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Data related to the nanoscale structural and compositional evolution in resistance change memories

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#### **ACCEPTED MANUSCRIPT**

Data related to the nanoscale structural and compositional evolution in resistance change memories

Taimur Ahmed<sup>a</sup>, Sumeet Walia<sup>a</sup>, Edwin L. H. Mayes<sup>b</sup>, Rajesh Ramanathan<sup>c</sup>, Paul Guagliardo<sup>d</sup>, Vipul Bansal<sup>c</sup>, Madhu Bhaskaran<sup>a</sup>, J. Joshua Yang<sup>e</sup> and Sharath Sriram<sup>a</sup>

<sup>a</sup>Functional Materials and Microsystems Research Group and Micro Nano Research Facility, RMIT University, Melbourne, VIC 3001, Australia

<sup>b</sup>RMIT Microscopy and Microanalysis Facility, RMIT University, Melbourne, VIC 3001, Australia

<sup>c</sup>Ian Potter NanoBioSensing Facility, NanoBiotechnology Research Laboratory, School of Science, RMIT University, Melbourne, VIC 3001, Australia

<sup>d</sup>Centre for Microscopy, Characterisation and Analysis, The University of Western Australia, Perth, WA 6009, Australia

<sup>e</sup>Department of Electrical and Computer Engineering, University of Massachusetts, Amherst, MA 01003, USA

#### **Contact email:**

taimur.ahmed@rmit.edu.au; sharath.sriram@rmit.edu.au

#### Abstract

The data included in this article provides additional supplementary information on our recent publication describing "Inducing tunable switching behavior in a single memristor" [1]. Analyses of micro/nano-structural and compositional changes induced in a resistive oxide memory during resistive switching are carried out. Chromium doped strontium titanate based resistance change memories are fabricated in a capacitor-like metal-insulator-metal structure and subjected to different biasing conditions to set memory states. Transmission electron microscope based cross-sectional analyses of the memory devices in different memory states are collected and presented.

Subject area	Electrical Engineering, Material Science
More specific subject area	Resistive oxide memories, Interface engineering
Type of data	Image (Transmission electron microscopy, electron energy loss
	spectroscopy, energy-dispersive X-ray spectroscopy)
How data was acquired	Cross-sectional lamellae are prepared by focused ion beam (FIB) cuts by

#### **Specifications Table**

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