Basic research and measurement on wolfram-based memristors

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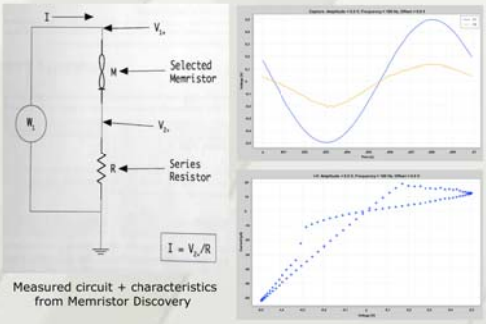
Recent research:
- U-I characteristics for wolfram-based memristors BS-AF-W and DM8-16DIP-BS-AF
- Analyzing U-I characteristics behavior for higher frequencies.
- Observing that difference between Ron and Roff is getting smaller with the frequency growing (the curve is smashing)

Problems:
- Noise observed for higher frequencies
- The shape of the characteristic is changing during long term work of the memristive element

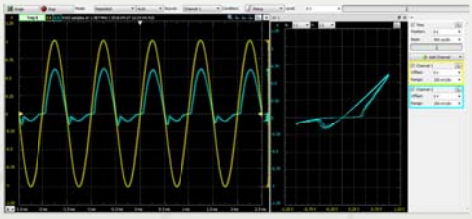
Future work:
- Avoiding noise
- Long term analysis – obtain averaged characteristics for 100 periods or more

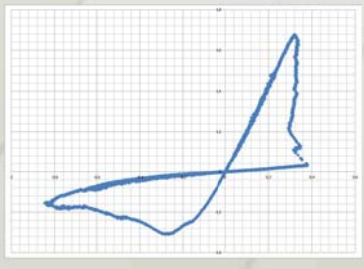

Measurement set provided by Knowm.Org
+ Memristor Discovery Software

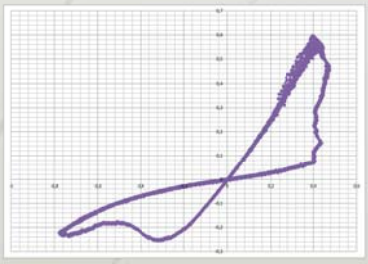

Measurement set provided by the author
+ Waveforms Software

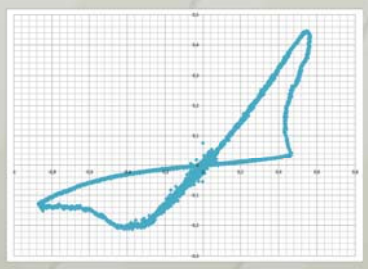


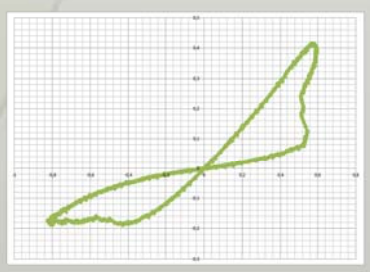
Measured circuit + characteristics from Memristor Discovery

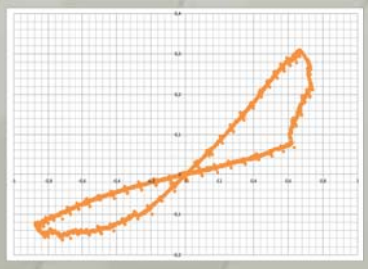

Waveforms workspace interface

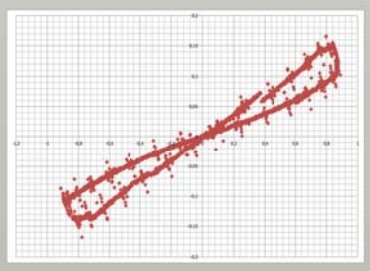

U-I: Amplitude=1V, Frequency=50Hz, Offset=0.0V


U-I: Amplitude=1V, Frequency=100Hz, Offset=0.0V


U-I: Amplitude=1V, Frequency=200Hz, Offset=0.0V


U-I: Amplitude=1V, Frequency=500Hz, Offset=0.0V


U-I: Amplitude=1V, Frequency=1kHz, Offset=0.0V


U-I: Amplitude=1V, Frequency=2kHz, Offset=0.0V