

## Crystal structure and electronic properties of low-dimensional hexamethylenediaminium lead halide perovskites

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### Supplementary materials

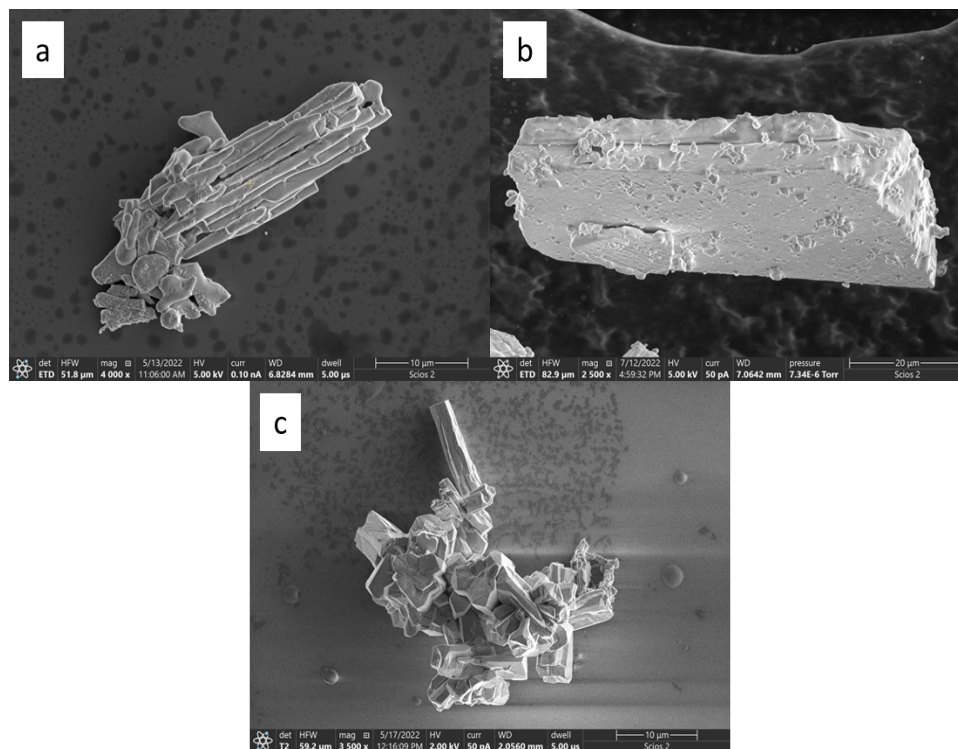


Figure S1 SEM images of typical microcrystals of HMDAPbX<sub>4</sub>: a) X=Cl; b) X=Br; c) X=I.

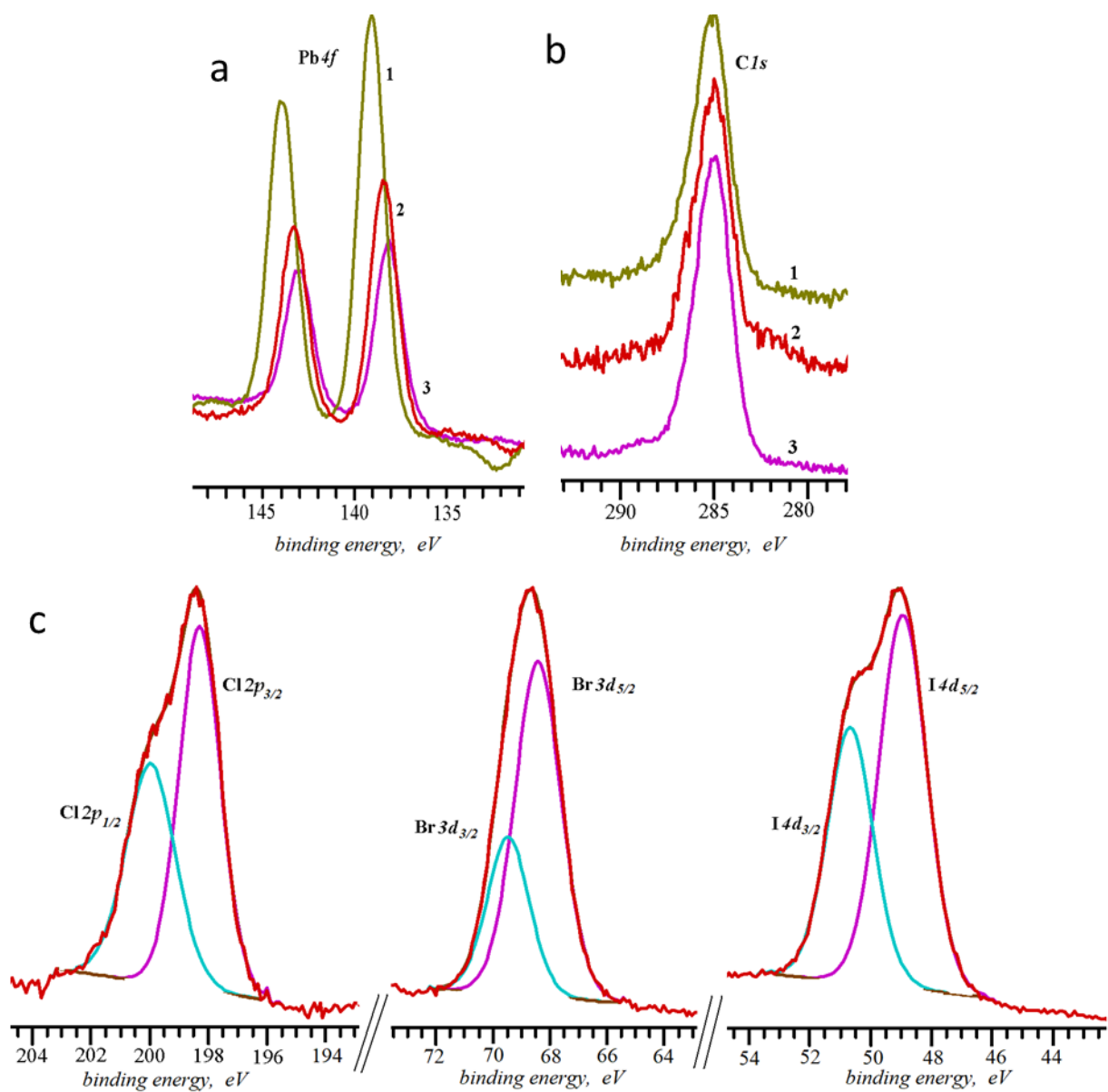


Figure S2 XPS spectra of HMDAPbX<sub>4</sub>, (X=Cl, Br, I) in the range of characteristic binding energies: a) Pb4f; b) C1s; c) halogens. 1, 2, and 3 correspond to Cl, Br, and I specie.

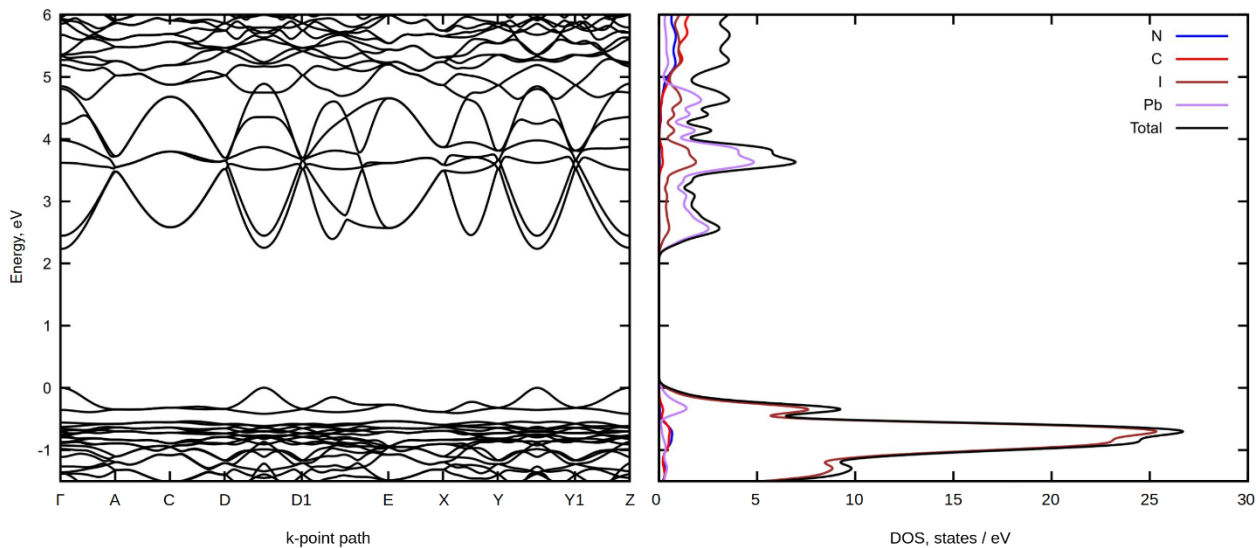


Figure S3 Electronic BS (left) and DOS (right) of HMDAPbI<sub>4</sub>.

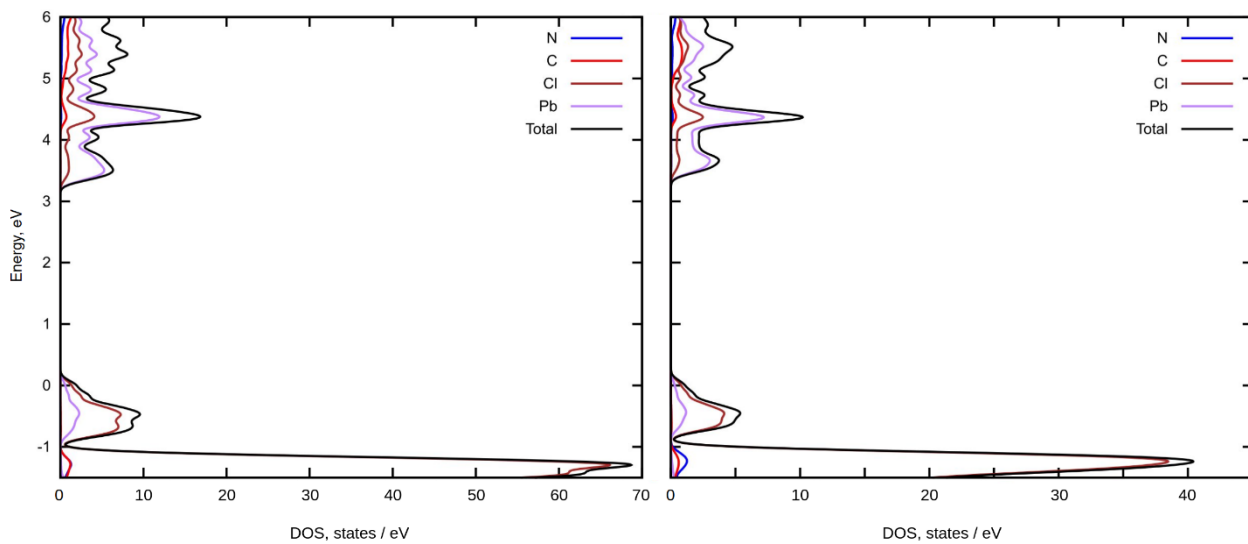


Figure S4 Electronic DOS of actual monocrystalline (left) and hypothetical (right) HMDAPbCl<sub>4</sub>.