Supplementary Materials

In Tandem Control of La-Doping and CuO-Heterojunction on $SrTiO_3$ Perovskite by Double-Nozzle Flame Spray Pyrolysis: Selective H_2 *vs*. CH_4 Photocatalytic Production from H_2O/CH_3OH

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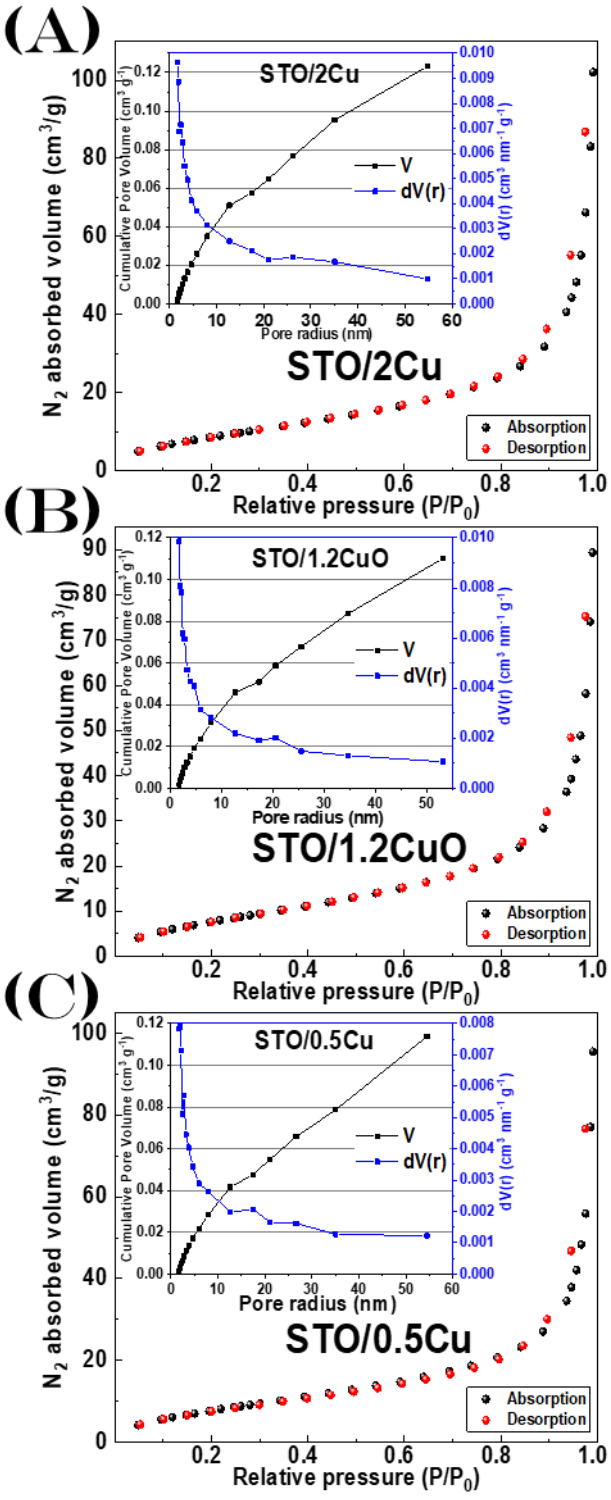


Figure S1. (A-C) N_2 adsorption-desorption isotherms of 2%, 1.2%, and 0.5% CuO materials, Inset: Pore size distribution plot using the BJH method.

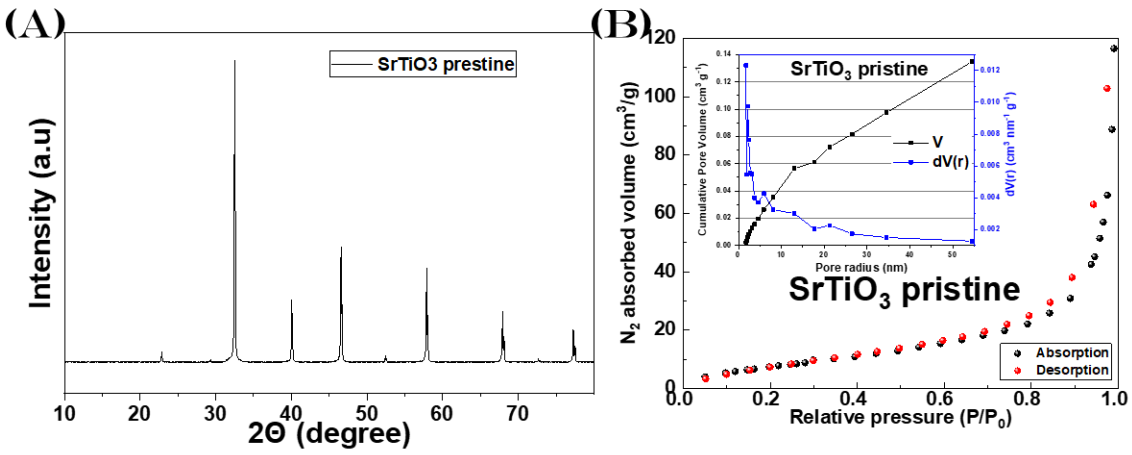


Figure S2. (A) XRD of the pristine $SrTiO_3$, (B) N_2 adsorption-desorption isotherms of pristine $SrTiO_3$, Inset: Pore size distribution plot using the BJH method.

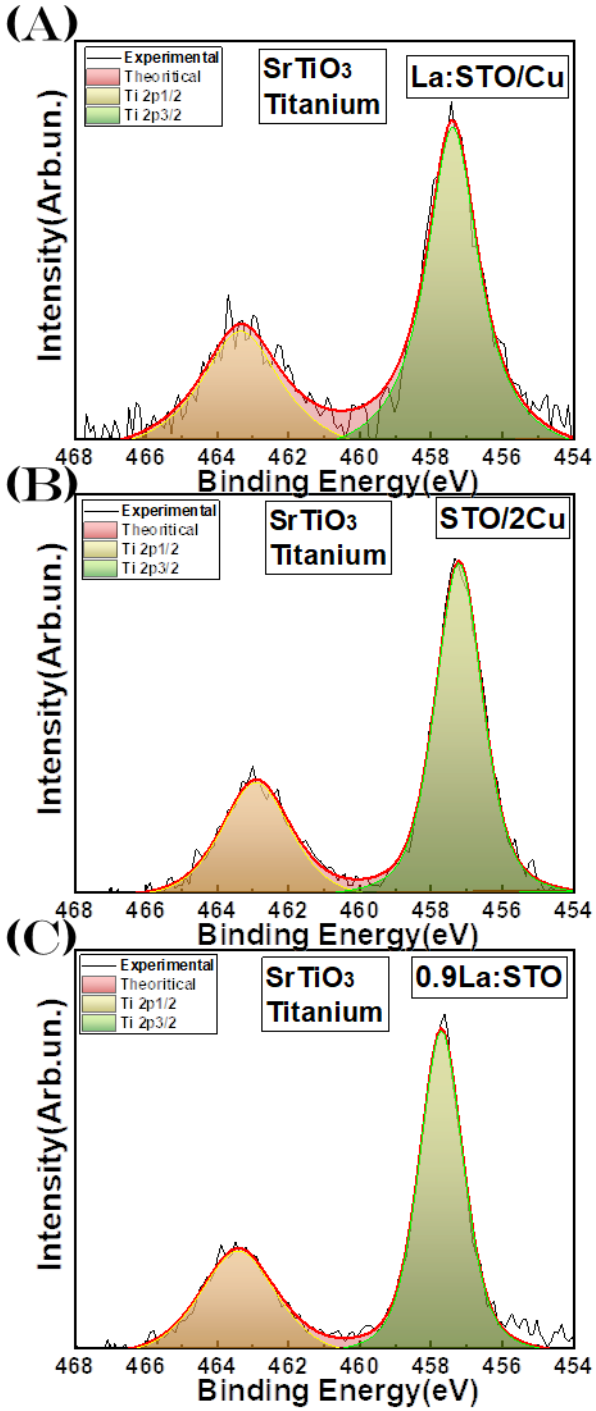


Figure S3. XPS data for the nanomaterials $SrTiO_3$ for the (A) 0.25%La + 0.5%Cu, (B) 2%Cu, (C) 0.9%La for the Ti binding energies.

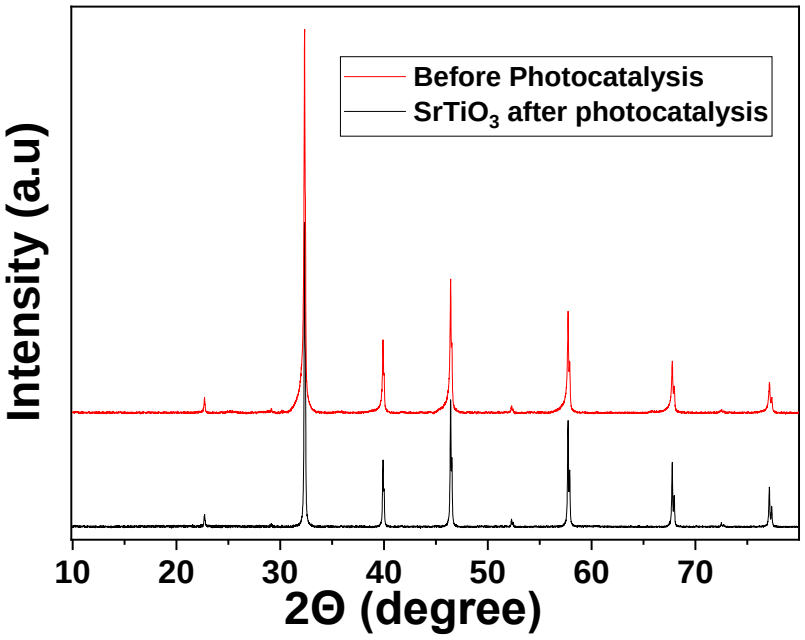


Figure S4. XRD data for the before and after photocatalysis.