electronics

Supplementary Materials: Enhanced Photoresponsivity of All-Inorganic ($CsPbBr_3$) Perovskite Nanosheets Photodetector with Carbon Nanodots (CDs)

Hassan Algadi, Chandreswar Mahata, Janghoon Woo, Minkyu Lee, Minsu Kim and Taeyoon Lee *

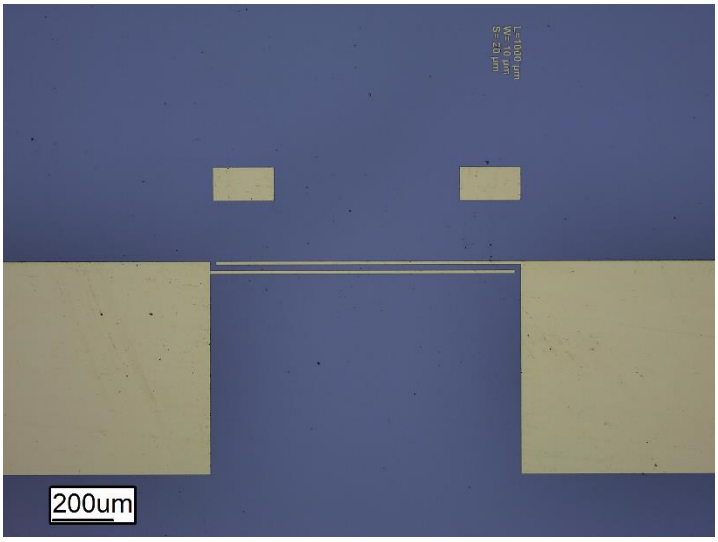

Figure S1. Optical image of the device structure with a channel length and width of 20 and 1000 μm, respectively.

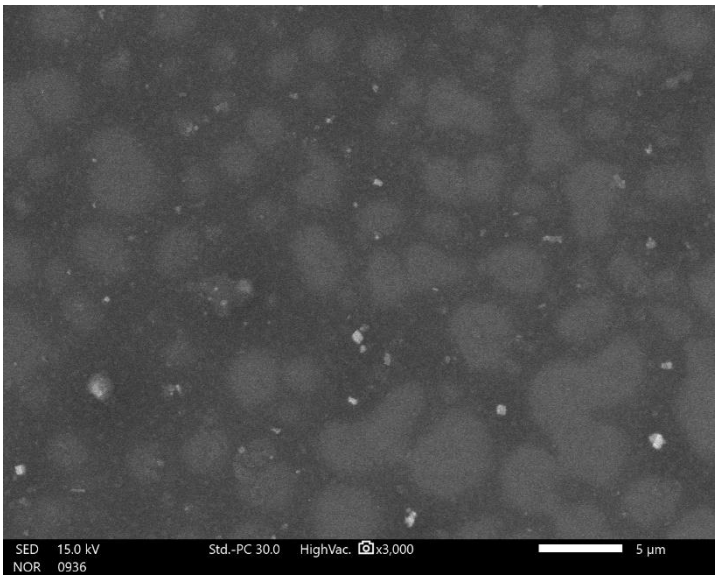

Figure S2. Cross-sectional SEM image of the device structure showing thickness of composite film.

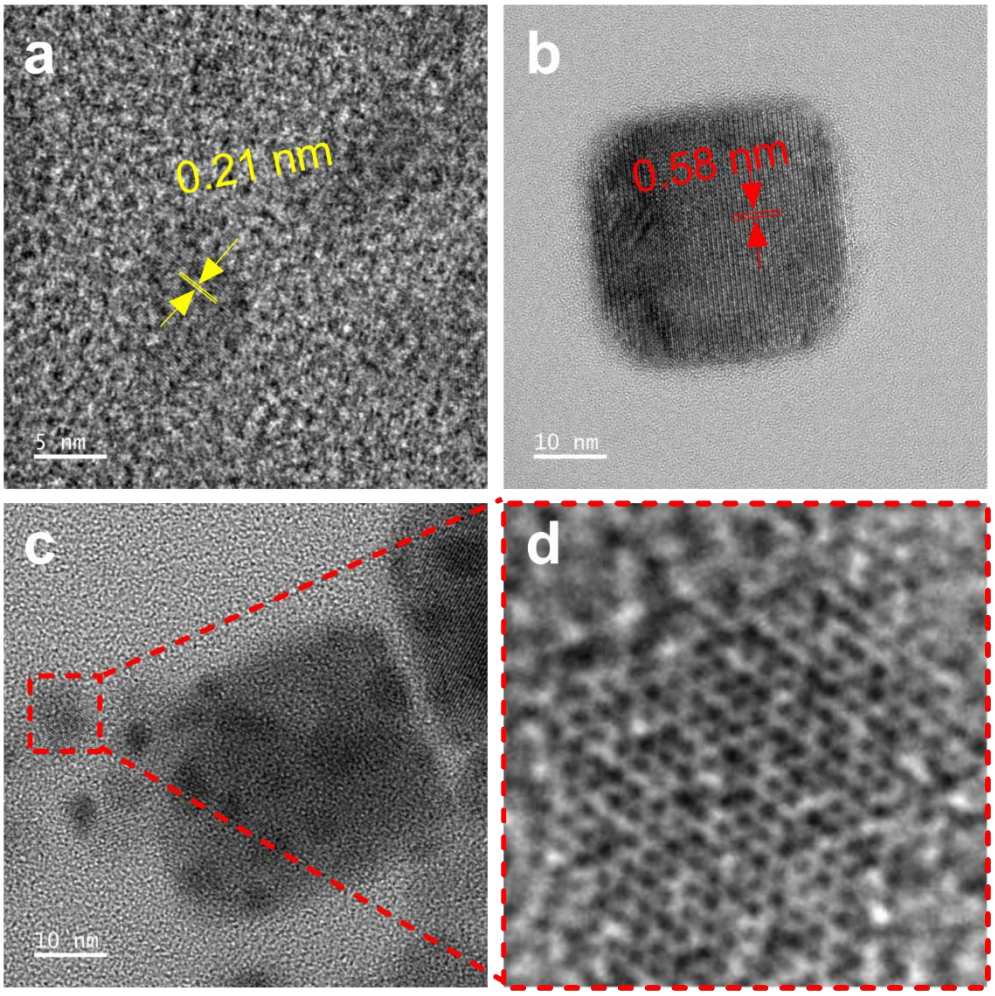

Figure S3. HRTEM image of typical (**a**) CDs and (**b**) perovskite. HRTEM image of (**c**) $CsPbBr_3$/CDs composite showing the presence of hexagonal honeycomb structure of CDs. (**d**) magnified image of dashed square in (**c**)

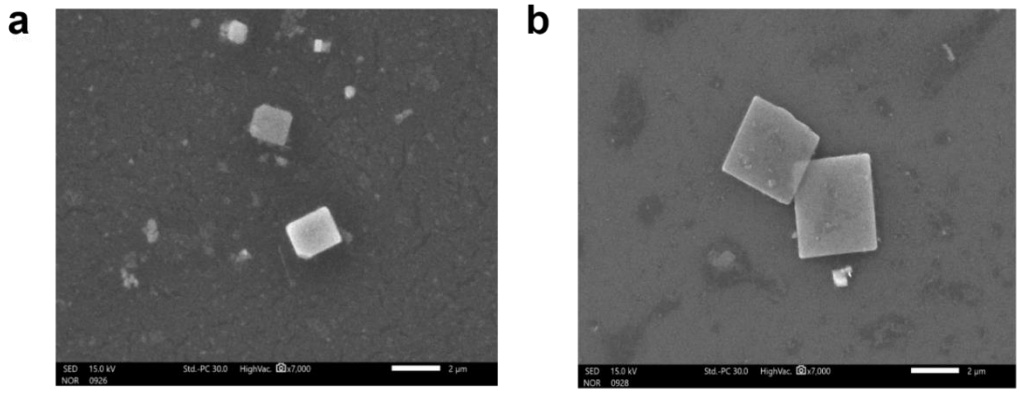

Figure S4. Top-surface SEM image of the $CsPbBr_3$ and the $CsPbBr_3$/CDs films in (**a**) and (**b**), respectively.

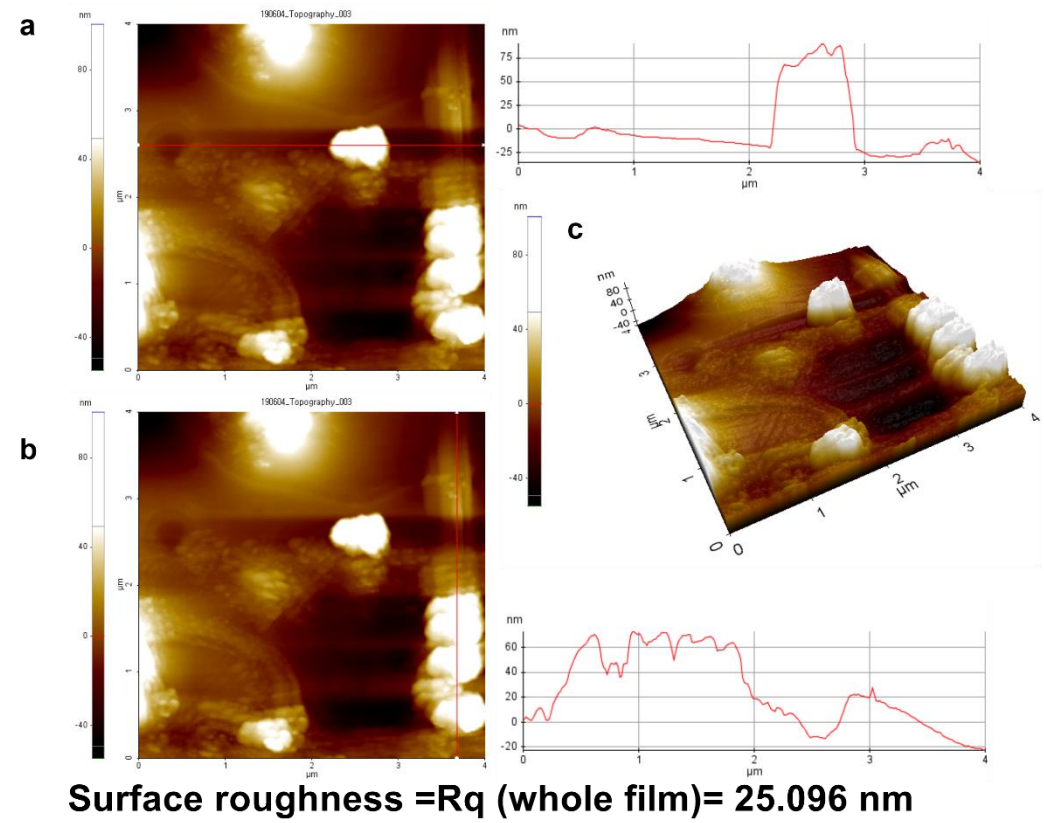

Figure S5. 2DAFM image of the $CsPbBr_3$ film along with line profile of red line in (**a**) and (**b**), 3D AFM image of the $CsPbBr_3$ film (**c**).

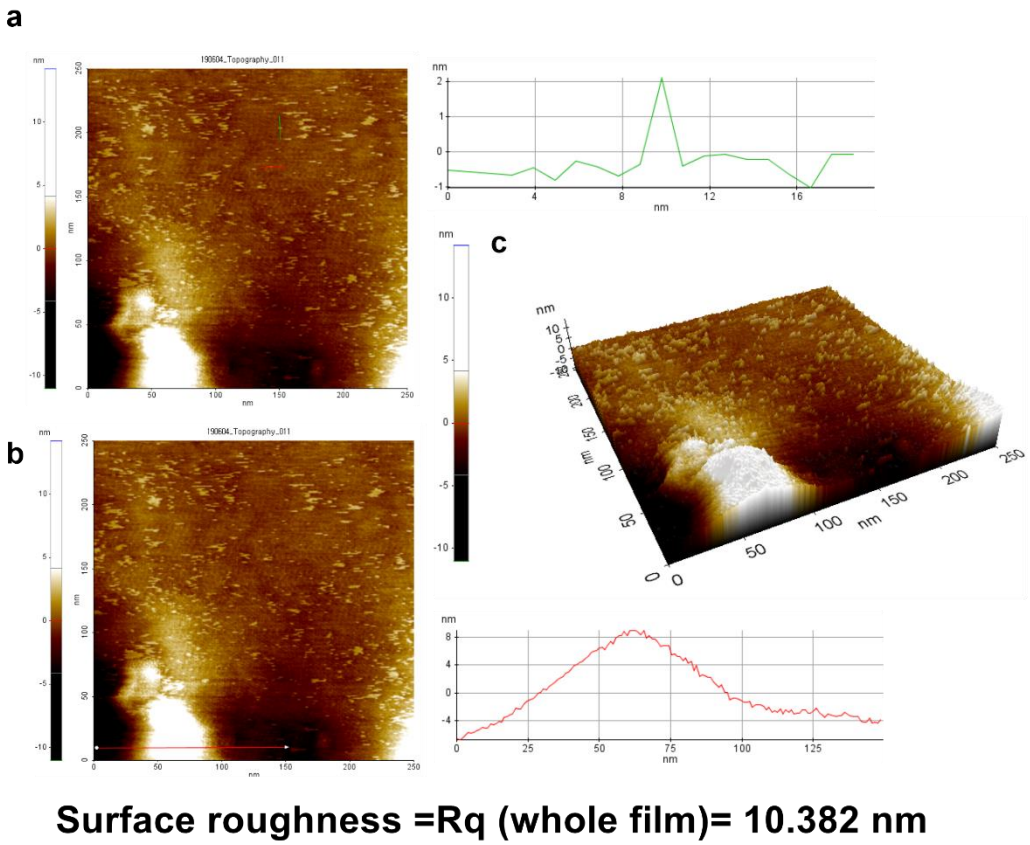

Figure S6. 2DAFM image of the $CsPbBr_3$/CDs film along with line profile of green line in (**a**) and red line in (**b**), 3D AFM image of the $CsPbBr_3$/CDs film (**c**).

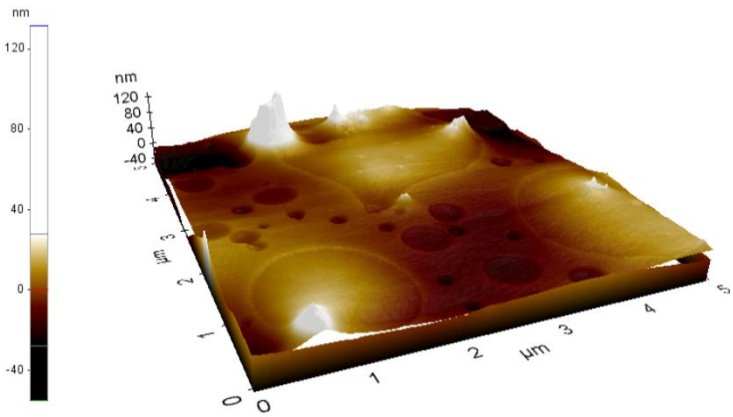

Figure S7. 3D AFM image of the $CsPbBr_3$/CDs film showing defects on the surface of the film.

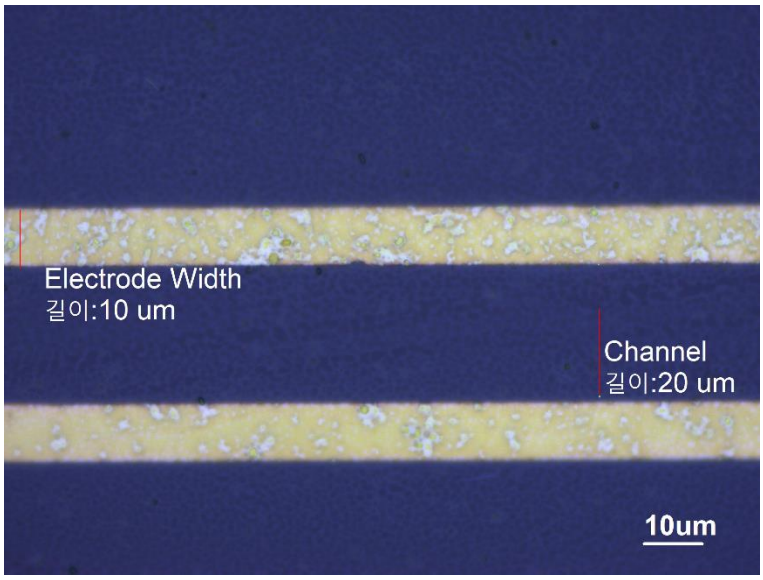

Figure S8. Optical image of device channel after depositing the $CsPbBr_3$/CDs**.**