

Supporting information

Interfacial oxygen vacancy layer of Z-scheme BCN-TiO₂ heterostructure accelerating charge carrier transfer for visible light photocatalytic H₂ evolution

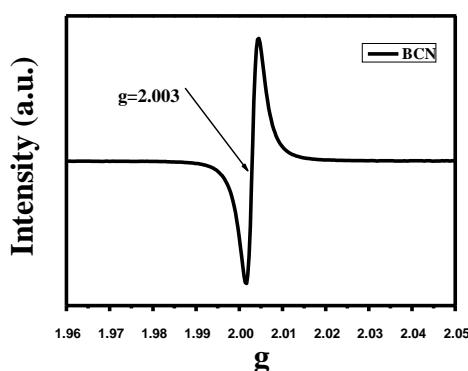


Figure S1. Room-temperature ESR spectra of BCN. The electron paramagnetic resonance (EPR) spectrum of the BCN shows a slightly asymmetric signal line at a g value of 2.0032, manifesting a small g anisotropy of a uniform electron species. It is reported that the unpaired electron on carbon atoms in aromatic systems have the same g value

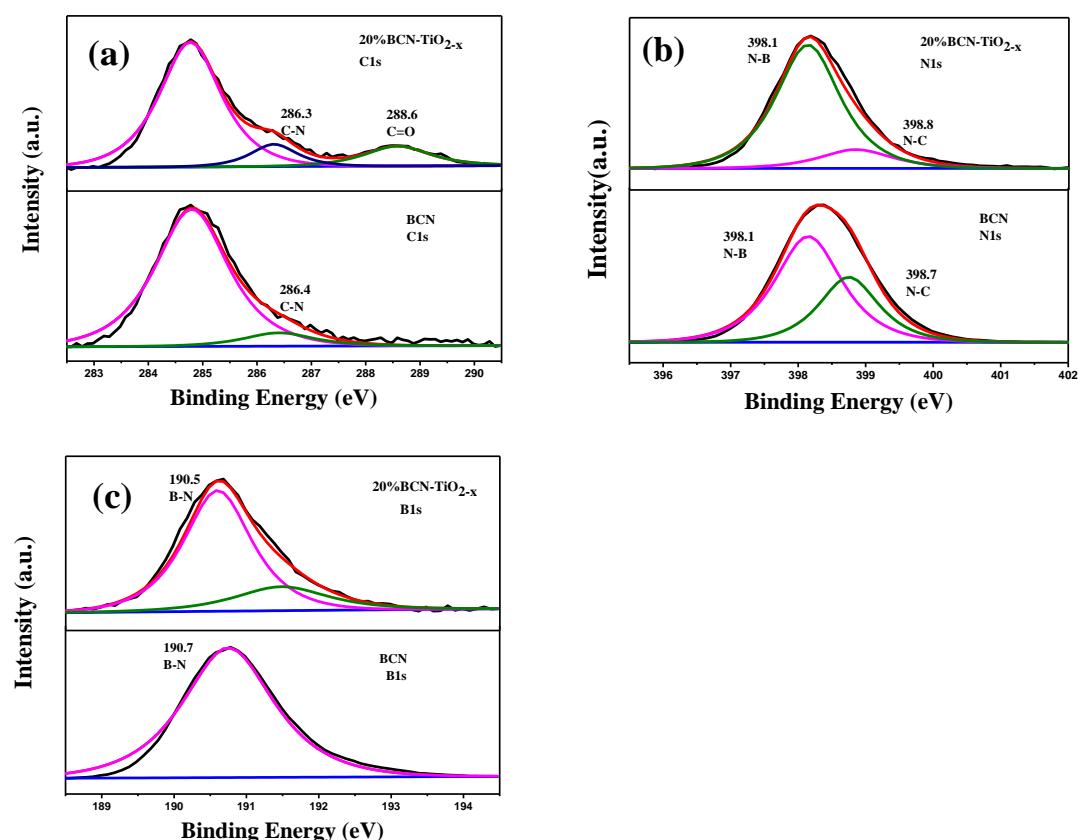


Figure S2. XPS spectra of (a) C 1s, (b) N 1s and (c) B 1s.

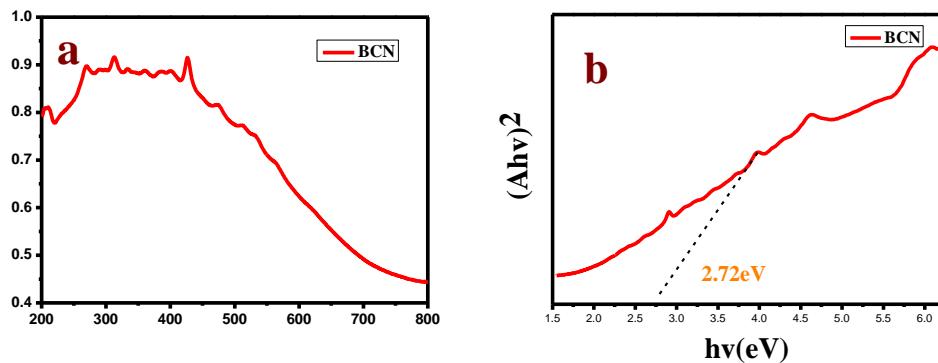


Figure S3. Ultraviolet-visible diffuse reflectance spectra of (a) BCN, (b) bandgap determination of BCN.

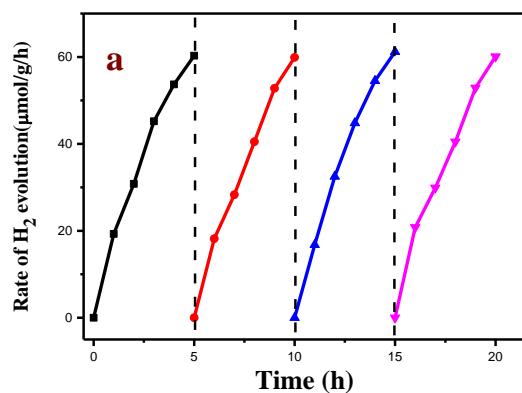


Figure S4. (a) Stability of 20%BCN-TiO_{2-x} samples.