

Supplementary Materials

Table S1. ANOVA results and estimated regression coefficients for the physical properties of red wine samples treated by pulsed electric fields.

		pH			Conductivity (mS/cm)			TA (tartaric acid g/L)			Color <i>L</i> *			Color <i>b</i> *		
Terms		Coeff	SE Coeff	P value	Coeff	SE Coeff	P value	Coeff	SE Coeff	P value	Coeff	SE Coeff	P value	Coeff	SE Coeff	P value
Linear	EFS (<i>X</i> ₁)	-0.1174	0.0111	0.000	0.08926	0.000207	0.000				-0.0493	0.0148	0.002			
	Trt (<i>X</i> ₂)	0.1174	00.00316	0.000	0.00248	0.000015	0.000	0.01353	0.000078	0.015						
	E (<i>X</i> ₃)	-0.000888	0.00019	0.000	0.01542	0.0000021	0.000							-0.002033	0.000298	0.000
Square	Trt*Trt	-0.000028	0.000007	0.003				-0.00002	0.0000001	0.045						
Interaction	E*EFS				0.000001	0.000001	0.001									
	E*Trt	0.000001	0.000001	0.003										0.00004	0.000001	0.000
	EFS*Trt															
	EFS*Trt*Trt							0.000001		0.004						
Error																
Lack of fit			0.000			0.009			0.752			0.000			0.000	
Adj SS		0.087197			0.03268			0.008679			15.48			297.541		
Adj MS		0.029066			0.008171			0.002893			15.47			99.180		
Constant		2.89			2.25885			1.9785			14.25			22.267		

Table S2. ANOVA results and estimated regression coefficients for the total antioxidant capacity (TAC), total phenolic substance content (TPSC), and total monomeric anthocyanin content (TMAC) of the red wine samples treated by pulsed electric fields.

Terms	TAC (%)			TPSC (g/100 mL)			TMAC (mg/L)		
	Coeff	SE Coeff	P value	Coeff	SE Coeff	P value	Coeff	SE Coeff	P value
Linear									
EFS (X_1)	0.01581	0.00514	0.004	2017.6	13.1	0.003			
Trt (X_2)	0.002372	0.000326	0.000	0.6217	0.0426	0.000			
E (X_3)							0.02469	0.00804	0.004
Square							0.002216	0.000416	0.000
Trt*Trt									
EFS*EFS				0.2584	0.0405	0.000			
Interaction									
E*EFS							-0.02213	0.00719	0.004
EFS*Trt				-0.01372	0.00199	0.000			
EFS*Trt							-0.02213	0.00719	0.004
Error									
Lack of fit		0.941			1.101			0.662	
Adj SS	10.515			762871			21.5520		
Adj MS	5.2574			190718			3.59200		
Constant	72.156			2016.6			36.733		

Table S3. ANOVA results and estimated regression coefficients for the microbial inactivation of red wine samples treated by pulsed electric fields.

	<i>C. lipolytica</i>			<i>S. cerevisiae</i>			<i>H. anemola</i>			<i>E. coli</i> O157:H7			<i>L. delbrueckii ssp. bulgaricus</i>		
Terms	Coeff	SE Coeff	P value	Coeff	SE Coeff	p value	Coeff	SE Coeff	p value	Coeff	SE Coeff	p value	Coeff	SE Coeff	P value
Linear															
EFS (X_1)	-0.1437	0.0413	0.001												
Trt (X_2)							-0.00637	0.00210	0.004				-0.00275	0.00124	0.033
Square															
Trt*Trt	0.000068		0.046	-0.000001	0.000007	0.024				-0.000012	0.00004	0.008	0.000006	0.000002	0.024
Interaction															
EFS*Trt															
E*Trt				0.000003	0.000001	0.012									
Error															
Lack of fit		0.039			0.093			0.012			0.031				
Adj SS	2.909			278.99			142.691			183.078			118.022		
Adj MS	2.9086			30.99			15.86			20.3420			13.1136		
Constant	121.156	13.4617	0.000	8.375			7.005	0.213	0.000	6.456	0.214	0.000	6.151		