 1); (left) curve fitted, second derivative and residual plot (right) peak analysis result

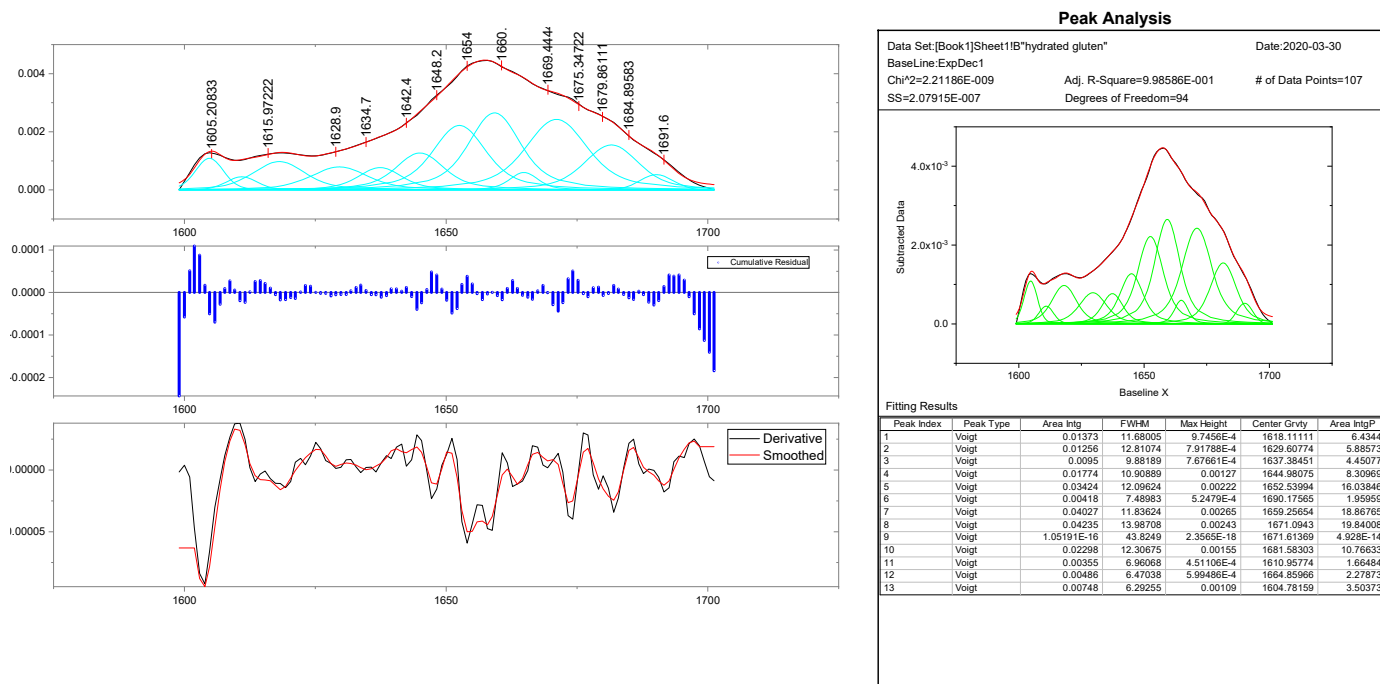


Table S2-4. Statistical analysis of curve fitting performed on FT-Raman spectrum of hydrated gluten (replication 1)

Number of Points	107
Degrees of Freedom	94
Reduced Chi-Sqr	2.21186E-9
Residual Sum of Squares	2.07915E-7
R-Square (COD)	0.99875
Adj. R-Square	0.99859
Fit Status	Succeeded(100)

Figure S2-5. Curve fitting of FT-Raman spectrum in the amide I region of hydrated gluten (replication 2); (left) curve fitted, second derivative and residual plot (right) peak analysis result

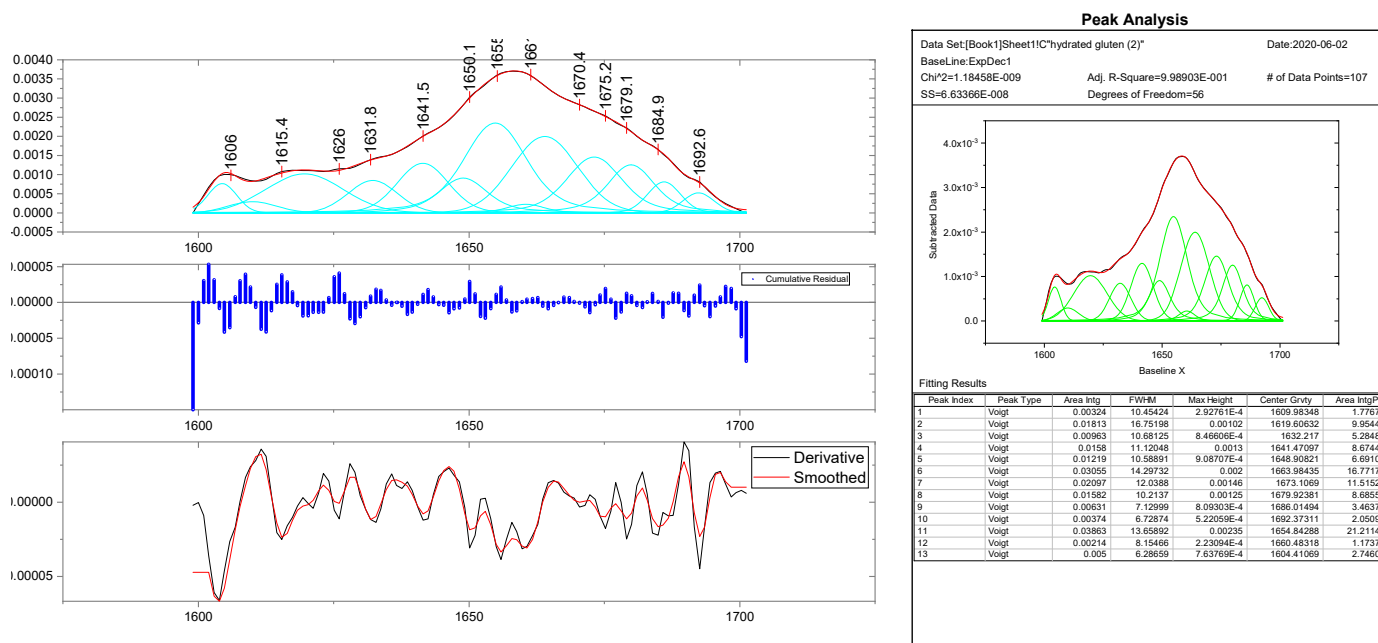


Table S2-5. Statistical analysis of curve fitting performed on FT-Raman spectrum of hydrated gluten (replication 2)

Number of Points	107
Degrees of Freedom	56
Reduced Chi-Sqr	1.18458E-9
Residual Sum of Squares	6.63366E-8
R-Square (COD)	0.99942
Adj. R-Square	0.9989
Fit Status	Succeeded(100)

Figure S2-6. Curve fitting of FTIR spectrum in the amide I region of hydrated zein (replication 1); (left) curve fitted, second derivative and residual plot (right) peak analysis result

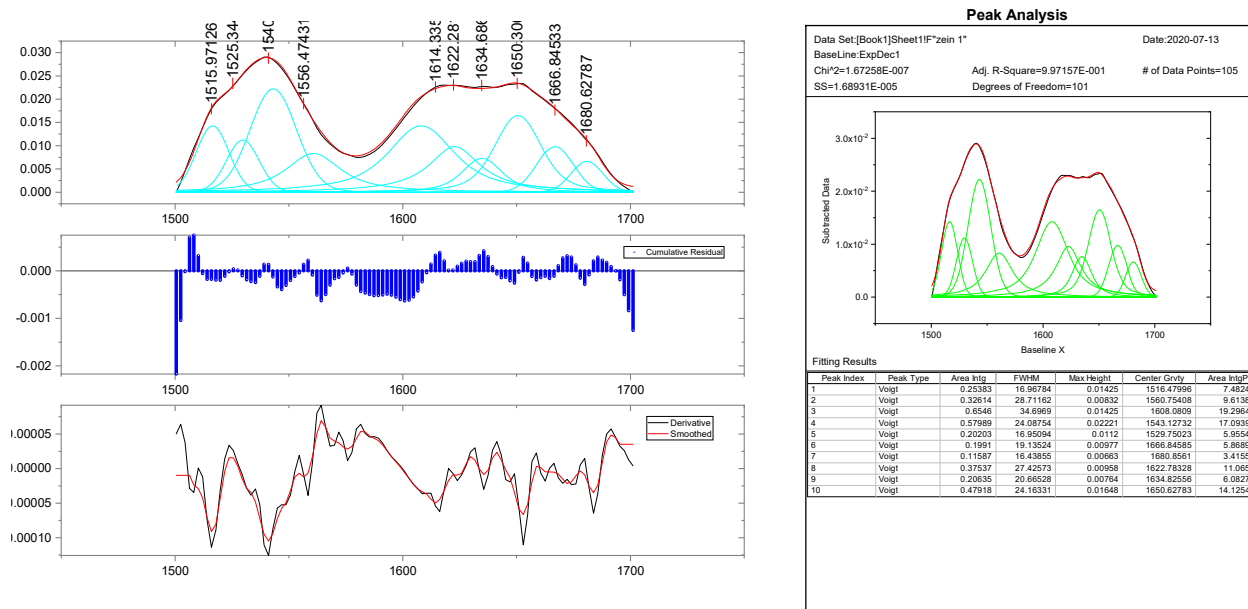


Table S2-6. Statistical analysis of curve fitting performed on FTIR spectrum of hydrated zein (replication 1)

Number of Points	105
Degrees of Freedom	101
Reduced Chi-Sqr	1.67258E-7
Residual Sum of Squares	1.68931E-5
R-Square (COD)	0.99724
Adj. R-Square	0.99716
Fit Status	Succeeded(100)

Figure S2-7. Curve fitting of FTIR spectrum in the amide I region of hydrated zein (replication 2); (left) curve fitted, second derivative and residual plot (right) peak analysis result

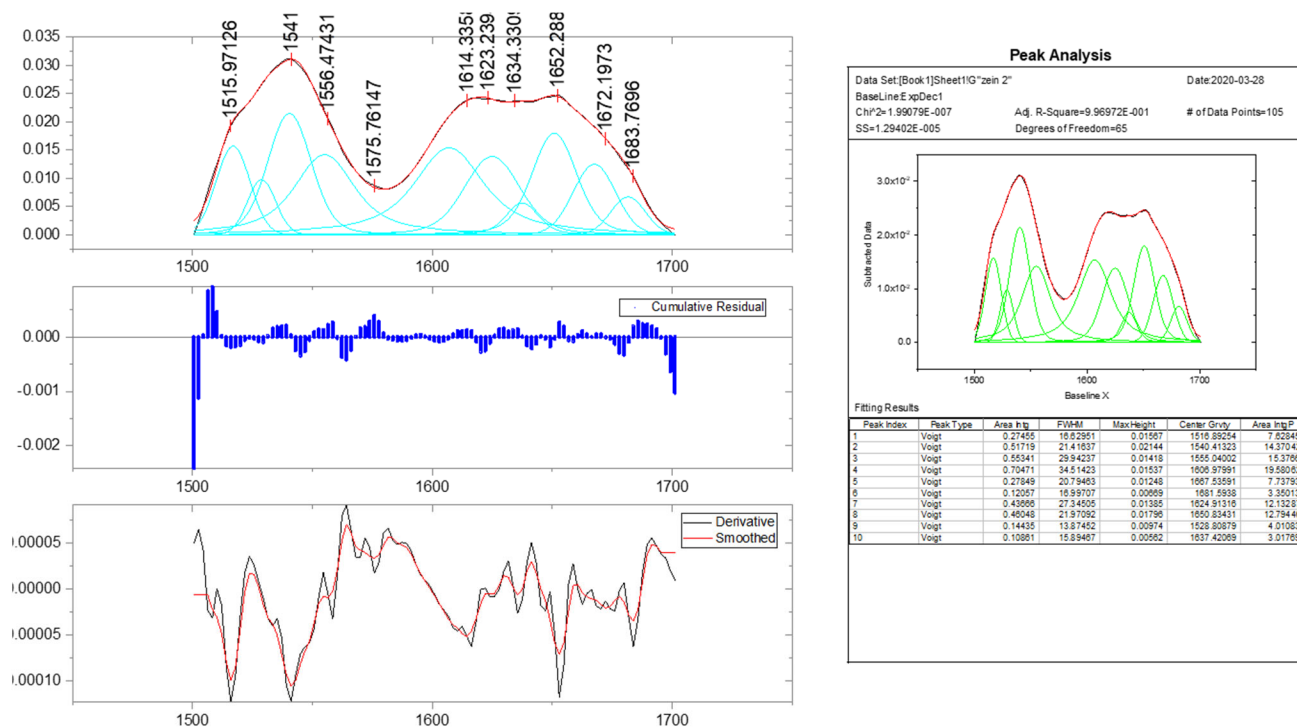


Table S2-7. Statistical analysis of curve fitting performed on FTIR spectrum of hydrated zein (replication 2)

Number of Points	105
Degrees of Freedom	65
Reduced Chi-Sqr	1.99079E-7
Residual Sum of Squares	1.29402E-5
R-Square (COD)	0.99811
Adj. R-Square	0.99697
Fit Status	Succeeded(100)

Figure S2-8. Curve fitting of FTIR spectrum in the amide I region of hydrated zein (replication 3); (left) curve fitted, second derivative and residual plot (right) peak analysis result

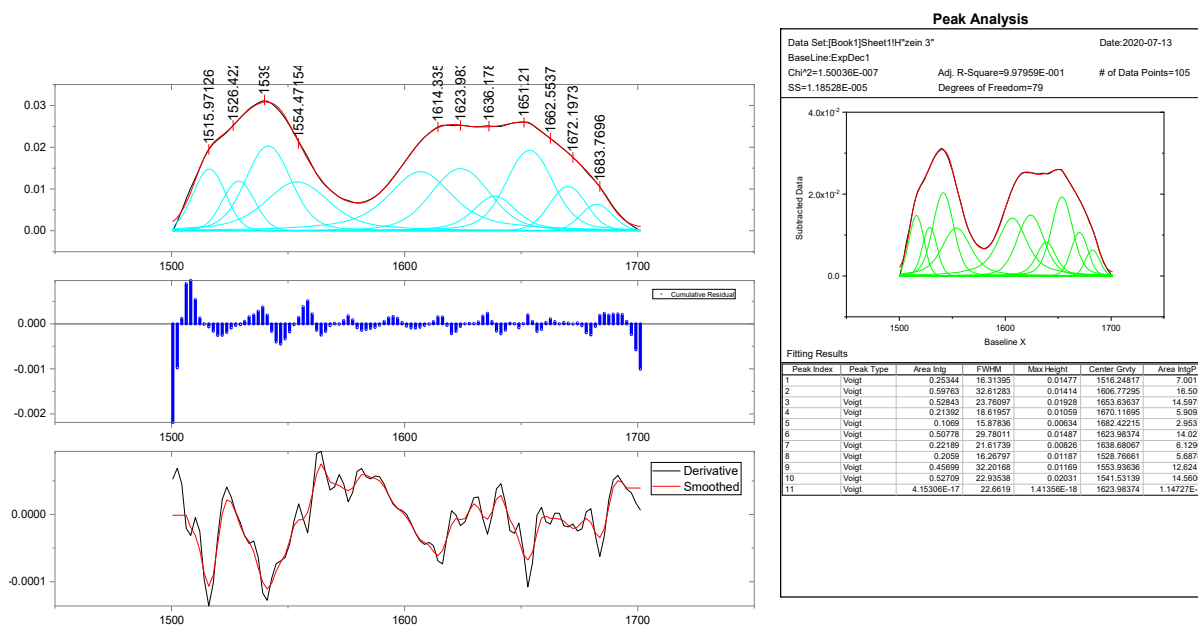


Table S2-8. Statistical analysis of curve fitting performed on FTIR spectrum of hydrated zein (replication 3)

Number of Points	105
Degrees of Freedom	79
Reduced Chi-Sqr	1.50036E-7
Residual Sum of Squares	1.18528E-5
R-Square (COD)	0.99845
Adj. R-Square	0.99796
Fit Status	Succeeded(100)

Figure S2-9. Curve fitting of FT-Raman spectrum in the amide I region of hydrated zein (replication 1); (left) curve fitted, second derivative and residual plot (right) peak analysis result

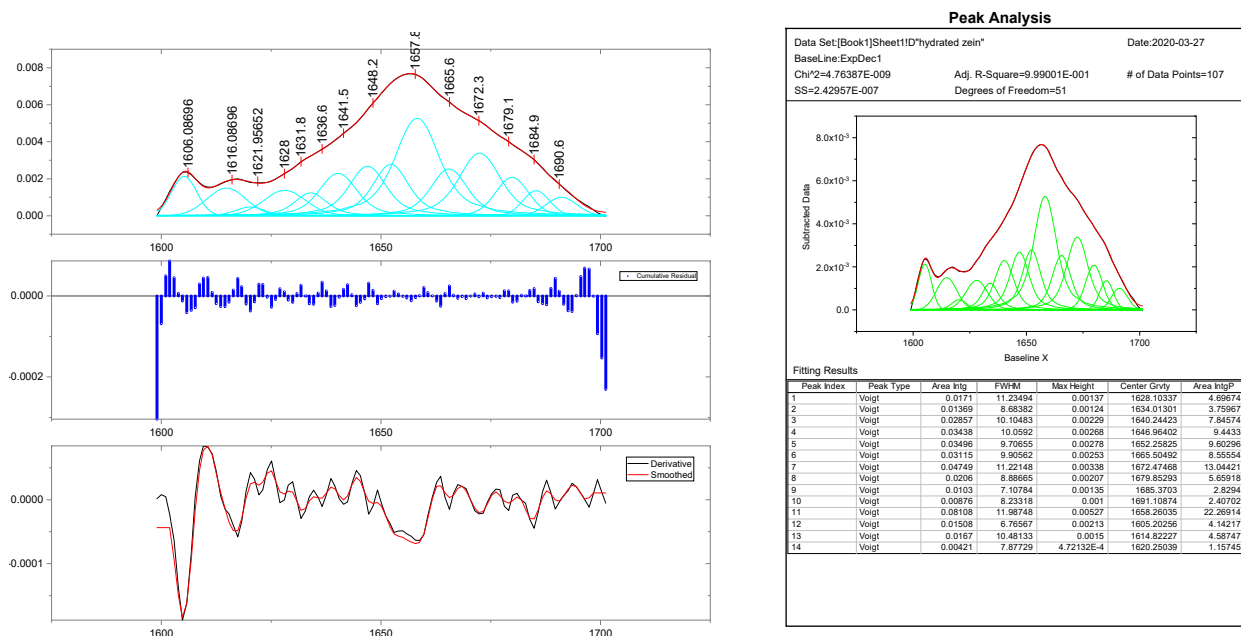


Table S2-9. Statistical analysis of curve fitting performed on FT-Raman spectrum of hydrated zein (replication 1)

Number of Points	107
Degrees of Freedom	51
Reduced Chi-Sqr	4.76387E-9
Residual Sum of Squares	2.42957E-7
R-Square (COD)	0.99952
Adj. R-Square	0.999
Fit Status	Succeeded(100)

Figure 2. Curve fitting of FT-Raman spectrum in the amide I region of hydrated zein (replication 2); (left) curve fitted, second derivative and residual plot (right) peak analysis result.

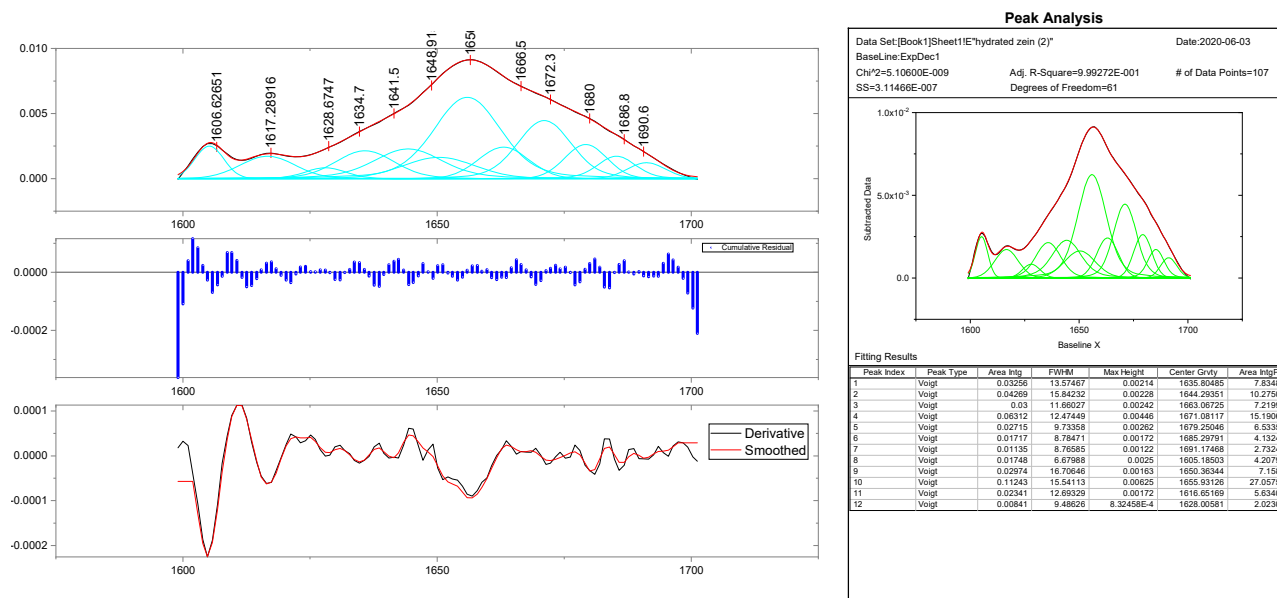


Table S2-10. Statistical analysis of curve fitting performed on FT-Raman spectrum of hydrated zein (replication 2)

Number of Points	107
Degrees of Freedom	61
Reduced Chi-Sqr	5.106E-9
Residual Sum of Squares	3.11466E-7
R-Square (COD)	0.99958
Adj. R-Square	0.99927
Fit Status	Succeeded(100)