Supporting Information

Defect structure and photovoltaic characteristics of internally stacked CuO/Cu_2O photoactive layer prepared by electrodeposition and heating

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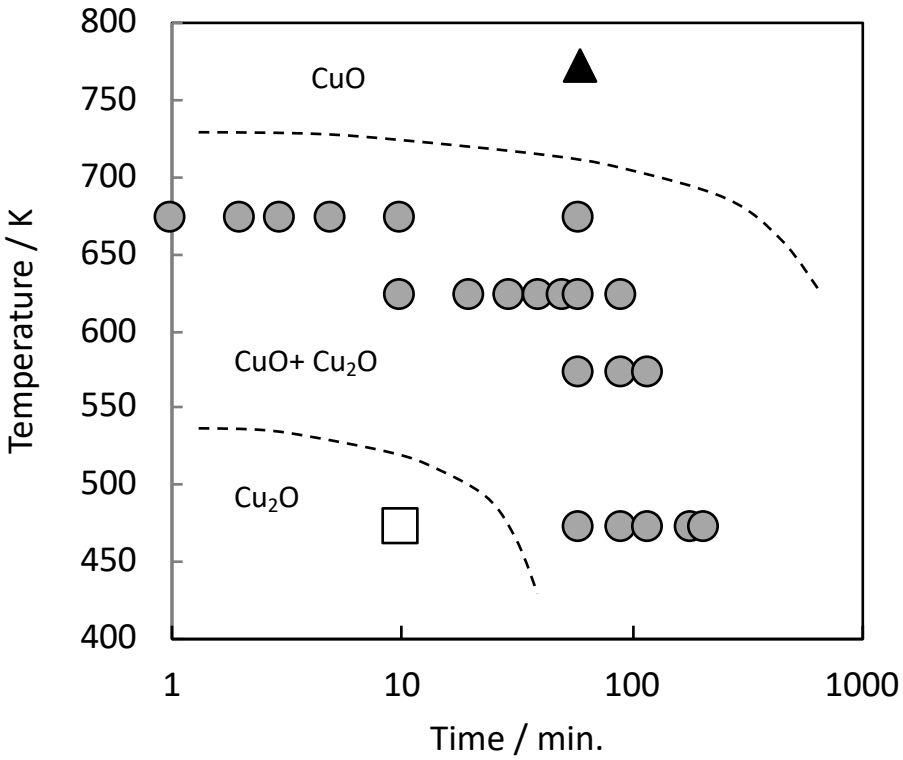

Figure S1 Effects of heating temperature and time on the phase structure of Cu_2O layer prepared by electrodeposition. The phase was identified with X-ray diffraction, absorption spectra, and SEM observation.

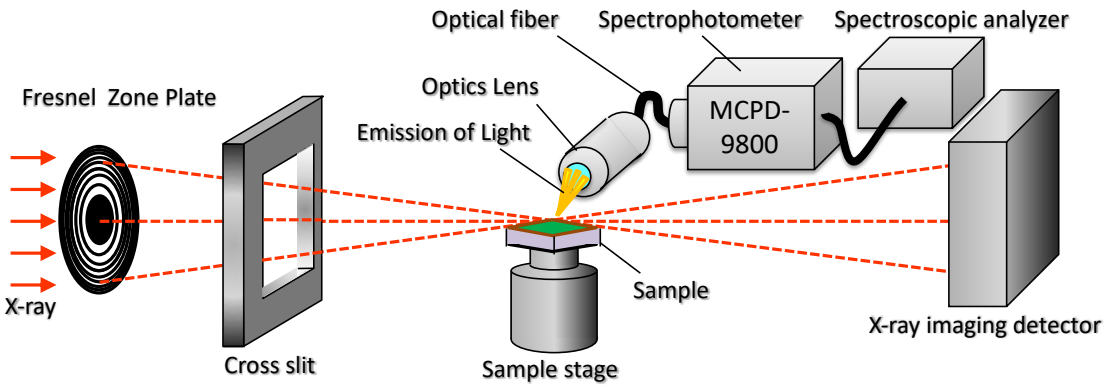

Figure S2 Schematic illustration of set-up at BL20XU in SPring-8 for Nano-scale x-ray tomography using the X-ray imaging detector and room temperature photoluminescence spectra measurements using the spectrophotometer.

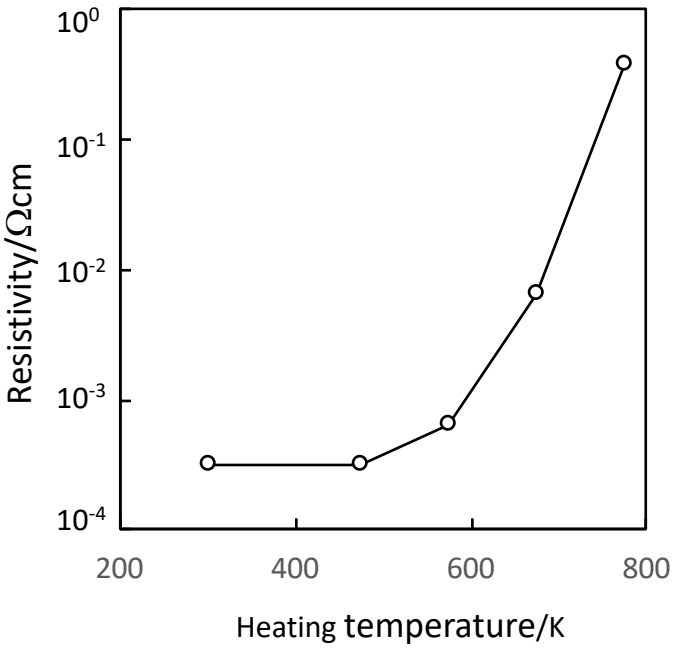

Figure S3 Effect of heating temperature in air on the resistivity estimated for the Ga:ZnO layer with a Hall-effect measurement system (Toyo-technica Resitest 8320)