



## **Supplementary Information for:**

## A Comparative study of (Cd,Zn)S buffer layers for Cu(In,Ga)Se<sub>2</sub> solar panels fabricated by chemical bath and surface deposition methods

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**Fig. S1** AES depth profile of (Cd,Zn)S thin films grown on ITO-coated glass substrates by the CBD (a) and CSD (b) processes.



**Fig. S2** The CIGS panel after the buffer layer deposition process (a). A small piece of the sample (b) was scraped from the panel by using a razor blade (dashed circle) for the EDX measurement.



**Fig. S3** TEM images of AZO/i-ZnO/(Cd,Zn)S/CIGS interfaces with buffer layers prepared by different methods (CBD – a; CSD – b). The energy-dispersive spectroscopy line-scans across the interfaces are also displayed on the right side.



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