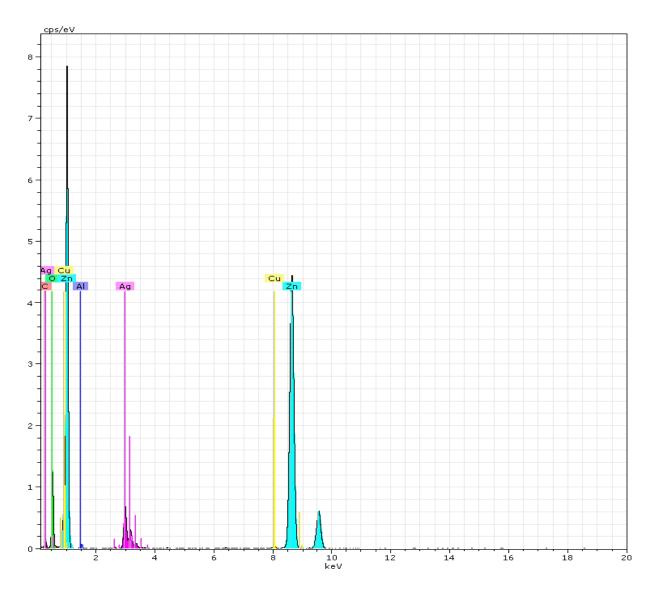
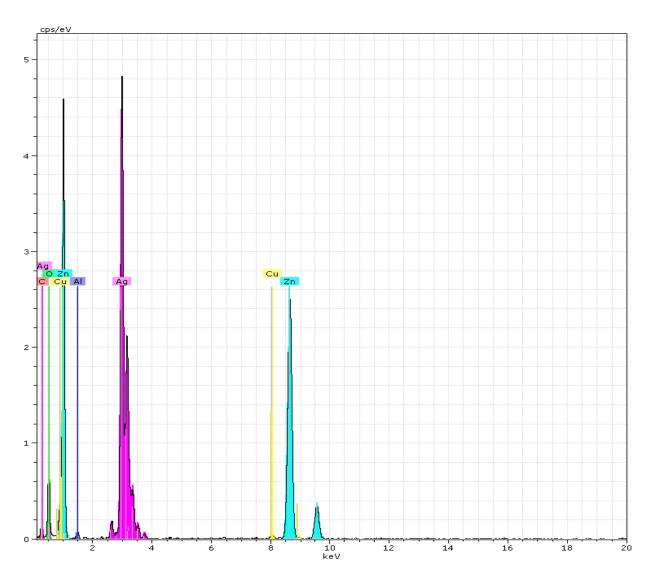


**Figure S1.** EDS of pure ZnO nanoparticle.



**Figure S2.** EDS of 1 % Ag-ZnO nanoparticle.



**Figure S3.** EDS of 5 % Ag-ZnO nanoparticle.

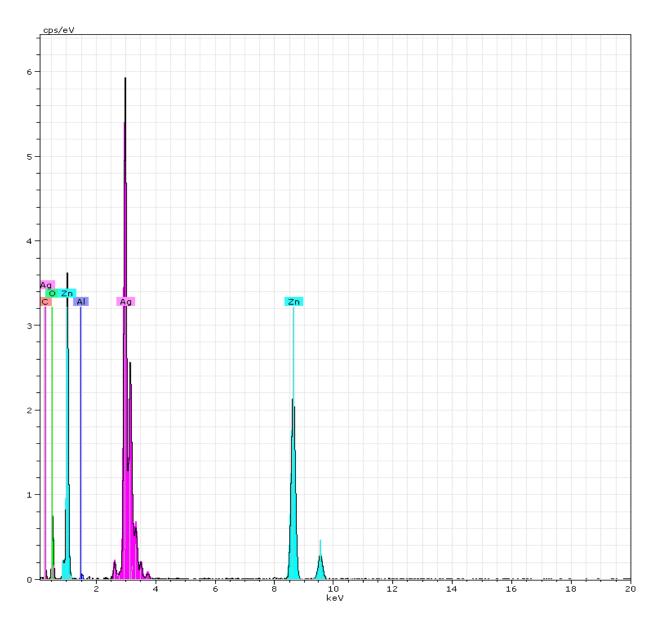
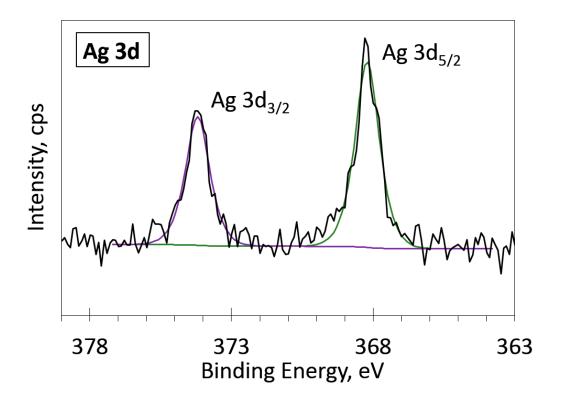


Figure S4. EDS of 10 % Ag-ZnO nanoparticle.



**Figure S5.** Deconvoluted high-resolution XPS spectra for 1% Ag-ZnO powder sample. Black curve - acquired data, dark green curve – fitted Ag  $3d_{5/2}$  peak, violet curve - fitted Ag  $3d_{3/2}$  peak.