Article

Generation of Hybrid Lead Halide $CH_3NH_3PbI_{3-x}Cl_x$ Perovskite Crystals via Convective Self-Assembly

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Figure S1. SEM micrograph depicting a large hybrid lead halide $CH_3NH_3PbI_{3-x}Cl_x$ perovskite crystals obtained via CSA at 17 °C and a deposition speed of only 10 µm/s.

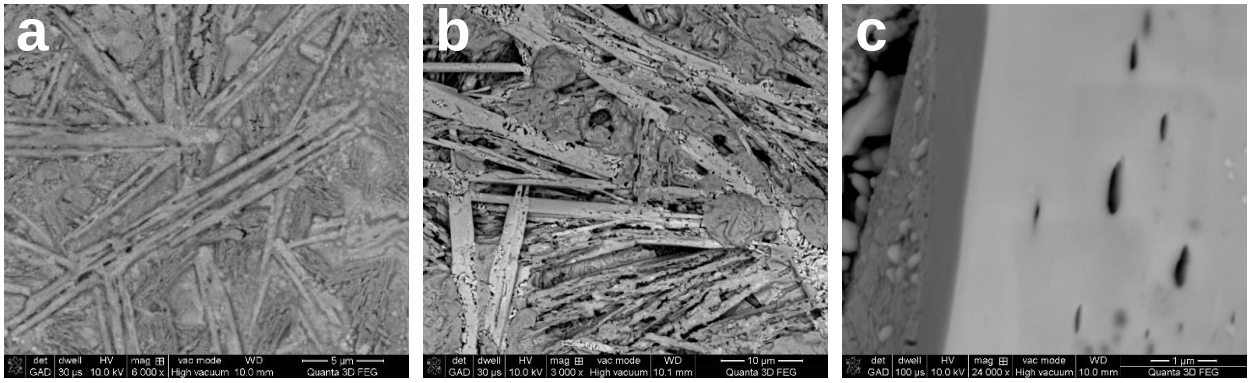

Figure S2. SEM micrographs depicting hybrid lead halide perovskite $CH_3NH_3PbI_{3-x}Cl_x$ films prepared at 17 °C by spin-coating (a) and CSA (b, c) at both high (*i.e.*, 1000 μm/s) (b) and low (*i.e.*, 10 μm/s) (c) deposition speeds.

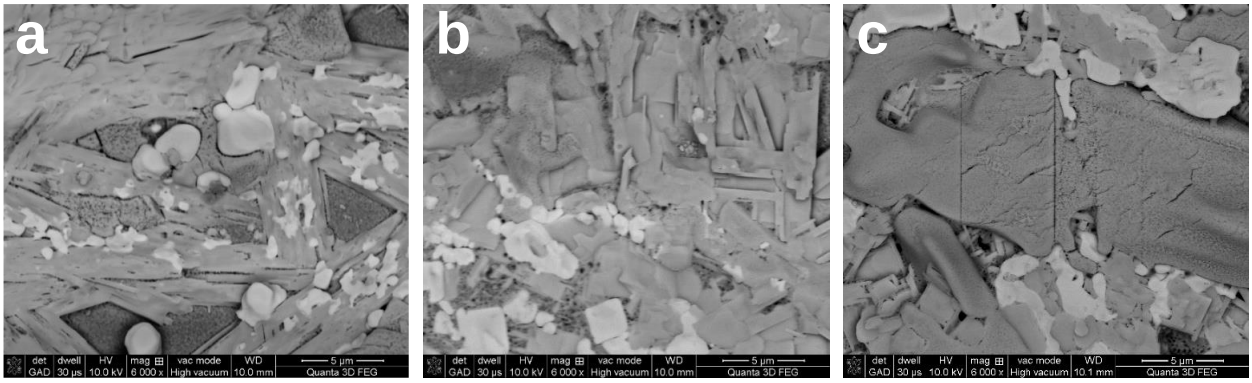

Figure S3. SEM micrographs depicting hybrid lead halide perovskite $CH_3NH_3PbI_{3-x}Cl_x$ films prepared at 30 °C by spin-coating (a) and CSA (b, c) at both high (*i.e.*, 1000 μm/s) (b) and low (*i.e.*, 10 μm/s) (c) deposition speeds.

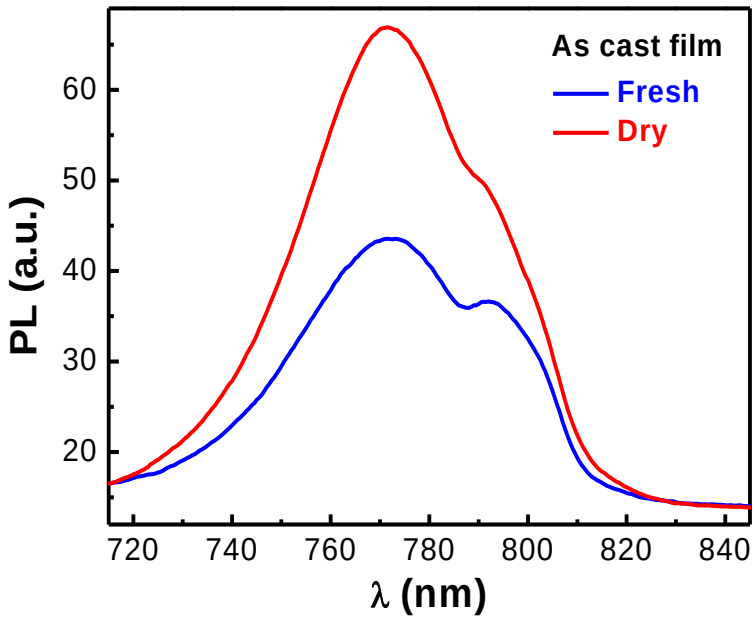

Figure S4. PL spectra depicting the emission properties of a perovskite film freshly obtained by spin coating a perovskite solution priorly kept at 17 °C and after its complete drying (*i.e.*, 120 minutes).