Supplementary Information

for

Enhancing clenbuterol immunosensor based on poly(3,4-ethylenedioxythiophene)/multi-walled carbon nanotube performance by response surface methodology

Nurul Ain A. Talib,[ab] Faridah Salam,[c] Nor Azah Yusof,[ab] Shahrul Ainliah Alang Ahmad,[ab] Mohd Zulkhairi Azid,[d] Razali Mirad[d] and Yusran Sulaiman[*ab]

[a]*Functional Devices Laboratory, Institute of Advance Technology, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia.*

[b]*Department of Chemistry, Faculty of Science, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia. E-mail: yusran@upm.edu.my. Tel: +60-389466779. Fax: +60-389435380.*

[c]*Biodiagnostic-Biosensor Programme, Biotechnology and Nanotechnology Research Centre, Malaysian Agricultural Research and Development Institute, 43400 Serdang, Selangor, Malaysia.*

[d]*Utilization of Agrobiodiversity Resource Programme, Agrobiodiversity and Environmental Research Centre, Malaysian Agricultural Research and Development Institute, 43400 Serdang, Selangor, Malaysia.*

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Table S1. Central composite design (CCD) for fabrication of PEDOT/MWCNT/Ab-CLB/SPCE using RSM method and results of current response

Standard	A: pH	B: Incubation temperature (°C)	C: Ag incubation time (s)	D: Blocking (%)	Current (µA) Experimental	Predicted
1	6.4	28	10	0.00	-0.592	-0.577
2	8.4	28	10	0.00	-0.555	-0.548
3	6.4	46	10	0.00	-0.494	-0.476
4	8.4	46	10	0.00	-0.378	-0.400
5	6.4	28	70	0.00	-0.626	-0.641
6	8.4	28	70	0.00	-0.687	-0.691
7	6.4	46	70	0.00	-0.555	-0.569
8	8.4	46	70	0.00	-0.595	-0.573
9	6.4	28	10	0.10	-0.620	-0.615
10	8.4	28	10	0.10	-0.592	-0.602
11	6.4	46	10	0.10	-0.507	-0.526
12	8.4	46	10	0.10	-0.510	-0.467
13	6.4	28	70	0.10	-0.647	-0.649
14	8.4	28	70	0.10	-0.723	-0.715
15	6.4	46	70	0.10	-0.608	-0.589
16	8.4	46	70	0.10	-0.571	-0.609
17	6.4	37	40	0.05	-0.447	-0.455
18	8.4	37	40	0.05	-0.444	-0.450
19	7.4	28	40	0.05	-0.403	-0.408
20	7.4	46	40	0.05	-0.296	-0.305
21	7.4	37	10	0.05	-0.473	-0.510
22	7.4	37	70	0.05	-0.636	-0.613
23	7.4	37	40	0.00	-0.427	-0.436
24	7.4	37	40	0.10	-0.468	-0.474
25	7.4	37	40	0.05	-0.453	-0.416
26	7.4	37	40	0.05	-0.421	-0.416

Table S2. ANOVA table for response surface quadratic model

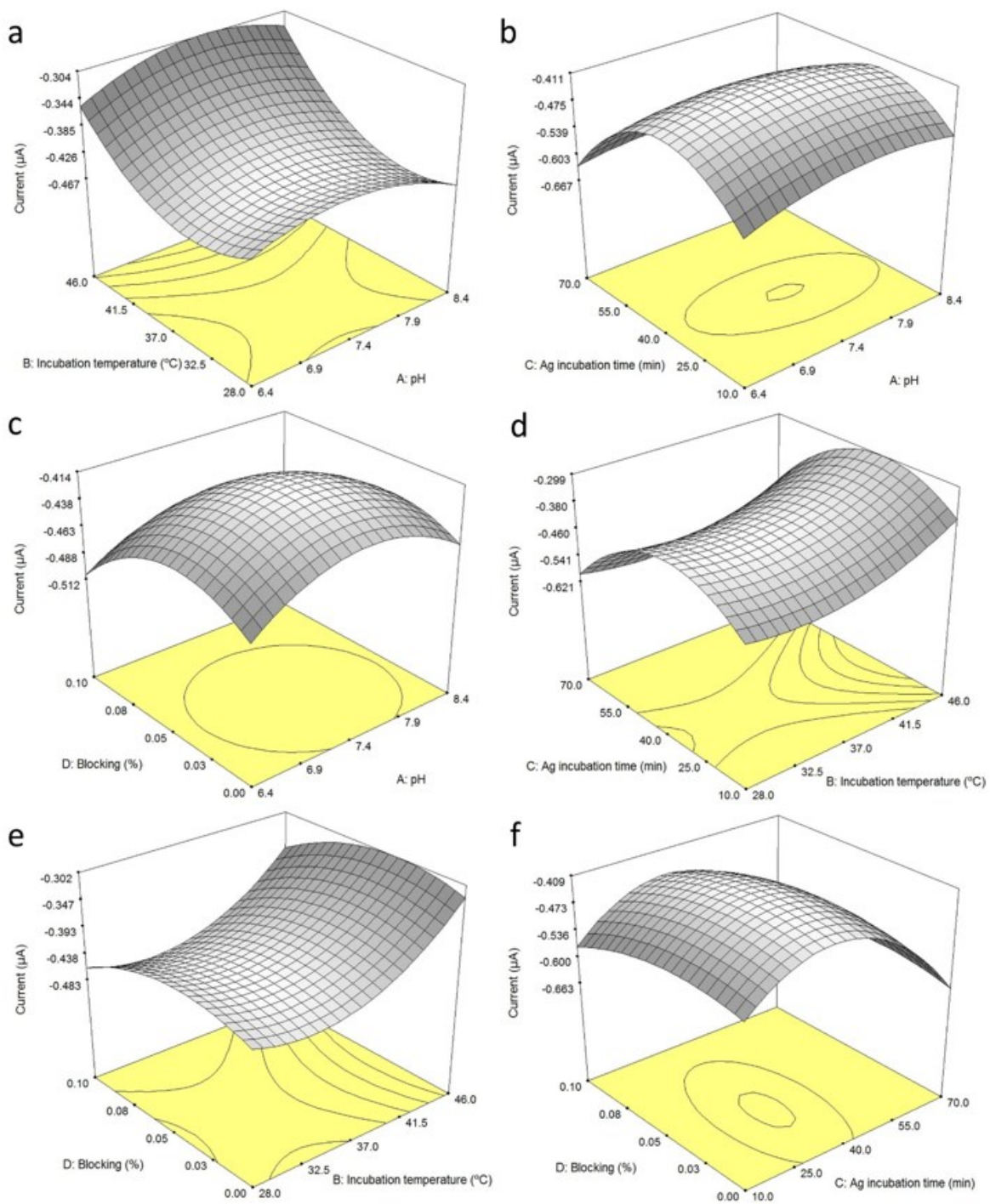| Source	Sum of squares (10^{-3})	Degree of freedom	Mean square (10^{-3})	F-value	Prob > F	Significant
Model	260.74	14	18.62	20.627	< 0.0001	Significant
A	0.09	1	0.09	0.102	0.7556	
B	48.03	1	48.03	53.189	< 0.0001	Significant
C	47.76	1	47.76	52.899	< 0.0001	Significant
D	6.24	1	6.24	6.913	0.0234	Significant
A^2	3.44	1	3.44	3.812	0.0768	
B^2	9.06	1	9.06	10.030	0.0090	Significant
C^2	54.41	1	54.41	60.262	< 0.0001	Significant
D^2	3.89	1	3.89	4.303	0.0623	
AB	2.12	1	2.12	2.347	0.1538	
AC	6.26	1	6.26	6.928	0.0233	Significant
AD	0.27	1	0.27	0.303	0.5932	
BC	0.86	1	0.86	0.947	0.3513	
BD	0.16	1	0.16	0.172	0.6863	
CD	0.92	1	0.92	1.014	0.3355	
Residual	9.93	11	0.90			
Lack of fit	9.42	10	0.94	1.835	0.5227	Not significant
Pure error	0.51	1	0.51			
Corrected total	270.68	25				

Fig. S1. 3D surface plots of peak current as a function of (a) pH vs incubation temperature; (b) pH vs Ag incubation time; (c) pH vs blocking; (d) incubation temperature vs Ag incubation time; (e) incubation temperature vs blocking; and (f) Ag incubation time vs blocking.