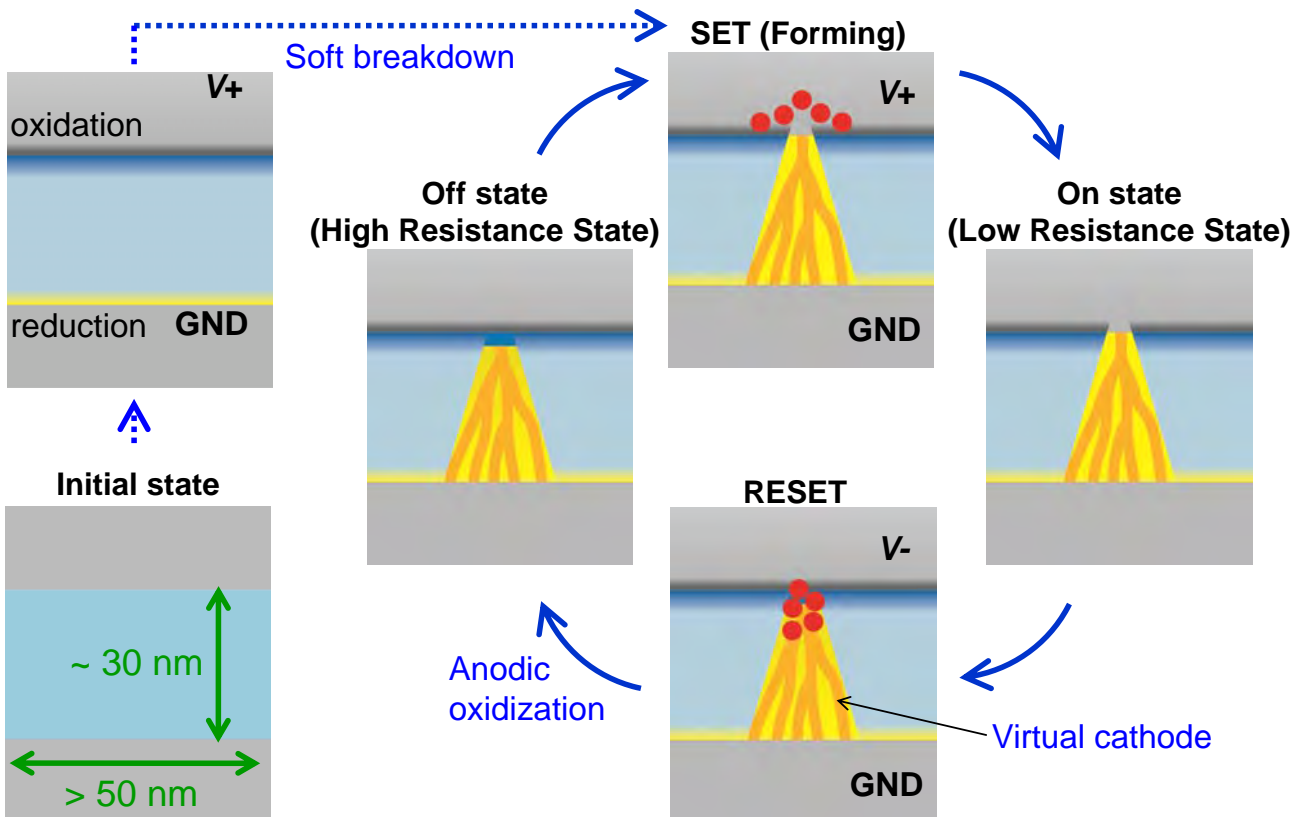


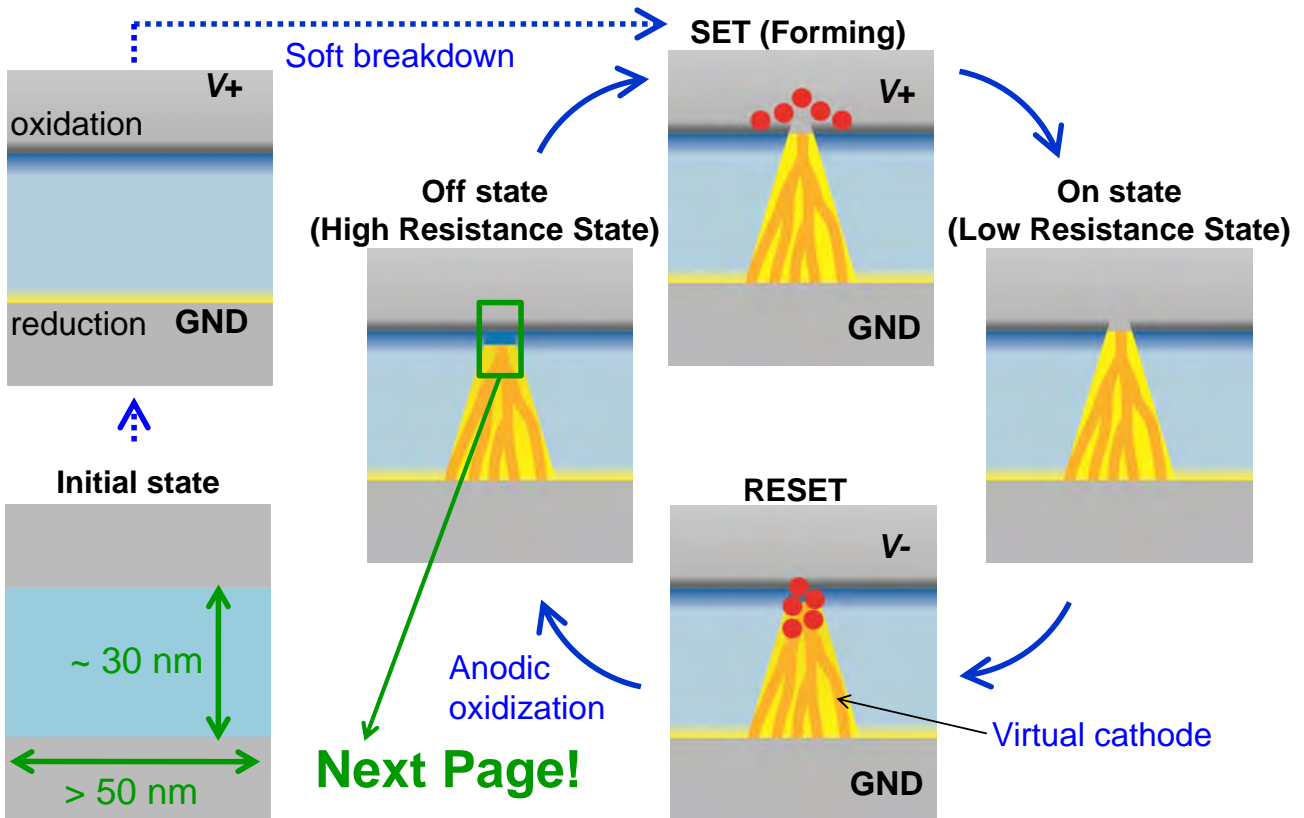
Mechanism of ReRAM (Resistive Random Access Memory)

H. Akinaga and H. Shima

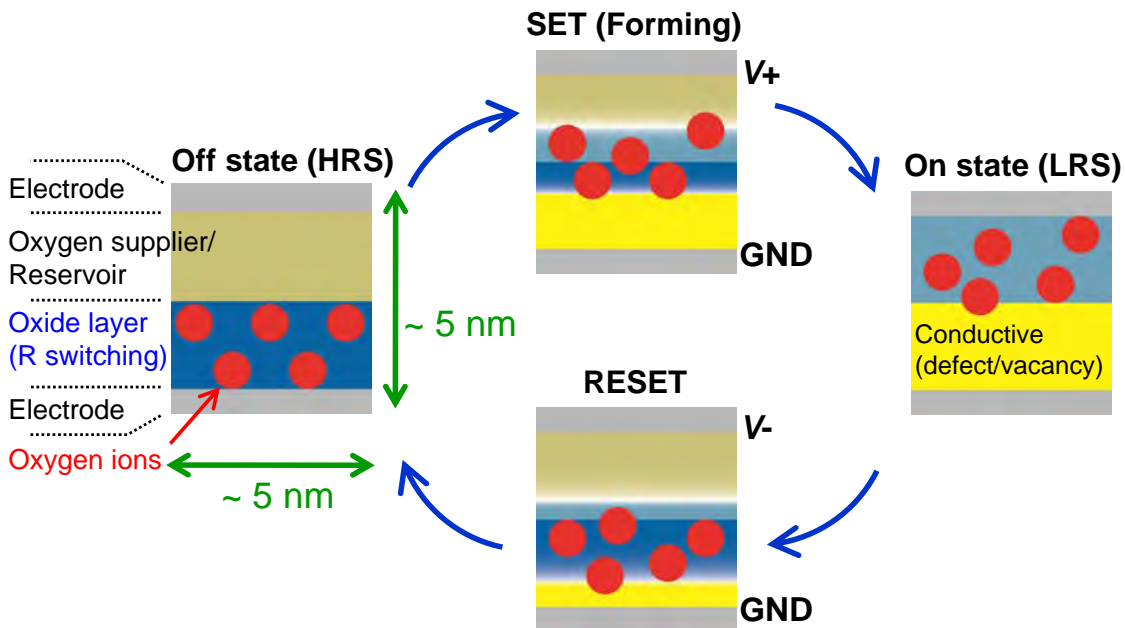
Operation mechanism of ReRAM



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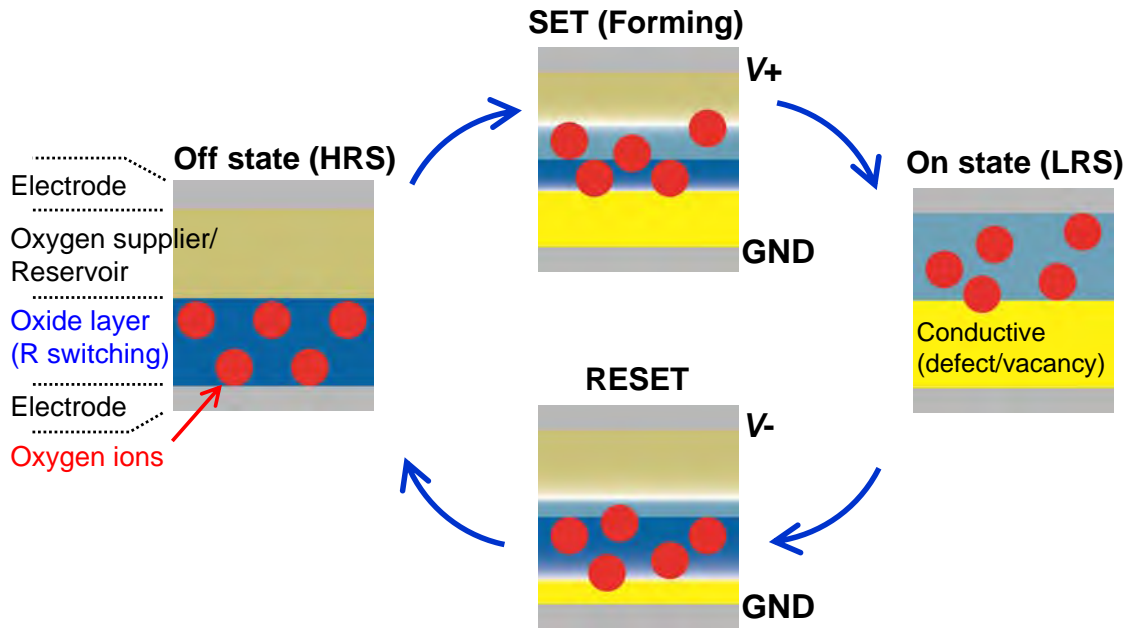


Operation mechanism of ReRAM (beyond 2X nm generation)



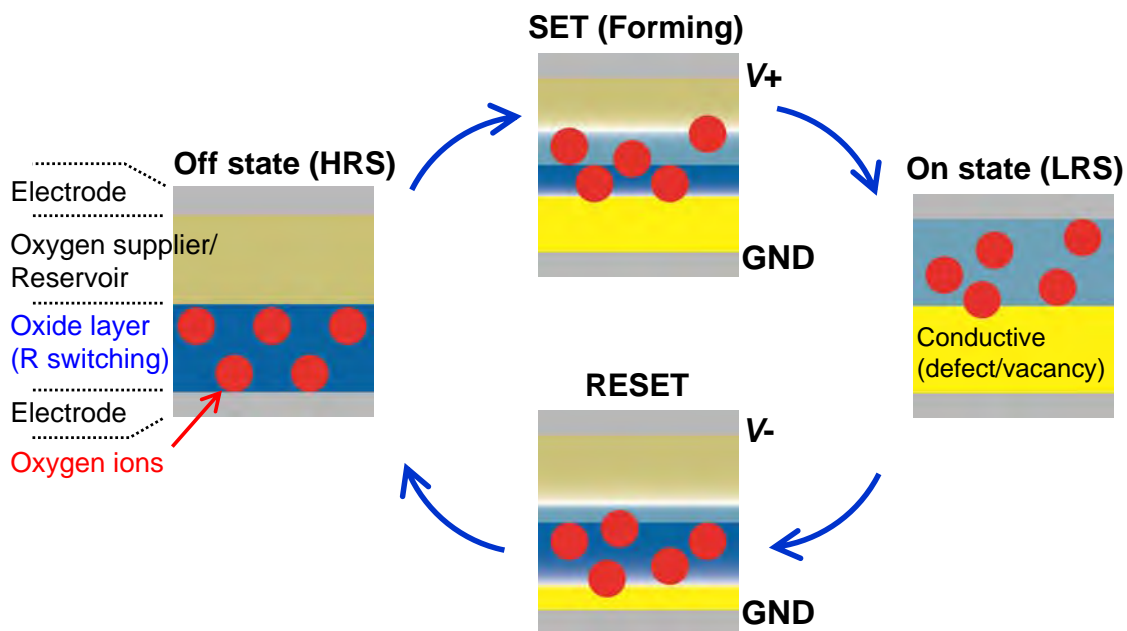
In the nano-meter ReRAM device, the filament model does NOT conflict with the interface model. The electrochemical reaction at the interface brings about the non-volatile resistance switching.

Unified model of ReRAM operation (beyond 2X nm generation)



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Unified model of ReRAM operation (beyond 2X nm generation)



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 Proceedings of the IEEE, Vol. 98, No. 12, pp. 2237-2251 (2010).