

Supplementary Materials: Effective Detoxification of Aflatoxin B1 and Ochratoxin A Using Magnetic Graphene Oxide Nanocomposite: Isotherm and Kinetic Study

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Table S1. Matrix of the central composite design (CCD).

RunOrder	PtType	Blocks	pH	Time	Temperature	AFB ₁	OTA
1	1	1	3	3	30	61.29	41.47
2	1	1	7	7	30	30.45	21.58
3	1	1	7	3	50	90.32	59.74
4	1	1	3	7	50	87.1	53.42
5	0	1	5	5	40	94.84	58.32
6	0	1	5	5	40	93.03	57.16
7	1	2	7	3	30	87.1	46.58
8	1	2	3	7	30	87.1	50
9	1	2	3	3	50	76.55	44.11
10	1	2	7	7	50	41.94	37.37
11	0	2	5	5	40	93.06	58.53
12	0	2	5	5	40	93.87	58.84
13	-1	3	3	5	40	96.77	60.79
14	-1	3	7	5	40	77.42	55.11
15	-1	3	5	3	40	90.32	50
16	-1	3	5	7	40	84.19	45.11
17	-1	3	5	5	30	93.55	52.89
18	-1	3	5	5	50	89.35	59.97
19	0	3	5	5	40	92.26	57.42
20	0	3	5	5	40	94.19	58.89

Table S2. F-ratio and *p*-value for each independent variable effect in the polynomial response surface models.

Response		Linear Effects			Quadratic Effects			Interaction Effects		
		X ₁	X ₂	X ₃	X ₁ ²	X ₂ ²	X ₃ ²	X ₁ X ₂	X ₁ X ₃	X ₂ X ₃
AFB ₁ (Y ₂)	<i>p</i> -value	0.00	0.002	0.3*	0.11	0.001	-	0.00	-	-
	F-Value	63.11	51.52	55.81	21.9	21.9	-	120.52	-	-
OTA (Y ₆)	<i>p</i> -value	0.26*	0.001	0.151*	-	0.00	0.00	0.034	0.001	-
	F-Value	1.38	18.26	2.33	-	82.82	23.13	5.62	16.16	-

X₁, X₂ and X₃ represent the main effect pH, time and temperature

X₁², X₂² and X₃² represent the quadratic effect pH, time and temperature

X₁X₂, X₁X₃, X₂X₃ represent the interaction between pH and time, pH and temperature, time and temperature

* Not significant at *p* < 0.05

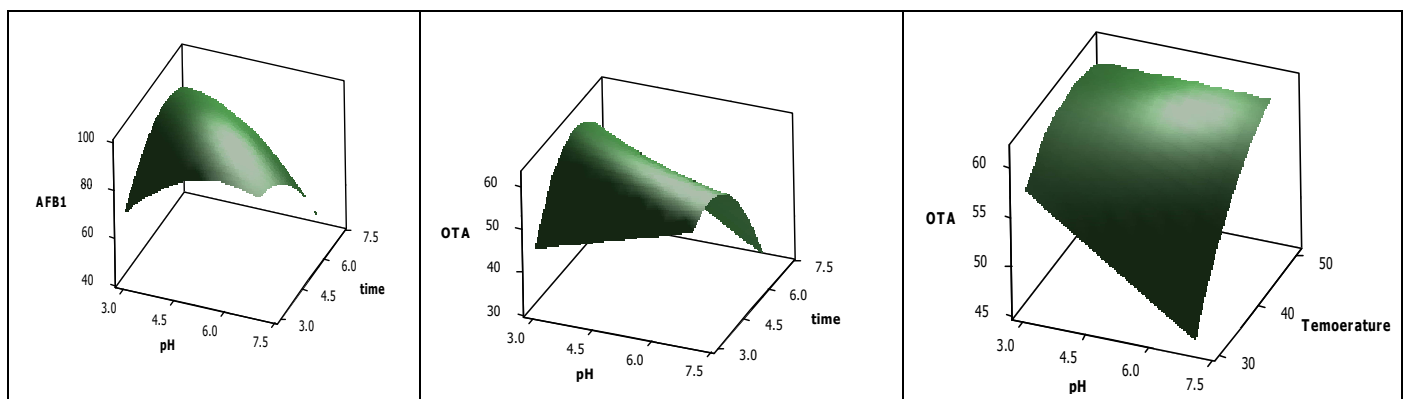


Figure S1. Response surface plots of significant (*p* < 0.05) interaction effect of variables on the reduction of the mycotoxins with MGO.