

Table 1. Specific surface area and pore volume for the studied samples

Sample	BET specific surface area, m ² .g ⁻¹	Pore volume, cm ³ .g ⁻¹
LT	75	0.0576
H-LT	163	0.1089
Na-TNT (S)	66	0.0620
H-TNT (S)	241	0.1769
Na-TNT (HT)	67	0.0673
H-TNT (HT)	173	0.1487

Figure captions:

Figure 1. XR Diffractogram of the sol gel synthesized protonated sample (H-LT), (triangles) benzoic acid, (cross) titania anatase.

Figure 2. Proposed model of the interlayer distance occupation for the H-LT sample

Figure 3. XR Diffractograms of protonated titania nanotubes

Figure 4. XR Diffractograms of H-TNT(S) as a function of temperature

Figure 5. XR Diffractograms of H-TNT(HT) as a function of temperature

Figure 6. TEM images of A) H-LT, B) H-TNT (HT), C,D) H-TNT (S) samples

Figure 7. Raman scattering of the studied samples

Figure 8. Photocatalytic phenol degradation profiles over the indicated samples.

Figure 9. Phenol degradation rate over the indicated samples.

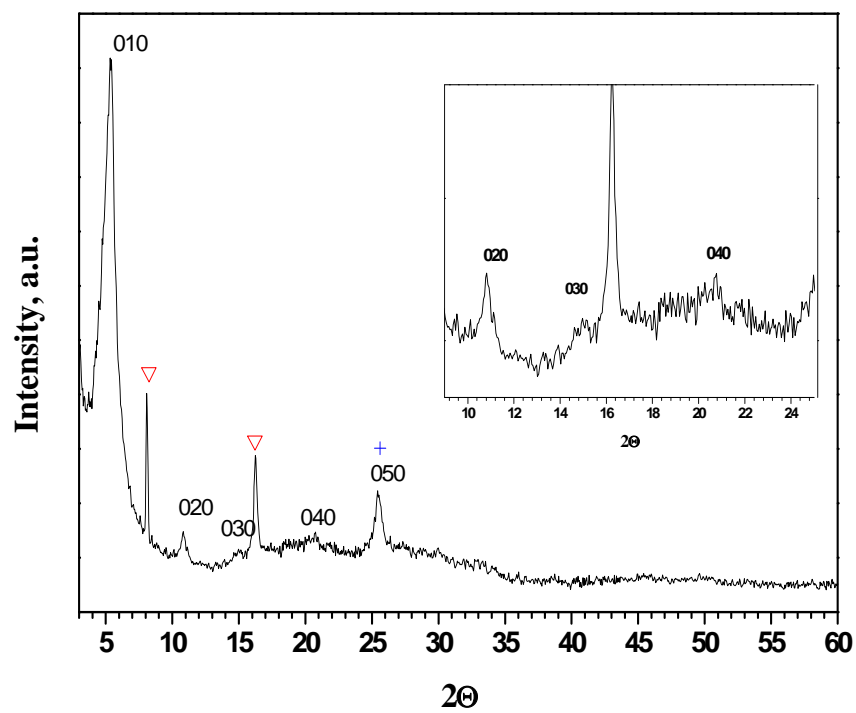


Figure 1

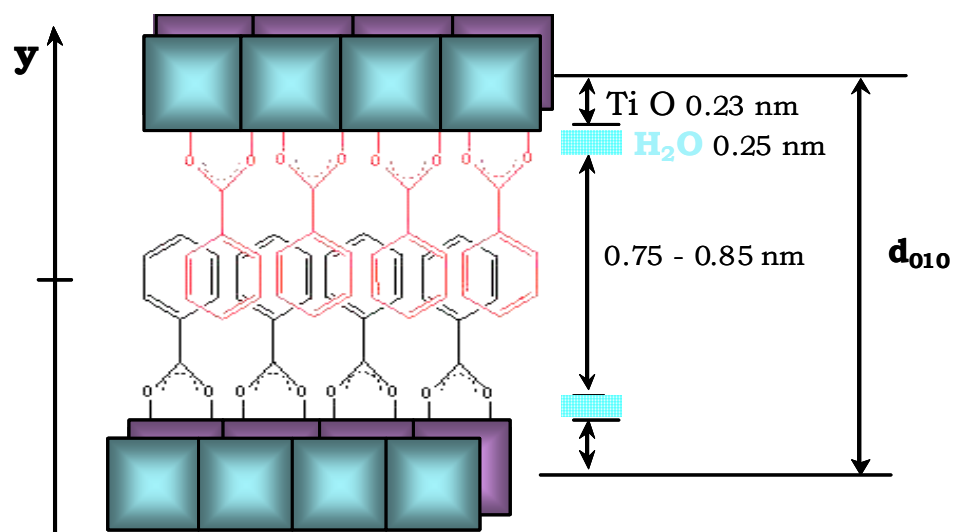


Figure 2

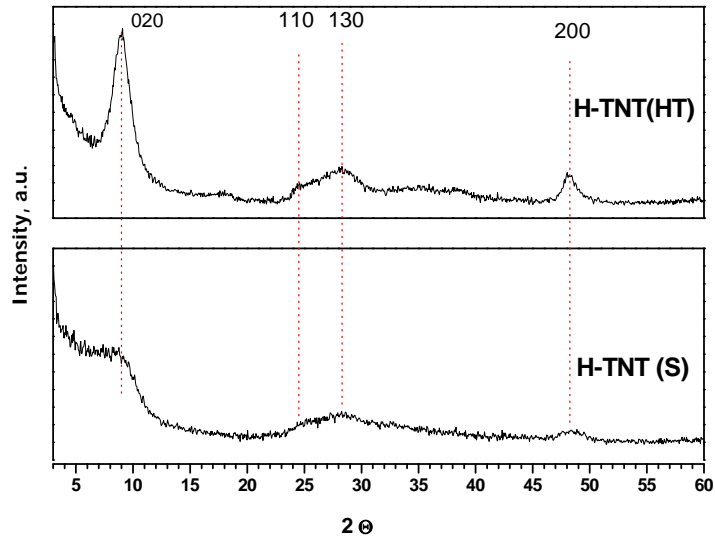


Figure 3

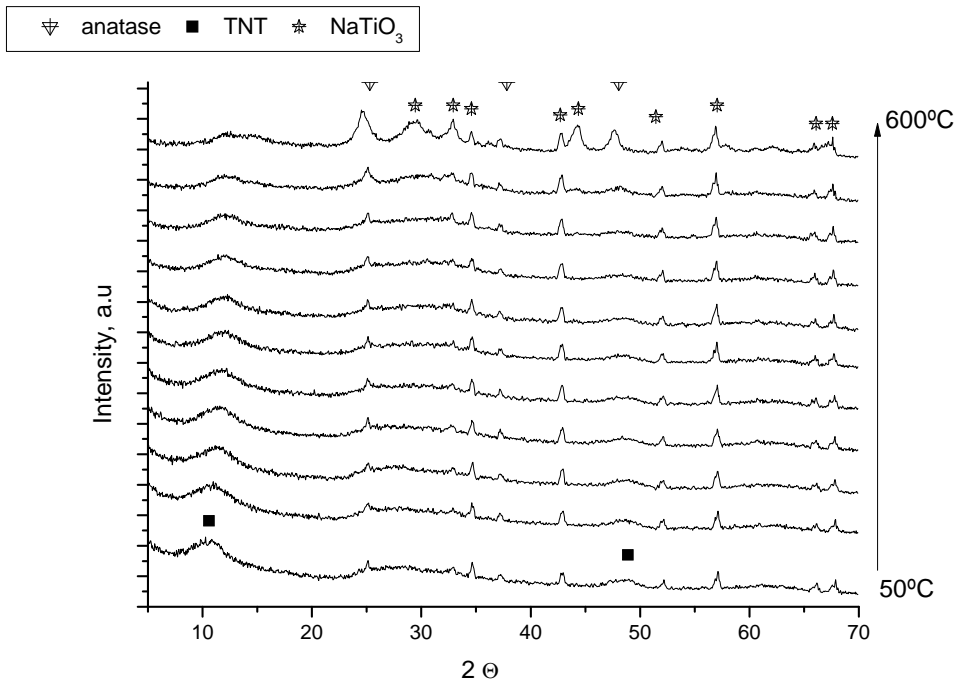


Figure 4

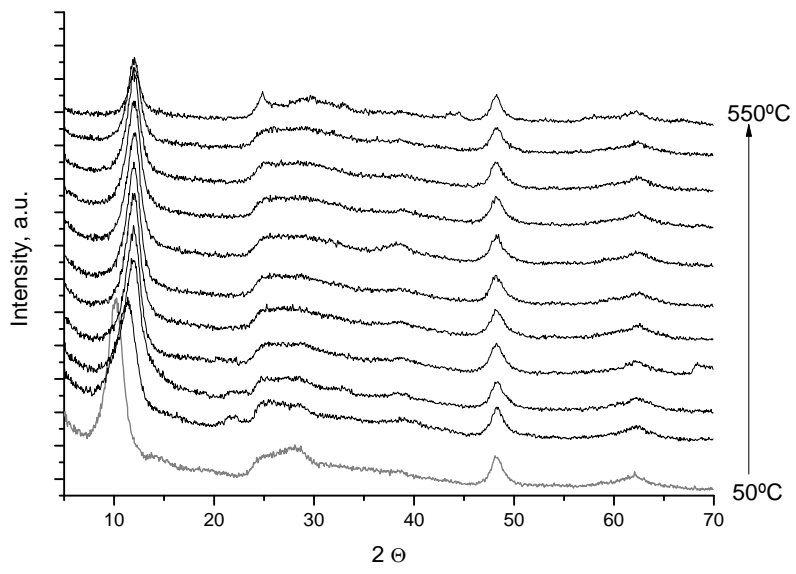


Figure 5

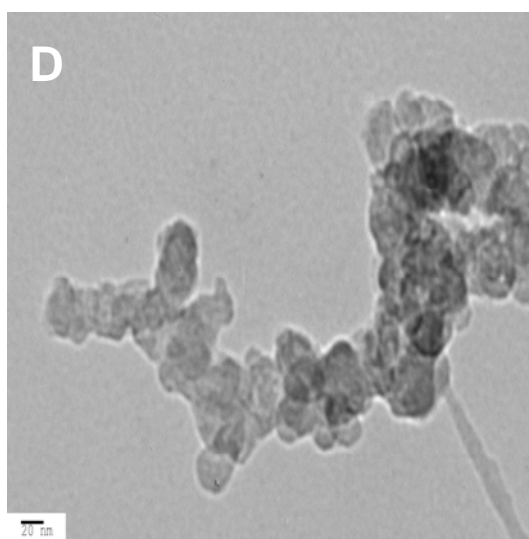
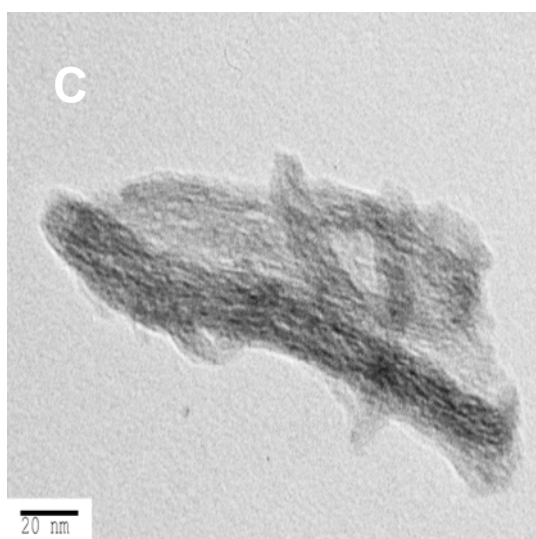
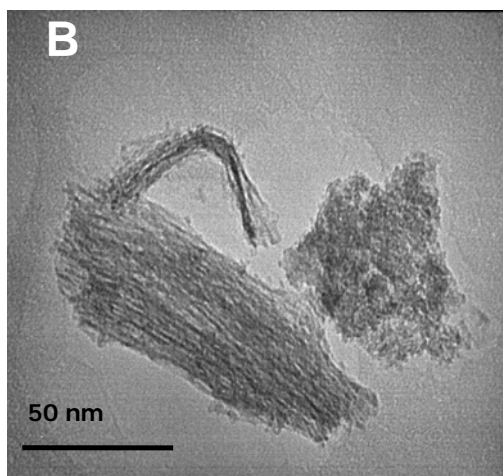
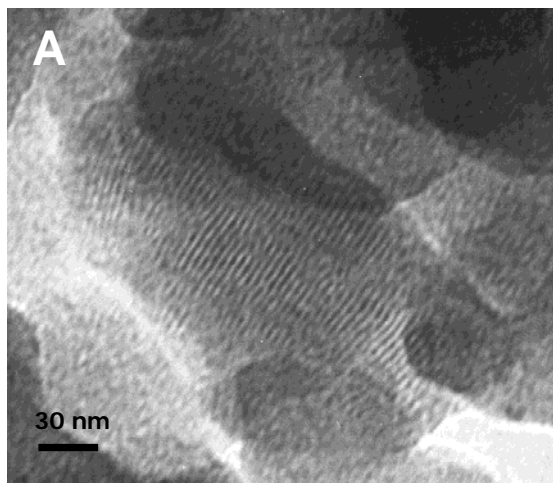


Figure 6

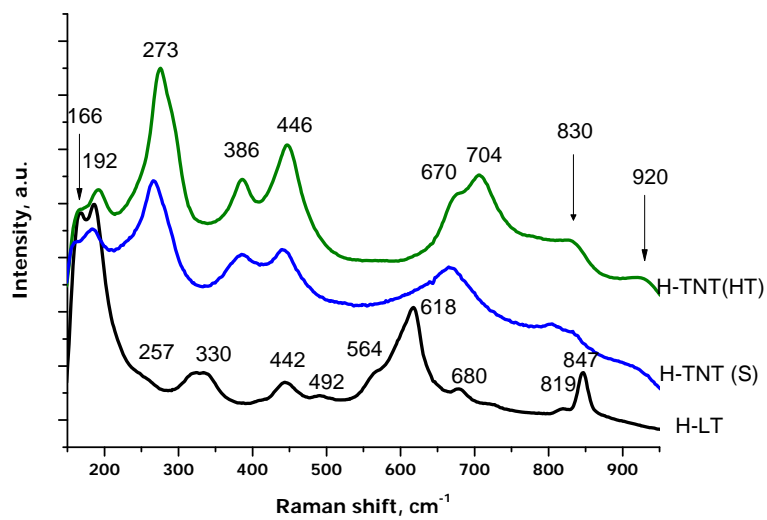


Figure 7

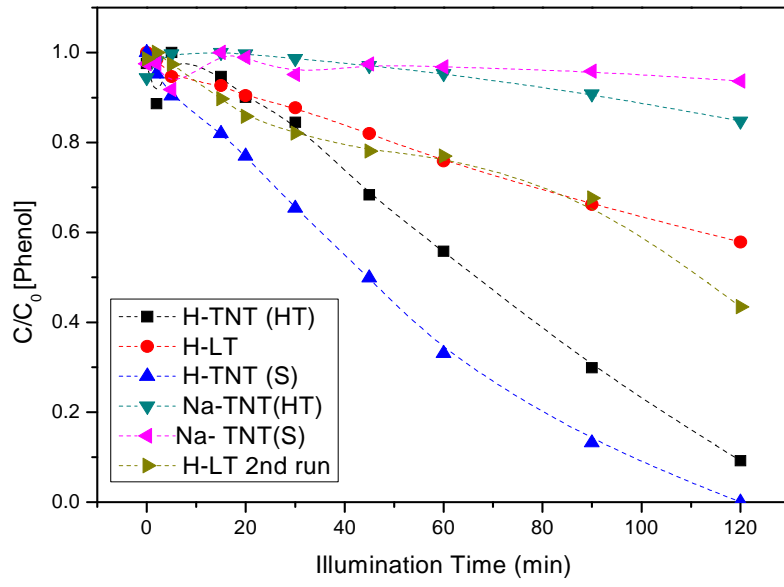


Figure 8

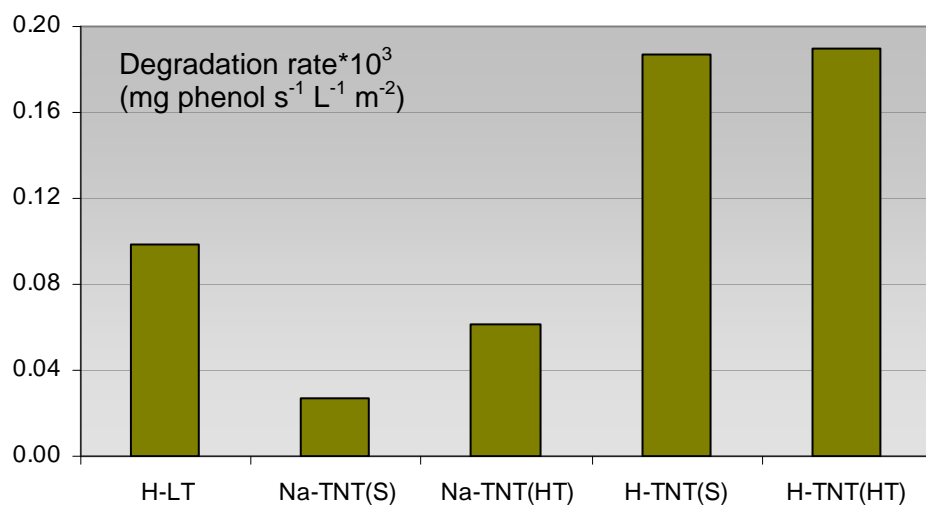


Figure 9.