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## **Supporting Information**

## **Title**

Optoelectronic Synapses Based on Triple Cation Perovskite and Al/MoO<sub>3</sub> interface for Neuromorphic Information Processing

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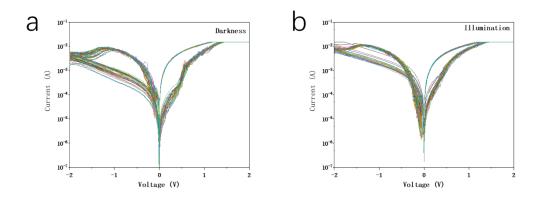


Figure S1, Resistive switching and photo response of the CsFAMA synaptic transistor. (a) I-V curves in darkness and (b) under light illumination.

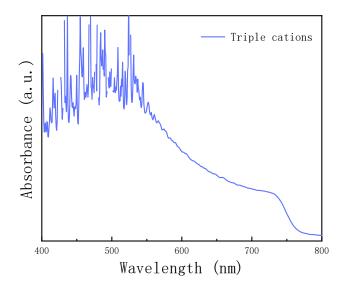


Figure S2. The absorption spectra of the CsFAMA triple cations perovskite films.

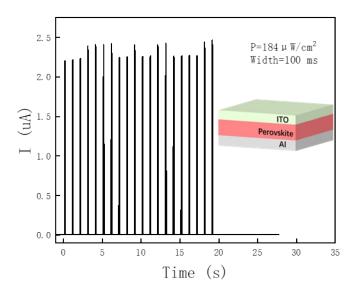


Figure S3. EPSC triggered by 20 optical pulses on the Al/CsFAMA/ITO device.