Electronic supplementary materials

**Aqueous Phase Fabrication and Conversion of Pb(OH)Br into CH$_3$NH$_3$PbBr$_3$ Perovskite and its Application in Resistive Memory Switching Devices**

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**Figure S1** SEM images of the as-prepared Pb(OH)Br crystals dispersed on the glass substrate.
Figure S2 SEM images of the as-prepared MAPbBr$_3$ crystals and the corresponding size distribution histogram.

Figure S3 EDS analysis of the MAPbBr$_3$ perovskites.
Figure S4 (a) PL spectra of the as-prepared MAPbBr$_3$ and after being exposed to a humid environment with a relative humidity of 60±10% for 40 days. (b) PL spectra of the as-prepared MAPbBr$_3$ and therally treated at 90 °C for 60 h.
Figure S5 I-V characteristics of the as-prepared and the aged ReRAM device. (a) As-prepared. (b) Aged for 15 days. (c) Aged for 30 days.