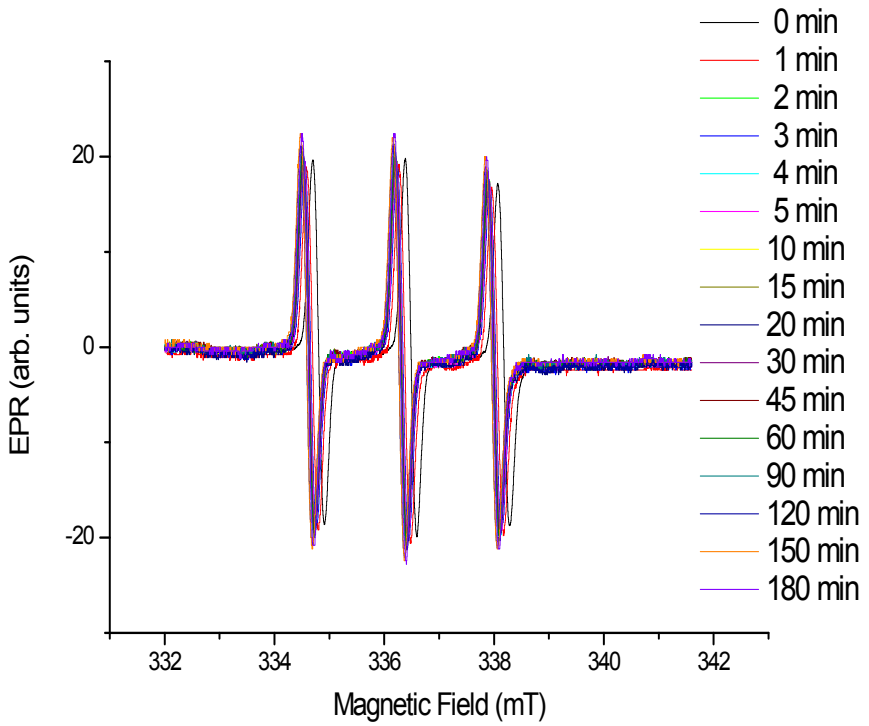
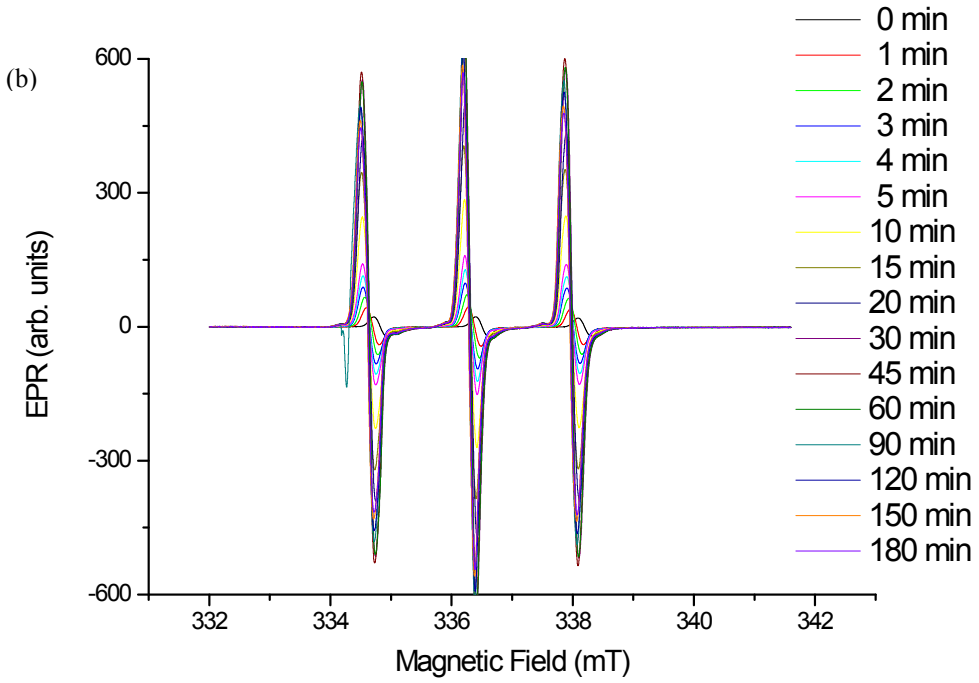
Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Electronic Supplementary Information

(a)



(b)



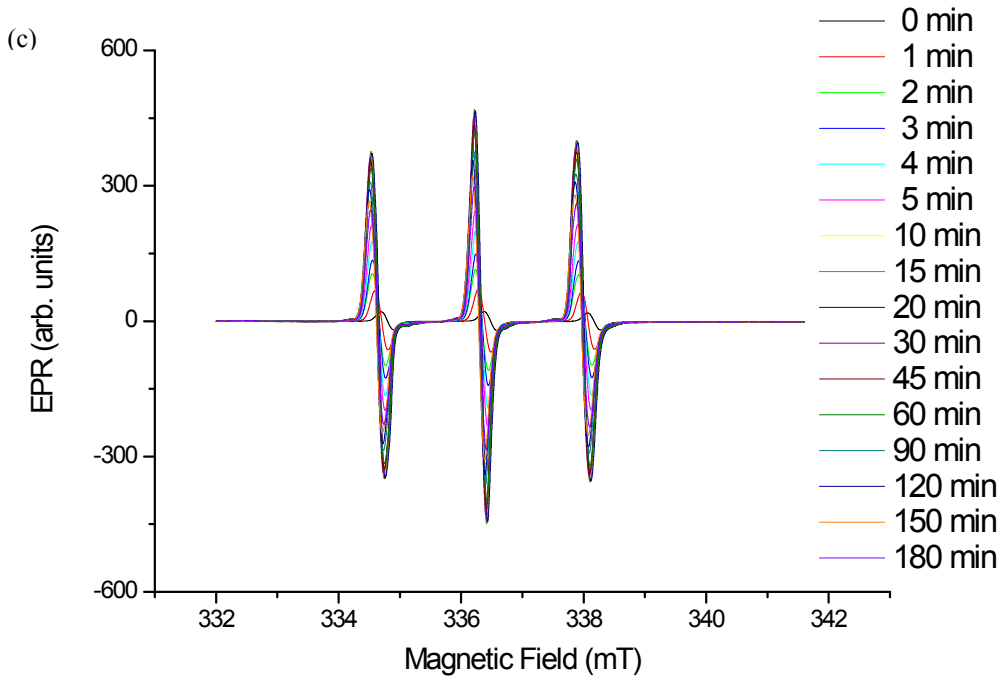


Figure S1. EPR signal from (a) TEMP with SDS, (b) TEMP, PA with SDS and (c) TEMP, PB with SDS illuminated with 570 nm.

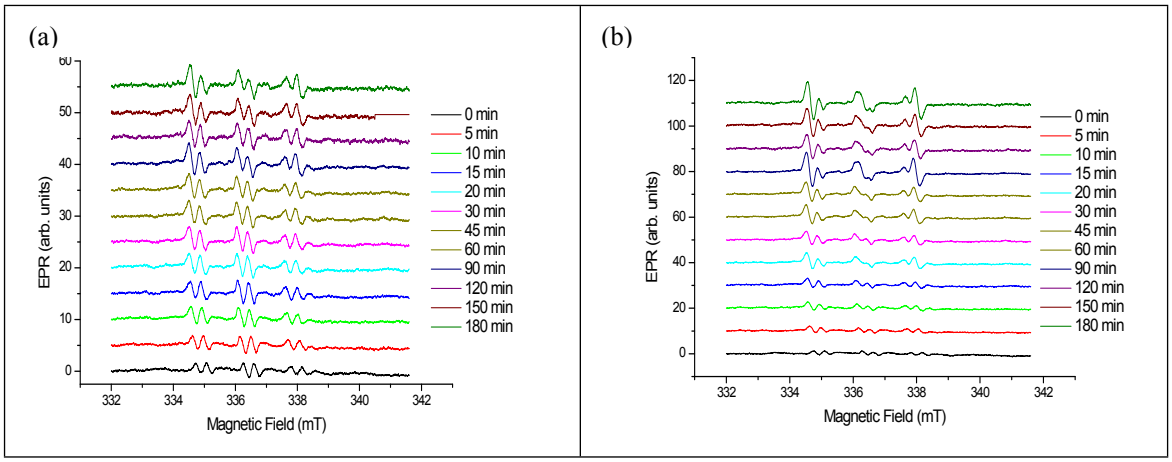


Figure S2. EPR signal from (a) PBN or (b) PBN and E-SWCNT illuminated with 570 nm.

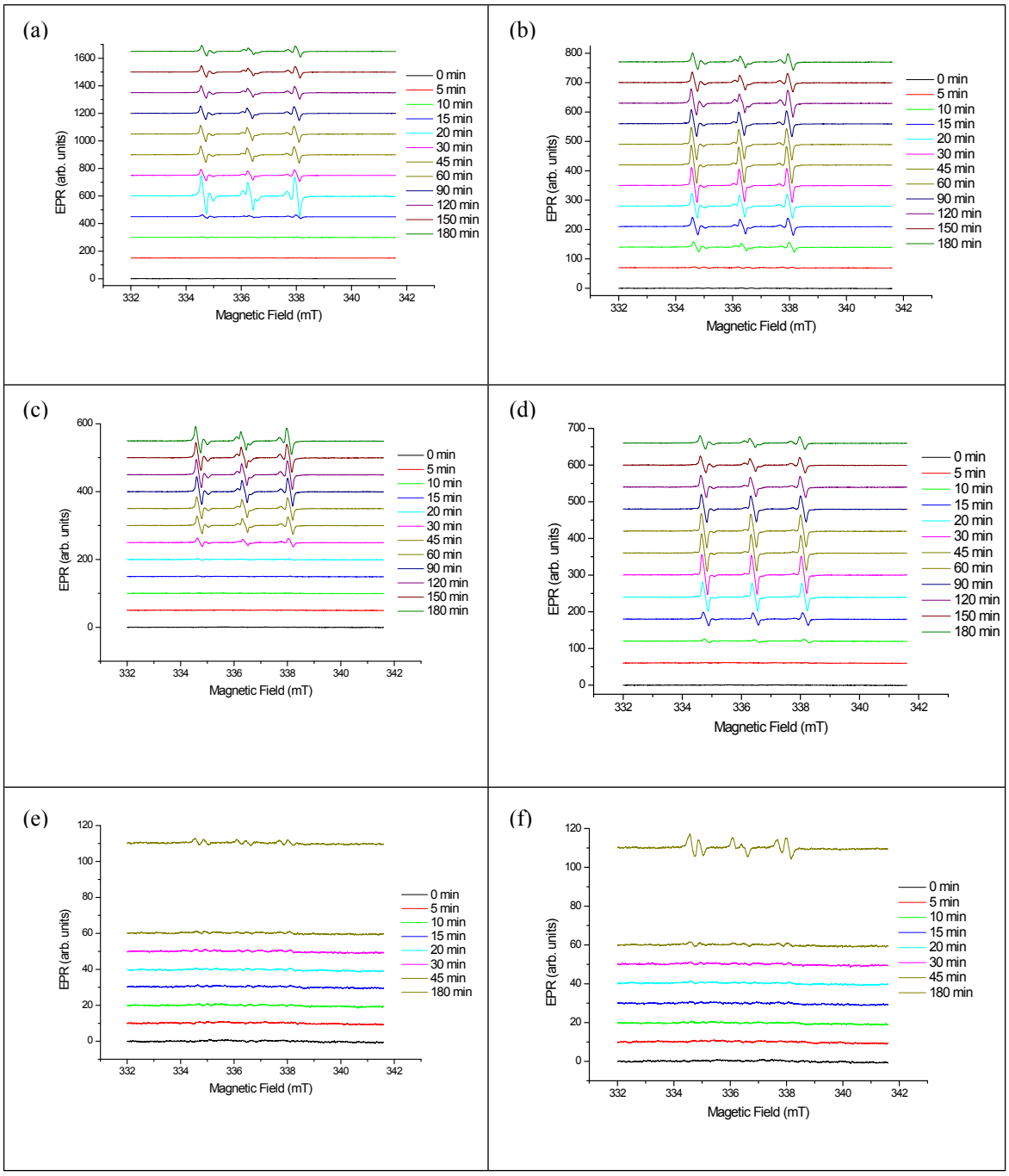


Figure S3. EPR signal from (a) PA, (b) PA-[E-SWCNT], (c) PA with D-mannitol, (d) PA-[E-SWCNT] (NT) with D-mannitol, (e) PA with NaN_3 and (f) PA-[E-SWCNT] with NaN_3, illuminated with 570 nm with PBN.

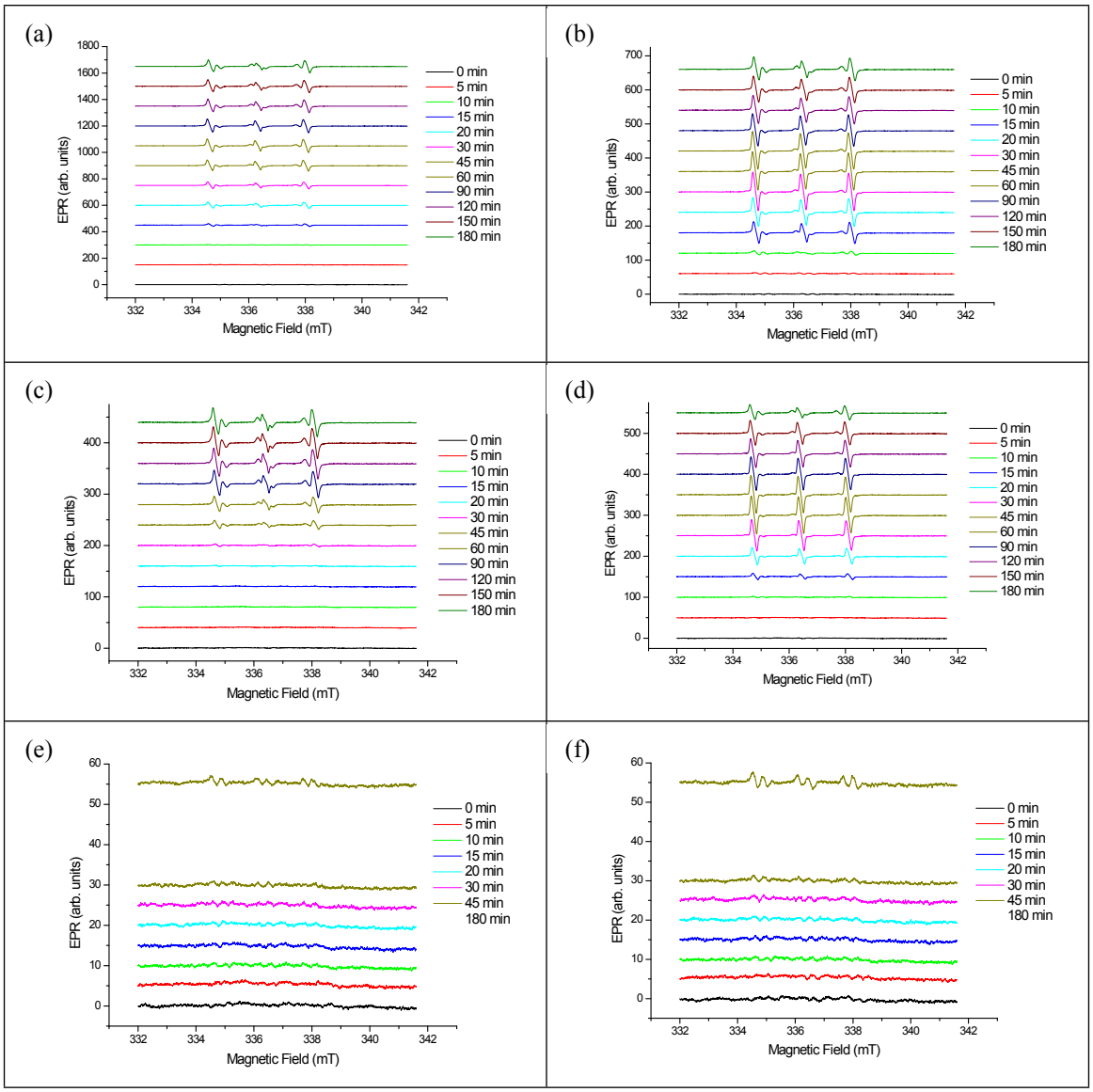


Figure S4. EPR signal from (a) PB, (b) PB-[E-SWCNT], (c) PB with D-mannitol, (d) PB-[E-SWCNT] with D-mannitol, (e) PB with NaN_3 and (f) PB-[E-SWCNT] with NaN_3, illuminated with 570 nm with PBN.

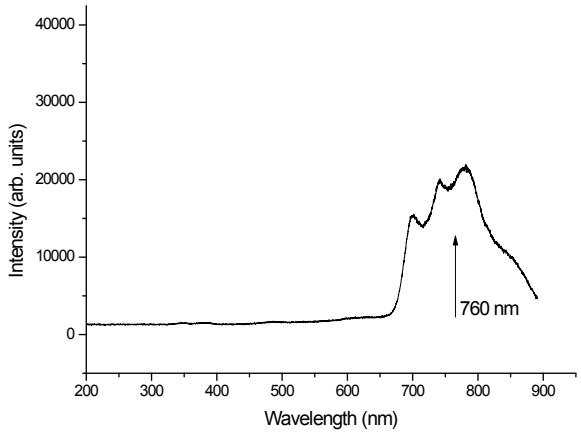


Figure S5. The spectrum of the illumination recorded through the interference filter of the halogen lamp.

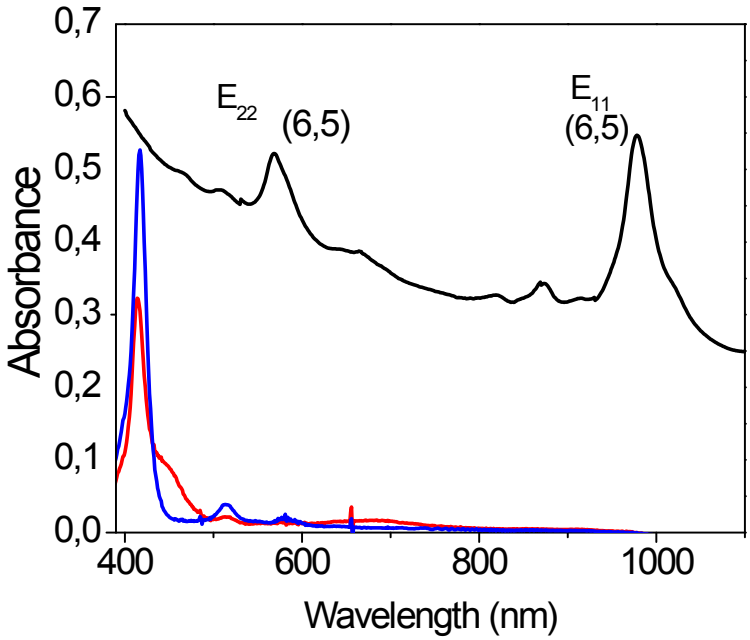


Figure S6: Absorption Spectra of the E-SWCNT separated dispersion (black line), of PA (red line) and of PB (blue line). The highest absorbing species in the sample is the (6, 5) nanotube, with peaks in 568 and 978 nm respectively. The presence of other carbon nanotubes in the Raman spectra is due to the fact that these nanotubes have a much higher Radial Breathing Mode Raman cross section than the (6,5). (Reference: V. N. Popov, L. Henrard, P. Lambin, *Nano Letters*, 2004, **4**, 1795-1799).