

# SUPPORTING INFORMATION

## An extensive study on multiple ETL and HTL layers to design and simulation of a high-performance lead-free CsSnCl<sub>3</sub>-based perovskite solar cells

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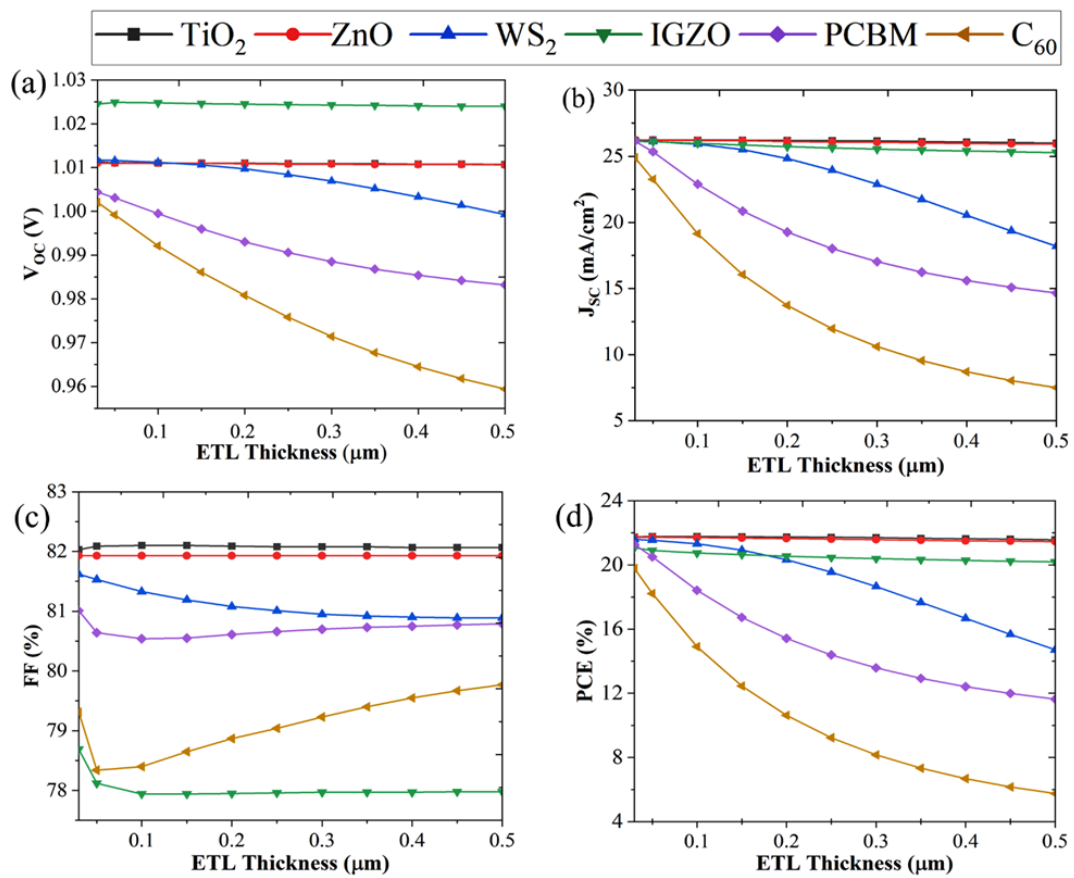
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**Figure S1.** Effect of ETLs' thickness variation on the (a) *PCE*, (b) *FF*, (c) *J<sub>sc</sub>*, and (d) *V<sub>oc</sub>*. **S2**



**Figure S1:** Effect of ETLs' thickness variation on the (a)  $PCE$ , (b)  $FF$ , (c)  $J_{sc}$ , and (d)  $V_{oc}$ .