Supporting Information

Perovskite-related $(CH_3NH_3)_3Sb_2Br_9$ for Forming-Free Memristor and Low-Energy-Consuming Neuromorphic Computing

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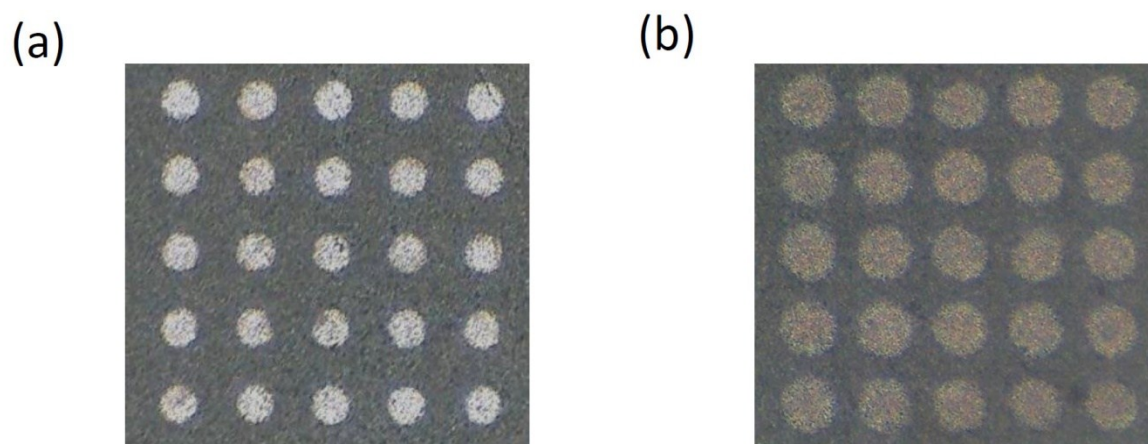N.-G. P.: E-mail: npark@skku.edu

Figure S1. Optical microscopic images of (a) Ag/PMMA/MA$_3$Sb$_2$Br$_9$/ITO device and (b) Ag/MA$_3$Sb$_2$Br$_9$/ITO device, showing Ag top electrodes.
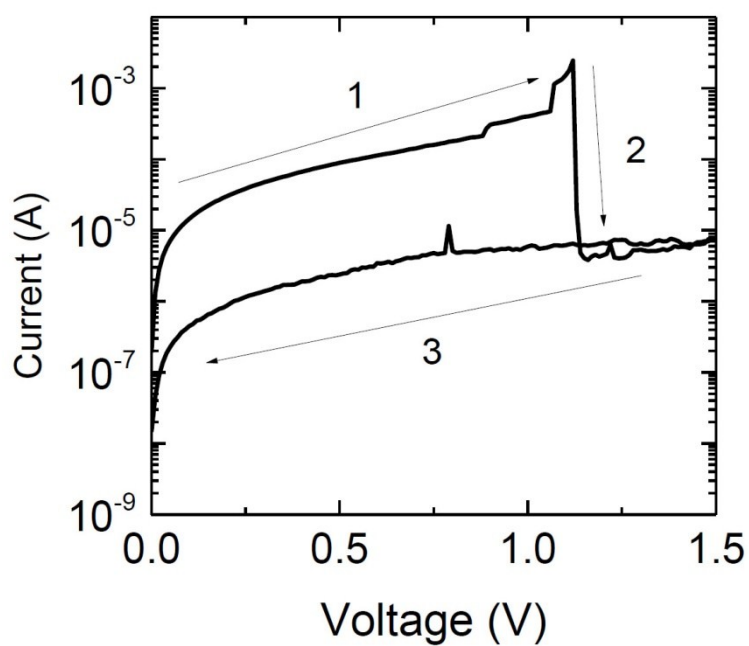

Figure S2. Initial I-V characteristics of Au/MA$_3$Sb$_2$Br$_9$/ITO device. Numbers indicate sweeping sequence.
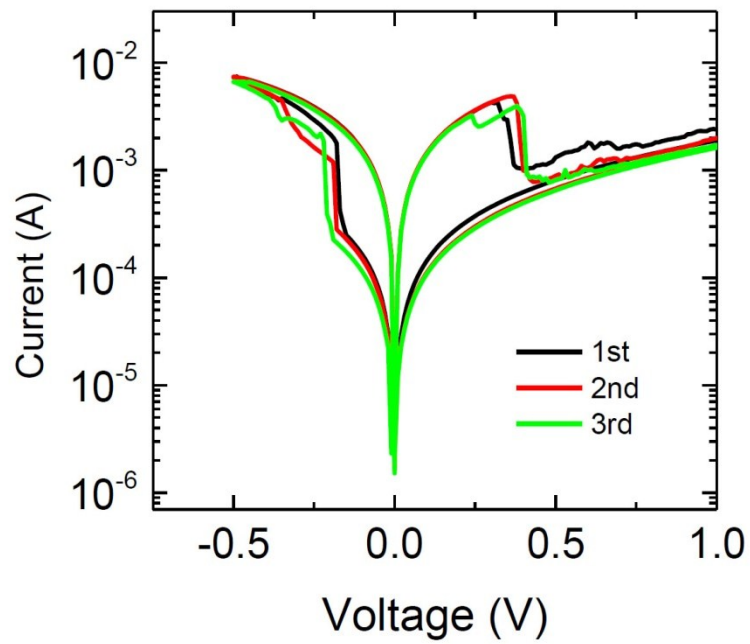
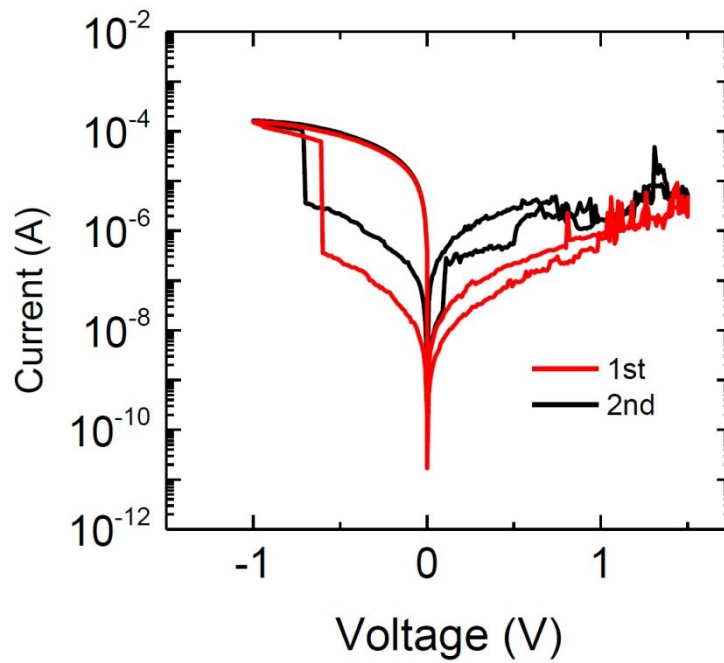**Figure S3.** I-V characteristics of Ag/MA$_3$Sb$_2$Br$_9$/ITO devices after initial RESET.

Figure S4. I-V characteristics of Au/MA$_3$Sb$_2$Br$_9$/ITO devices after initial RESET.
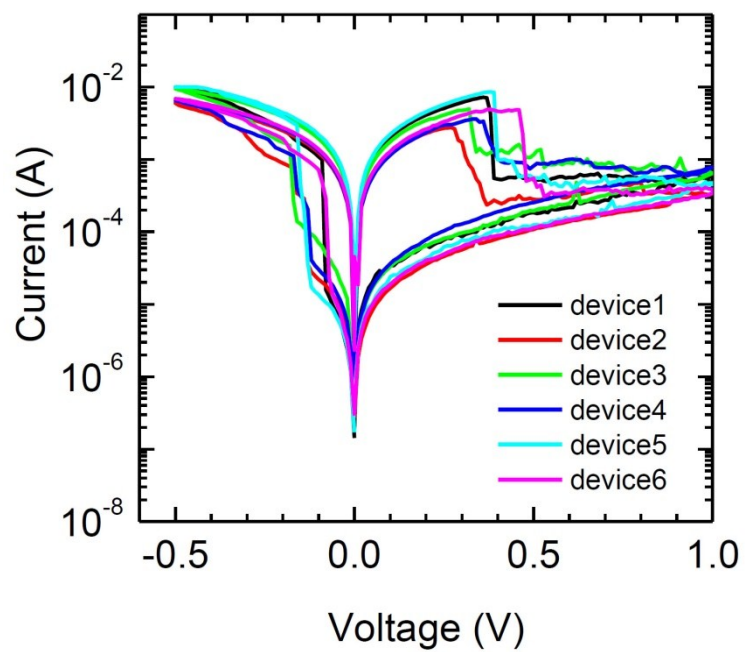
Figure S5. I-V characteristic of Ag/MA$_3$Sb$_2$Br$_9$/ITO for 6 different devices