Supplementary Materials

Table S1. The coded levels of independent variables [beet powder (BP) and caramel color (CC)] used for the central composite design

Independent variable	Coded levels				
	−1.414	−1	0	+1	+1.414
BP (wt%)	0.00	0.66	2.25	3.84	4.50
CC (wt%)	0.00	0.25	0.85	1.45	1.70

Table S2. Average absolute deviation (%) of the optimized experimental responses to the predicted values

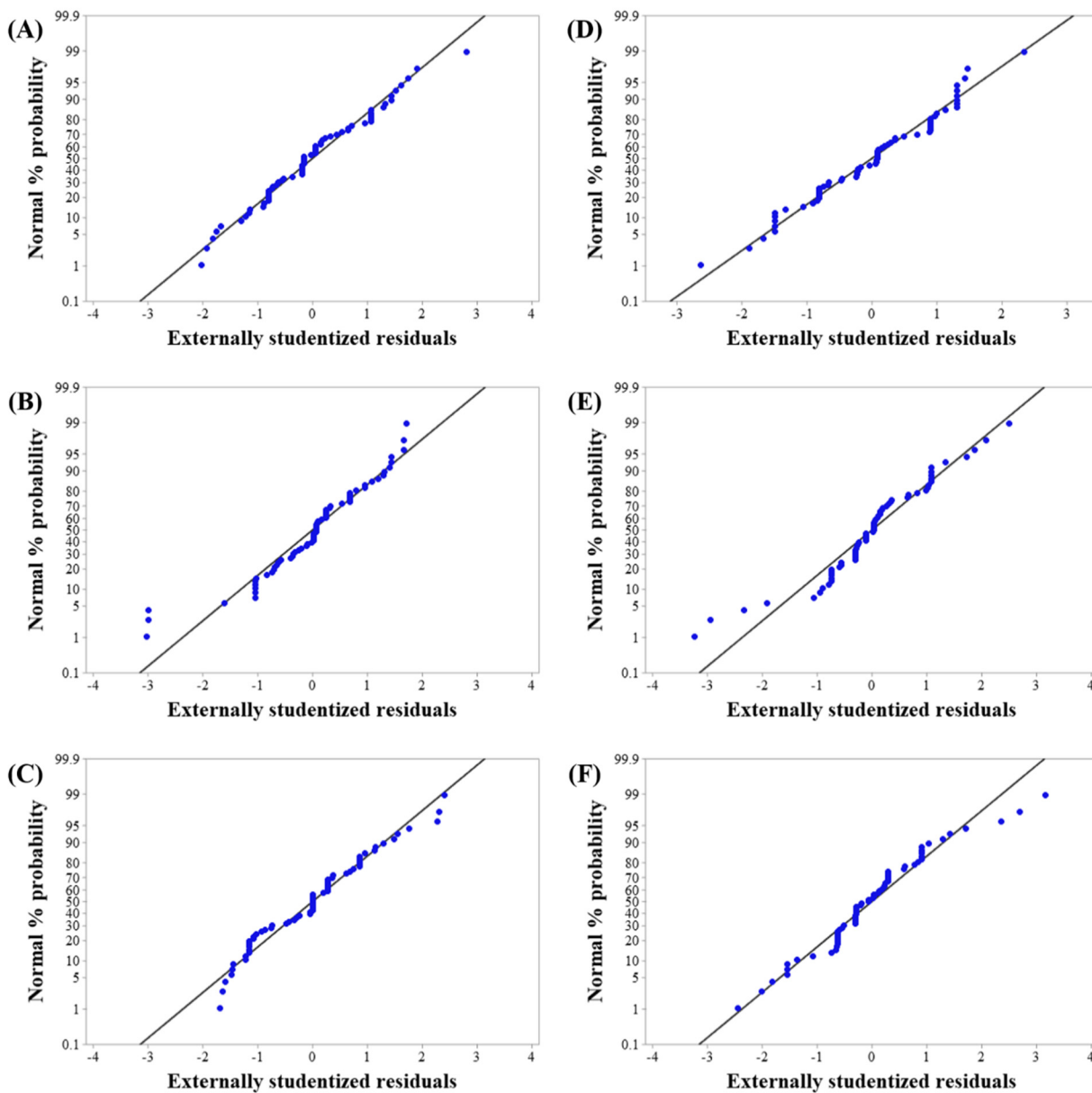| Color attribute	Treatments	Before cooking	After cooking
CIE L*	Solution 1	7.07	1.68
	Solution 2	12.03	2.58
	Solution 3	5.58	2.69
CIE a*	Solution 1	7.07	7.11
	Solution 2	8.27	7.49
	Solution 3	6.74	4.74
CIE b*	Solution 1	6.02	7.57
	Solution 2	13.10	9.10
	Solution 3	6.93	12.57

Fig. S1. Normal probability plots of the residuals. (A), (B), and (C) represent the normal probability plots of the responses as CIE L*, CIE a*, and CIE b* of the patty before cooking, respectively; (D), (E), and (F) represent the normal probability plots of the responses as CIE L*, CIE a*, and CIE b* of the patty after cooking, respectively.
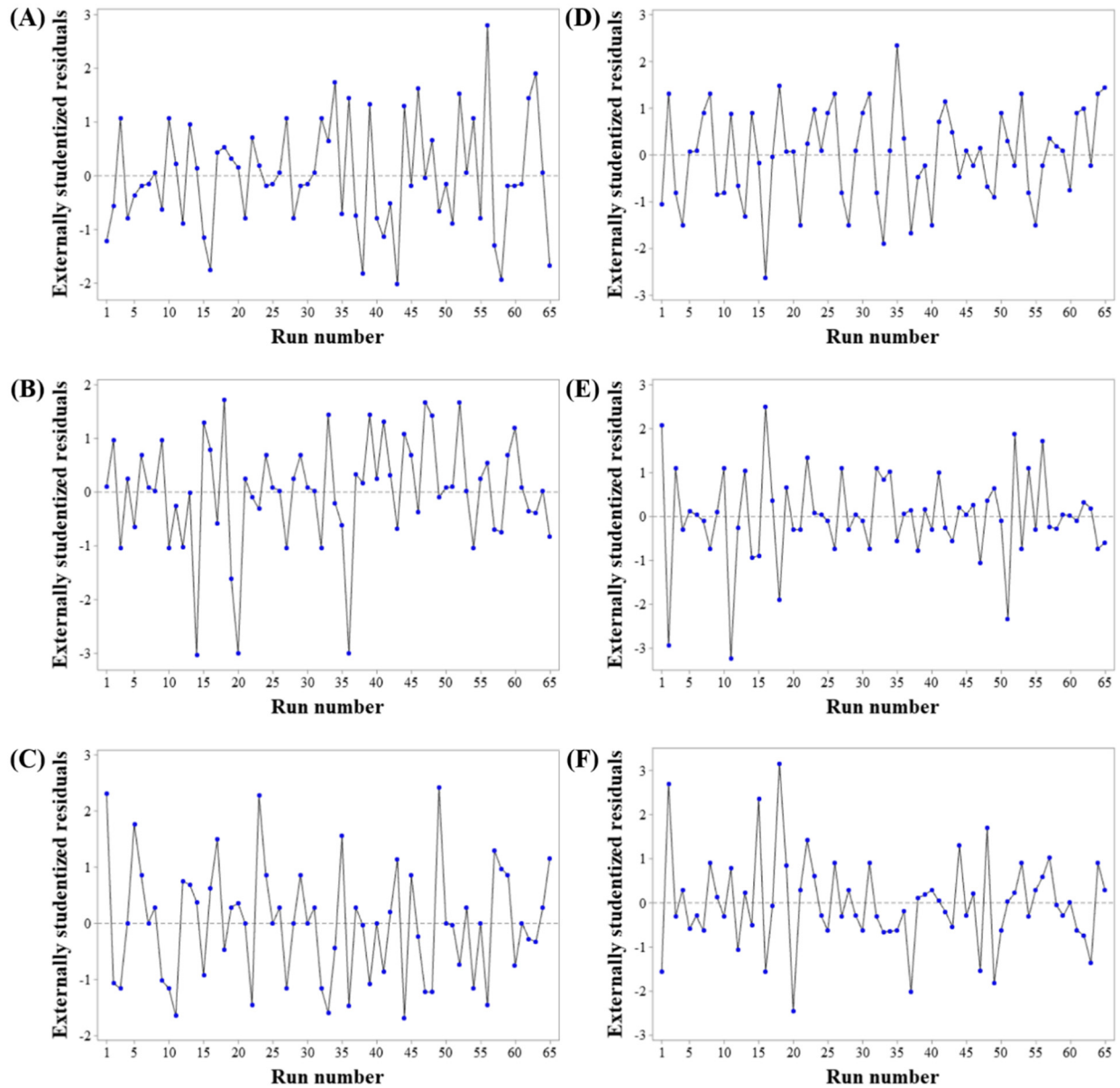
Fig. S2. Residual versus run plot of the residuals. (A), (B), and (C) represent the residual versus run plots of the responses as CIE L*, CIE a*, and CIE b* of the patty before cooking; (D), (E), and (F) represent the residual versus run plots of the responses as CIE L*, CIE a*, and CIE b* of the patty after cooking, respectively.