

**Table S1.** Coded regression coefficients for responses of moisture-conditioned and infrared heat treated cowpea starch samples

WAC: Water absorption capacity; OAC: Oil absorption capacity; SP: Swelling power; PV: Peak viscosity; TV: Trough viscosity; BV: Breakdown viscosity; SV: Setback

Coefficients	WAC	OAC	SP	PV	TV	BV	FV	SV	Pt	PT
$\beta_0$	0.896	0.619	3.357	3894.000	41.040	3859.600	4709.000	4675.000	7.000	72.410
$\beta_1$	0.069	0.001	-0.012	84.000	-94.300	125.000	88.000	128.900	0.006	4.010
$\beta_2$	0.016	-0.015	-0.055	86.000	12.900	73.000	72.000	59.200	-0.006	0.190
$\beta_{11}$	0.028	-0.027	-0.029	188.000	101.000	129.000	100.000	42.000	-0.004	-4.020
$\beta_{22}$	0.044	-0.007	0.003	238.000	101.000	179.000	18.000	-41.000	-0.004	-4.250
$\beta_{12}$	-0.017	-0.007	-0.090	-32.000	-34.000	-48.000	332.000	316.000	-0.017	-11.250
$R^2$	0.881	0.082	0.255	0.297	0.319	0.341	0.309	0.449	0.594	0.320

viscosity; Pt: Peak time; PT: Pasting temperature