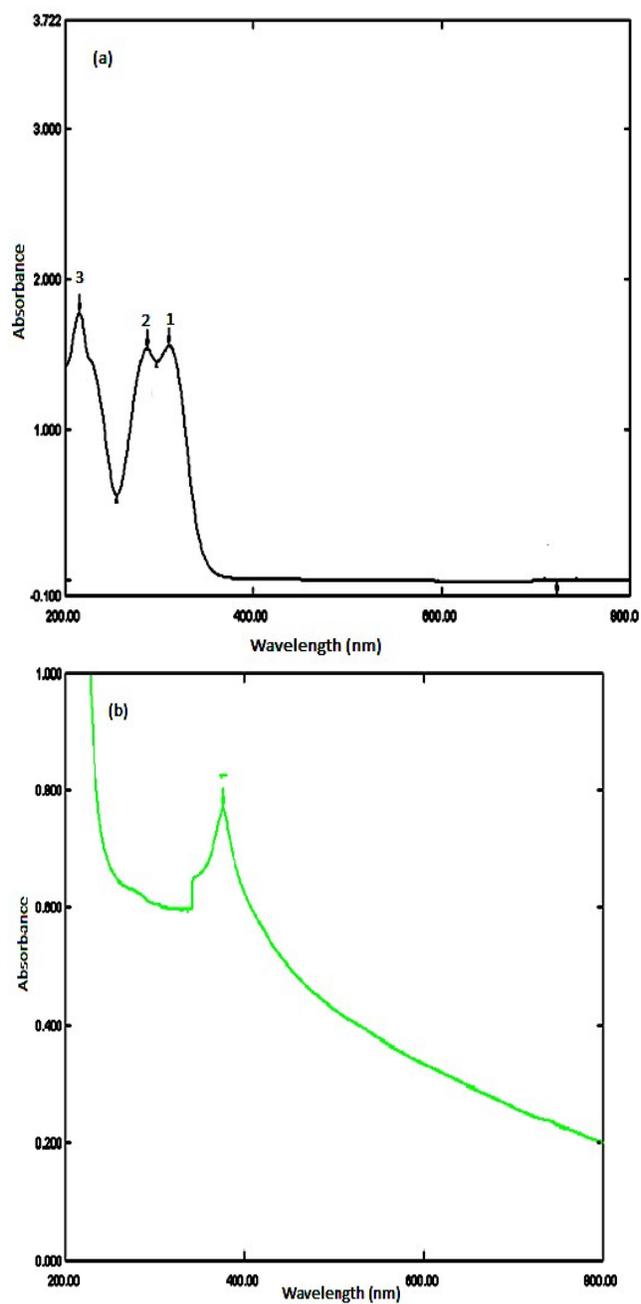
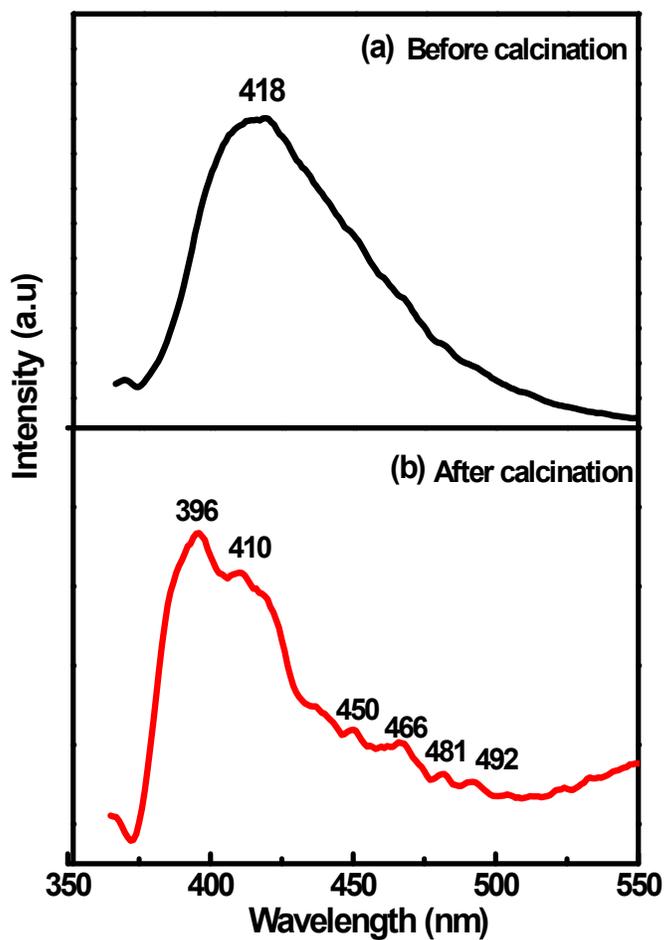


Supplementary data

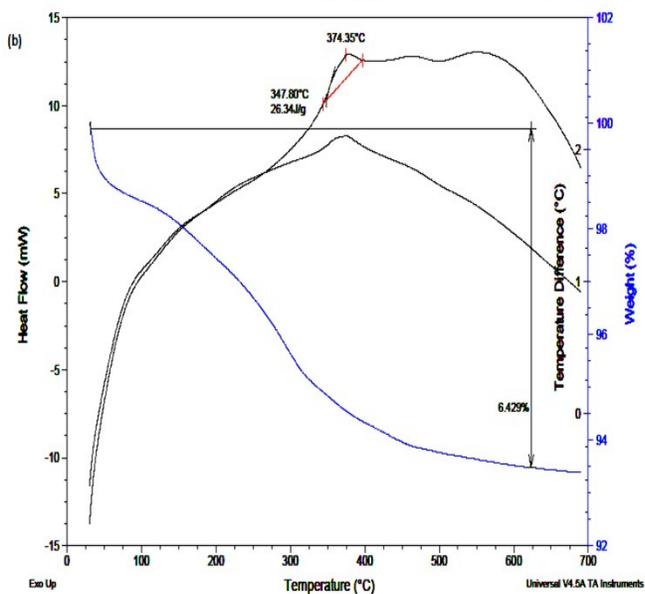
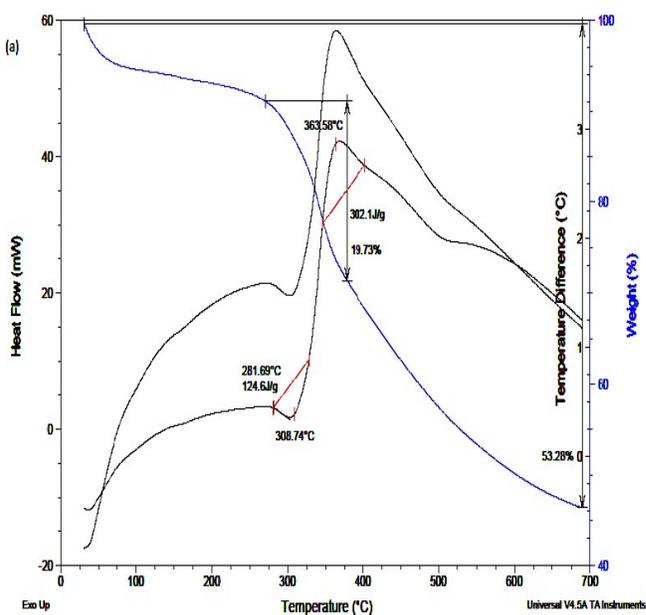
Supplementary figure 1: UV-Visible absorption spectra of ZnONPs (a) before calcination (b) after calcination (at 500°C for 1 hr).



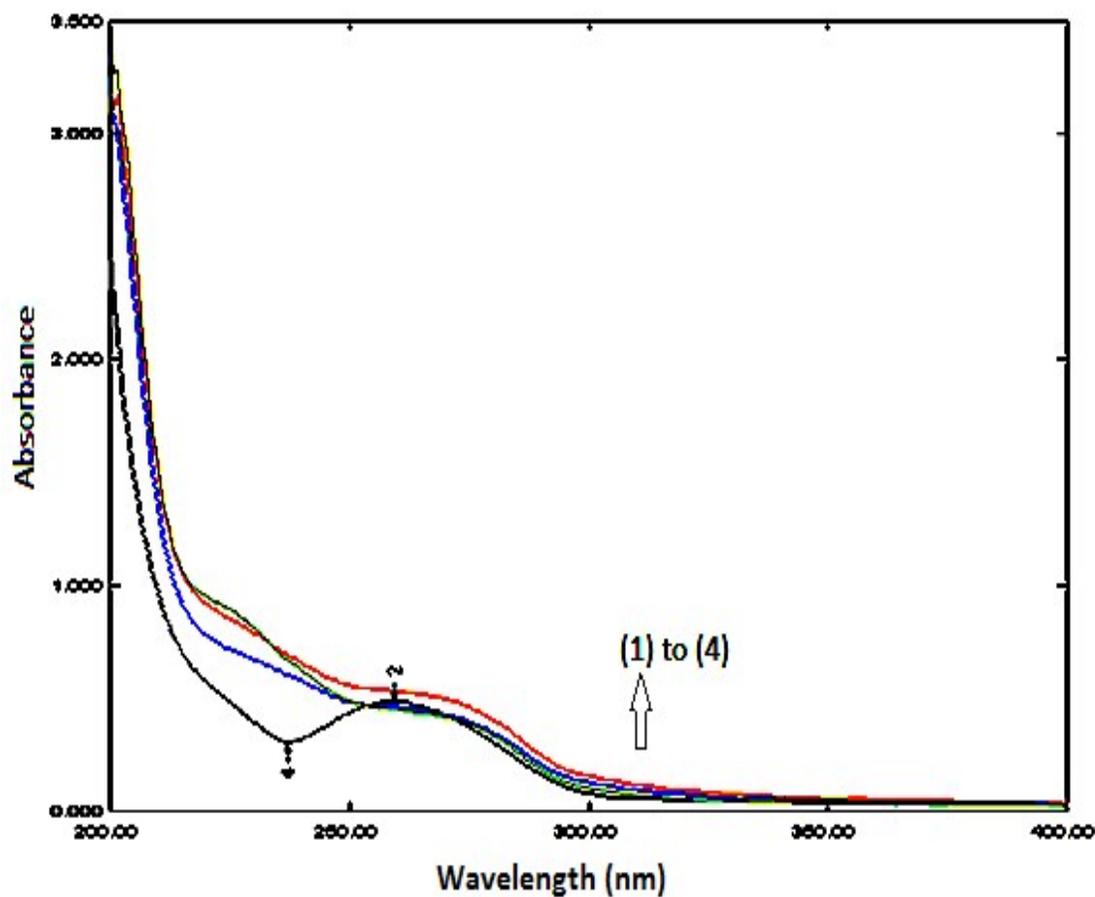
Supplementary figure 2: Photoluminescence spectra of ZnONPs with excitation at 325 nm (a) before calcination (b) after calcination (500°C for 1 hr).



Supplementary figure 3: Thermal characteristics of ZnONPs were analyzed by thermogravimetry and differential scanning calorimetry (a) before calcination (b) after calcination



Supplementary figure 4: Absorption spectra for gamma irradiated CT- DNA alone (0.1 mM in Tris HCl buffer, pH 7.5) and in presence of varying concentration of ZnONPs (0 – 50 $\mu\text{g/ml}$). The arrow shows the change of spectra upon increasing concentration of ZnONPs (1) DNA alone, (2) DNA + 10 $\mu\text{g/ml}$ ZnONPs , (3) DNA + 30 $\mu\text{g/ml}$ ZnONPs, (4) DNA + 50 $\mu\text{g/ml}$ ZnONPs.



Supplementary figure 5: Photoluminescence spectra of ZnONPs with excitation at 325 nm (a) Before radiation (b) After radiation.

