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RESISTIVE SWITCHING PHENOMENA IN NANOSCALE COMPLEX-OXIDE HETEROSTRUCTURES: RESPONSE TO THE AC SIGNAL

In order to identify a physical mechanism responsible for the resistive switching effect in memristive oxide-based structures, we propose to study an ac response to a periodic current or voltage perturbation. A minimalist model which accounts for the frequency impact on hysteresis phenomenon in current-voltage characteristics of the yttrium-barium-cuprate $YBa_2Cu_3O_{7-c}$ (YBCO) based contacts is proposed and analyzed numerically.

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