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## APPENDIX

**Table A-1** EDS results of surface composition from TBOT concentration 500  $\mu\text{M}$  with surfactant 0.2 mM at reaction time 6 hours

% Atomic of each element					
Ti	Al	Si	K	C	O
0.07	7.86	7.25	1.52	53.42	29.88
0.06	6.45	7.53	1.44	49.34	35.18
0.04	3.22	3.98	0.29	38.65	53.82
0.07	7.39	7.33	1.35	51.35	32.50
0.06	7.31	7.80	1.44	49.61	33.78

**Table A-2** EDS results of surface composition from TBOT concentration 500  $\mu\text{M}$  with surfactant 0.2 mM at reaction time 24 hours

% Atomic of each element					
Ti	Al	Si	K	C	O
0.08	7.53	7.35	1.46	53.36	30.22
0.10	6.83	7.95	1.59	52.94	30.59
0.08	8.14	8.21	1.69	50.08	31.81
0.07	7.45	8.16	1.63	53.68	29.00
0.08	6.56	7.98	1.64	51.74	31.99
0.15	7.24	8.92	1.75	52.38	29.56
0.08	7.07	7.87	1.56	51.84	31.58
0.09	7.48	8.97	1.78	50.15	31.53
0.10	7.07	8.48	1.69	48.83	33.84

**Table A-3** Titania particle size from TBOT concentration 0.01  $\mu\text{M}$  in the presence of surfactant concentration 0.2 mM when reaction time increases

Reaction time (hr)	Particle width (nm)
0.17	20
6	25
24	30

**Table A-4** Titania particle size from TBOT concentration  $10\ \mu\text{M}$  in the presence of surfactant concentration  $0.2\ \text{mM}$  when reaction time increases

Reaction time (hr)	Particle width (nm)
0.17	25
6	30
24	35

**Table A-5** Titania particle size from TIPP concentration  $0.01\ \mu\text{M}$  in the presence of surfactant concentration  $0.2\ \text{mM}$  when reaction time increases

Reaction time (hr)	Particle width (nm)
0.17	25
6	30
24	40

**Table A-6** Titania particle size from TIPP concentration  $10\ \mu\text{M}$  in the presence of surfactant concentration  $0.2\ \text{mM}$  when reaction time increases

Reaction time (hr)	Particle width (nm)
0.17	26
6	32
24	50

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