Supplementary Information

Engineering n-p junction for photo-electrochemical hydrogen production

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Figure SI.1. UV-vis spectra for BaTiO$_3$ alone (orange), Cu/Cu$_2$O/CuO photoelectrode (blue) and Cu/Cu$_2$O/CuO/BaTiO$_3$ (green).
Figure SI.2. Nyquist diagrams measured at pH = 6 for unprotected EA 20–20 Cu/Cu$_2$O/CuO electrodes in the dark (a), under 3 sun visible-light irradiation (b) and BaTiO$_3$–protected EA 20–20 Cu/Cu$_2$O/CuO electrodes in the dark (c), under 3 sun visible–light irradiation (d). Experimental values are shown in red and the simulation with a Randles equivalent circuit in blue.

Figure SI.3. Faradic efficiency for bare electrode and TiO$_2$ and BaTiO$_3$ protected photoelectrodes.