Electronic Supplementary Information for

Multiprotocol-induced plasticity in artificial synapses

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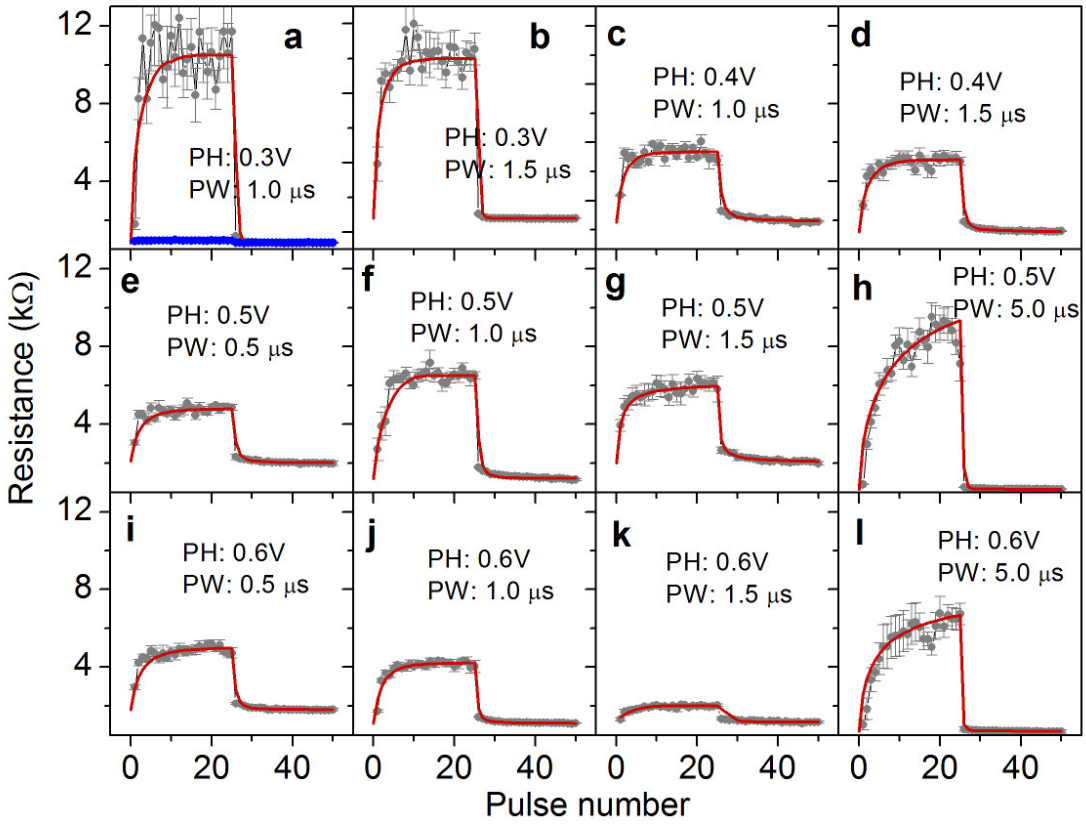

Figure SI1. Responses of the BRS to voltage pulse trains of different pulse heights (0.3 – 0.6 V) and widths (0.5 – 5 µs). The blue points in (a) denote the response to voltage pulses of a height of 0.2 V, i.e. nominal threshold, and width 1 µs. The red lines are data fitting curves obtained using Eqs (1) – (3) in the manuscript. Despite the variability of the parameters, all data sets can be fitted using the equations.

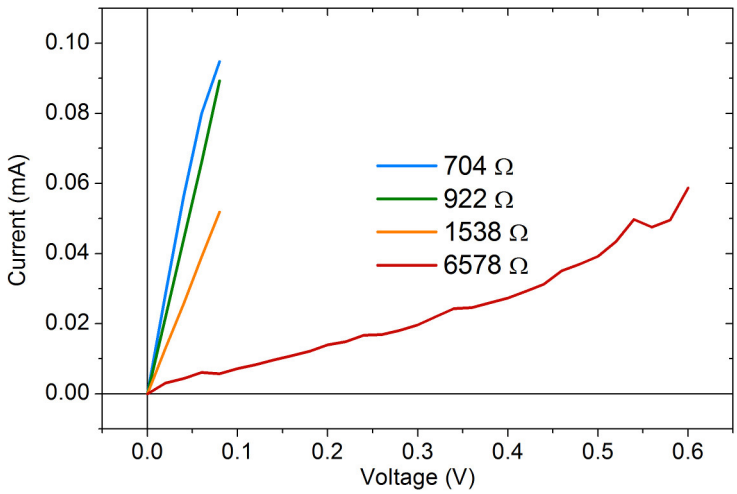

Figure SI2. Linear *I-V* behaviours of the BRS at four different resistance states. The highest resistance (6578 Ω) represents a quite linear behaviour. Note that this I-V curve was measured by applying a negative voltage sweep; however, it is plotted on the same quadrant as the others for comparison.

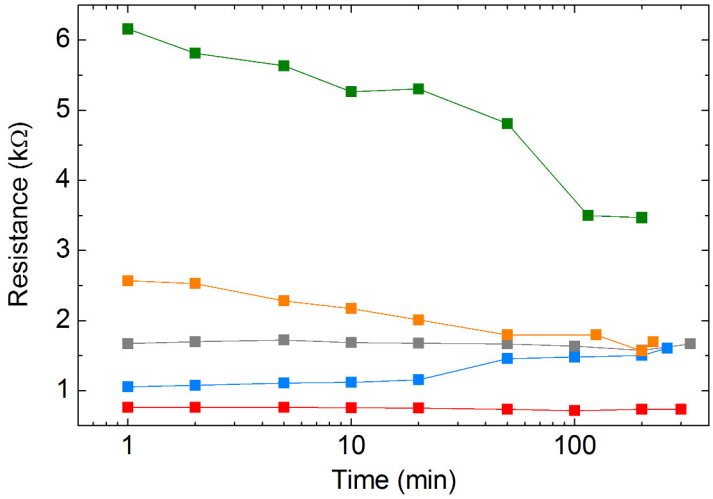

Figure SI3. Retention of several resistance states of the BRS.