Supporting Information

Remarkable Long-Term Stability of Nanoconfined MAPbI$_3$ against Humidity-Induced Degradation and Polymorph Transitions

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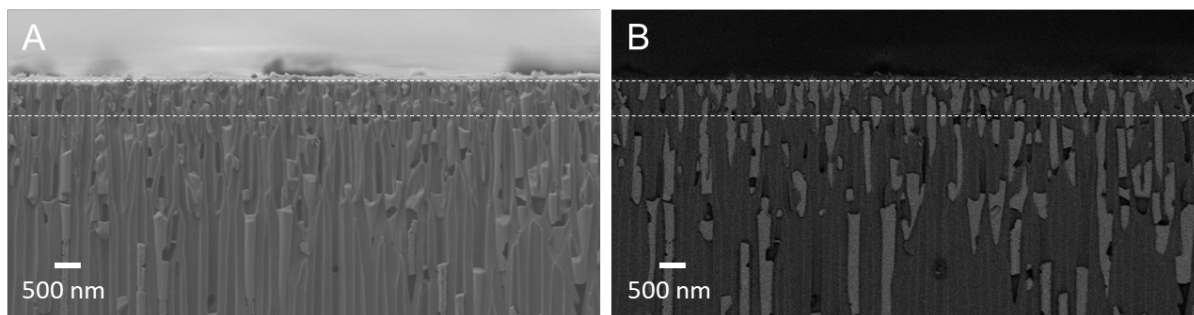e-mail address: stephanie.lee@stevens.edu (Stephanie S. Lee)

Figure S1. SEM images of infiltrated commercial Whatman AAO templates collected in a) secondary electron and b) backscattering mode.
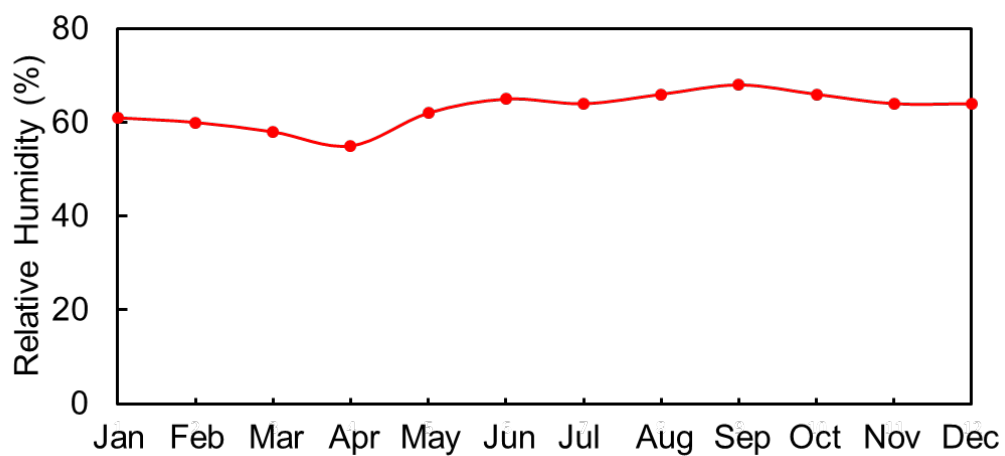

Figure S2. The average monthly relative humidity over the year in Hoboken, NJ. Data from nearest weather station in New York.[1]
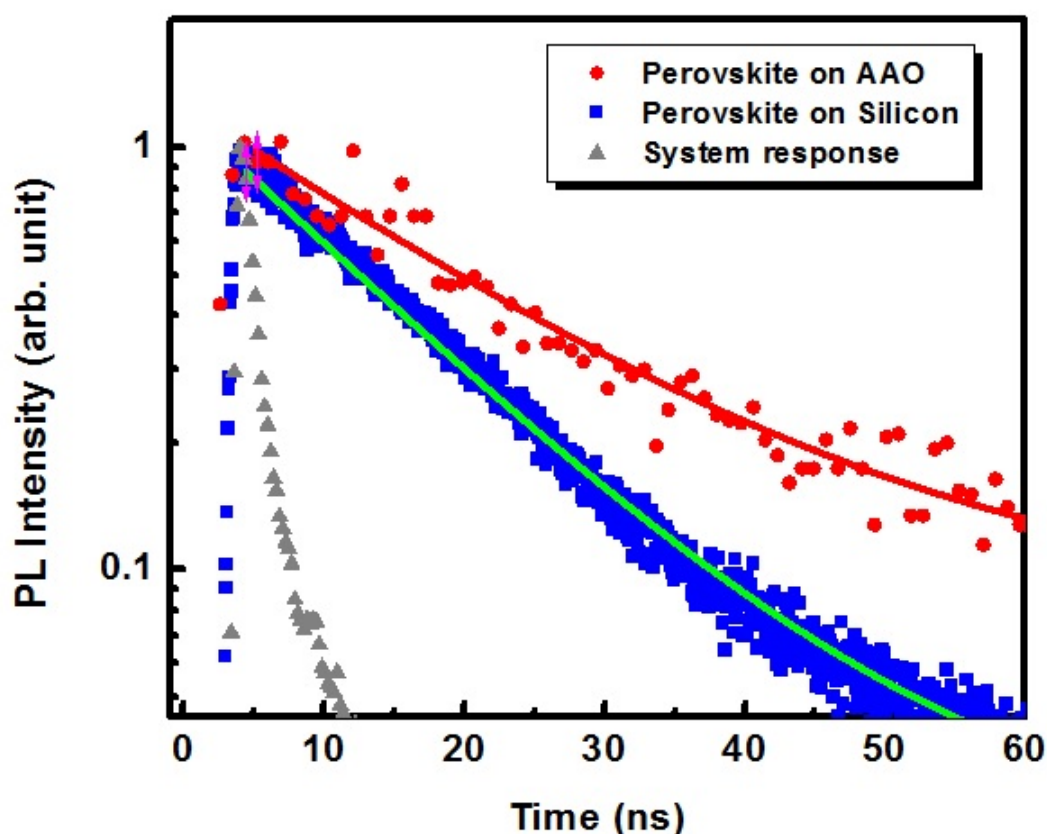
Figure S3. Photoluminescence intensity as a function of delay time recorded by time-correlated single photon counting (TCSPC). Laser excitation was carried out at 405 nm and 7 µW excitation power. Gray triangles: System response for back-reflected laser light. Blue squares: Data for the perovskite film on silicon substrate. Solid green line: Decay fit which yields a mono-exponential decay time of 13.8 ns. Red circles: Data from nanoconfined perovskite on AAO substrate. Solid red line is a mono-exponential fit which yields a decay time of 18.8 ns. All data was recorded at room temperature.

References

1   Average monthly humidity in Hoboken, United States of America, https://weather-and-climate.com/average-monthly-Humidity-perc,hoboken-new-jersey-us,United-States-of-America, (accessed 29 March 2018).