

## Supplementary Information

# Unravelling the chloride dopant induced film improvement in all-inorganic perovskite absorber

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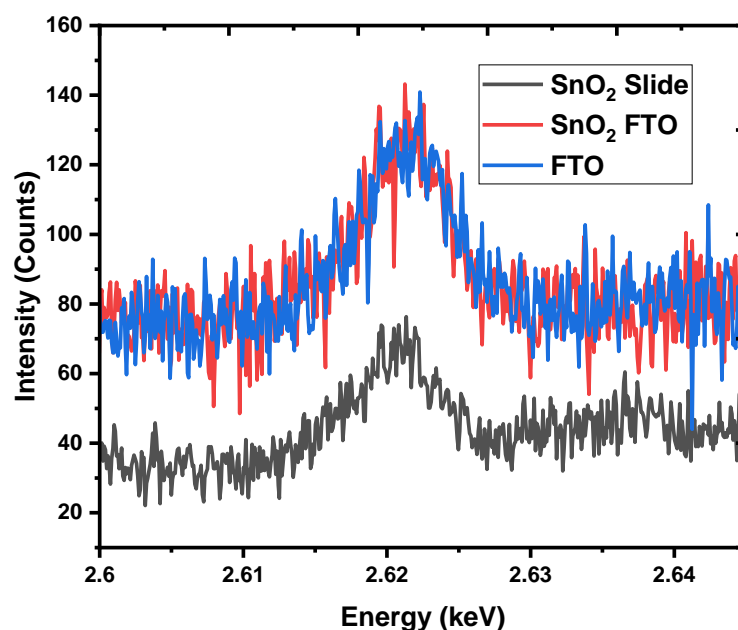


Figure S1. Cl K $\alpha$  WDX of Pilkington<sup>TM</sup> TEC15 FTO coated glass, and SnO<sub>2</sub> deposited on FTO. Also SnO<sub>2</sub> deposited directly onto a microscope slide was analysed.

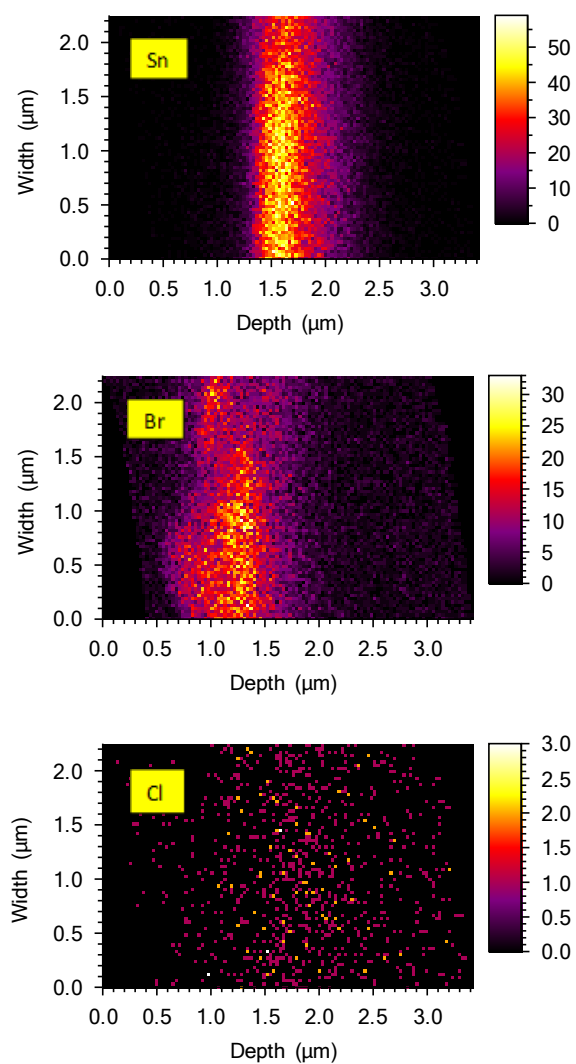


Figure S2 – Corrected cross section WDX ( $\text{Sn } L_{\alpha}$ ,  $\text{Br } L_{\alpha}$  and  $\text{Cl } K_{\alpha}$ ) plots of signal over distance for the undoped  $\text{CsPbI}_2\text{Br}$  film on  $\text{SnO}_2$  coated FTO. Br representing the perovskite layer, Sn for the  $\text{SnO}_2$  and FTO layers, and probing chlorine across these layers.

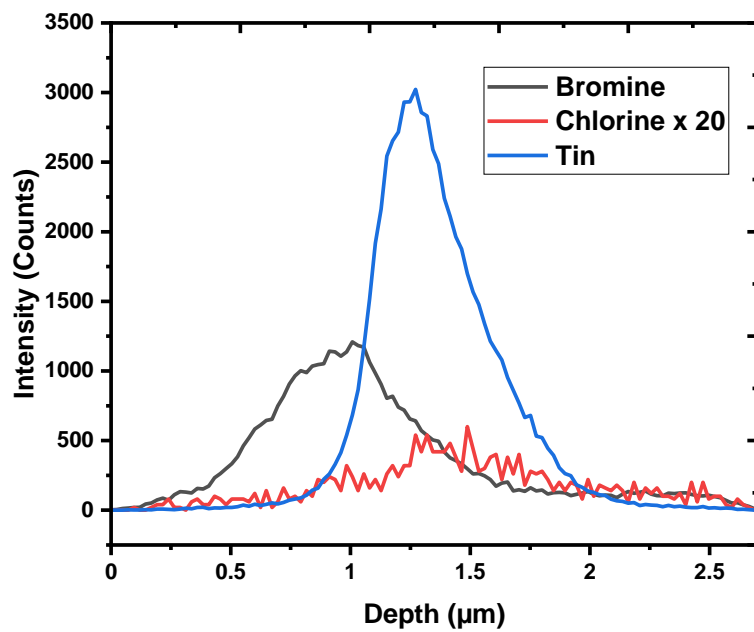


Figure S3 – Linescan of signal for each element across the depth of the cross-section WDX, with chlorine signal multiplied by 20.