

## Supplementary tables

**Table S1.** Parameters and their levels used to optimize the production of Ag/CuO NPs with RSM model and the yield of Ag/CuO NPs in different treatments.

Run Order	Extract (mg)	Concentration (mM)	Microwave power (W)	Time (min)	Yield (mg)	FITS1
1	1.5	0.5	350	15	19.5	17.7
2	1	0.5	350	10	15	15.8
3	0.5	1	500	15	21.5	22.1
4	1.5	1	350	20	20.4	21
5	1.5	1	500	15	21	22.3
6	0.5	1	350	10	17.6	18.3
7	1	1	350	15	29.8	29.2
8	1	1	350	15	29.8	29.2
9	1	1	500	20	28.2	25.7
10	1	0.5	350	20	16	16.7
11	1	1.5	500	15	28.3	29.3
12	1	1.5	350	10	26.7	27.5
13	0.5	0.5	350	15	16	14.2
14	1	1.5	350	20	29.6	30.3
15	1.5	1	200	15	20	20.8
16	1	1	200	20	19.6	18.9
17	1	1.5	200	15	28.7	28.3
18	0.5	1.5	350	15	30.5	29.5
19	1	0.5	200	15	14.2	14.6
20	1	1	500	10	21.3	19.2
21	1	1	200	10	22	21.7
22	1.5	1.5	350	15	28.7	27.7
23	0.5	1	200	15	19.2	19.4
24	1	1	350	15	28	29.2
25	1	0.5	500	15	16	17.8
26	1.5	1	350	10	22.1	22.2
27	0.5	1	350	20	22	23.2

**Table S2.** ANOVA table of the final RSM model.

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Model	14	698.126	49.866	17.96	0
Linear	4	504.302	126.075	45.4	0
Extract	1	2.001	2.001	0.72	0.413
Concentration	1	478.803	478.803	172.43	0
Microwave power	1	13.23	13.23	4.76	0.05
Time	1	10.268	10.268	3.7	0.079
Square	4	153.342	38.335	13.81	0
Extract *Extract	1	90.75	90.75	32.68	0
Concentration * Concentration	1	41.441	41.441	14.92	0.002
Microwave power *Microwave power	1	82.688	82.688	29.78	0
Time *Time	1	80.083	80.083	28.84	0
2-Way Interaction	6	40.483	6.747	2.43	0.09
Extract *Concentration	1	7.023	7.023	2.53	0.138
Extract *Microwave power	1	0.423	0.423	0.15	0.703
Extract *Time	1	9.302	9.302	3.35	0.092
Concentration *Microwave power	1	1.21	1.21	0.44	0.522
Concentration *Time	1	0.903	0.903	0.33	0.579
Microwave power *Time	1	21.623	21.623	7.79	0.016
Error	12	33.321	2.777		
Lack-of-Fit	10	31.161	3.116	2.89	0.285
Pure Error	2	2.16	1.08		
Total	26	731.447			