

**Table S1.** Analysis of Variance for TPC for response surface modeling showing linear, quadratic and interaction relations and coefficient for model prediction.

<i>Source</i>	<i>Sum of Squares</i>	<i>Df</i>		<i>CE</i>	<i>F-Ratio</i>	<i>P-Value</i>
Model			$\beta_0$	32.0586		
Temperature (°C)	6335.55	1	$\beta_1$	-0.699	1662.02	0.0001*
Solvent composition (% ethanol)	140.554	1	$\beta_2$	0.627	36.87	0.0090*
Temperature <sup>2</sup>	1430.98	1	$\beta_{1,1}$	$5.48 \times 10^{-3}$	375.39	0.0003*
Temperature x Solvent composition	66.0156	1	$\beta_{1,2}$	$-1.25 \times 10^{-3}$	17.32	0.0252*
Solvent composition <sup>2</sup>	248.842	1	$\beta_{2,2}$	$-3.86 \times 10^{-3}$	65.28	0.0040*
Lack-of-fit	87.8714	3			7.68	0.0640
Pure error	11.4359	3				
Total (corr.)	8083.68	11				

*Df* (degree of freedom)

*CE* (coefficients of regression equation)

\* Denotes statistical differences ( $p < 0.05$ )

R-squared = 98.7715 percent

R-squared (adjusted for d.f.) = 97.7478 percent

Standard Error of Est. = 1.95242

Mean absolute error = 2.44611

Durbin-Watson statistic = 2.76781 (P=0.9638)

Lag 1 residual autocorrelation = -0.412639