Supplementary Material

For

"Single and simultaneously combined effects of transglutaminase and high pressure treatments on pea and soy protein isolates"

By

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Supplementary Table

Table S1. Summary of statistics for the developed models.

		Pea protein isolates			Soy protein isolates		
		Soluble protein	SH Groups	Surface Hydrophobicity	Soluble protein	SH Groups	Surface Hydrophobicity
	Model	94.76 %	91.97 %	92.37 %	90.23 %	84.07 %	96.65 %
	Linear	51.89 %	15.14 %	27.24 %	46.32 %	34.43 %	41.03 %
	P	35.28 %	7.98 %	-	-	7.08 %	27.50 %
	t	11.30 %	5.75 %	-	-	-	2.64 %
	MTG	5.30 %	1.41 %	27.24 %	46.32 %	27.16 %	10.90 %
Contribution	Square	25.21 %	24.89 %	30.52 %	40.73 %	-	28.41 %
	$P*P$	-	21.34 %	-	1.39 %	-	4.92 %
	$t*t$	17.54 %	-	6.62 %	30.64 %	-	-
	MTG*MTG	7.68 %	3.56 %	23.90 %	8.70 %	-	23.49 %
	2-Way Interaction	17.66 %	51.93 %	34.61 %	3.18 %	49.64 %	27.22 %
	$P*t$	3.80 %	27.70 %	3.61 %	3.18 %	24.77 %	27.22 %
	$P*$MTG	13.86 %	24.24 %	15.64 %	-	24.86 %	-
	$t*$MTG	-	-	15.36 %	-	-	-
	Error	5.24 %	8.03 %	7.63 %	9.77 %	15.93 %	3.35 %
	Lack-of-fit	0.61 %	1.67 %	1.71 %	2.20 %	3.34 %	0.75 %
	Pure Error	4.63 %	6.36 %	5.93 %	7.58 %	12.59 %	2.60 %
Model summary	p-value	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	R^2	0.948	0.920	0.924	0.902	0.841	0.967
	Adjusted R^2	0.938	0.905	0.907	0.884	0.820	0.961
	Predicted R^2	0.920	0.877	0.877	0.851	0.779	0.953
	p-value $_{Lack-of-fit}$	0.527	0.168	0.080	0.130	0.325	0.198

P = pressure (MPa); t = holding time (min); MTG = concentration of transglutaminase (U/g protein).
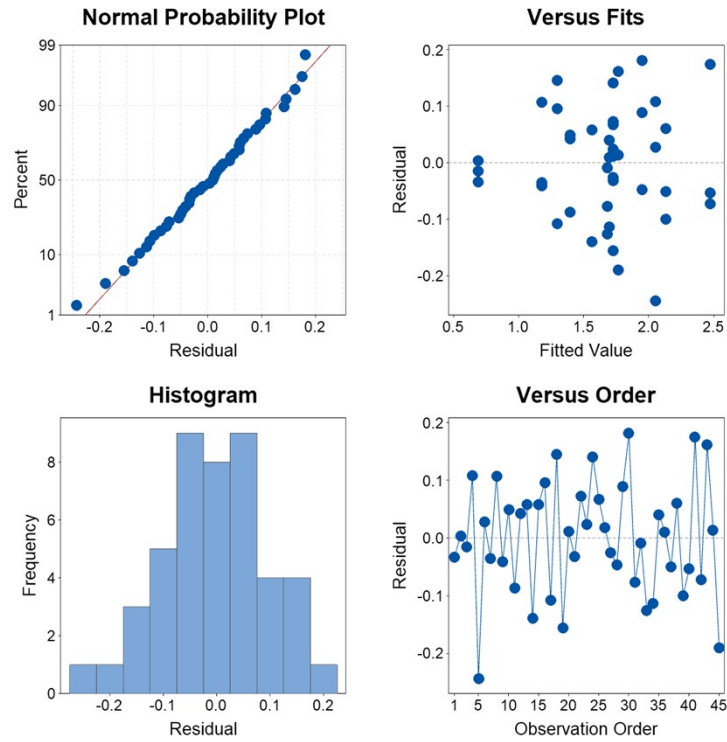
Supplementary Figures

Figure S1. Residual plots of the regression model obtained for the solubility of pea protein isolate.
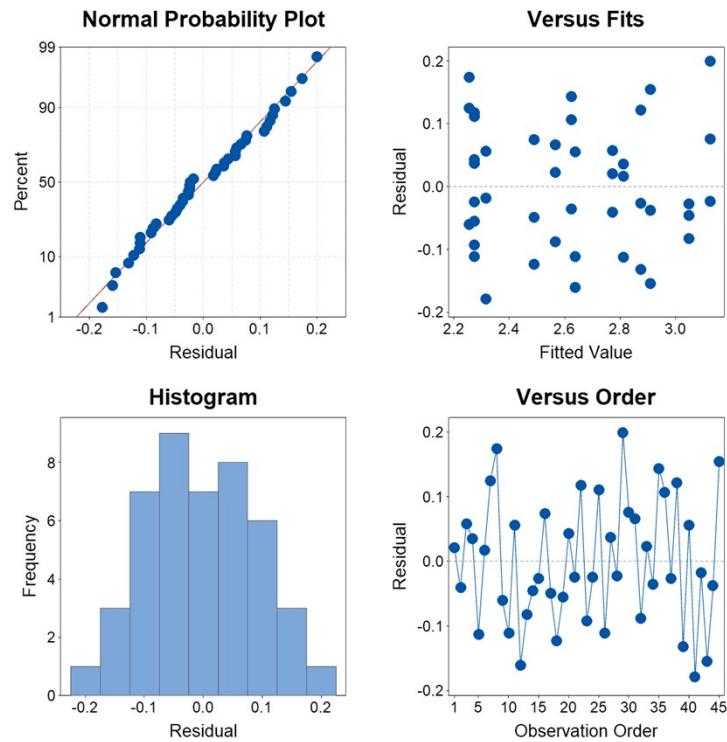

Figure S2. Residual plots of the regression model obtained for the solubility of soy protein isolate.
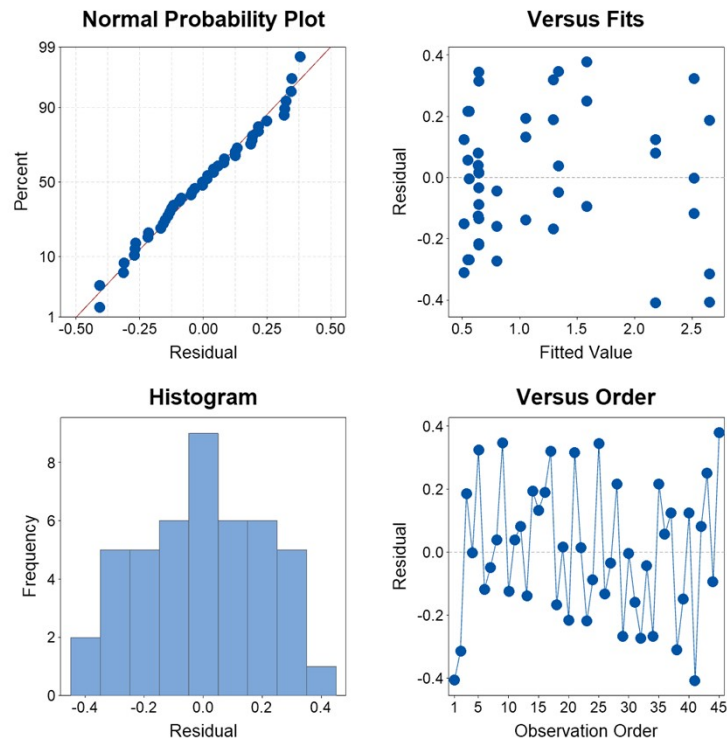
Figure S3. Residual plots of the regression model obtained for the content of free sulfhydryl groups of pea protein isolate.
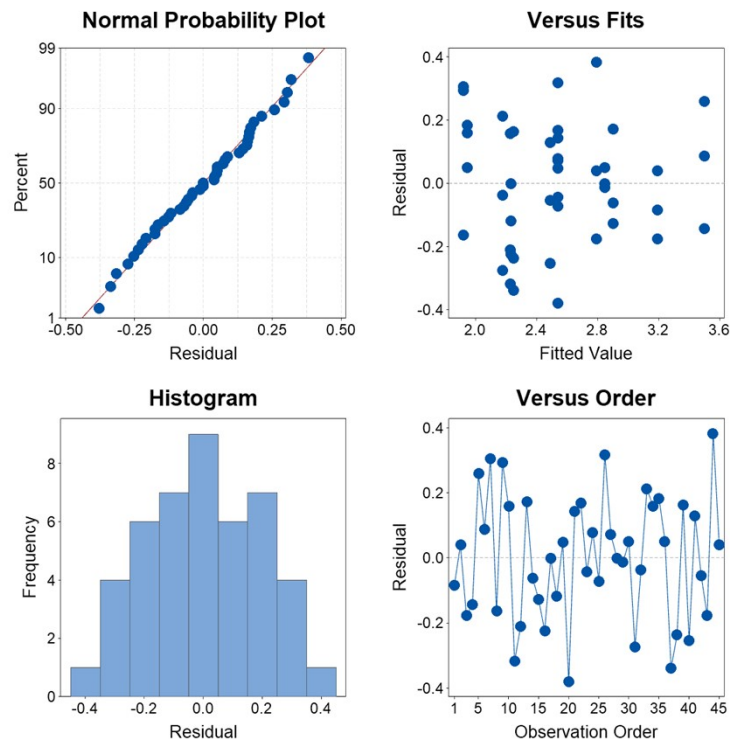

Figure S4. Residual plots of the regression model obtained for the content of free sulfhydryl groups of soy protein isolate.
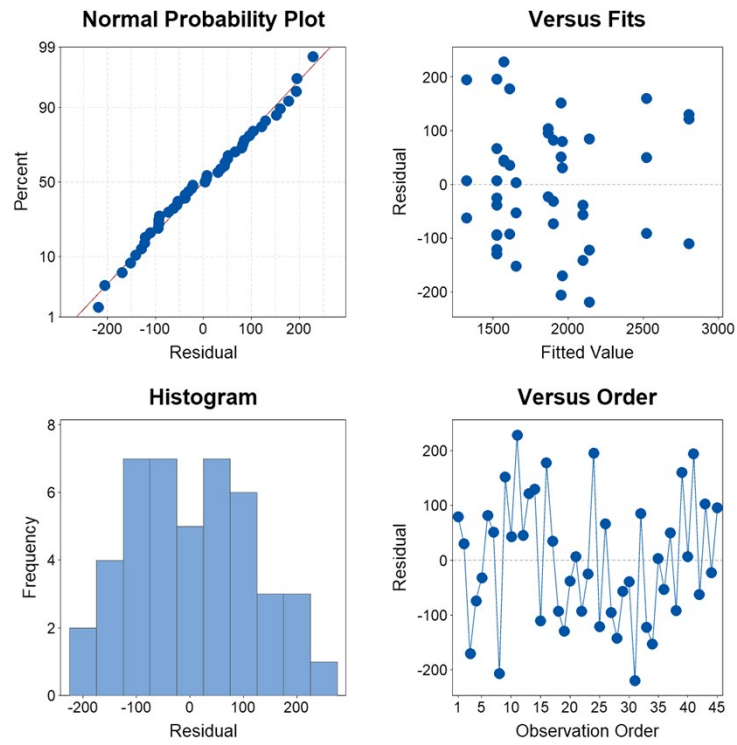
Figure S5. Residual plots of the regression model obtained for the surface hydrophobicity of pea protein isolate.
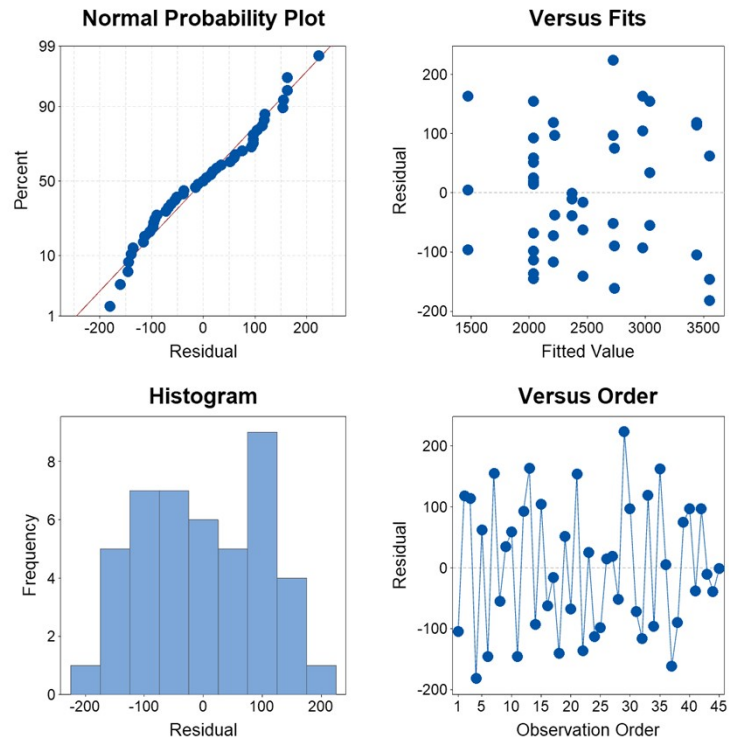

Figure S6. Residual plots of the regression model obtained for the surface hydrophobicity of soy protein isolate.