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Supplementary Materials

Calibration Curve Approaches for Nonlinear Data Points Obtained in Colo 320 Exosomes Determination

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The reliability of the data was provided by the Chi-squared test and is indicated in Table S1-5 [1–3].

Table S1. Validation of EIS data for 4.00×10^{12} exosome/µl Colo 320 Control Modified Gold Electrode

Iteration	ndir	chi-squared	start time	end time
0	0	1.066205e-01	11:57:55:731	11:57:55:731
1	4	4.889307e-02	11:57:55:747	11:57:55:747
2	4	4.889307e-02	11:57:55:883	11:57:55:883
3	4	4.889307e-02	11:57:56:073	11:57:56:073
4	4	4.889307e-02	11:57:56:248	11:57:56:248

R(C(RW))
Execution time (mm:ss:zzz): 00:00:733
Relative change of chi-squared: 1.132e-07
Stop: Relative change of chi-squared < 1.00e-05
Number of starting points (local search) = 1205
Number of evaluations of the chi-squared = 176984

Table S2. Validation of EIS data for 1.20×10^{13} exosome/µl Colo 320 Control Modified Gold Electrode

Iteration	ndir	chi-squared	start time	end time
0	0	1.542576e-01	12:01:12:406	12:01:12:406
1	4	1.530705e-01	12:01:12:417	12:01:12:417
2	4	1.530705e-01	12:01:12:633	12:01:12:633
3	4	1.530705e-01	12:01:12:834	12:01:12:834
4	4	1.530705e-01	12:01:13:050	12:01:13:050

R(C(RW))
Execution time (mm:ss:zzz): 00:00:914
Relative change of chi-squared: 2.543e-08
Stop: Relative change of chi-squared < 1.00e-05
Number of starting points (local search) = 1328
Number of evaluations of the chi-squared = 195960

Table S3. Validation of EIS data for 2.00×10^{13} exosome/µl Colo 320 Control Modified Gold Electrode

Iteration	ndir	chi-squared	start time	end time
0	0	2.738287e-01	12:03:13:694	12:03:13:694
1	4	2.737897e-01	12:03:13:712	12:03:13:712
2	4	2.737897e-01	12:03:13:948	12:03:13:948
3	4	2.737897e-01	12:03:14:133	12:03:14:133
4	4	2.737897e-01	12:03:14:264	12:03:14:264

R(C(RW))
Execution time (mm:ss:zzz): 00:00:755
Relative change of chi-squared: 5.731e-08
Stop: Relative change of chi-squared < 1.00e-05
Number of starting points (local search) = 1433
Number of evaluations of the chi-squared = 209642

Table S4. Validation of EIS data for 2.80×10^{13} exosome/µl Colo 320 Control Modified Gold Electrode

Iteration	ndir	chi-squared	start time	end time
0	0	1.865007e-01	12:05:07:169	12:05:07:169
1	4	1.864716e-01	12:05:07:188	12:05:07:188
2	4	1.864715e-01	12:05:07:417	12:05:07:417
3	4	1.864715e-01	12:05:07:564	12:05:07:564
4	4	1.864715e-01	12:05:07:696	12:05:07:696

R(C(RW))
Execution time (mm:ss:zzz): 00:00:714
Relative change of chi-squared: 1.674e-09
Stop: Relative change of chi-squared < 1.00e-05
Number of starting points (local search) = 1525
Number of evaluations of the chi-squared = 222781

Table S5. Validation of EIS data for 3.60×10^{13} exosome/µl Colo 320 Control Modified Gold Electrode

Iteration	ndir	chi-squared	start time	end time
0	0	1.370762e-01	15:40:32:120	15:40:32:120
1	4	1.367349e-01	15:40:32:135	15:40:32:135
2	4	1.367349e-01	15:40:32:336	15:40:32:336
3	4	1.367349e-01	15:40:32:536	15:40:32:536
4	4	1.367349e-01	15:40:32:737	15:40:32:737

R(C(RW))
Execution time (mm:ss:zzz): 00:00:848
Relative change of chi-squared: 2.311e-08
Stop: Relative change of chi-squared < 1.00e-05
Number of starting points (local search) = 210
Number of evaluations of the chi-squared = 31529

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