

Figure S1. I-V characteristics of Au/Ni-Au NPs/Au device.

For reviewer's comments, another two Au/Ni-Au NPs/ITO and Au/Ni-Au NPs/NSTO devices were fabricated and 4-5 curves for each temperature are showed below:

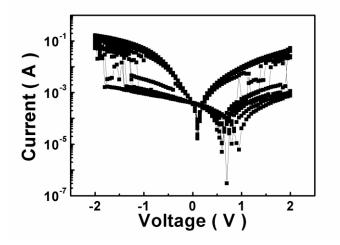


Figure S2. Resistive switching behaviors of Au/Ni-Au NPs/ITO device at room temperature.

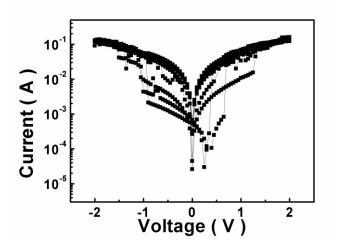


Figure S3. Resistive switching behaviors of Au/Ni-Au NPs/ITO device at 250 K.

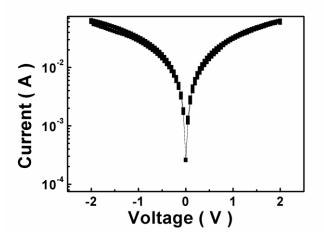


Figure S4. Resistive switching behaviors of Au/Ni-Au NPs/ITO device at 200 K.

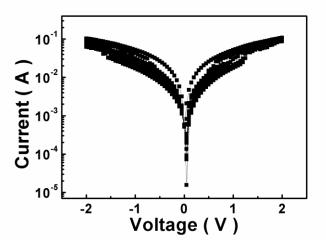


Figure S5. Resistive switching behaviors of Au/Ni-Au NPs/NSTO device at room

temperature.

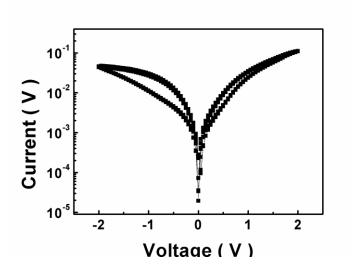


Figure S6. Resistive switching behaviors of Au/Ni-Au NPs/NSTO device at 250 K.

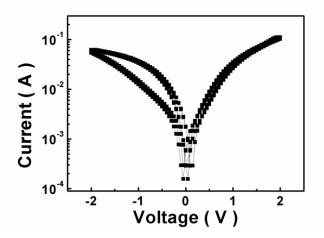


Figure S7. Resistive switching behaviors of Au/Ni-Au NPs/NSTO device at 200 K.