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## **Supplementary information**

## Passivation of Triple Cation perovskites using Guanidinium Iodide in inverted solar cells for improved open-circuit voltage and stability

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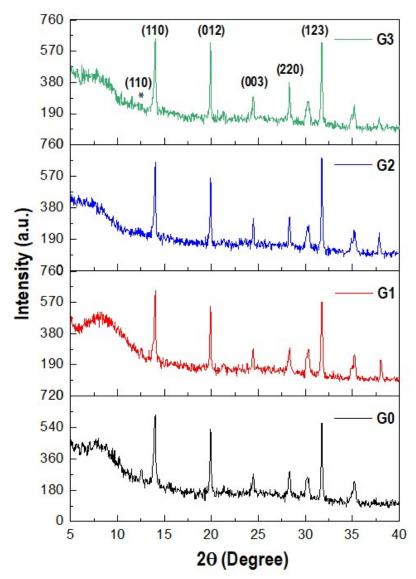


Fig. S1. XRD spectra of perovskite with different GUAI loading conditions prepared on ITO/glass (\* represents  $PbI_2$ )

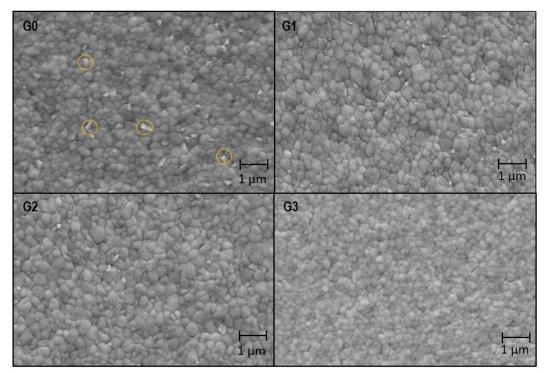


Fig. S2. SEM images of perovskite with different GUAI loading conditions prepared on an ITO/glass substrate

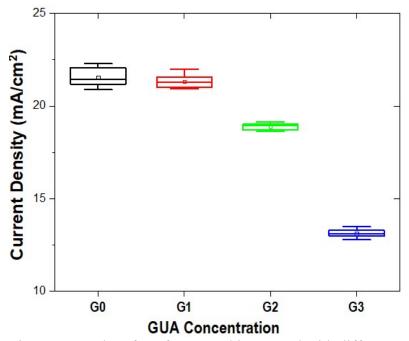


Fig. S3. Box plot of  $J_{SC}$  for perovskite control with different GUAI loading conditions

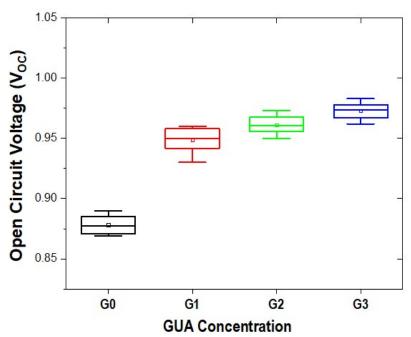


Fig. S4. Box plot of V<sub>OC</sub> for perovskite control with different GUAI loading conditions

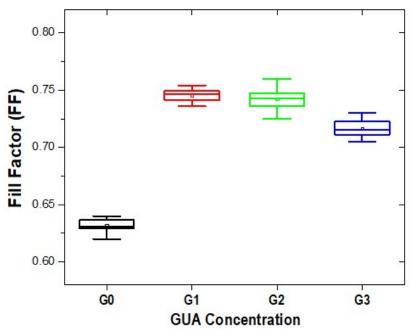


Fig. S5. Box plot of FF for perovskite control with different GUAI loading conditions

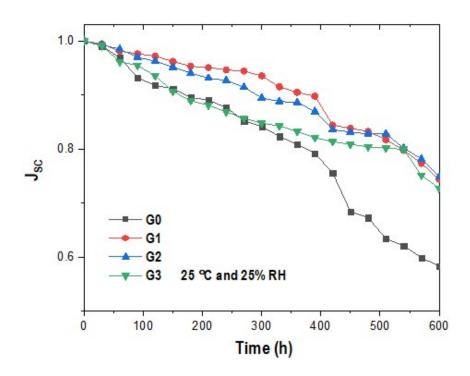


Fig. S6. J<sub>SC</sub> decay of perovskite control device with different GUAI loading conditions

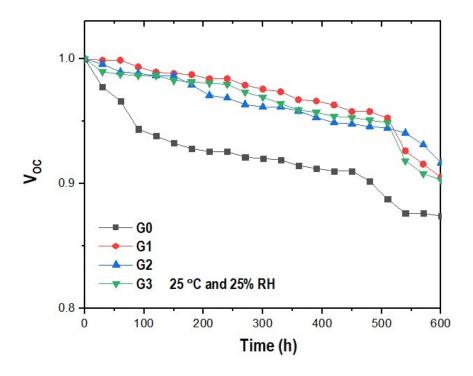


Fig. S7. V<sub>OC</sub> decay of perovskite control device with different GUAI loading conditions

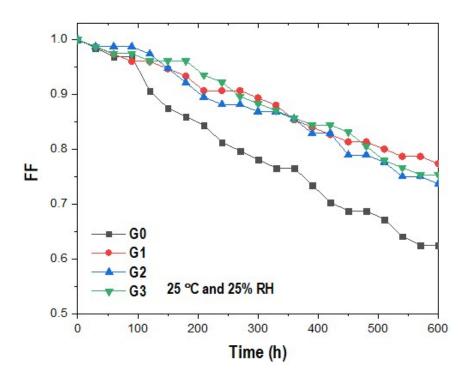


Fig. S8. FF decay of perovskite control device with different GUAI loading conditions