

Supplementary materials

**Table S1.** ANOVA analysis

Number of obs = 36    R-squared = 0.9771 Root MSE = 2.04983    Adj R-squared = 0.9733						Number of obs = 36    R-squared = 0.9771 Root MSE = 2.01649    Adj R-squared = 0.9742					
Source	Partial SS	df	MS	F	Prob > F	Source	Partial SS	df	MS	F	Prob > F
Model	5380.19641	5	1076.03928	256.09	0.0000	Model	5380.19641	4	1345.0491	330.78	0.0000
x	846.580794	1	846.580794	201.48	0.0000	x	989.212863	1	989.212863	243.27	0.0000
y	562.106294	1	562.106294	133.78	0.0000	y	656.810054	1	656.810054	161.53	0.0000
xy	4.4670e-14	1	4.4670e-14	0.00	1.0000	x2	301.785676	1	301.785676	74.22	0.0000
x2	301.785676	1	301.785676	71.82	0.0000	y2	175.017833	1	175.017833	43.04	0.0000
y2	175.017833	1	175.017833	41.65	0.0000	Residual	126.053593	31	4.06624495		
Residual	126.053593	30	4.20178644			Total	5506.25	35	157.321429		
Total	5506.25	35	157.321429								

Note: x indicates the variable of humidity, while y refers to the oxygen content.

**Table S2.** Multiple linear regression analysis.

Source	SS	df	MS	Number of obs = 36 F( 4, 31) = 330.78 Prob > F = 0.0000 R-squared = 0.9771 Adj R-squared = 0.9742 Root MSE = 2.0165		
Model	5380.19641	4	1345.0491			
Residual	126.053593	31	4.06624495			
Total	5506.25	35	157.321429			

  

z	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
x	54.73214	3.509088	15.60	0.000	47.57531	61.88897
y	44.59821	3.509088	12.71	0.000	37.44138	51.75504
x2	-29.01785	3.368315	-8.61	0.000	-35.88758	-22.14813
y2	-22.09821	3.368315	-6.56	0.000	-28.96794	-15.22849
_cons	15.16071	1.000213	15.16	0.000	13.12077	17.20066