

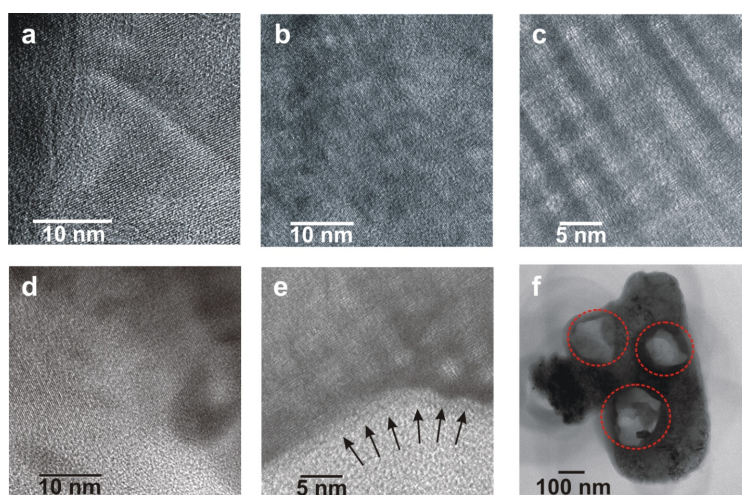
Supplementary Information

Solution-processed $\text{CuZn}_{1-x}\text{Al}_x\text{S}_2$ a new memory material with tuneable electrical bistability

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SI-1. Electron-beam-induced evolution in the CZAS crystals during HRTEM imaging. (a) lattice oriented along (220) direction; (b) onset of the lattice disturbance due to e-beam; (c) wavy fluctuations in the lattice; (d), (e) onset of evaporation of the material and (f) evaporated regions in a CZAS crystal after imaging.

During the TEM imaging, we could observe fluctuations in the images induced by the electron-beam, followed by evaporation of the material. Figure 5 shows a series of TEM imaging, where Fig. SI-1(a) shows the lattice oriented along (220) direction and (b) shows the onset of the structural changes in the material due to e-beam. Figure SI-1 (c) shows Moiré patterns, which were constantly changing during imaging, because of changes in the films. This is followed by evaporation of the focussed part of the crystal as indicated in Fig. SI-1and (e). Fig. SI-1 (f) shows three regions from where the material was evaporated.