

Supporting Information

Table S1 Thickness of the Cu-Se thin films as function of Se layer thickness

Se layer thickness (nm)	70	80	90	100	110	120
Total thin film thickness (nm)	170	183	189	205	210	215

Table S2 The mobility of the thin films varied with the different composition ratios between Cu and Se.

Cu : Se	2.32:1	2.15:1	2.09:1	1.97:1	1.91:1	1.86:1
μ (cm ² /V·s)	9.14	4.63	2.73	1.27	1.09	1.09

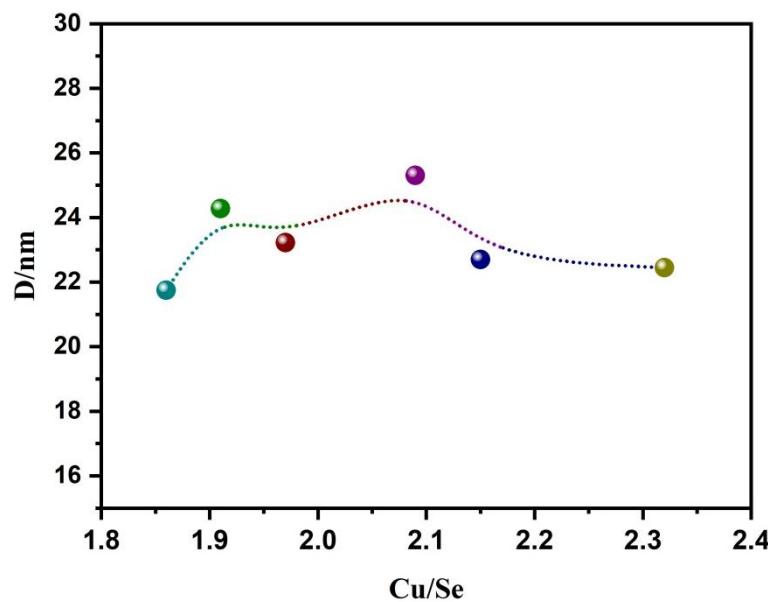


Fig. S1 The calculated grain size of the thin films varied with the different composition ratios between Cu and Se.