Supporting Information

Influence of nanomaterials compatibilization strategies in polyamide nanocomposite properties and nanomaterials release during the use phase

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KEYWORDS: Carbon nanotubes, SiO_2 nanoparticles, nanofillers, polymeric nanocomposites, thermoplastics, polyamide, aging, release.

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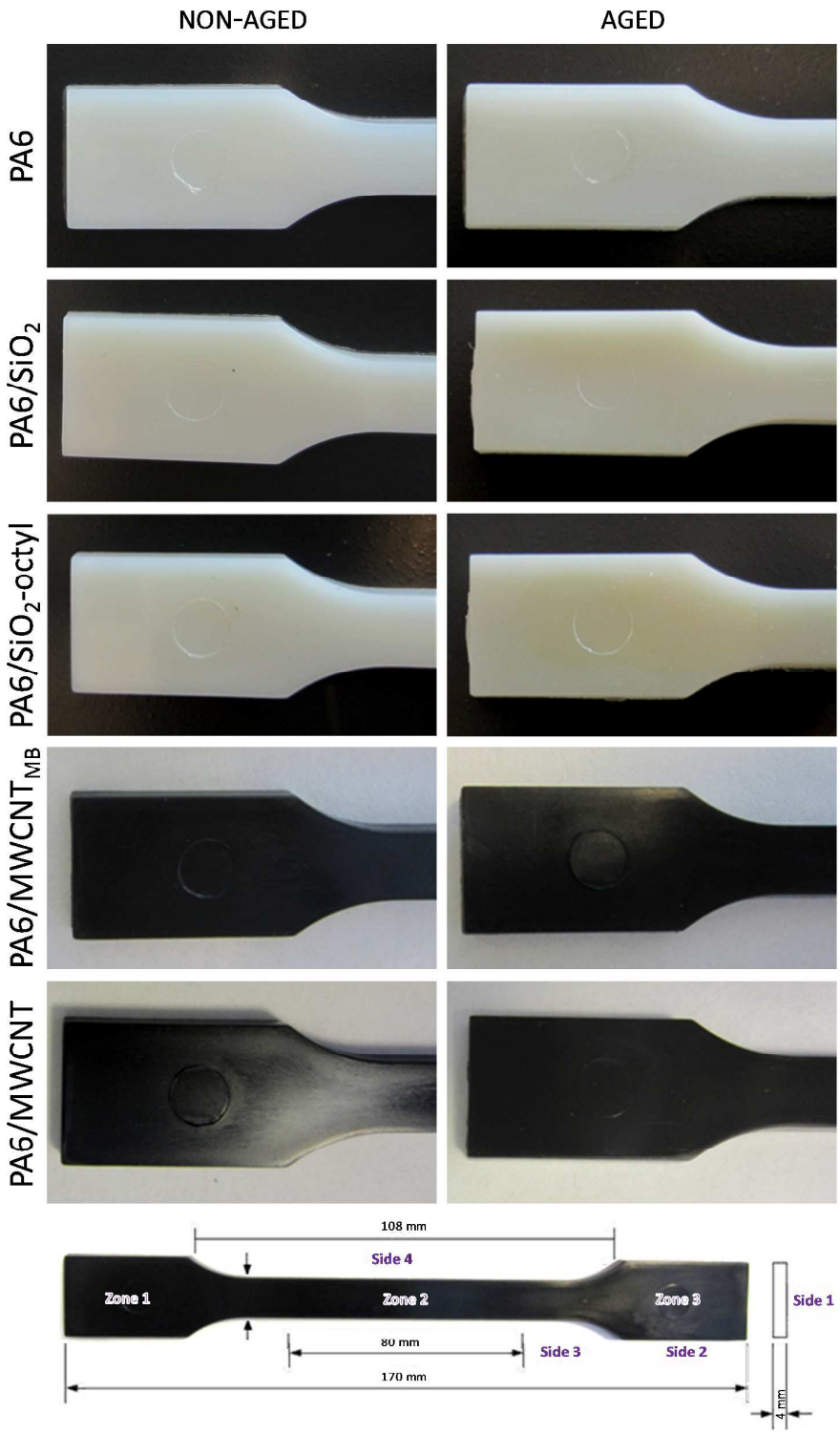

Figure S1. Representative images of the different PA6 NC specimens produced and studied, and its dimensions, with values indicated in mm (bottom).

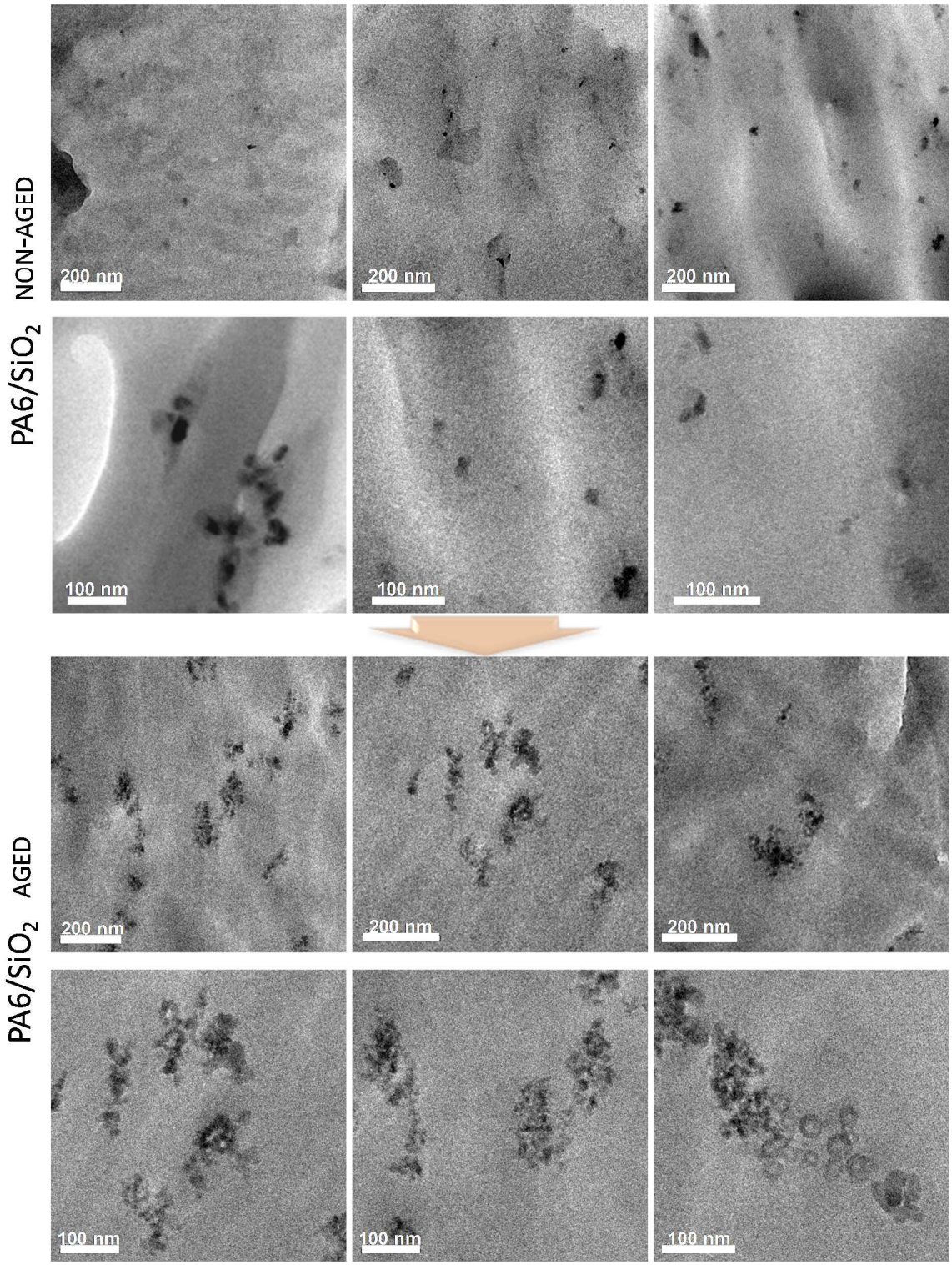

Figure S2. Representative TEM images of the PA6/SiO_2 NC before and after undergoing aging.

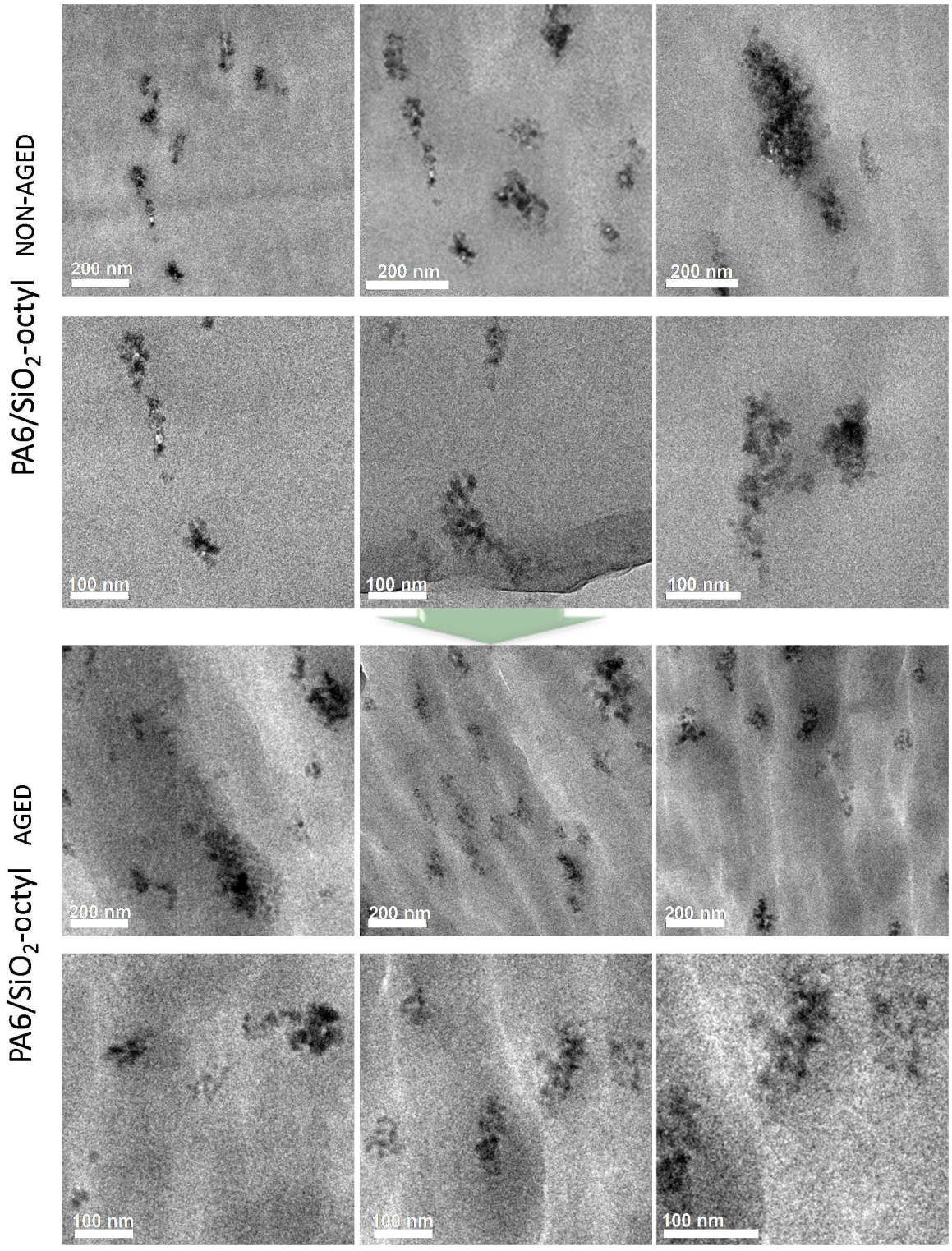

Figure S3. Representative TEM images of the PA6/SiO_2-octyl NC before and after undergoing aging.

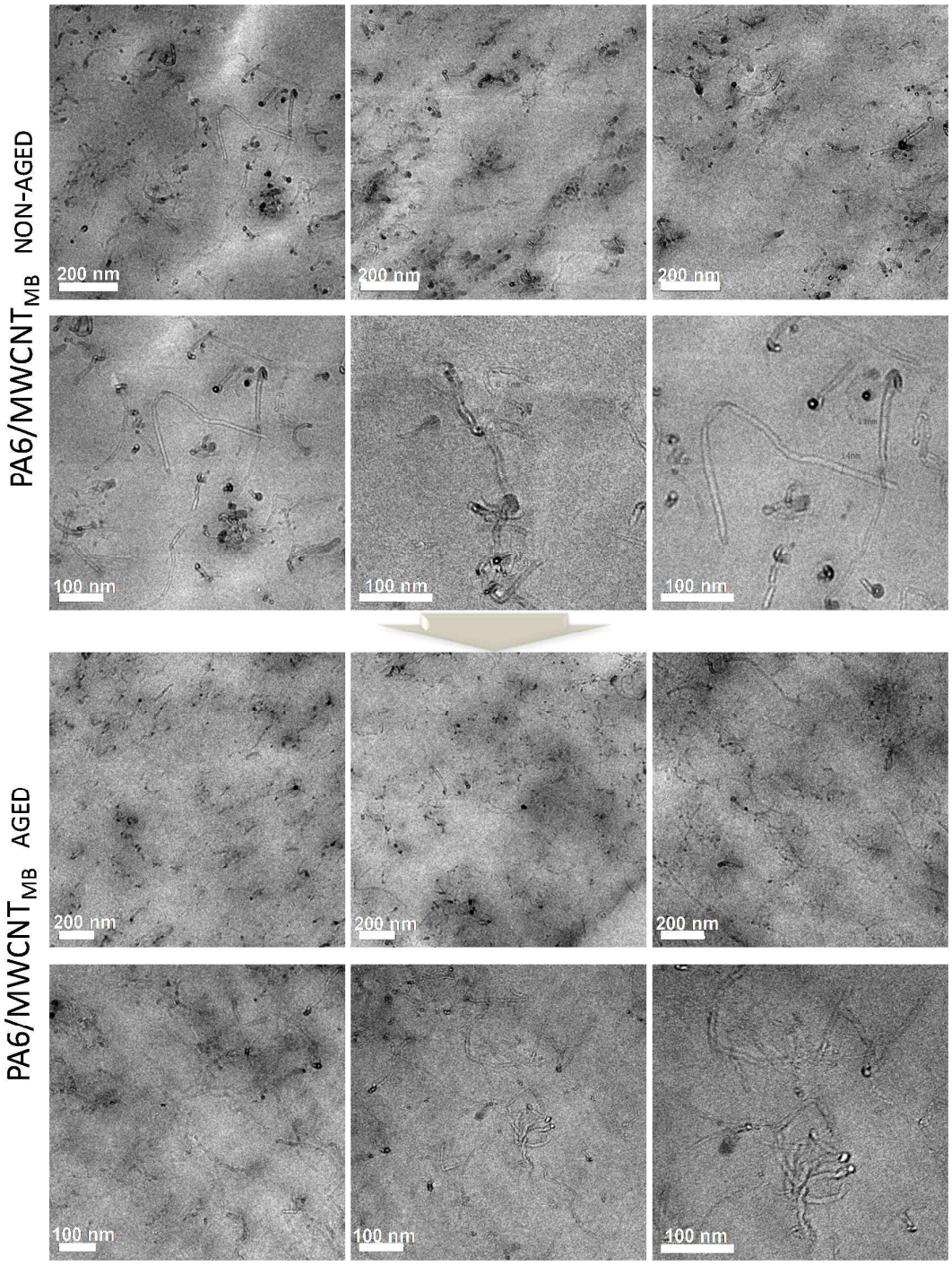

Figure S4. Representative TEM images of the PA6/MWCNT$_{MB}$ NC before and after undergoing aging.

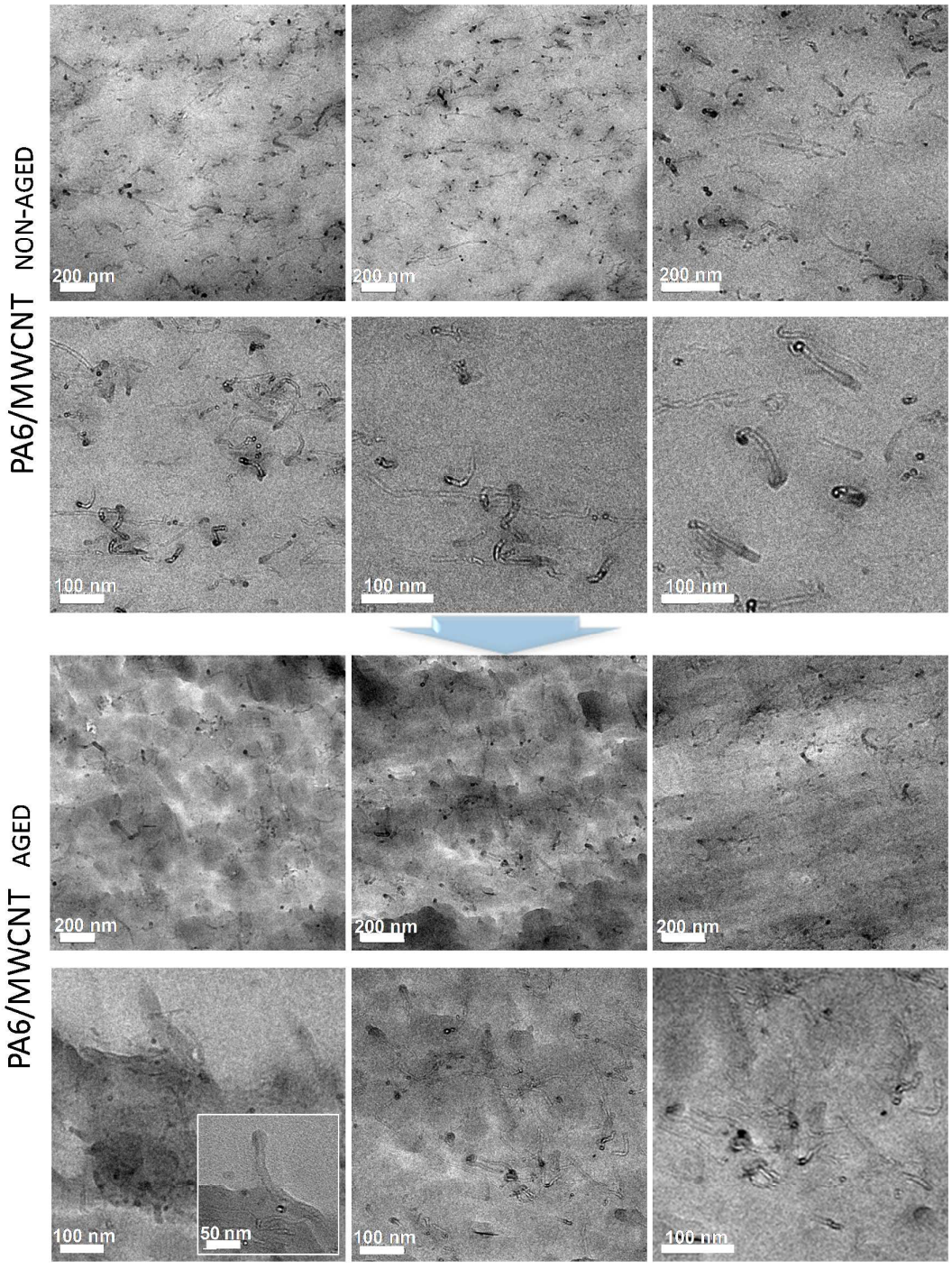

Figure S5. Representative TEM images of the PA6/ MWCNT NC before and after undergoing aging.

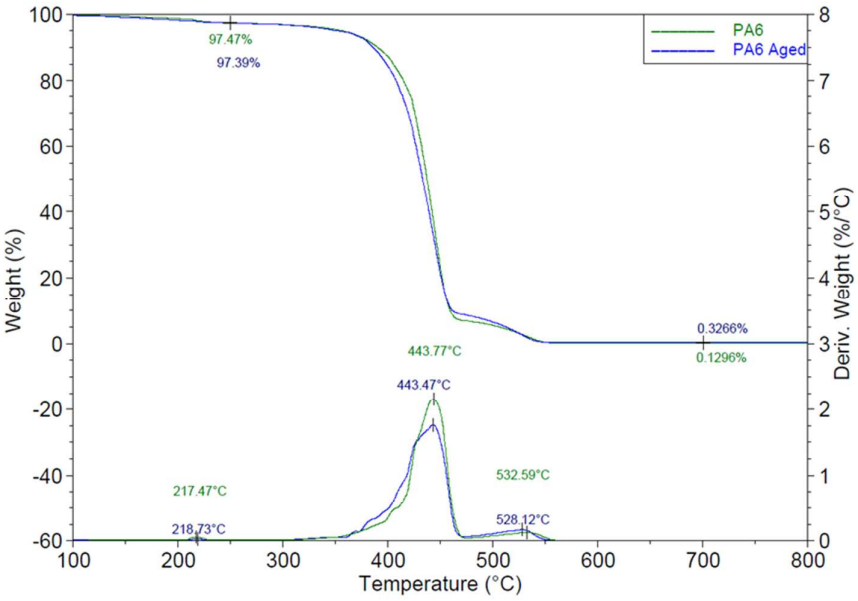

Figure S6. TGAs and their derived curves showing degradation under air of raw PA6, before and after undergoing aging.

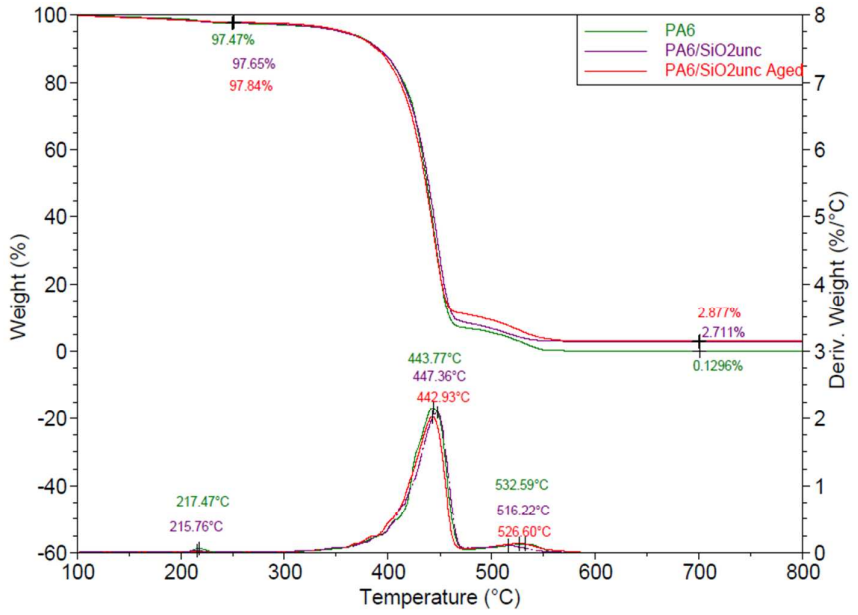

Figure S7. TGAs and their derived curves showing degradation under air of PA6/SiO_2-uncoated, before and after undergoing aging.

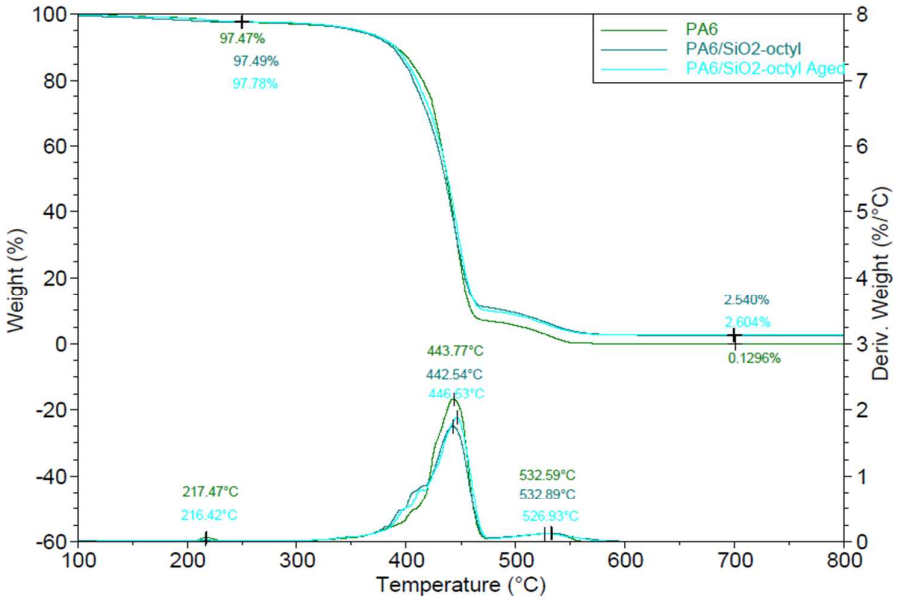

Figure S8. TGAs and their derived curves showing degradation under air of PA6/SiO_2-octyl, before and after undergoing aging.

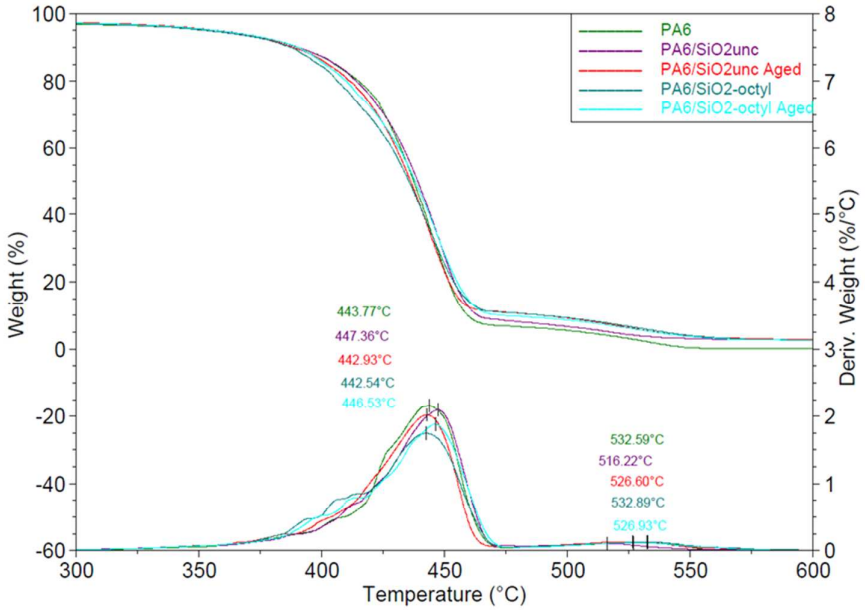

Figure S9. Enlargement of PA6 and PA6/SiO_2 NCs TGAs and their derived curves, showing degradation of these NCs under air.

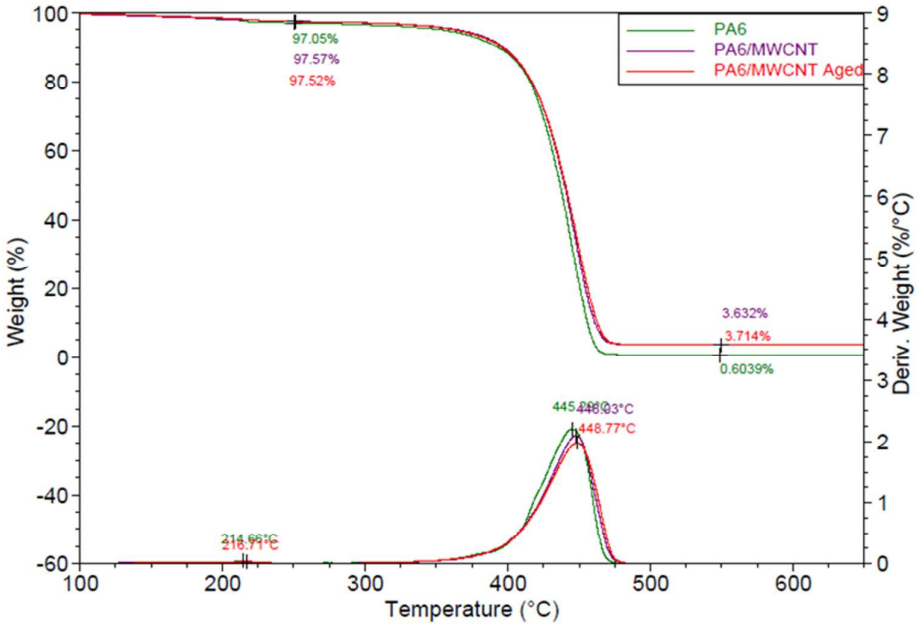

Figure S10. TGAs and their derived curves showing degradation under N_2 of PA6/MWCNT before and after undergoing aging.

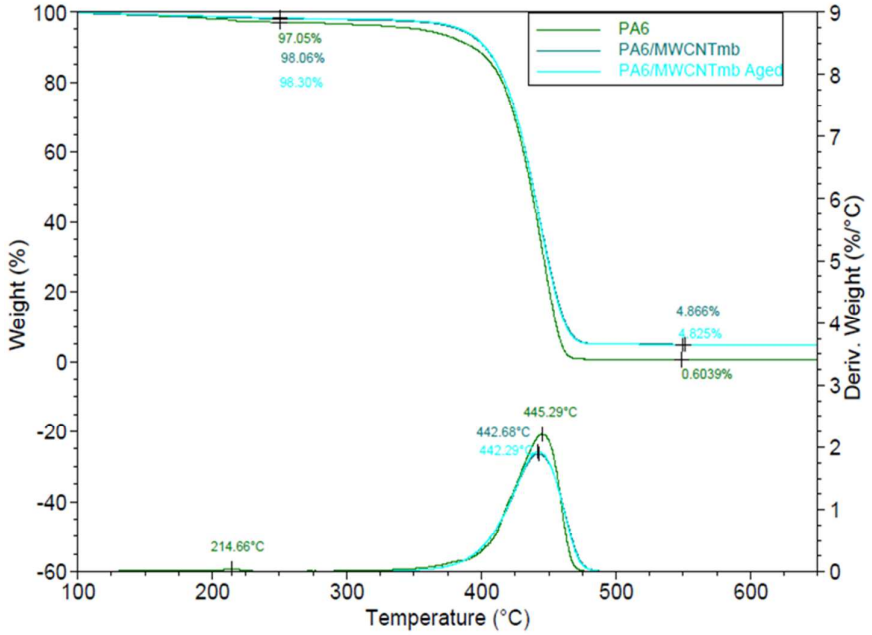

Figure S11. TGAs and their derived curves showing degradation under N_2 of PA6/MWCNT$_{MB}$ before and after undergoing aging.

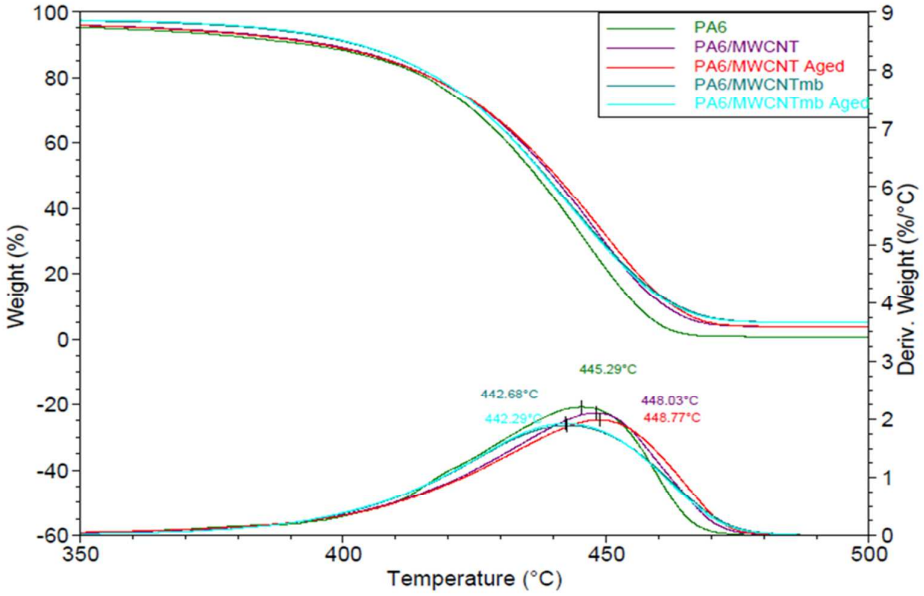

Figure S12. Enlargement of PA6 and PA6/MWCNT NCs TGAs and their derived curves, showing degradation of these NCs under N_2.

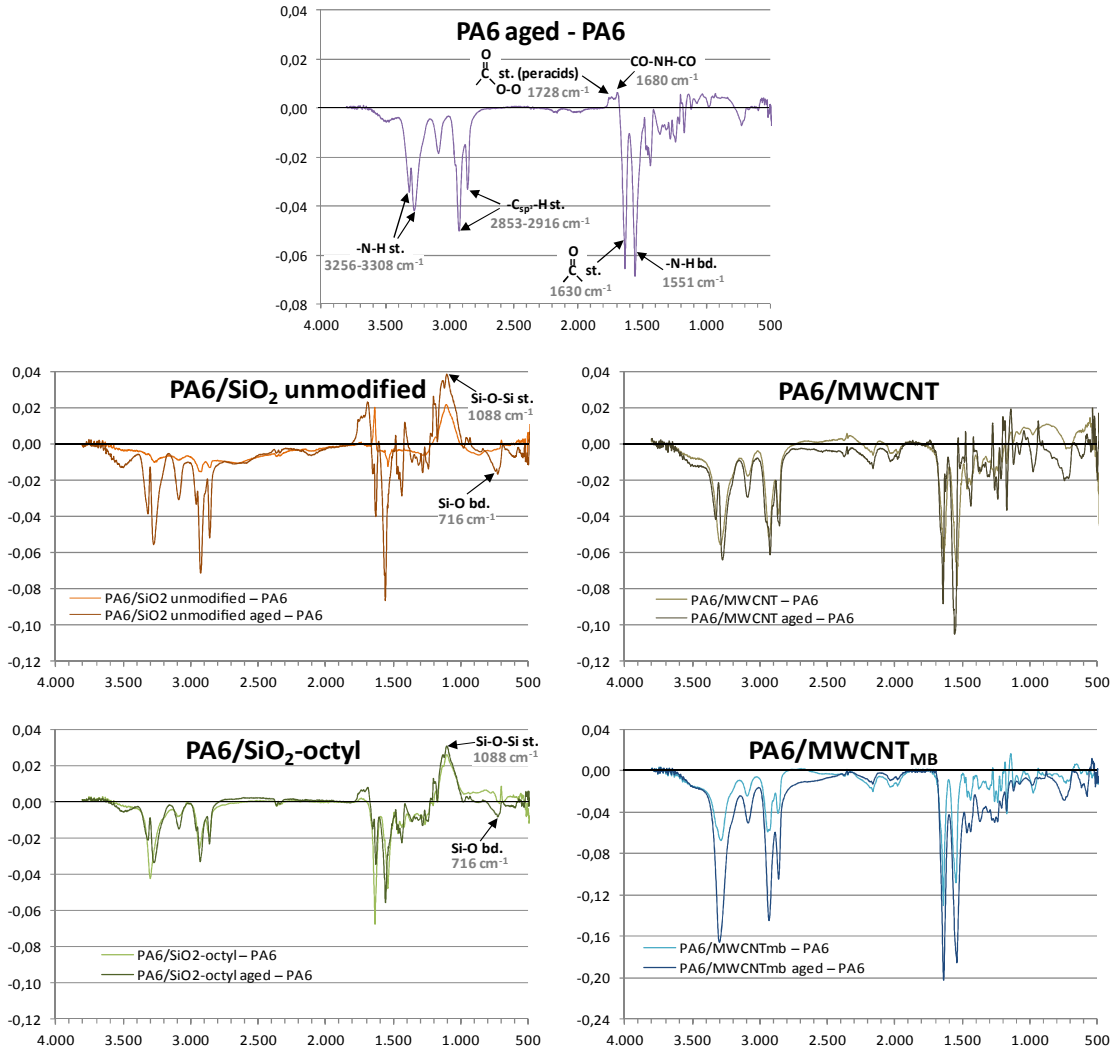

Figure S13. FT-IR spectra of the surface of all the NCs studied compared to raw polymer, before and after accelerated aging.

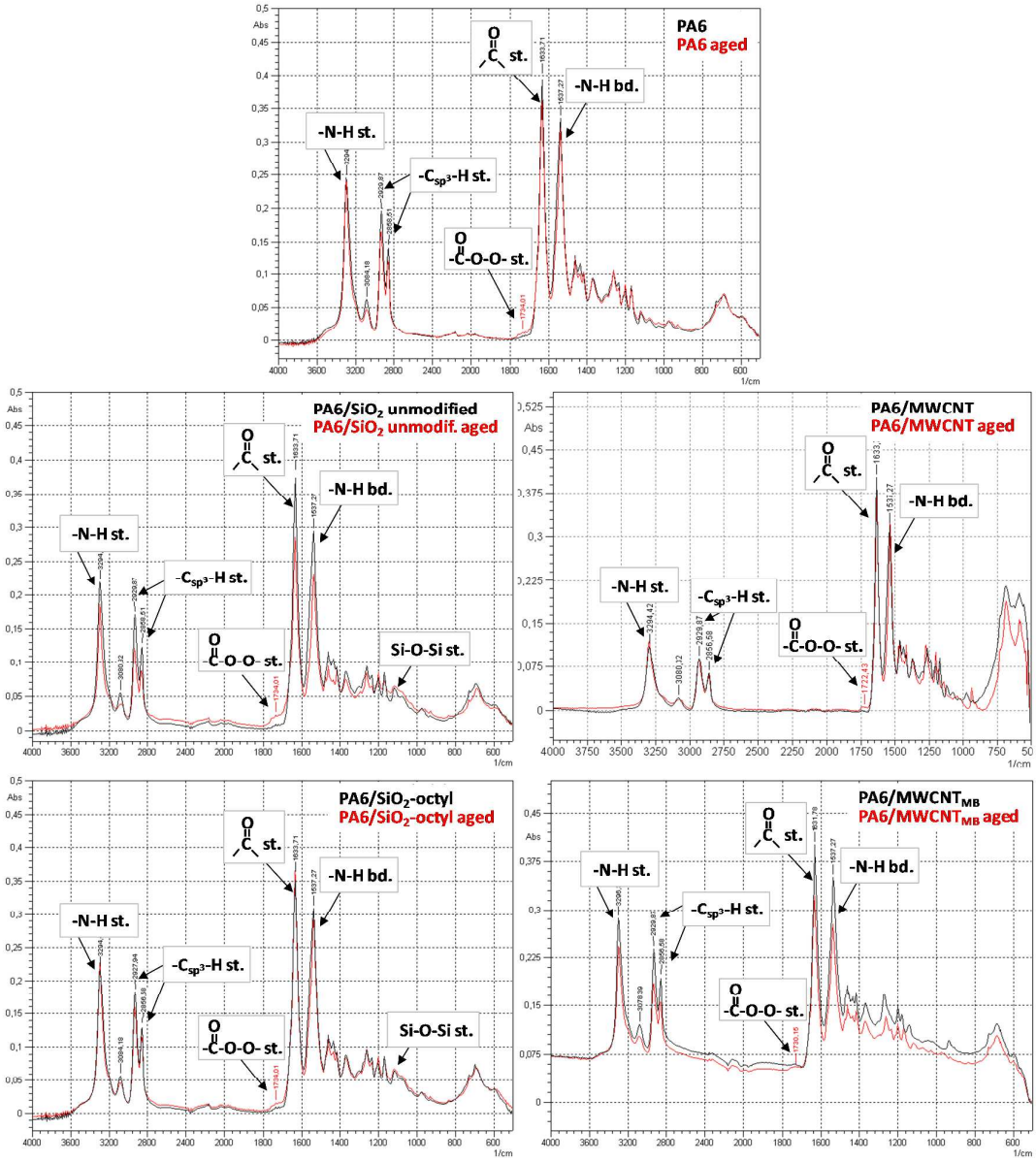

Figure S14. FT-IR spectra showing the chemical degradation caused by aging in the surface of all the NCs studied.