

Supporting Information

Table 1. Preparation conditions and products reported in the literature.

Ref.	TiO ₂ precursor ^a	TiO ₂ /NaOH ratio (g/L)	Synthesis conditions	Washing agent	Parameters controlled ^b	Stage of NT formation
[4]	R (20nm)	125	10M NaOH 20h 110°C	H ₂ O + 0.1M HCl	1 - Electrical conductivity (Na ⁺)	Washing
[6]	? (5nm)	12.5	10M NaOH >48h 100-180°C	H ₂ O + alcohol or acetone	1 - T _{HT} 2 - Washing agent 3 - T _{calcination}	Washing
[7]	A/R (83% R; 20nm)	5	10M NaOH Sonication 110°C	0.1M HNO ₃ + H ₂ O	1 - Sonication parameters	Washing
[8]	A/R (? nm)	?	10M NaOH 24-72h 130°C	0.1M HCl + H ₂ O	-	HT
[9]	R; A/R or A	2.86	10M NaOH 20h 110°C	H ₂ O + HCl or HNO ₃	1-TiO ₂ Particle size 2- TiO ₂ phase	?
[10]	A (? nm)	?	10M NaOH 12h 150°C	0.1M HNO ₃ + H ₂ O	1 - t _{HT} 2 - T _{HT}	HT
[11]	A/R (Degussa P25)	28.6	10M NaOH 24h 110-150°C	0.1M HCl	1 - T _{HT} 2 - T _{calcination}	Washing
[12]	A (? nm)	0.83-30	10M NaOH 22h 120-190°C	H ₂ O + H ₂ SO ₄	1 - T _{HT} 2 - TiO ₂ /NaOH	HT
[13]	A/R (Degussa P25)	28.6	10M NaOH 24h 130°C	HCl	1 - M _{HCl} (pH)	Washing
[14]	Amorphous	5	10M NaOH 130-180°C	H ₂ O	1 - T _{HT} 2 - t _{HT}	HT
[15]	A (bulk)	10	10M NaOH 48h 120°C	0.1M HCl or H ₂ O	1 -Washing agent 2 - T _{calc.}	HT
[16]	A (8 or 220 nm)	60	10-20M NaOH 15-30h 120°C	0.1M HCl + H ₂ O	1 - crystal size 2 - M _{NaOH} 3 - pH HCl	HT
[17]	A (? nm)	?	10M NaOH 48h 150°C	H ₂ O or 0.1M HCl + H ₂ O	1 - Washing process (Na ⁺) 2 - T _{calcination}	HT
[18]	A/R (Degussa P25)	?	5-10M NaOH 20h 100-220°C	?	1 - T _{HT} 2 - M _{NaOH}	?
[19]	A/R (Degussa P25); A (15nm); R (10x40nm)	?	10M NaOH 24h 120°C	0.1M HCl + H ₂ O	1- TiO ₂ phase	?
[20]	A/R (Degussa P25)	20	10M NaOH 24h 130°C	2M HCl + H ₂ O	-	Washing
[21]	A/R (Degussa P25)	?	10M NaOH 24h 130°C	H ₂ O or H ₂ O + 0.1M HCl	1 -Washing process(Na ⁺) 2 - T _{calc}	?
[22]	A (? nm)	8	NaOH + KOH 106°C 4 days	H ₂ O + H ₂ O	1 - Ion exchange 2 - T _{calc}	NaOH/KOH

^a (A) Anatase; (A/R) Anatase + Rutile; (R) Rutile.

^b T_{HT}: temperature of hidrothermal treatment; t_{HT}: duration of the treatment.

Figure 1.

Raman spectra of sample TNT3, before and after the washing stage. The spectrum of anatase is also plotted for comparison.

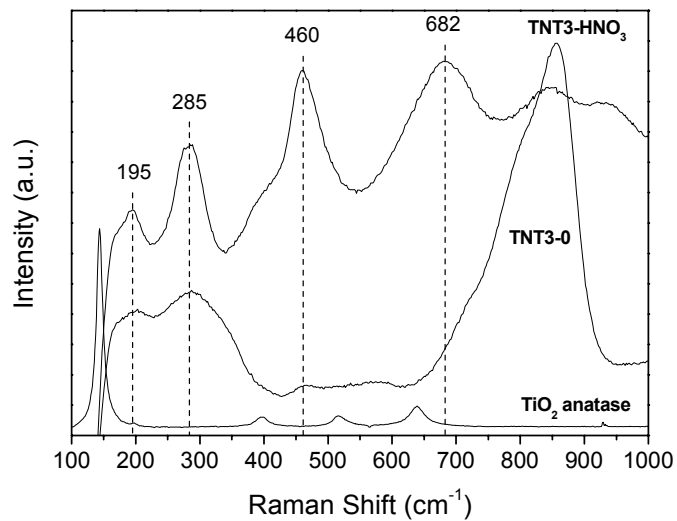


Figure 2.

TEM micrographs of TNT1-0 before (a) and after (b) exposure to electron beam for 30 seconds. The degraded region (circled) was Ti free.

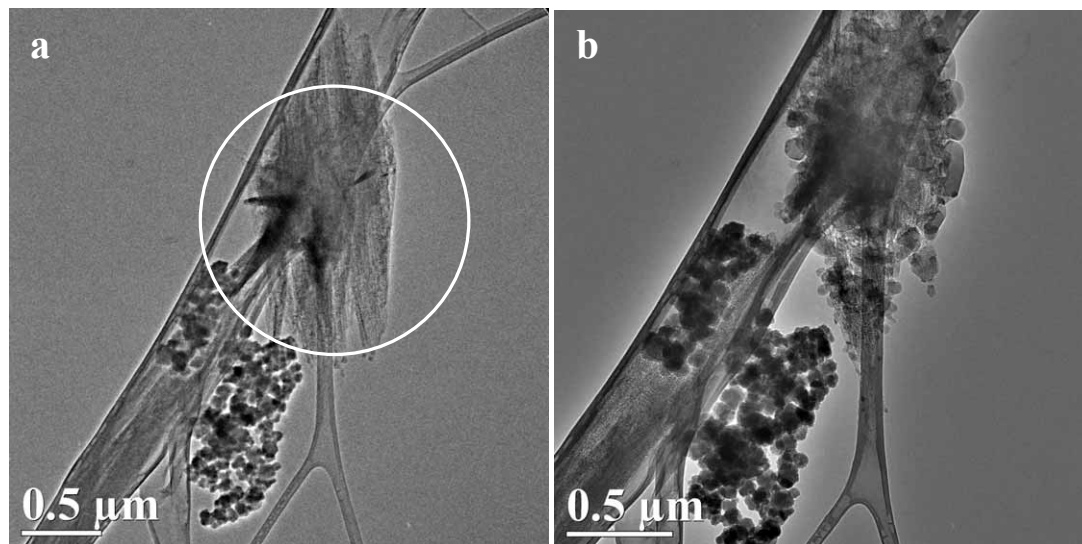


Figure 3.
Pore size distributions of nanotubes synthesized from different precursors.

