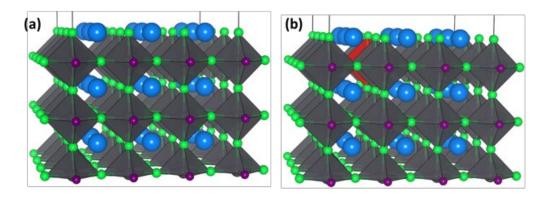
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## **Supporting Information**

## Interfacial Band Offset Engineering with Barium-doping Towards Enhanced Performance of all Inorganic CsPbI2Br Perovskite Solar Cells

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Figure S1. (a and b) Optimized structure for CsPbI<sub>2</sub>Br(010) and Ba:CsPbI<sub>2</sub>Br(010) surfaces.



**Figure S2.** (a) Electronic band structures of bulk anatase TiO<sub>2</sub> for Ti-d (blue) and O-p (red) orbitals. Inset: Crystal structure of TiO<sub>2</sub>. (b) Anatate TiO<sub>2</sub> (ETL) modelled in the tetragonal structure predicting the lattice parameters at a=b=3.803 Å, c=9.517 Å, in good agreement with the experimental values.

