

Supporting Information

Ordered-Disordered BaZrO_{3-δ} Hollow Nanosphere/ Carbon Dot Hybrid Nanocomposite: A New Visible- Light-Driven Efficient Composite Photocatalyst for Hydrogen Production and Dye Degradation

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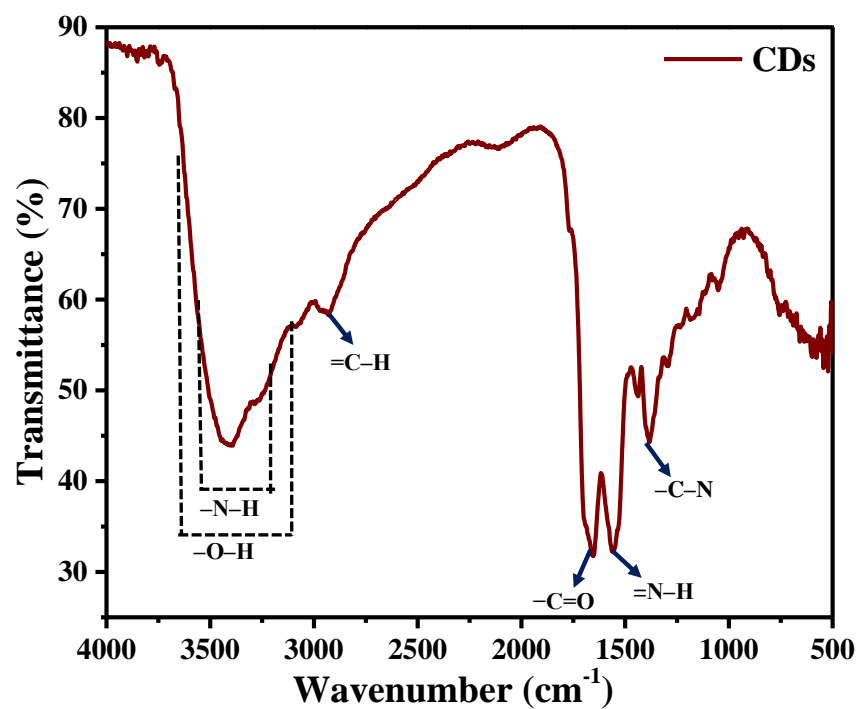


Figure. S1 FTIR spectrum of as-synthesized CDs.

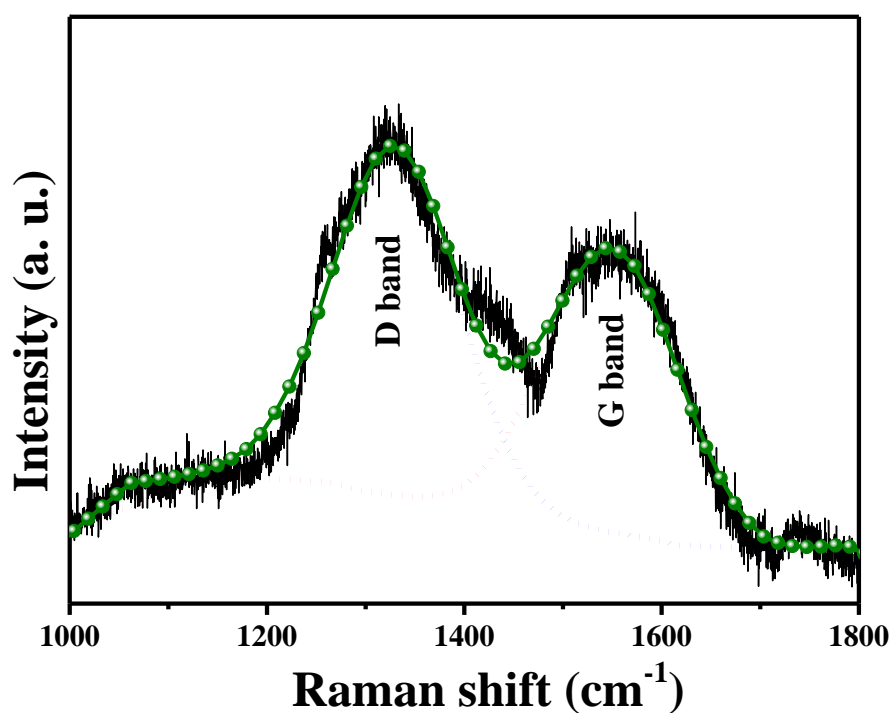


Figure. S2 Raman spectrum of as-synthesized CDs.

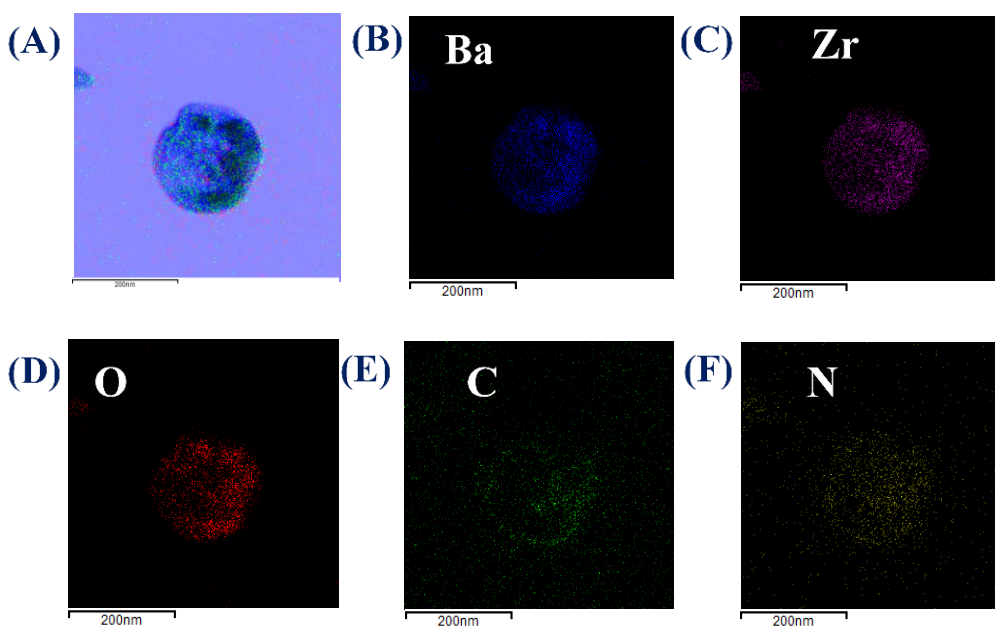


Figure. S3 (A) Overall mapping in transmission electron microscopic (TEM) images and (B — F) shows the elemental mapping of Ba, Zr, O, C and N elements on a single 3C_BZO hollow nanosphere.

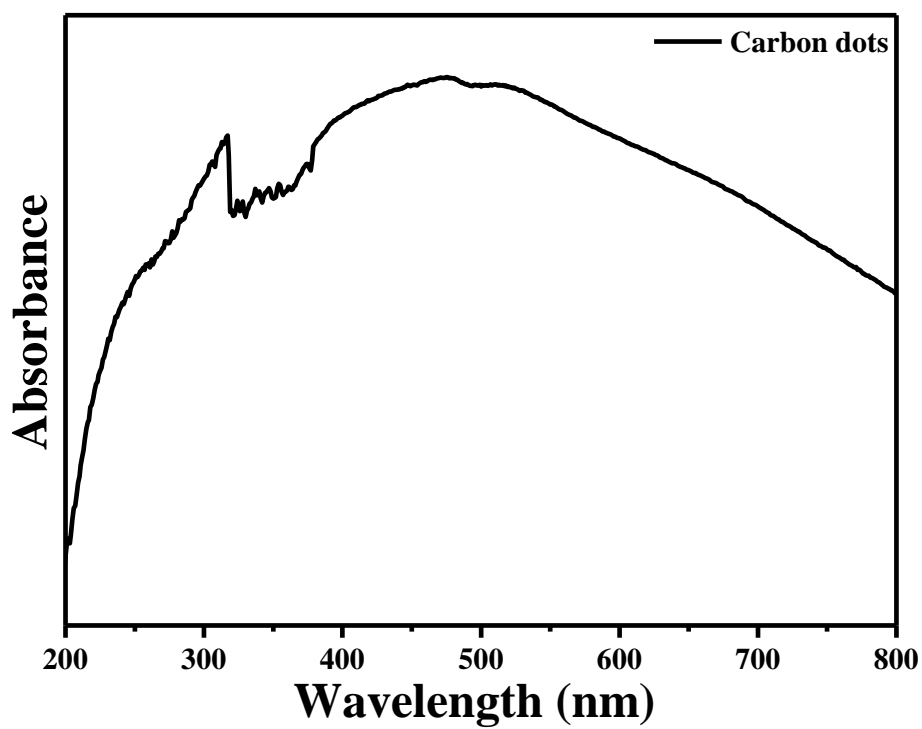


Figure. S4 Diffuse reflectance spectra of synthesized CDs.

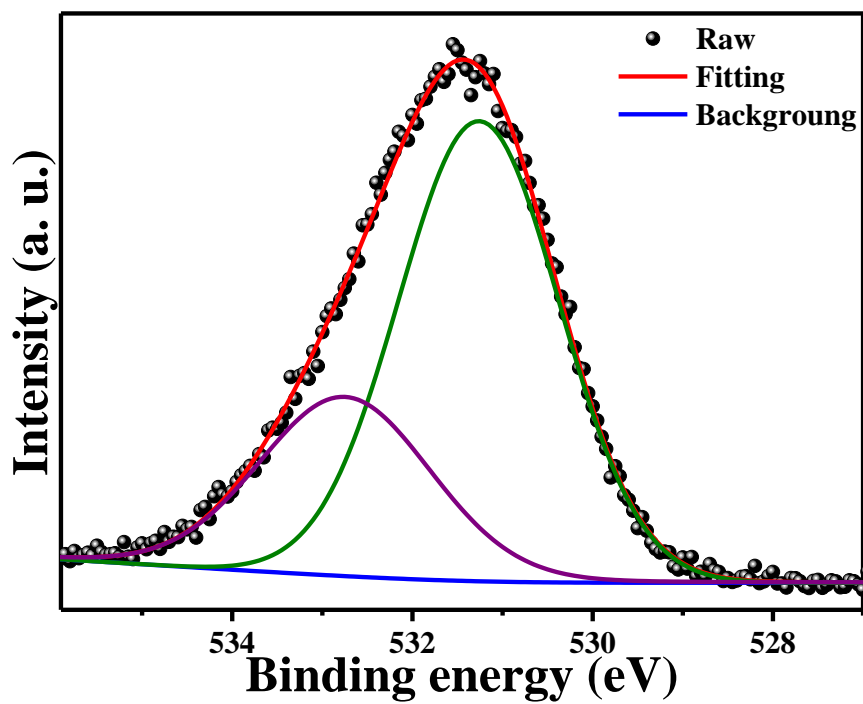


Figure. S5 O 1s core level X-ray photoelectron spectroscopic spectrum of as-synthesized CDs.

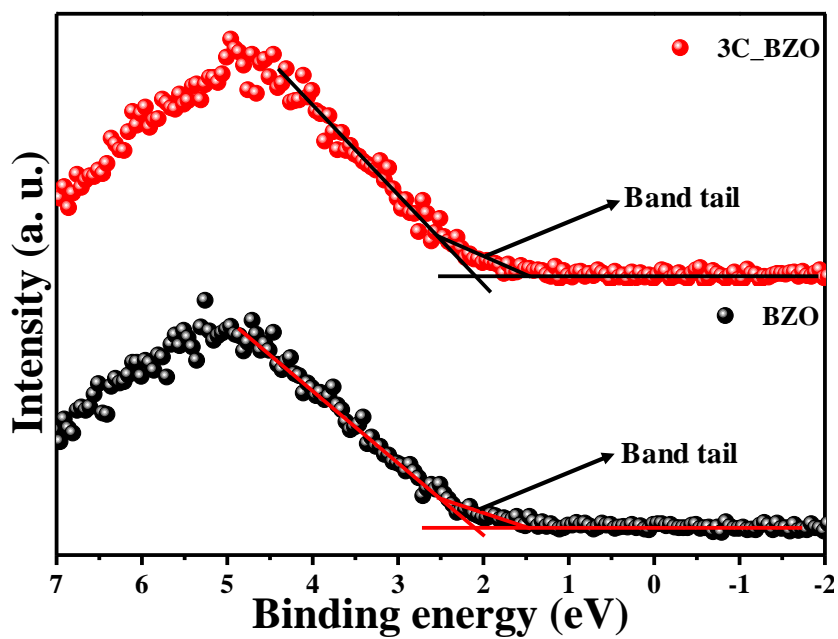


Figure. S6 X-ray photoelectron spectroscopic valence band spectra of BZO and 3C_ BZO hybrid nanomaterials.

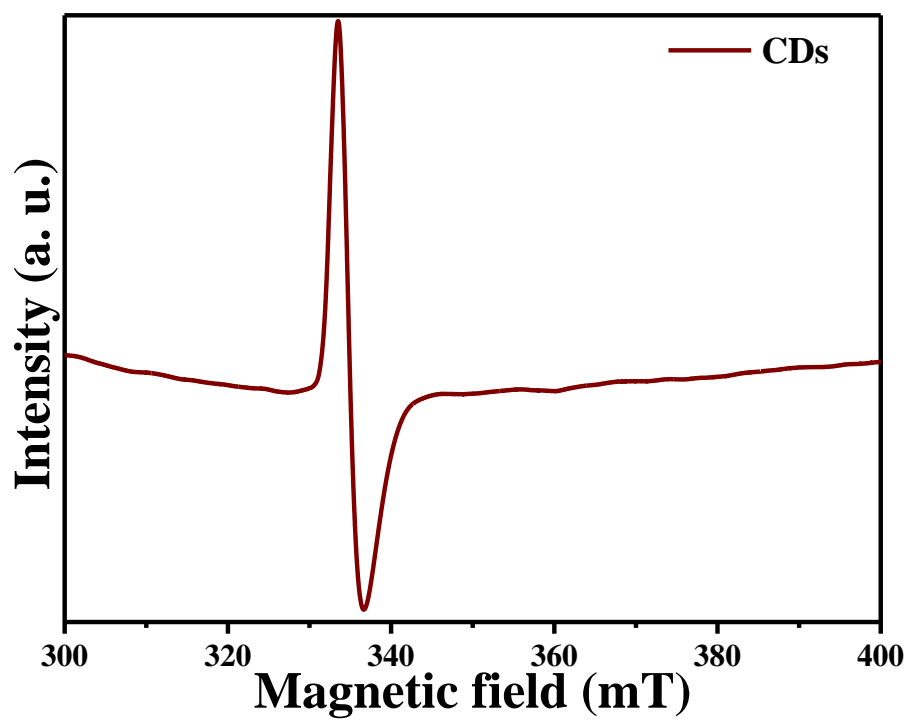


Figure. S7 Room temperature electron spin resonance spectrum of as-synthesized CDs.