Supporting Information

Ce-doped ZnO (Ce_xZn_{1-x}O) becomes an efficient visible-light-sensitive photocatalyst by co-catalyst (Cu^{2+}) grafting

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Figure 1S. Extended x-ray diffraction patterns of ZnO and 10% Ce_xZn_{1-x}O photocatalysts.
Figure 2S. Band-gap calculation diagram for ZnO and Ce$_x$Zn$_{1-x}$O photocatalysts
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**Figure 3S.** Initial reaction rate of CO₂ over Cu²⁺-modified CeₓZn₁₋ₓO photocatalysts under visible-light illumination (source: blue LED) at 400-530 nm (Light intensity: 20 mW/cm²).

![Graph showing reaction rate vs. cerium content](image-url)