

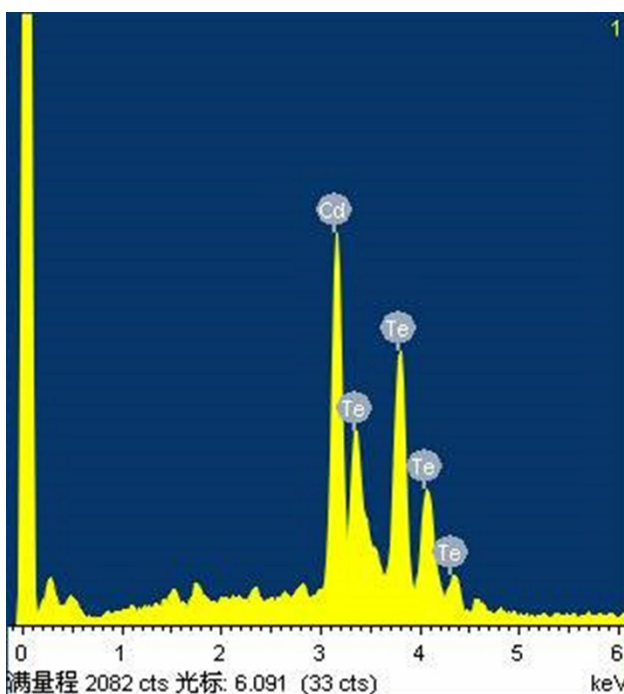
## Electronic Supplementary Information

### Alkaline electrolyte: Toward high-quality CdTe films with the assistance of strong complexing agent and organic base

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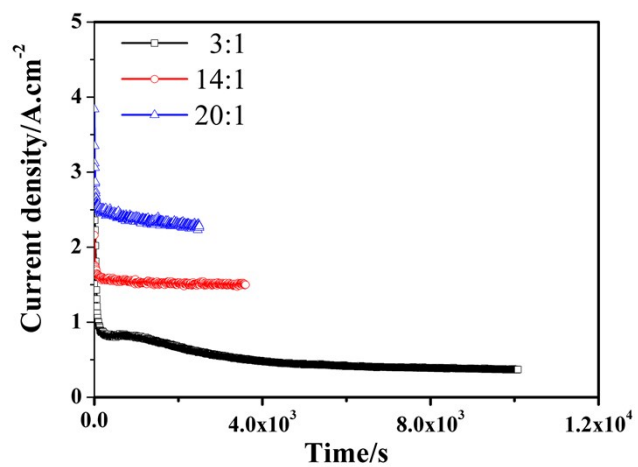
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**Fig. S1.** The EDS results of the CdTe film electrodeposited at -0.50 V at 80 °C from the solution with the complexing ratio of 14:1.

**Table S1.** The EDS data of the CdTe film electrodeposited at -0.50 V at 80 °C from the solution with the complexing ratio of 14:1.

element	Element	Intensity	Weight percent	Weight% Sigma	Atoms% percent
Cd L	4.44	1.0021	46.77	0.81	49.94
Te L	5.03	0.9969	53.23	0.81	50.06
Total			100.00		100



**Fig. S2.** The deposition current density-time curves of CdTe film from the solution with the complexing ratios of 3:1, 14:1, and 20:1, respectively.