

A Layer by Layer Strategy for the TiO₂/Cu_xO/CeO₂ Hierarchical Structure Supported on Carbon Cloth as A Photocatalyst-Assisted Photothermal Catalyst with Fast Visible Light Response

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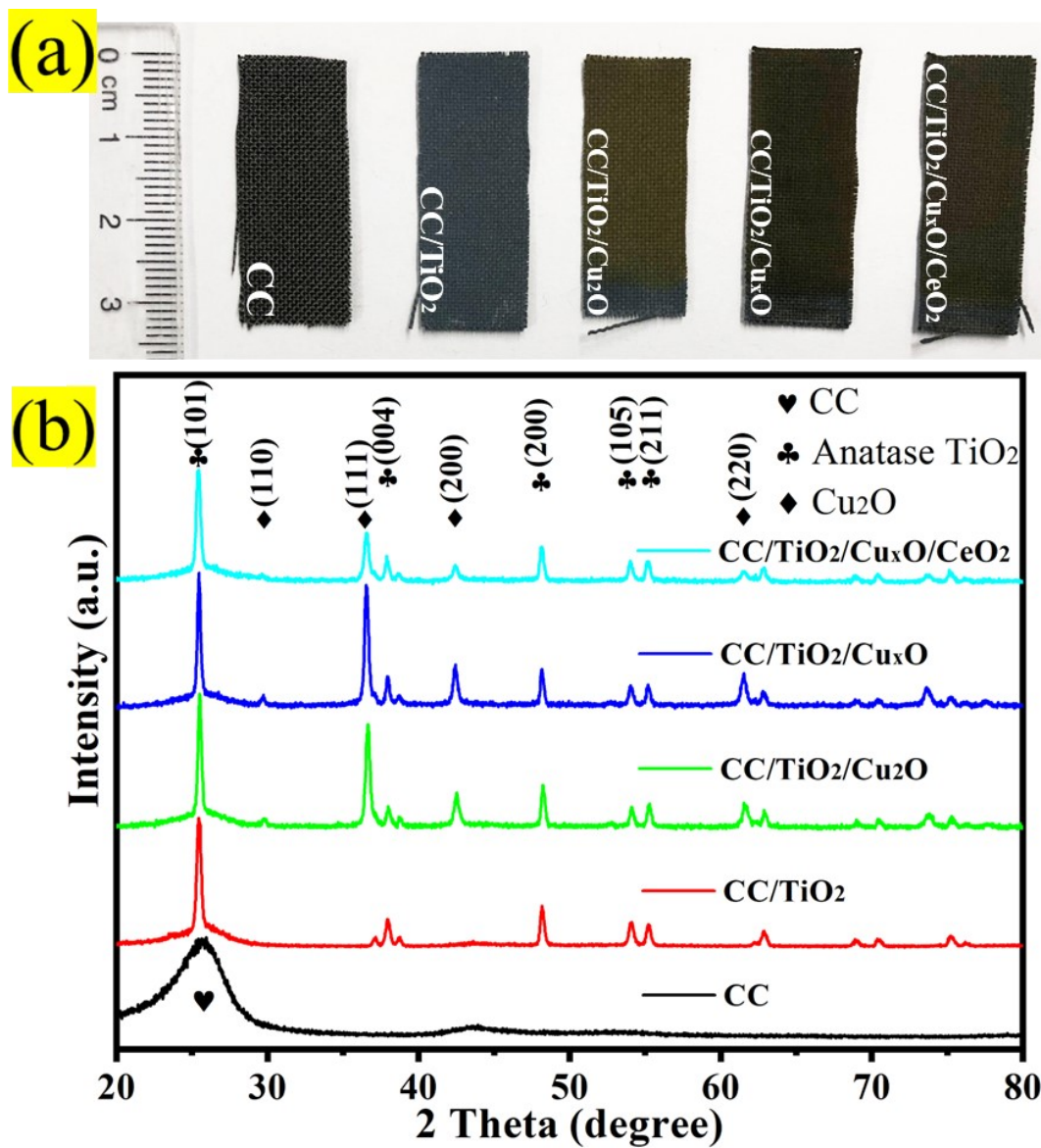


Figure S1. (a) Photos and (b) XRD patterns of CC, CC/TiO₂, TiO₂/Cu₂O, CC/TiO₂/Cu_xO, and CC/TiO₂/Cu_xO/CeO₂.

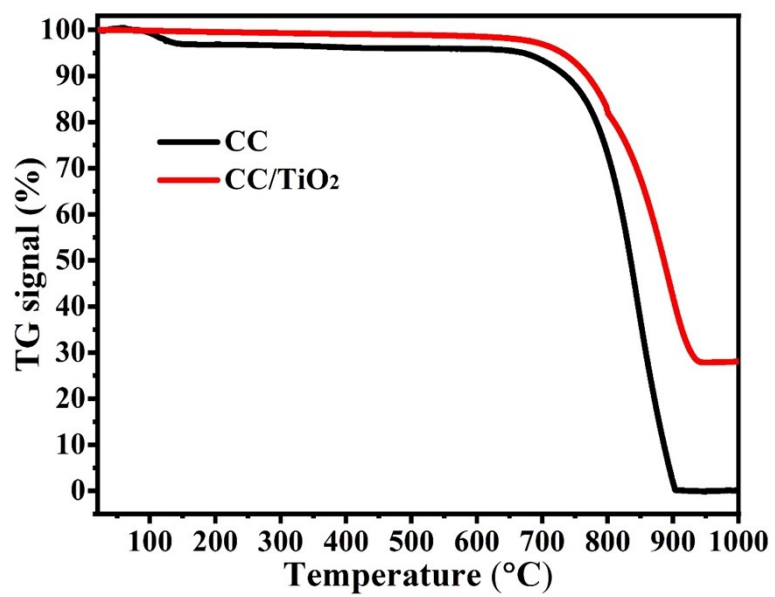


Figure S2. TG curves of CC and CC/TiO₂.

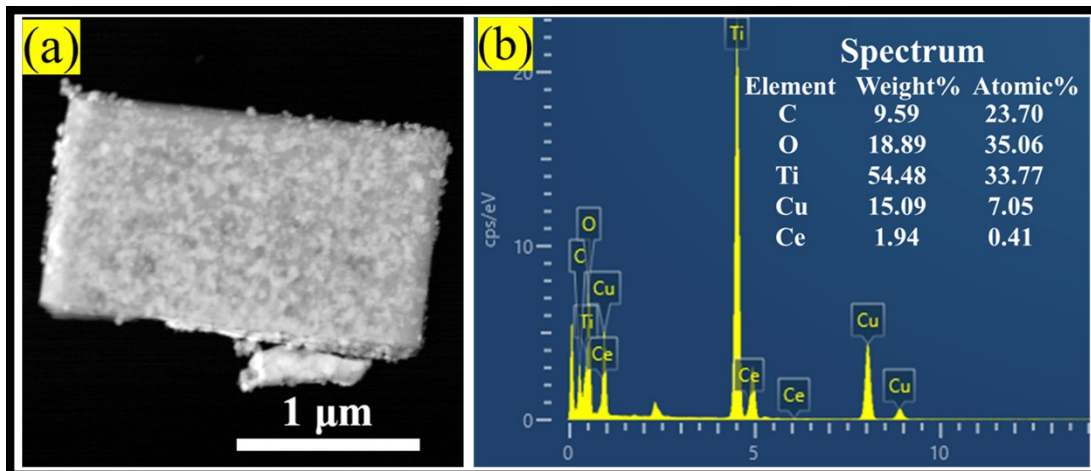


Figure S3. (a) Dark field TEM image, (b) EDS mapping spectrum of CC/TiO₂/Cu_xO/CeO₂.

Table S1. ICP-OES data of TiO₂/Cu₂O, CC/TiO₂/Cu_xO, and TiO₂/Cu_xO/CeO₂.

Sample	Ti (wt%)	Cu (wt%)	Ce (wt%)
CC/TiO₂/Cu₂O	15.4470	12.0342	—
CC/TiO₂/Cu_xO	14.9979	12.3343	—
CC/TiO₂/Cu_xO/CeO₂-100	15.4414	11.2320	0.1079
CC/TiO₂/Cu_xO/CeO₂-200	14.5520	9.6343	0.0969
CC/TiO₂/Cu_xO/CeO₂-300	14.1649	7.4602	0.0817
CC/TiO₂/Cu_xO/CeO₂-400	13.4082	9.3194	0.0724

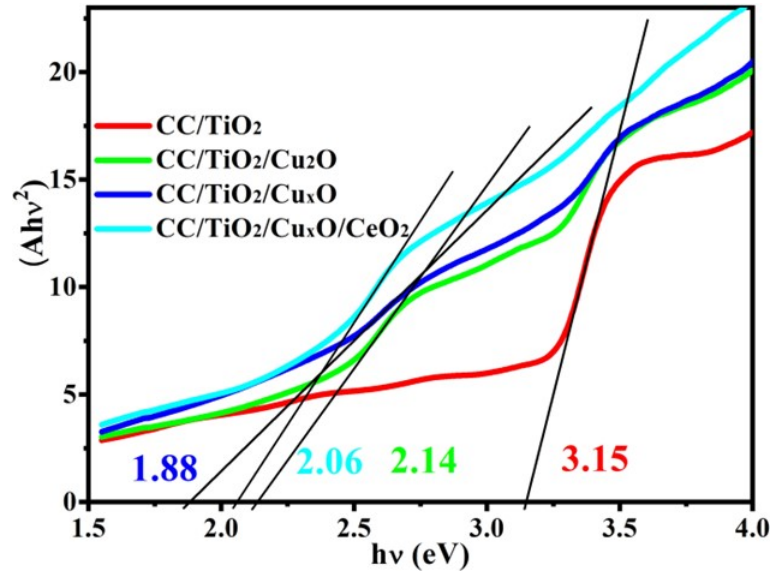


Figure S4. The plots of $(Ahv)^2$ vs. photo energy (A represents the absorbance) of CC/TiO₂ (red), CC/TiO₂/Cu₂O (green), CC/TiO₂/Cu_xO (blue), and CC/TiO₂/Cu_xO/CeO₂ (cyan).

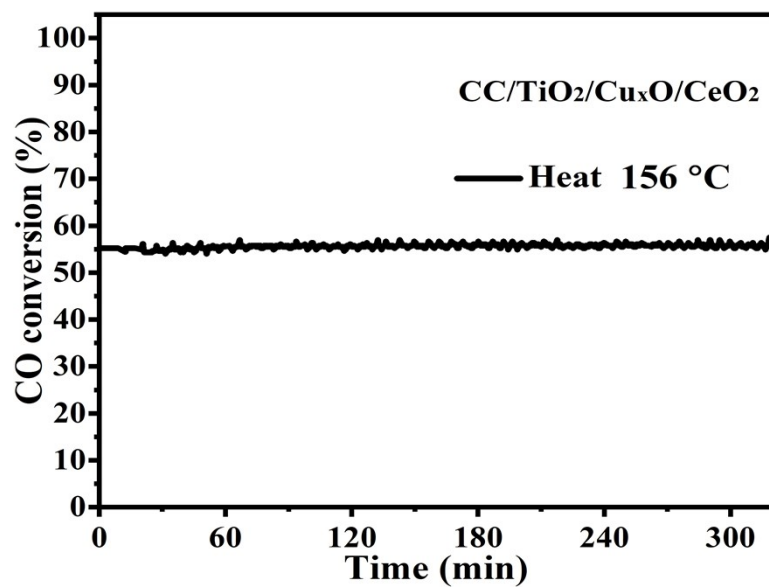


Figure S5. Thermal catalytic CO oxidation of CC/TiO₂/Cu_xO/CeO₂ for more than 6 h at 156 °C.

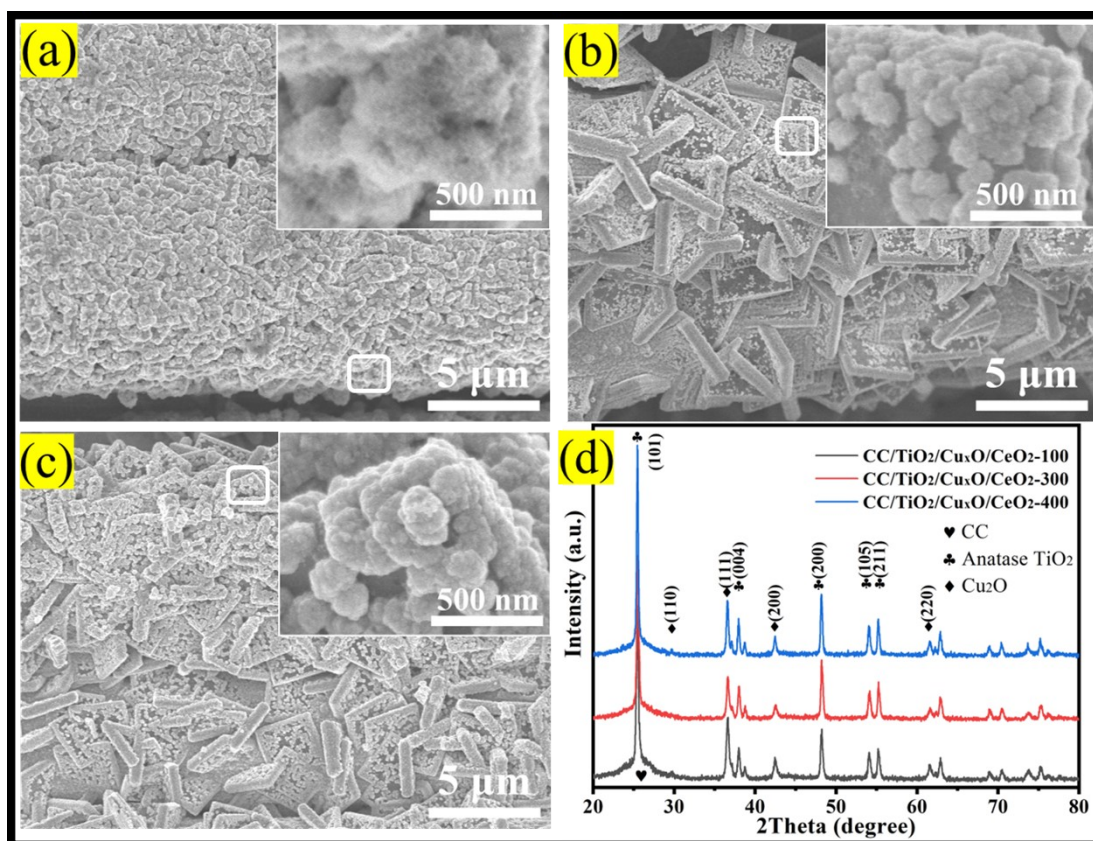


Figure S6. SEM images of (a) CC/TiO₂/Cu_xO/CeO₂-100, (b) CC/TiO₂/Cu_xO/CeO₂-300, (c) CC/TiO₂/Cu_xO/CeO₂-400, and (d) XRD patterns of three samples. Insets: the enlarged view of samples.

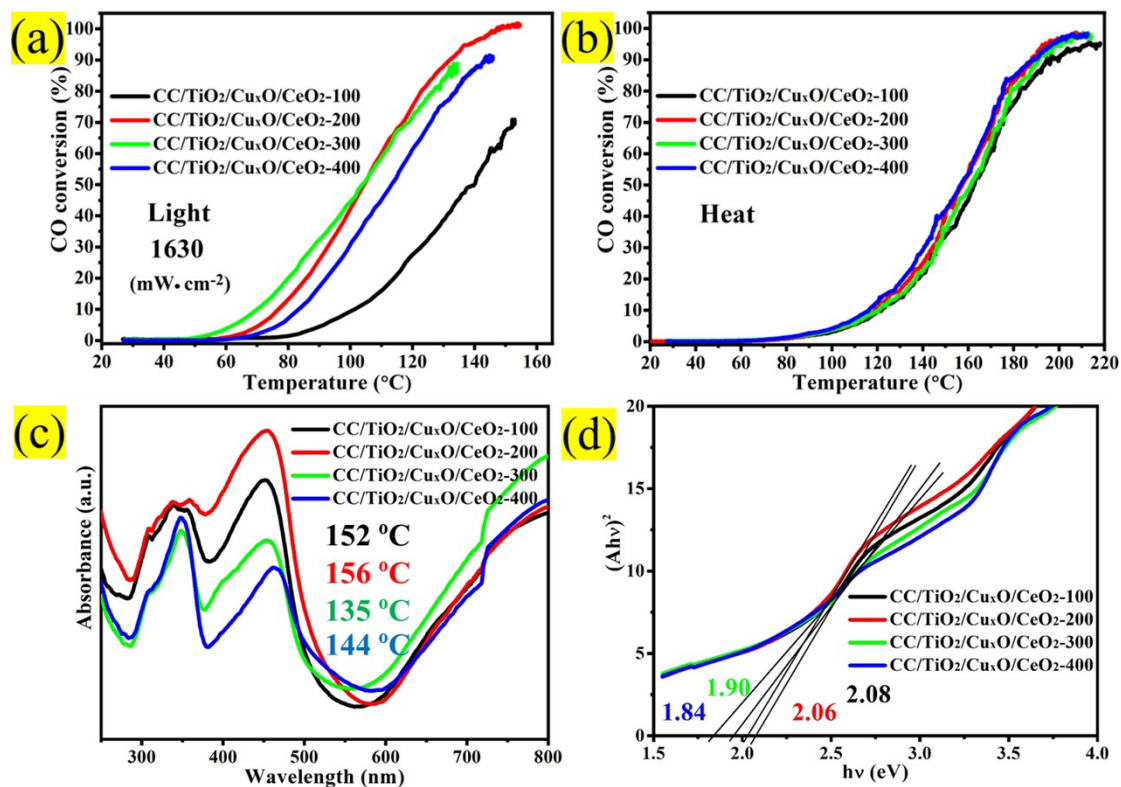


Figure S7. Catalytic CO oxidation curves (a) at 1630 mW cm⁻², (b) under heating, (c) UV-vis diffuse reflectance absorption spectra, and (d) plots of $(Ah\nu)^2$ vs photo energy of CC/TiO₂/Cu_xO/CeO₂-100, -200, -300, -400.