

1 **Supplement 2.** ANOVA for regress equation

Source	Sum of Squares	Degree of freedom	Mean square	F-value	P-value Prob > F	Significant
Model	2.54	14	0.18	35.40	< 0.0001	significant
A-Temperature	0.12	1	0.12	23.84	0.0002	**
B-Time	0.29	1	0.29	57.55	< 0.0001	**
C-Concentration	0.046	1	0.046	8.92	0.0098	**
D-Ration	0.020	1	0.020	3.91	0.0680	
AB	0.038	1	0.038	7.43	0.0164	*
AC	9.025E-003	1	9.025E-003	1.76	0.2054	
AD	0.17	1	0.17	33.65	< 0.0001	**
BC	4.225E-003	1	4.225E-003	0.83	0.3789	
BD	8.100E-003	1	8.100E-003	1.58	0.2289	
CD	3.600E-003	1	3.600E-003	0.70	0.4157	
A ²	0.44	1	0.44	85.74	< 0.0001	**
B ²	0.58	1	0.58	113.19	< 0.0001	**
C ²	1.37	1	1.37	266.85	< 0.0001	**
D ²	0.23	1	0.23	44.60	< 0.0001	**
Residual	0.072	14	5.117E-003			
Lack of Fit	0.054	10	5.392E-003	1.22	0.4597	not significant
Pure Error	0.018	4	4.430E-003			
Cor Total	2.61	28				

2 *Significant (P < 0.05); **extremely significant (P < 0.01).

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