

Table S1 ANOVA test for TFC.

SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
Column 1	5	2421875	484375	1.67E+10		
Column 2	5	9088541.667	1817708	9.49E+10		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	4.44444E+12	1	4.44E+12	79.64332	1.97E-05	5.317655
Within Groups	4.46435E+11	8	5.58E+10			
Total	4.89088E+12	9				

Table S2 ANOVA test for TPC.

SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
Column 1	5	3030	606	12052.26		
Column 2	5	19278.57143	3855.714	5590.561		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	26401607.35	1	26401607	2992.901	1.38E-11	5.317655
Within Groups	70571.27551	8	8821.409			
Total	26472178.62	9				

Table S3 ANOVA test for TAC.

SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
Column 1	5	304.0909091	60.81818	321.8453		
Column 2	5	553.4090909	110.6818	1543.518		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	6215.955579	1	6215.956	6.664607	0.032536	5.317655
Within Groups	7461.451446	8	932.6814			
Total	13677.40702	9				

Table S4 Determination of rate constant with C.lon AgNP in Sunlight and NaBH₄.

Sunlight & NaBH₄			
4000 ppm C.lon-AgNPs & NaBH ₄			
Time/mins	Concentration	Conc. At 0 min	log c/c ₀
0	0.34	0.34	0
10	0.042	0.34	-0.90823
20	0.04	0.34	-0.92942
30	0.002	0.34	-2.23045
266.67 ppm C.lon-AgNPs & NaBH ₄			
Time/mins	Concentration	Conc. At 0 min	log c/c ₀
0	0.34	0.34	0
10	0.295	0.34	-0.06166
20	0.299	0.34	-0.05581
30	0.28	0.34	-0.08432

Table S5 Determination of rate constant with C.aro-AgNP in Sunlight and NaBH₄.

Sunlight & NaBH₄			
4000 ppm C.aro-AgNPs & NaBH ₄			
Time/mins	Concentration	Conc. At 0 min	log c/c ₀
0	0.328	0.328	0
10	0.052	0.328	-0.79987
20	0.046	0.328	-0.85312
30	0.002	0.328	-2.21484
266.67 ppm C.aro-AgNPs & NaBH ₄			
Time/mins	Concentration	Conc. At 0 min	log c/c ₀
0	0.328	0.328	0
10	0.28	0.328	-0.06872
20	0.277	0.328	-0.07339
30	0.08	0.328	-0.61278

Table S6 Determination of rate constant with C.cae-AgNPs in Sunlight.

266.67 ppm C.cae-AgNPs			
Time/mins	Concentration	Conc. At 0 min	log c/c0
0	0.615	0.615	0
15	0.7	0.615	0.056223
30	0.698	0.615	0.05498
120	0.622	0.615	0.004915
180	0.572	0.615	-0.03148
240	0.502	0.615	-0.08817
300	0.486	0.615	-0.10224

Table S7 Determination of rate constant with C.cae-AgNPs in Sunlight and NaBH₄.

Sunlight & NaBH ₄			
4000 ppm C.cae-AgNPs & NaBH ₄			
Time/mins	Concentration	Conc. At 0 min	log c/c0
0	0.34	0.34	0
10	0.002	0.34	-2.23045
266.67 ppm C.cae-AgNPs & NaBH ₄			
Time/mins	Concentration	Conc. At 0 min	log c/c0
0	0.34	0.34	0
10	0.308	0.34	-0.04293
20	0.3	0.34	-0.05436

Table S8 Determination of rate constant with C.zed-AgNPs in Sunlight.

Sunlight			
4000 ppm C.zed-AgNPs			
Time/mins	Concentration	Conc. At 0 min	log c/c0
0	0.615	0.615	0
15	0.746	0.615	0.083864
30	0.744	0.615	0.082698
120	0.715	0.615	0.065431
180	0.711	0.615	0.062994
240	0.67	0.615	0.0372
300	0.655	0.615	0.027366
266.67 ppm C.zed-AgNPs			
Time/mins	Concentration	Conc. At 0 min	log c/c0
0	0.615	0.615	0
15	0.699	0.615	0.055602
30	0.698	0.615	0.05498
120	0.61	0.615	-0.00355

180	0.574	0.615	-0.02996
240	0.504	0.615	-0.08644
300	0.481	0.615	-0.10673

Table S9 Determination of rate constant with C.zed-AgNPs in Sunlight and NaBH₄.

Sunlight & NaBH₄			
4000 ppm C.zed-AgNPs & NaBH ₄			
Time/mins	Concentration	Conc. At 0 min	log c/c0
0	0.34	0.34	0
10	0.033	0.34	-1.01296
266.67 ppm C.zed-AgNPs & NaBH ₄			
Time/mins	Concentration	Conc. At 0 min	log c/c0
0	0.34	0.34	0
10	0.3	0.34	-0.05436
20	0.101	0.34	-0.52716
40	0.001	0.34	-2.53148

Table S10 Determination of rate constant with C.ama-AgNPs in Sunlight and NaBH₄.

Sunlight & NaBH₄			
4000 ppm C.ama-AgNPs and NaBH ₄			
Time/mins	Concentration	Conc. At 0 min	log c/c0
0	0.287	0.287	0
10	0.041	0.287	-0.8451
20	0.016	0.287	-1.25376
266.67 ppm C.ama-AgNPs and NaBH ₄			
Time/mins	Concentration	Conc. At 0 min	log c/c0
0	0.287	0.287	0
10	0.277	0.287	-0.0154
20	0.196	0.287	-0.16563

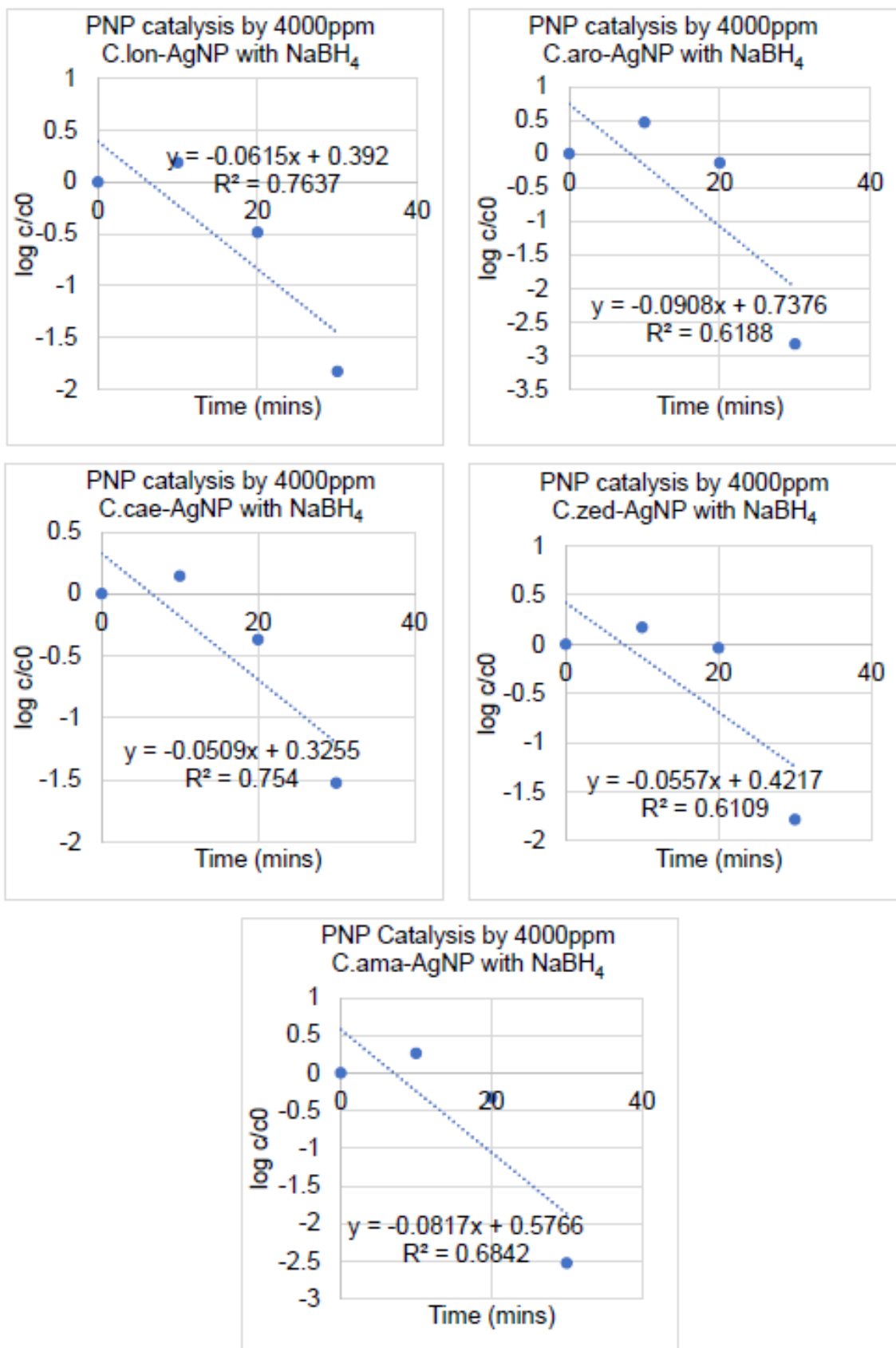


Figure S1 Rate constant graphs for 4000 ppm AgNPs in PNP degradation.

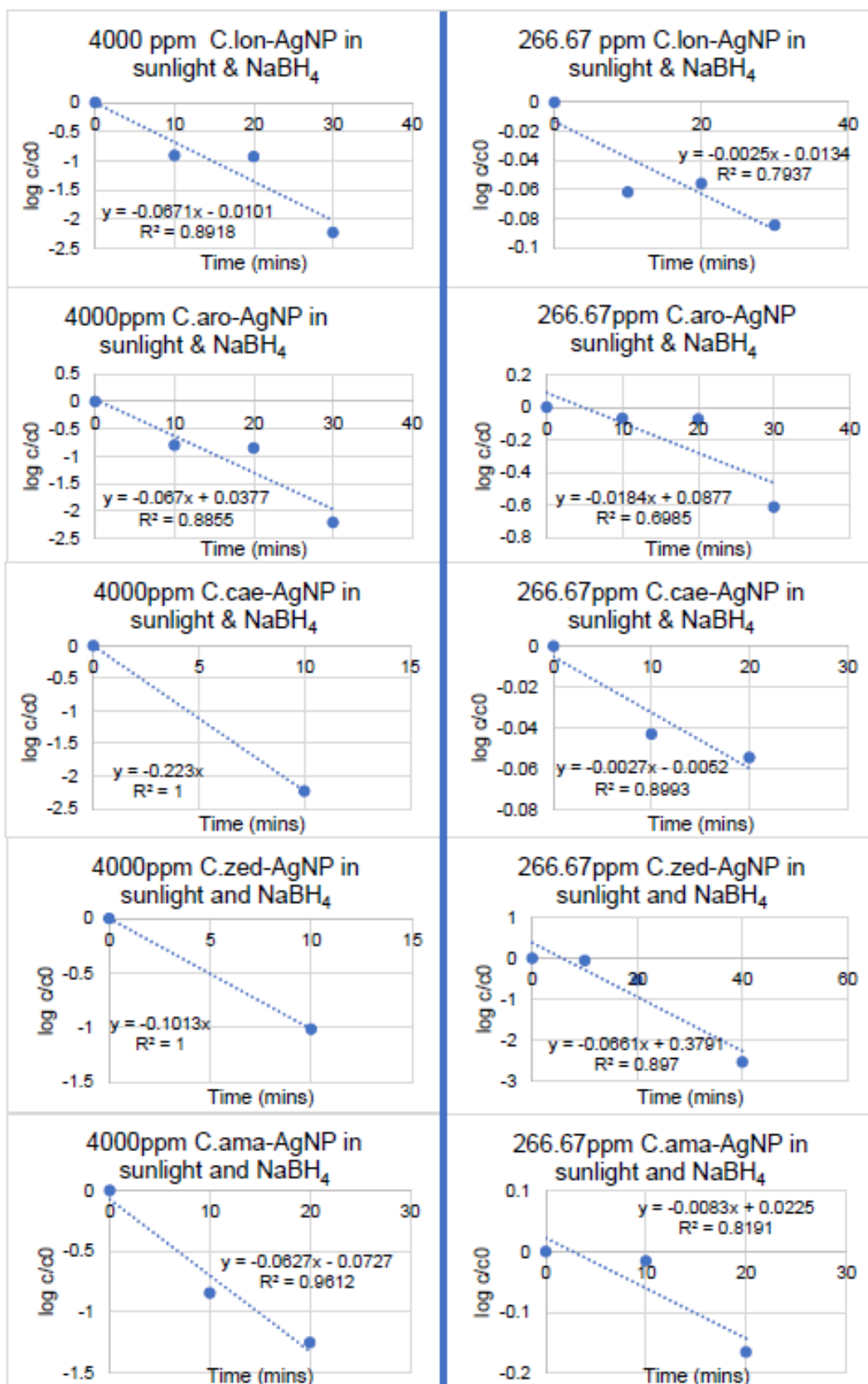


Figure S2 Rate constant graph for methyl-orange photocatalytic activity in sunlight and NaBH₄ with 4000 ppm AgNPs (left), and 266.67 ppm AgNPs (right).