

Supporting Information

Compositional Tuning of Negative Differential Resistance in Bulk Silver Iodide Memristor

Smita Gajanan Naik and Mohammad Hussain. K. Rabinal*

Department of Physics, Karnatak University, Dharwad – 03, INDIA

email: mkrabinal@yahoo.com

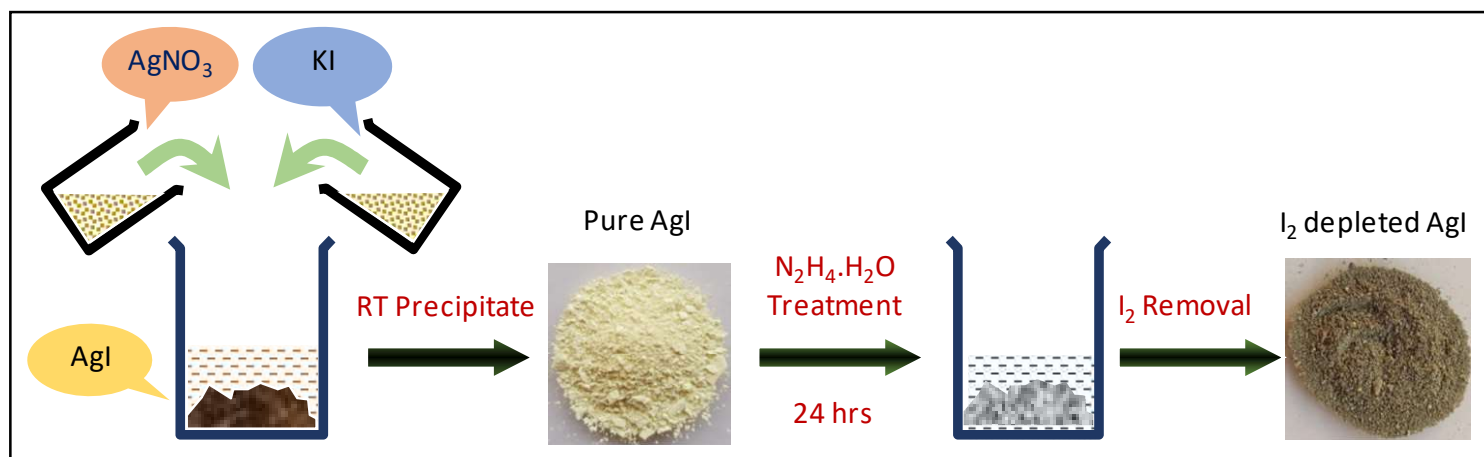


Figure S1: A schematic representation of experimental procedure.

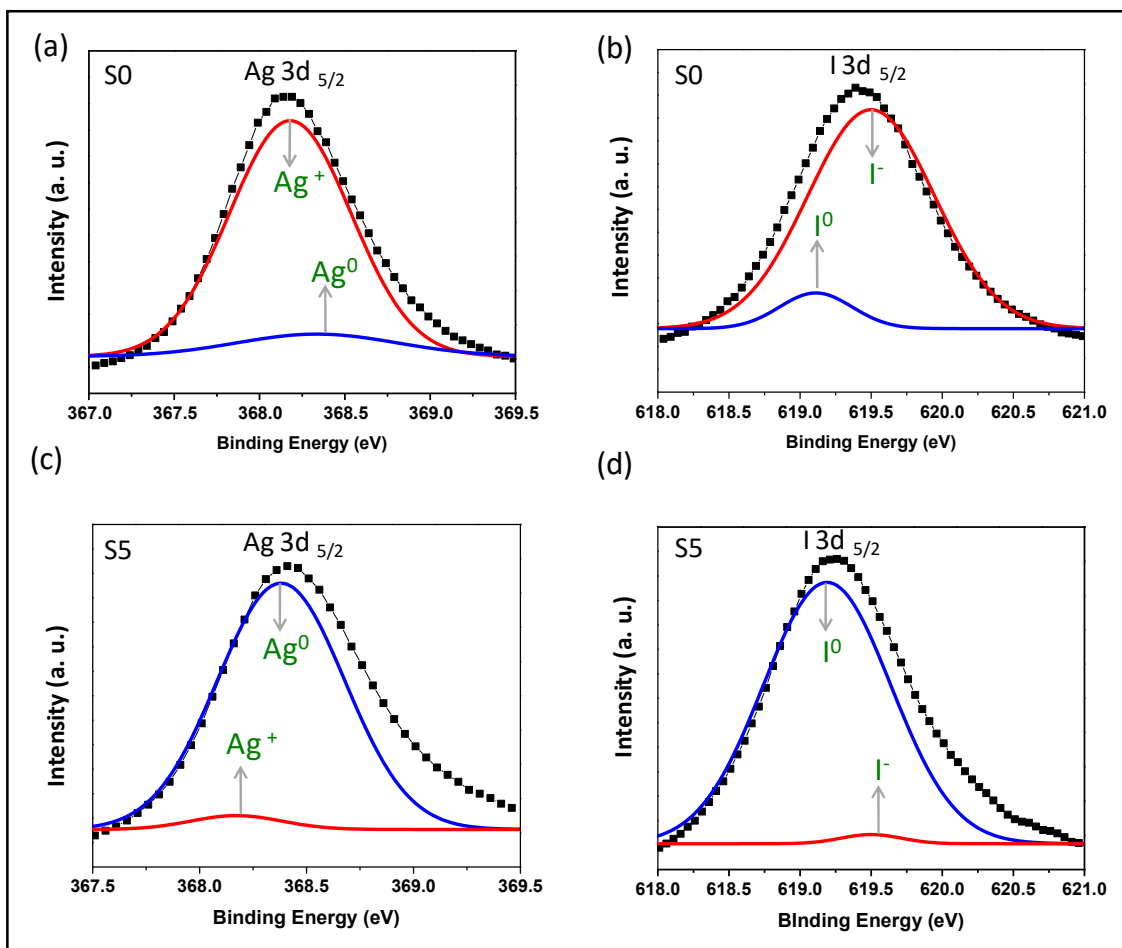


Figure S2: Deconvoluted XPS spectra: (a) & (b) are for Ag 3d_{5/2} and I 3d_{5/2} peaks of pure AgI (S0) and (c) & (d) are for Ag 3d_{5/2} and I 3d_{5/2} peaks of Ag rich sample (S5). Spectra with points are experimentally recorded data and solid lines are fitted curves.

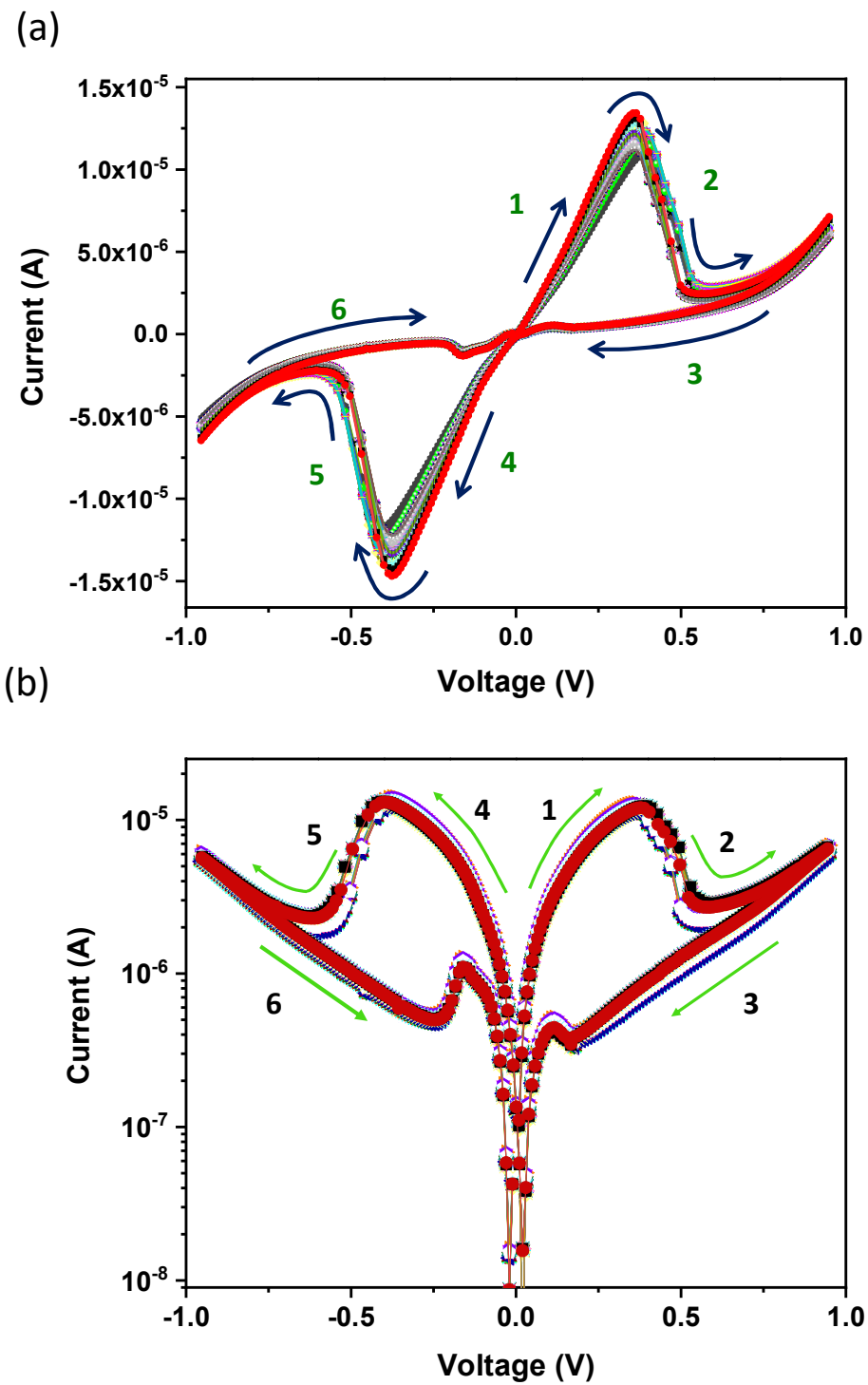


Figure S3: A set of 50 repeated scans of current- voltage characteristics of AgI (S0). (a) Normal I-V graph and (b) semi-logarithmic graph.

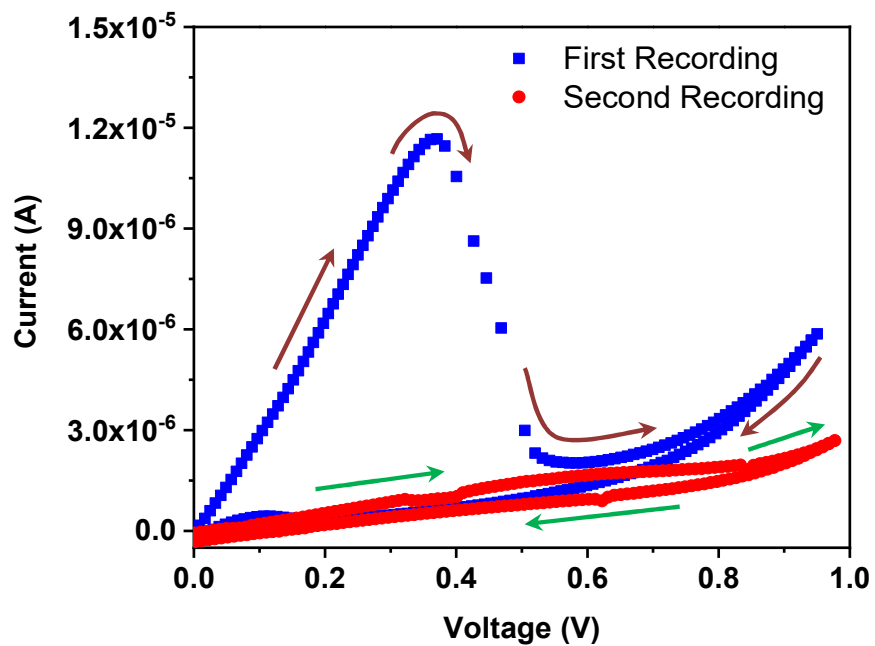


Figure S4: First quadrant measurements immediately after the one complete switching cycle ($0V \rightarrow +1V \rightarrow -1V \rightarrow 0V$) with sequence $0V \rightarrow +1V \rightarrow 0V$ (first time- Red) and blue curve corresponds to the immediate next $0V \rightarrow +1V \rightarrow 0V$ sequence.

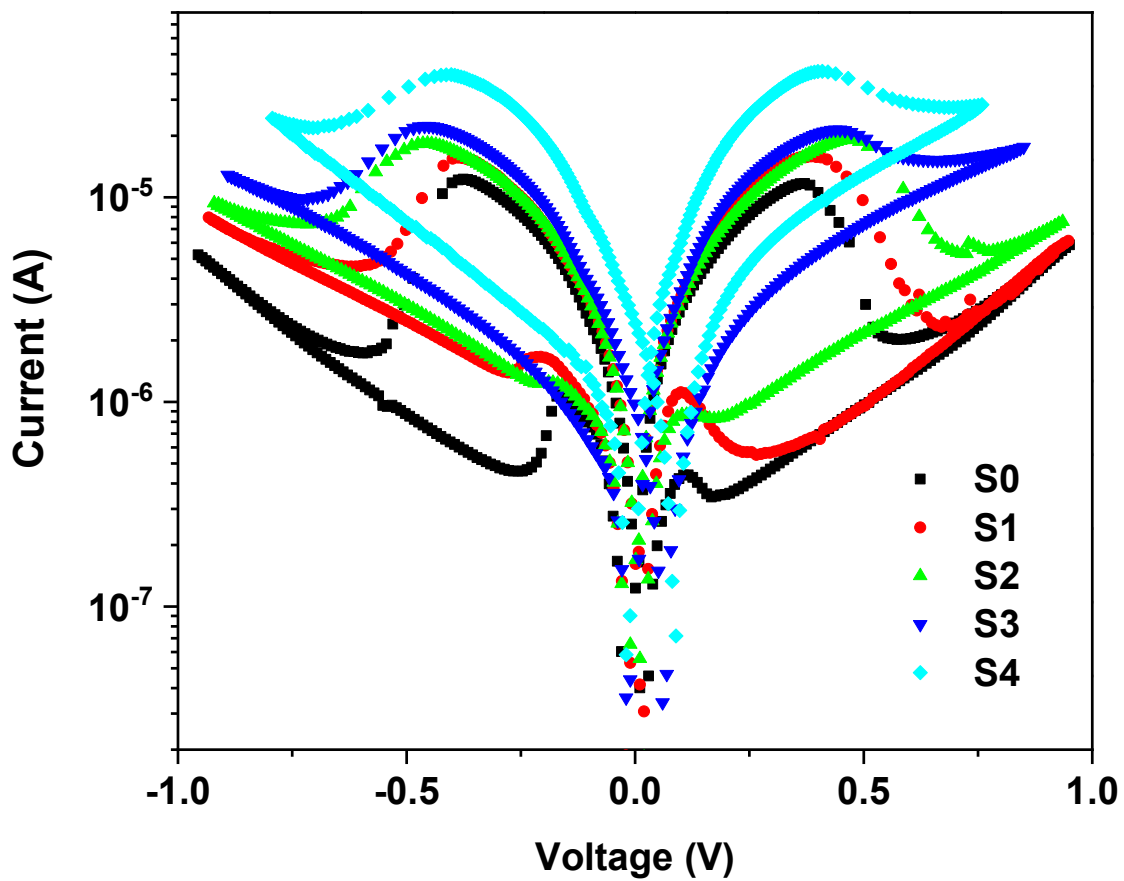


Figure S5: Semi-logarithmic I-V characteristics of AgI (S0) and other samples (S1, S2, S3 and S4) that are treated with hydrazine hydrate.