

Electronic Supplementary Material for

**Effect of the impurities to the formation of inclusions and
 γ -ray detection properties of $\text{Cs}_3\text{Cu}_2\text{I}_5$ single crystal**

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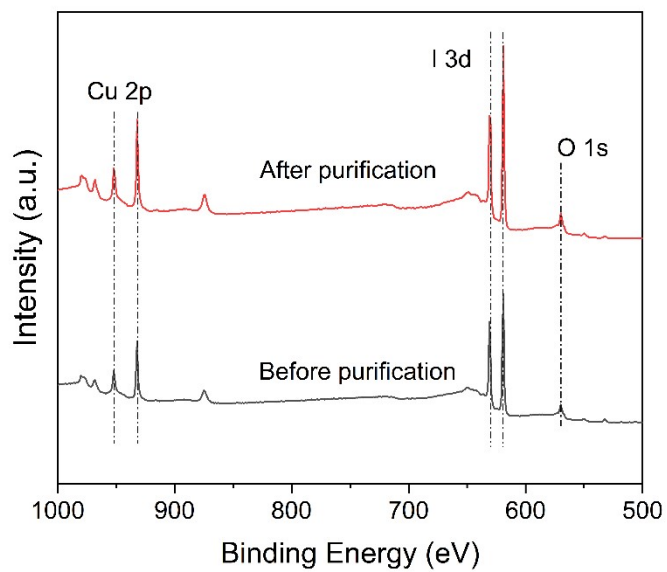


Fig. S1 XPS survey spectra of CuI raw materials before and after purification.

Table S1 Atomic ratio of CuI raw materials before and after purification

Sample	Cu atomic ratio (%)	I atomic ratio (%)	O atomic ratio (%)
Cs ₃ Cu ₂ I ₅ -raw	48.62	46.57	4.81
Cs ₃ Cu ₂ I ₅ -purified	49.33	48.70	1.97

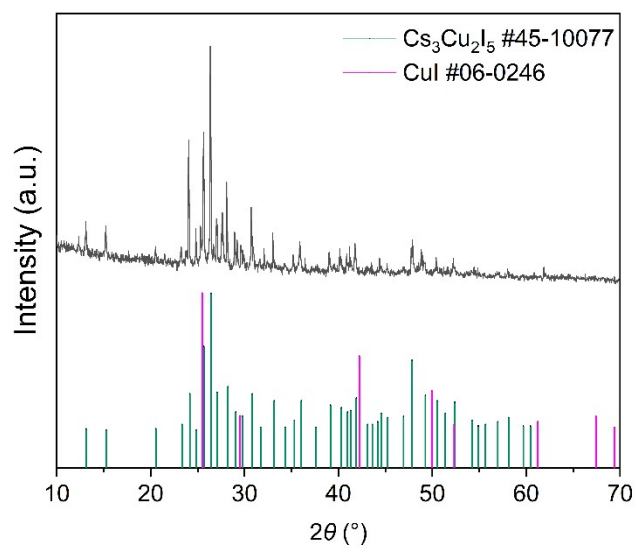


Fig. S2 XRD data of the tail section of the $\text{Cs}_3\text{Cu}_2\text{I}_5$ -raw zone melting ingot.

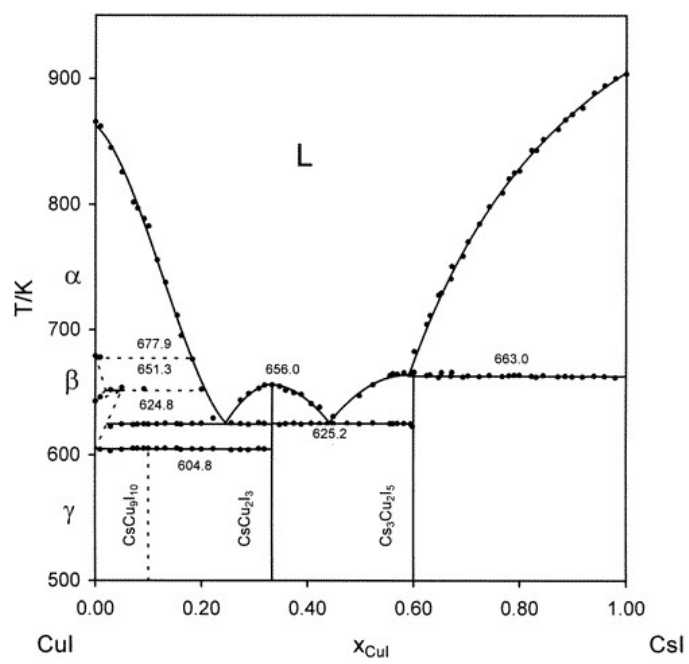


Fig. S3 CsI - CuI binary phase diagram.

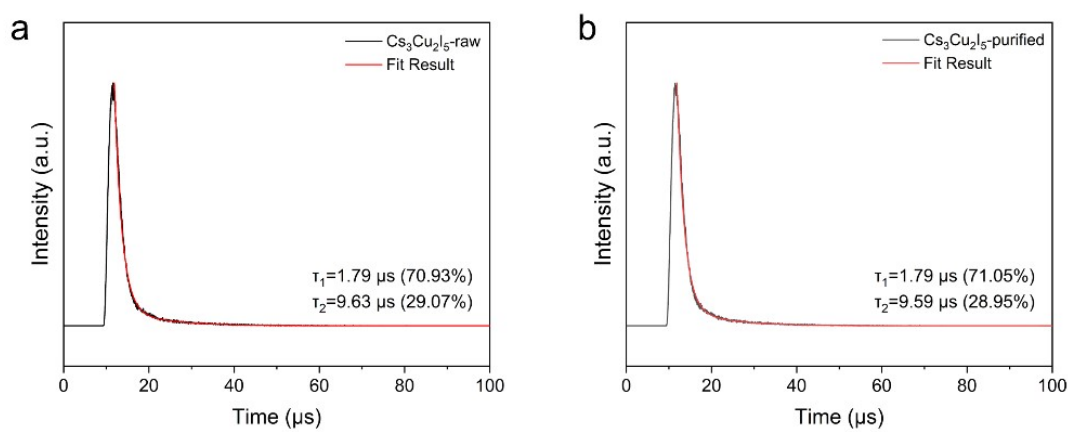


Fig. S4 Scintillation decay time of as-grown $\text{Cs}_3\text{Cu}_2\text{I}_5$ single crystal using (a) raw and (b) purified CsI under ^{137}Cs irradiation..