

Supporting Information

Outdoor Performance and Thermally Accelerated Degradation of Inverted Perovskite Solar Cells

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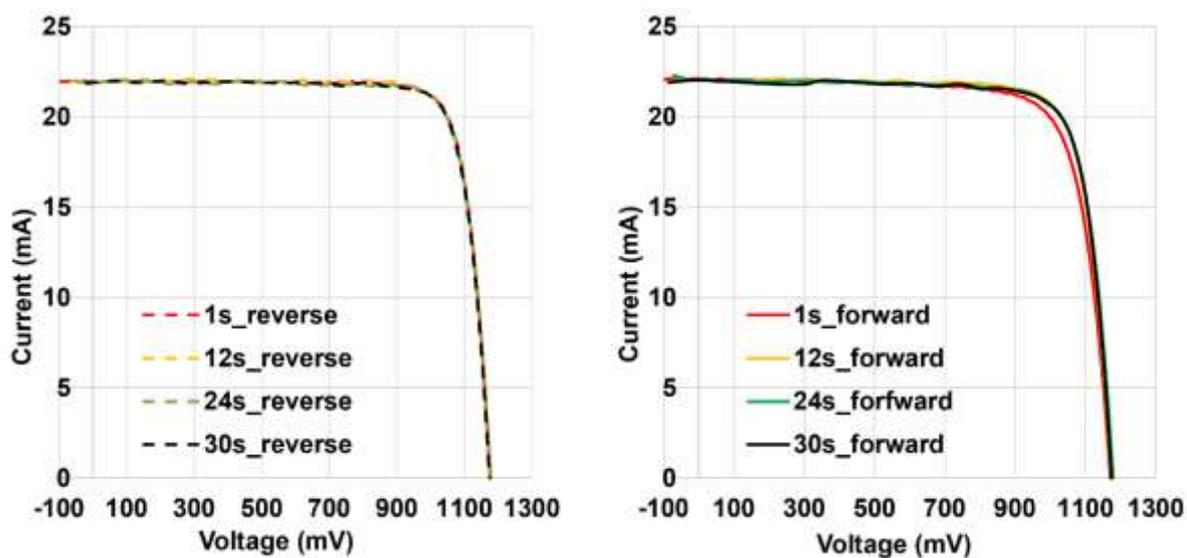


Figure S1. Initial PSC performance measured via indoor tests.

Table S1. Initial PSC performance parameters.

		J_{sc} (mA/cm ²)	V_{oc} (mV)	FF	η (%)
Masked	Forward	22.0	1174.8	0.81	20.9
1 cm ²	Reverse	21.9	1174.8	0.83	21.4
Unmasked	Forward	25.2	1184.1	0.79	23.6
1.26 cm ²	Reverse	25.0	1183.6	0.82	24.2

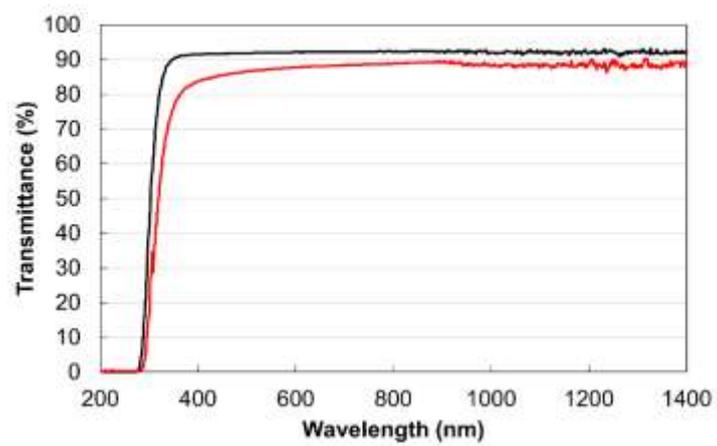


Figure S2. Transmittance of the NiO_x layer.

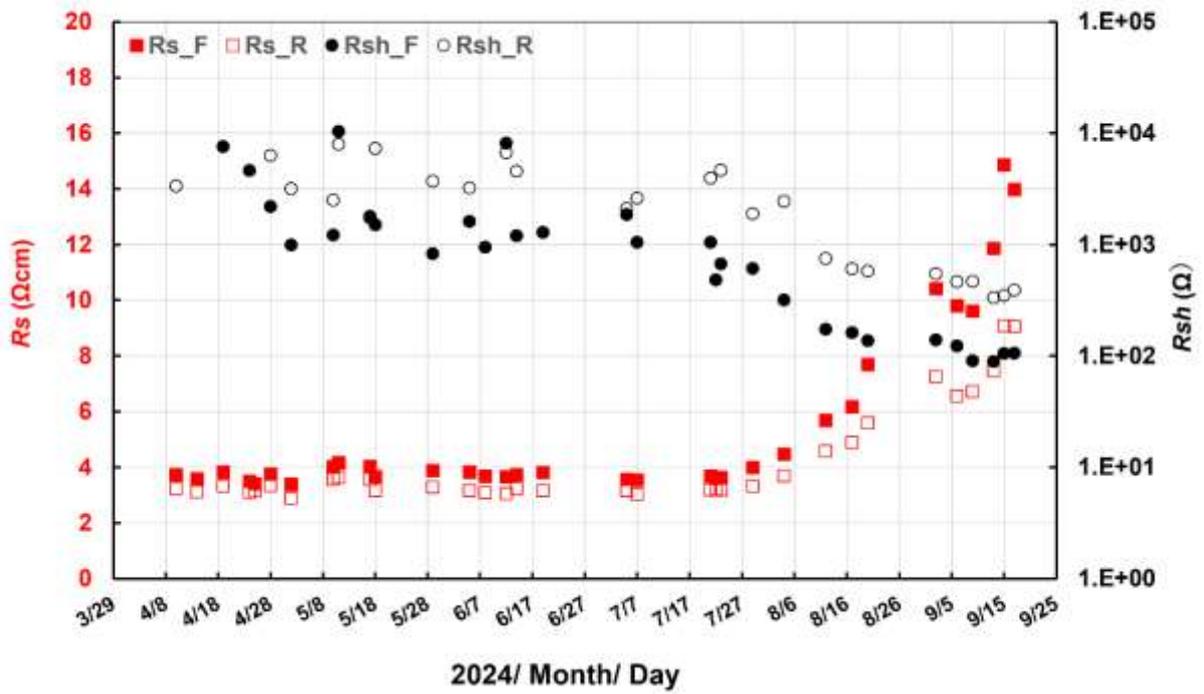


Figure S3. Variations in R_{sh} and R_s of the degraded PSCs.

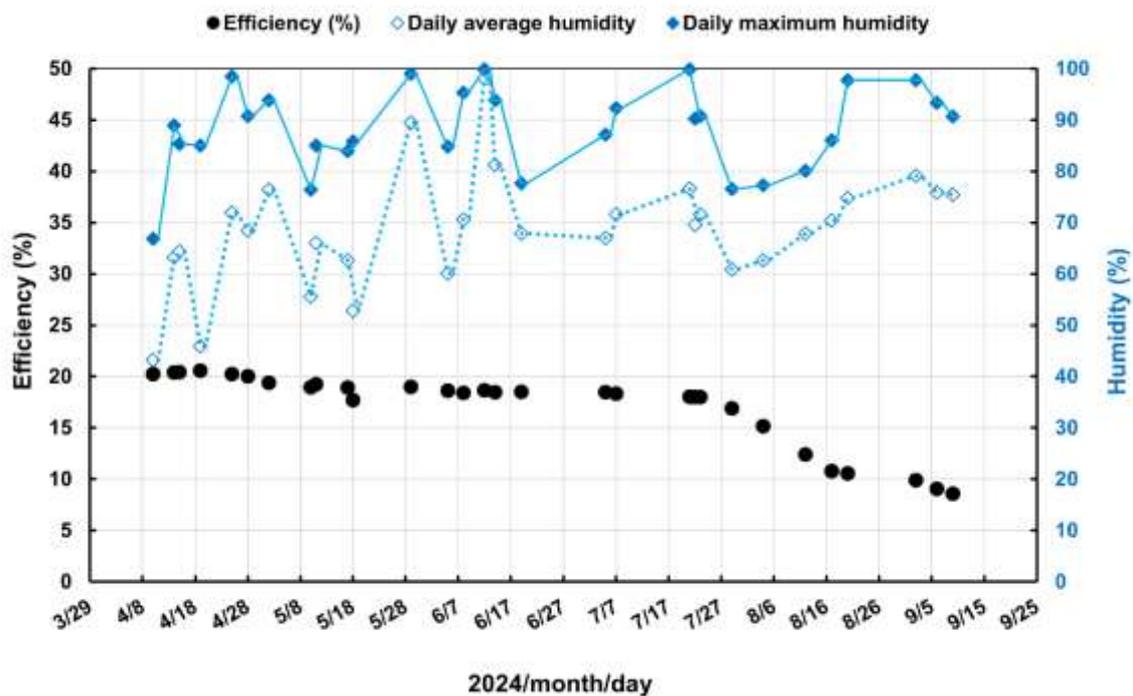


Figure S4. Comparison of humidity and efficiency degradation.

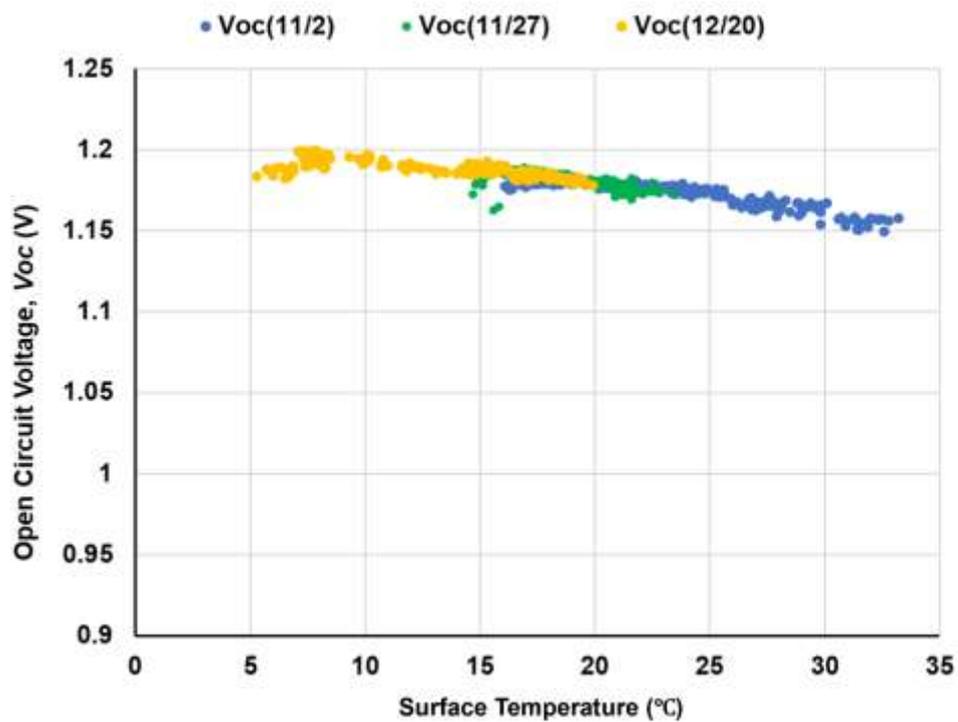


Figure S5. V_{oc} as a function of surface temperature.

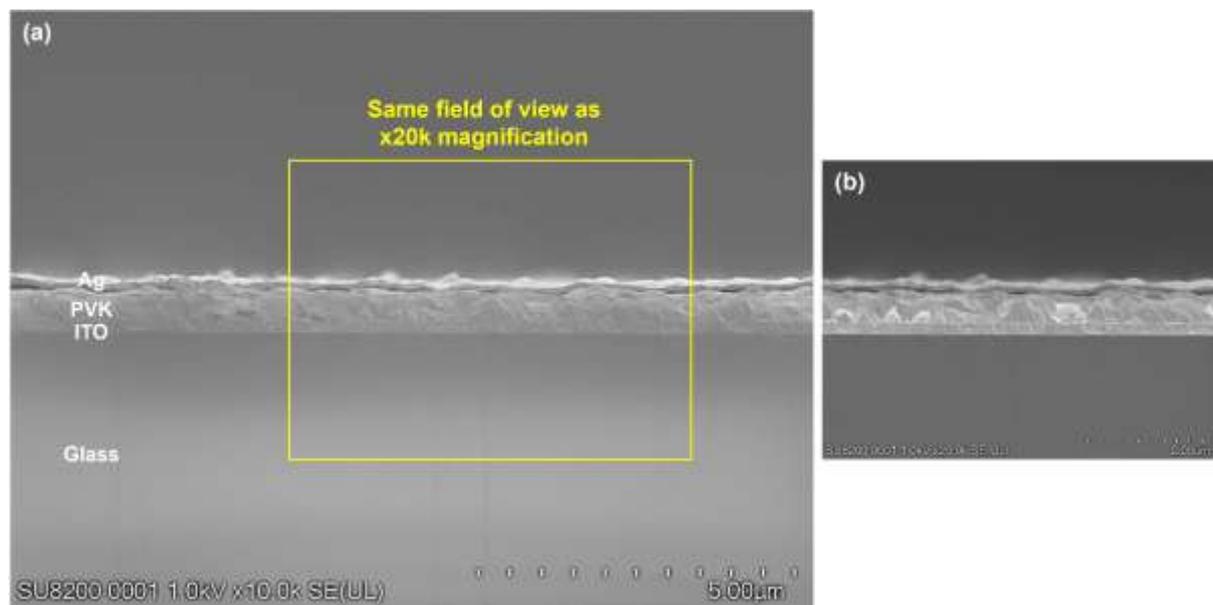


Figure S6. Comparison of the same field of cross-sectional SEM images at different magnifications.

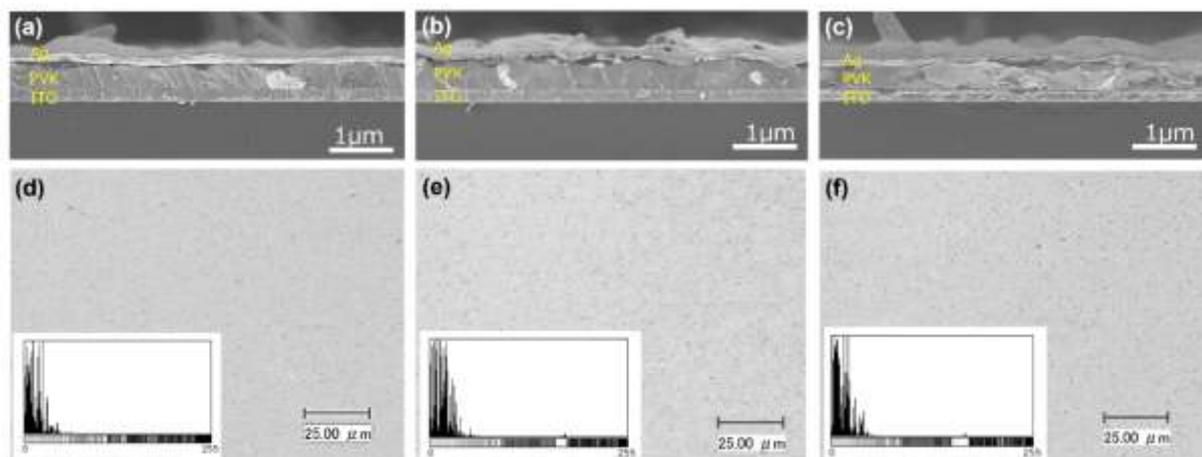


Figure S7. Cross-sectional SEM images (a–c) and OM images (d–f) of dark/open, light/open, and dark/short conditions

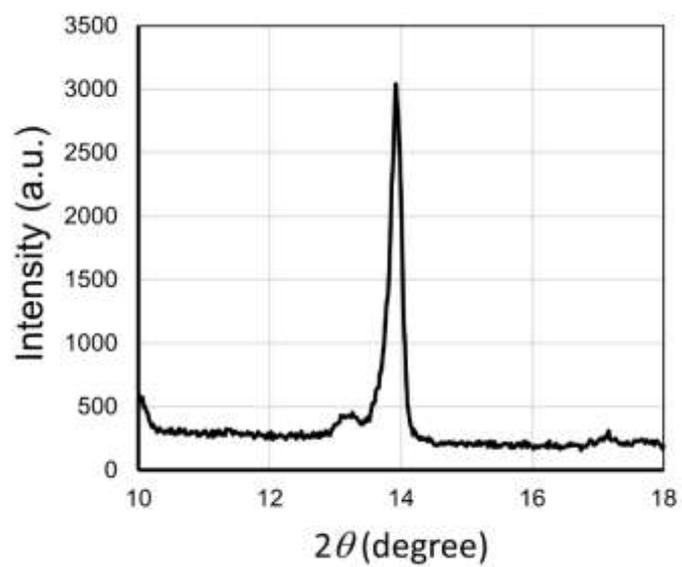


Figure S8. XRD patterns of the outdoor-degraded sample.