

# High color rendering index white light-emitting diode based on environmental friendly carbon and AIZS nanoparticles

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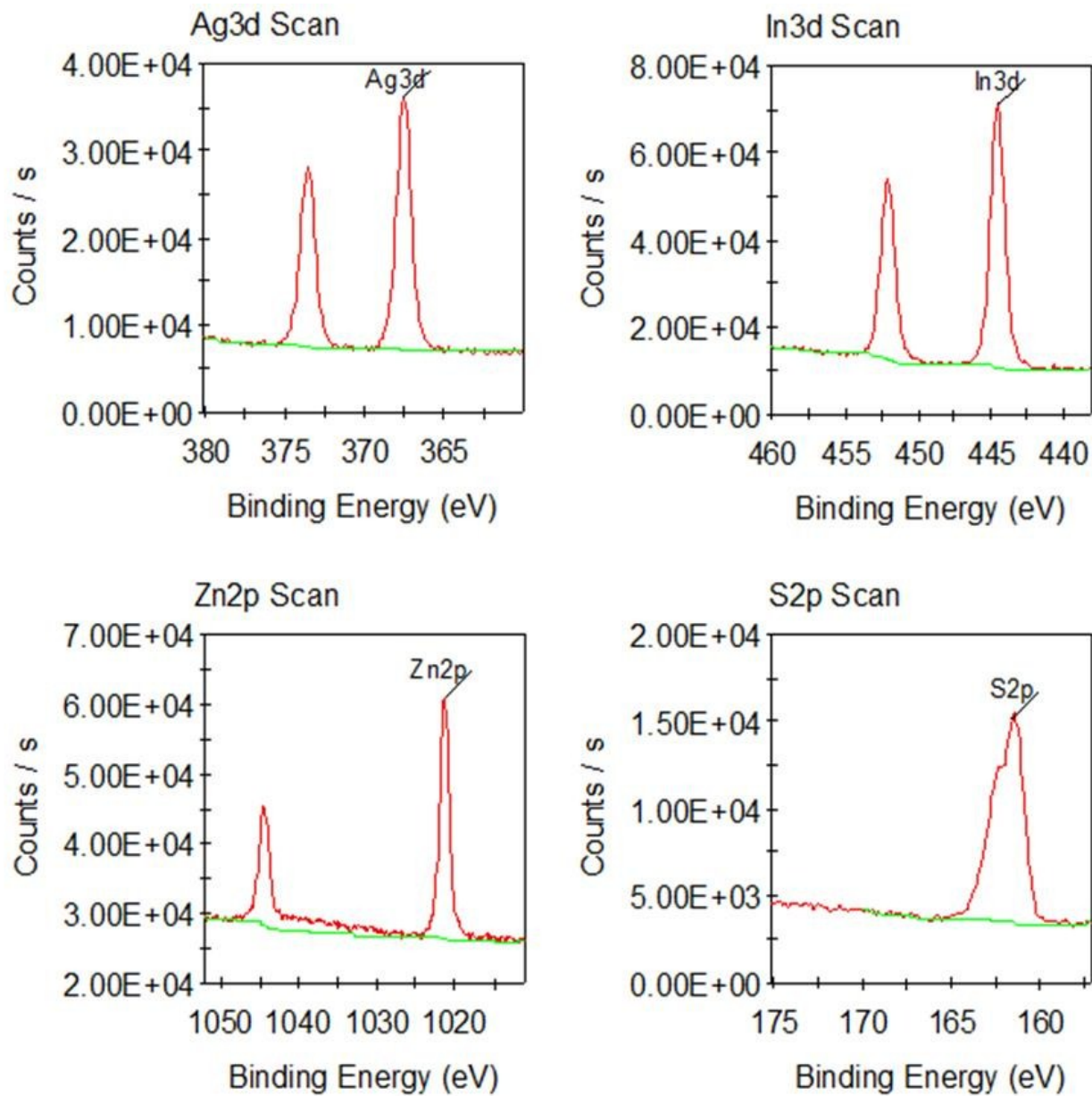
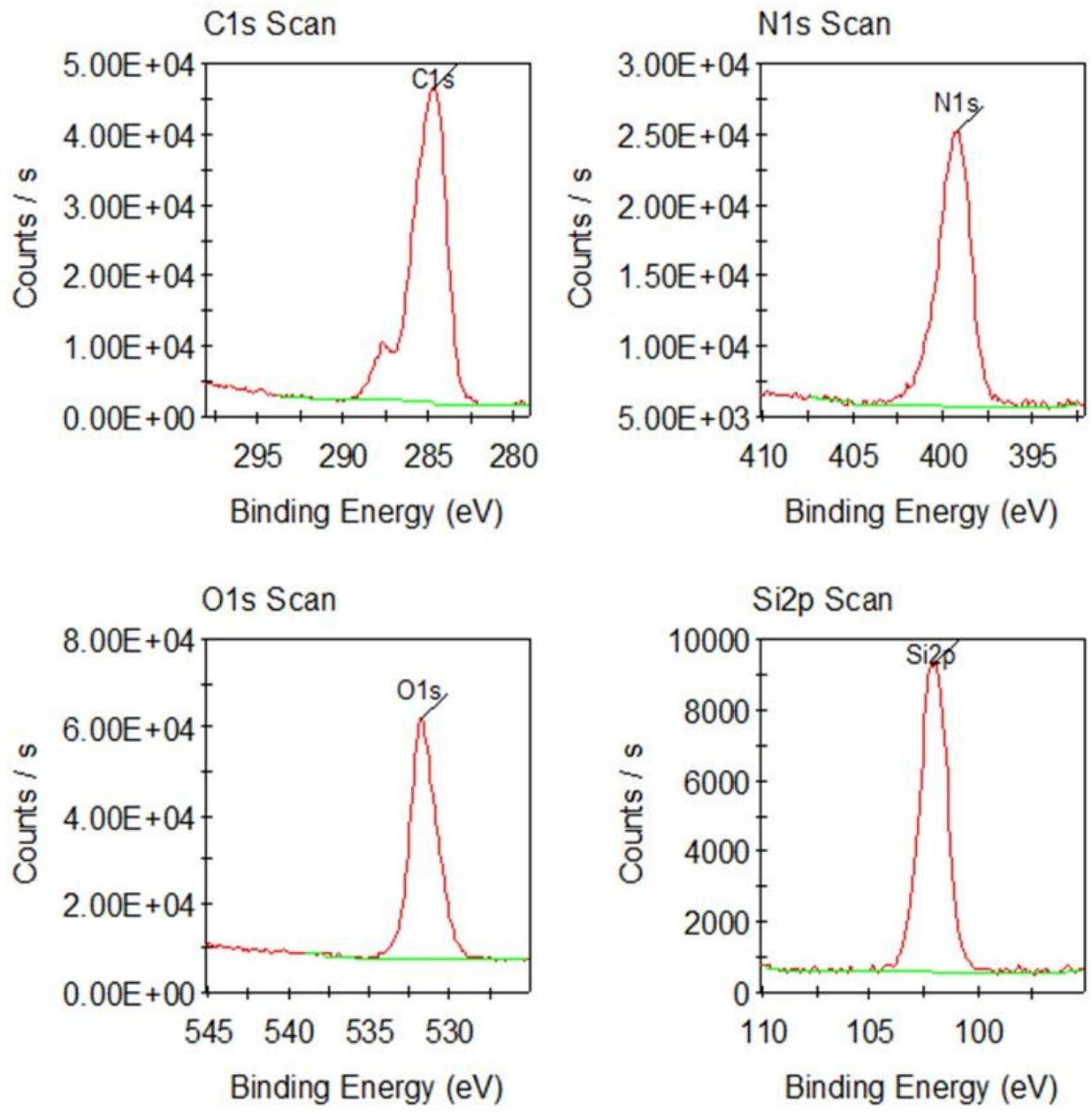


Figure S1. High-resolution XPS pattern of AIZS.



**Figure S2.** High-resolution XPS pattern of B-CDs.

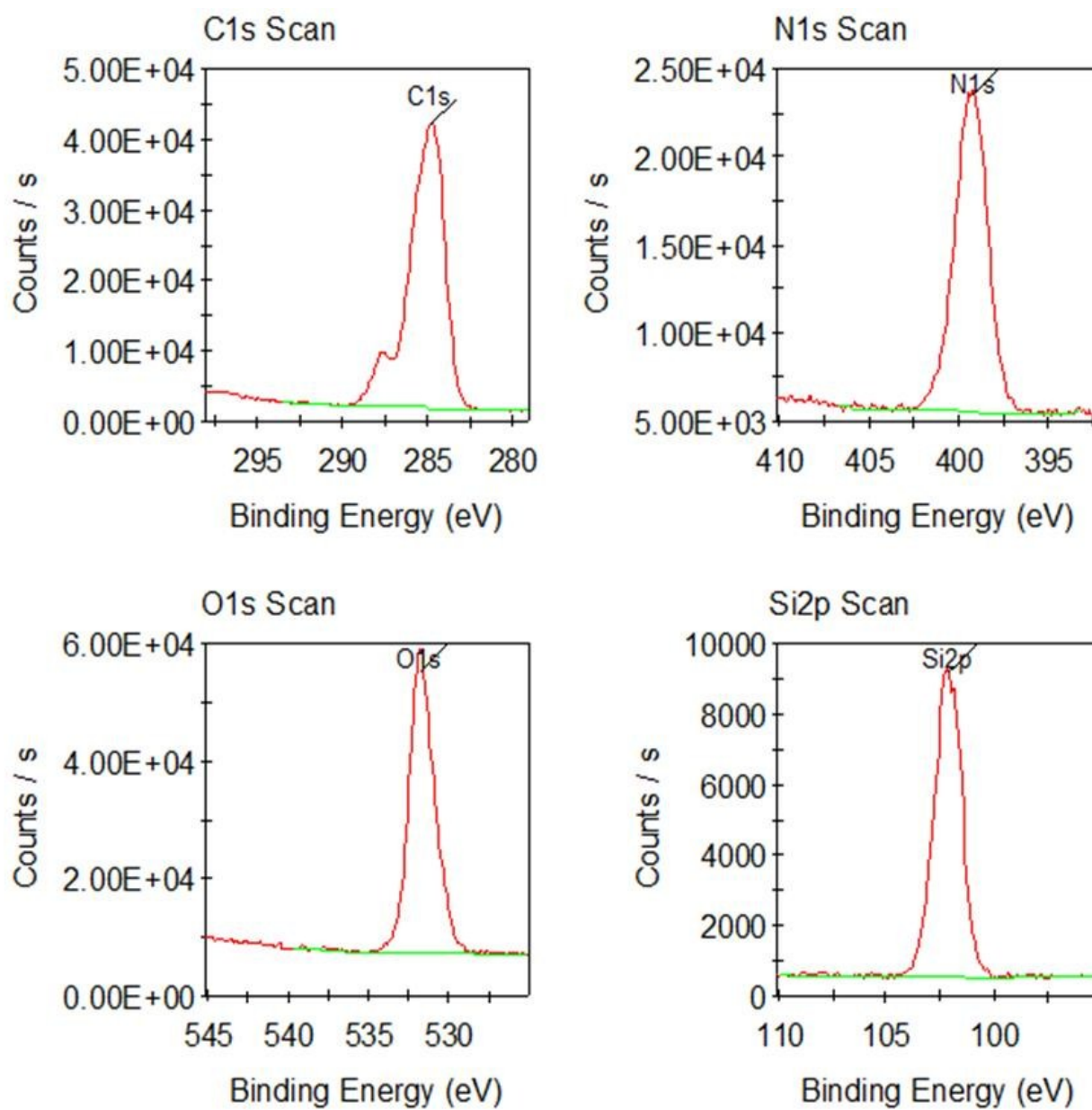
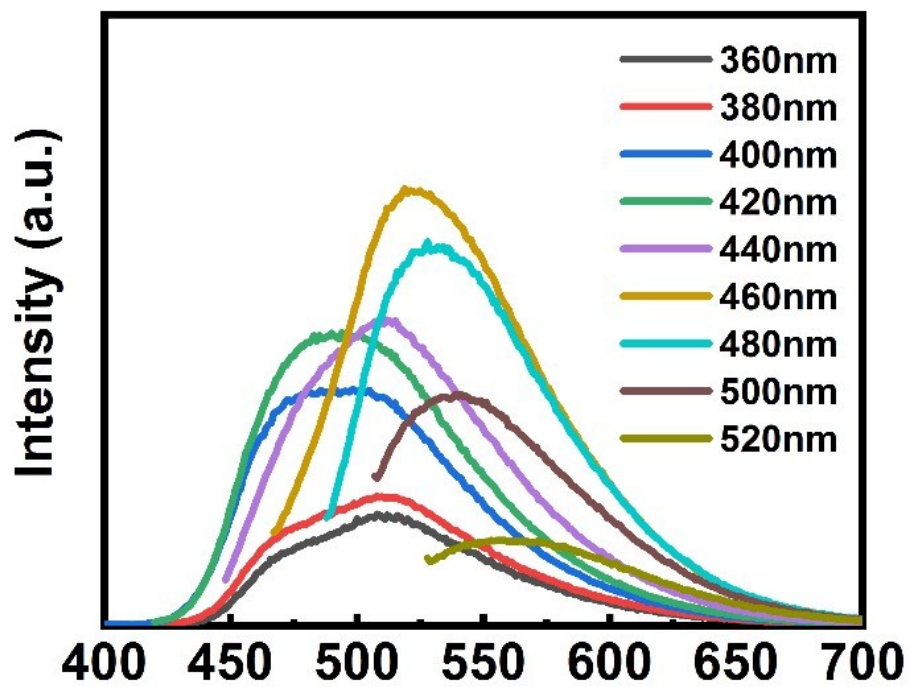
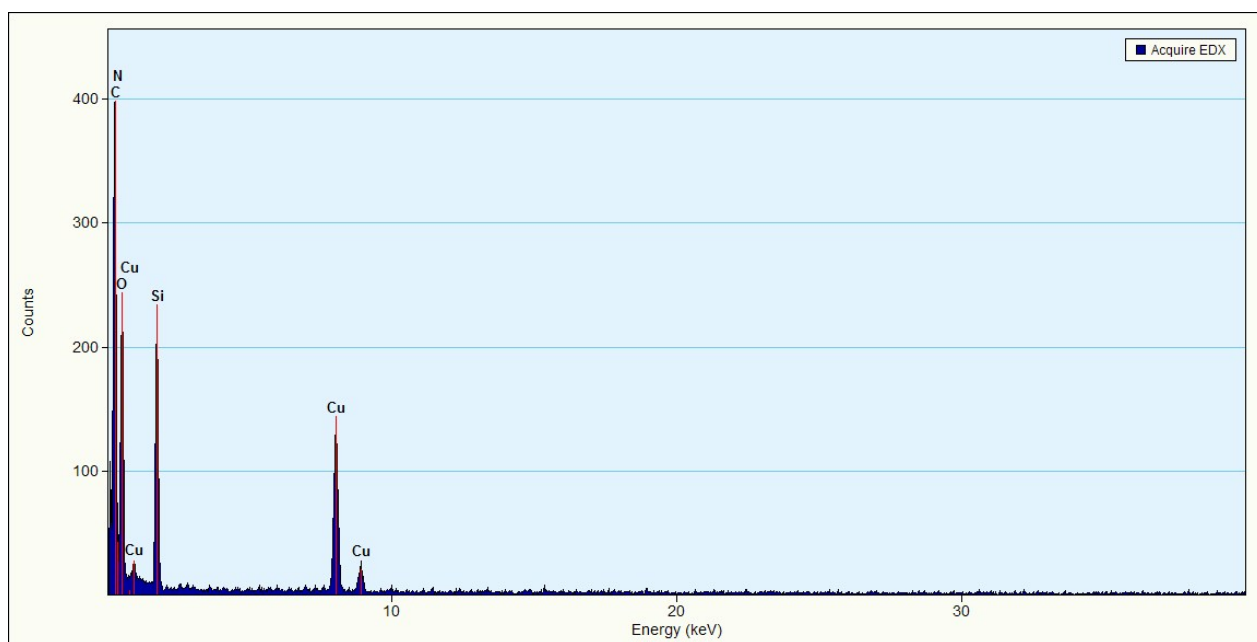


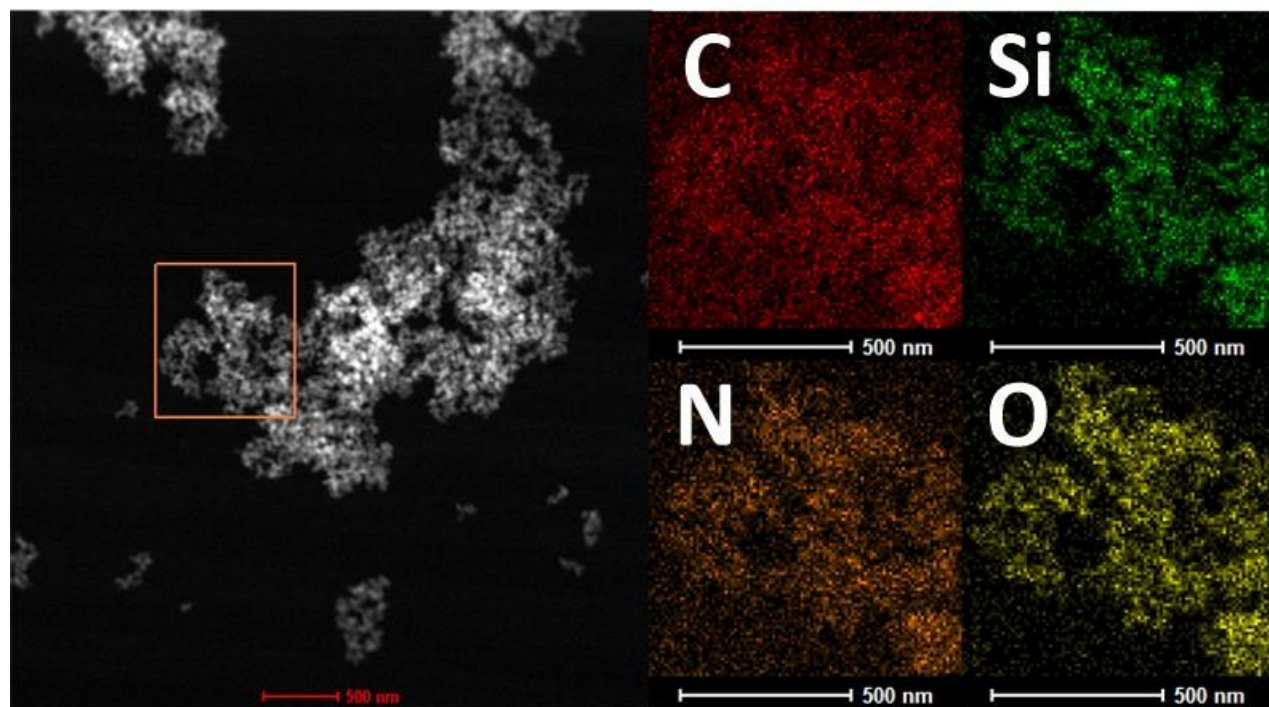
Figure S3. High-resolution XPS pattern of G-CDs



**Figure S4.** PL emission spectra of the G-CDs under different excitation wavelengths.



**Figure S5.** Energy dispersive X-ray (EDX) of CDs@SiO<sub>2</sub>.



**Figure S6.**elemental mappings of CDs