Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A


# Supporting information

## A Chelating Effect in Hybrid Ink for Non-Vacuum-Processed $CuInSe_2$ Thin Films

Ara Cho, Hyunjoon Song, Jihye Gwak, Young-Joo Eo, Jae Ho Yun, SeJin Ahn and Kyunghoon Yoon

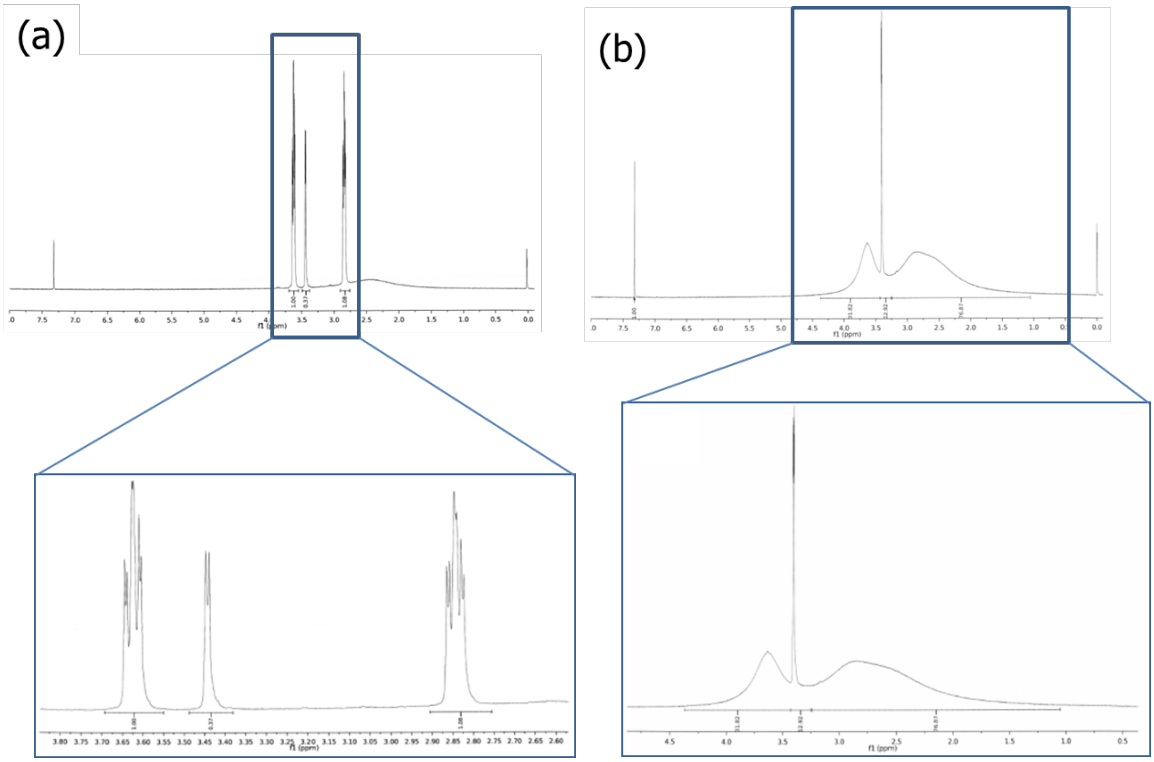


**Figure S1.** $^1$H NMR spectra of (a) In precursor and MEA solution and (b) the decanted solution of Cu-Se nanoparticle and MEA..

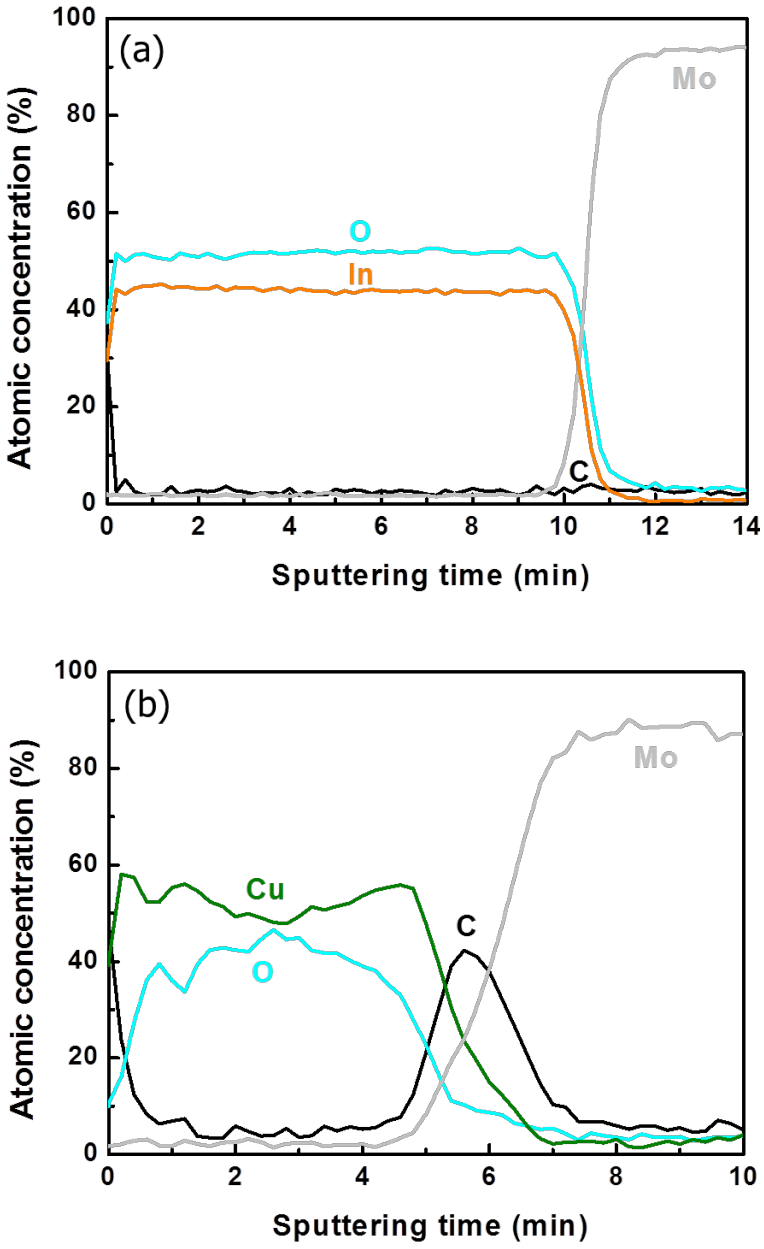


**Figure S2.** AES depth profiles of as-deposited (a) In-MEA precursor solution and (b) Cu-MEA precursor solution on Mo layer. The drying process was carried out in air.

| | *Cu (%)* | *Se (%)* | *Cu/Se* | *Cu in decanted solution (ppm)* |
|---|---|---|---|---|
| *Synthesized Cu-Se* | 59.31 | 40.69 | 1.46 | |
| *The 1st washed Cu-Se* | 54 | 46 | 1.17 | 9486.202 |
| *The 2nd washed Cu-Se* | 53.02 | 46.98 | 1.13 | 3898.323 |
| *The 3rd washed Cu-Se* | 52.81 | 47.19 | 1.12 | 444.561 |

**Table S1.** Cu and In contents of washed Cu-Se nanoparticles by MEA.