

Nanoelectronics in Japan and TIA

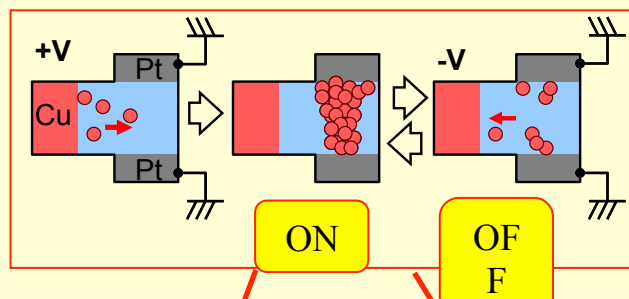
Part 4 of 7

October 17 2013
Shigeo Okaya AIST

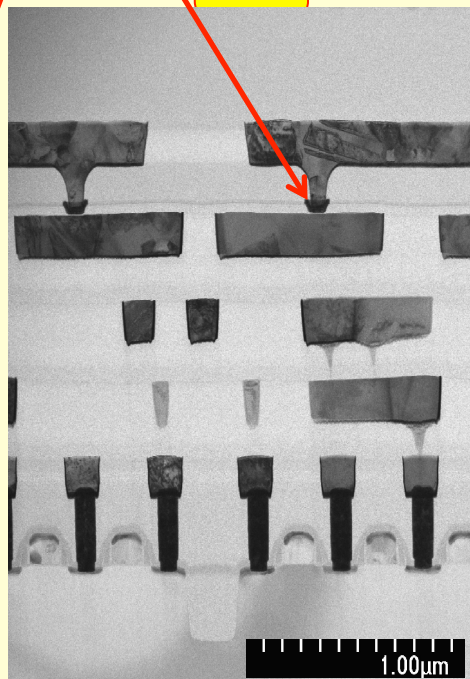
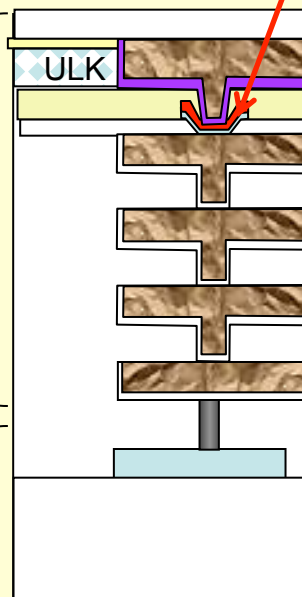
New Materials and Devices for Low-Power Nanoelectronics

Reconfigurable logic LSI by Atom Switch

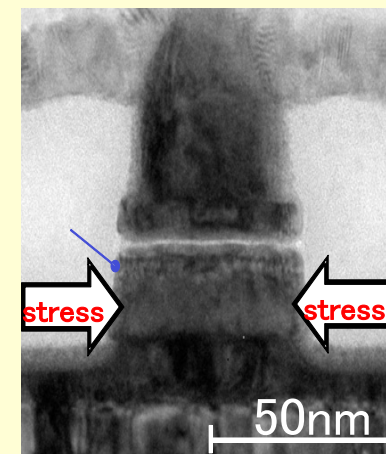
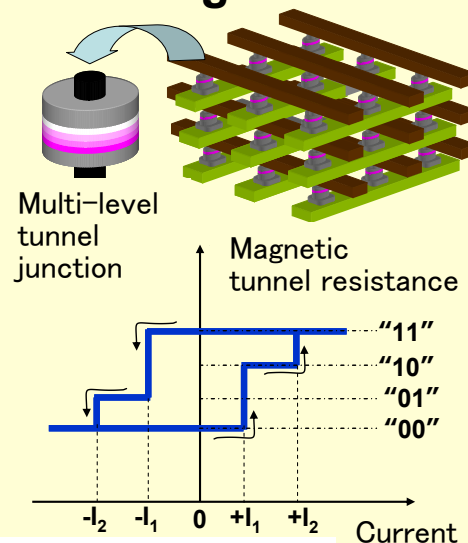
Functional Module (Atom SW)



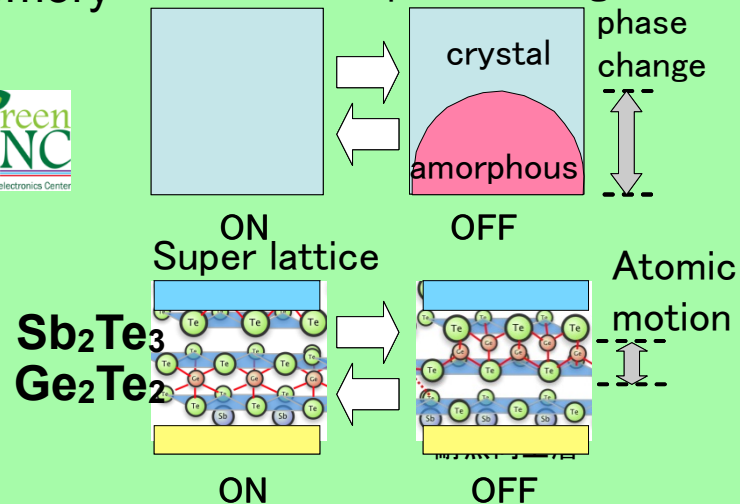
Cu/Low-k
CMOS



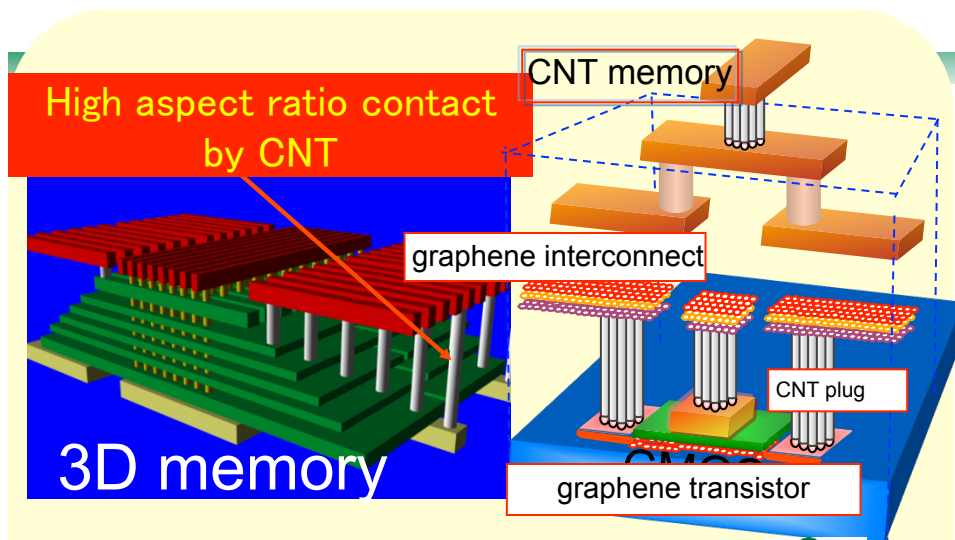
Multivalued magnetic tunnel junction memories



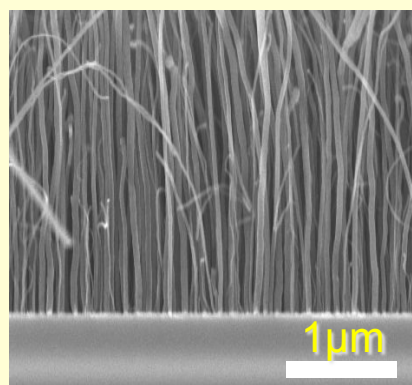
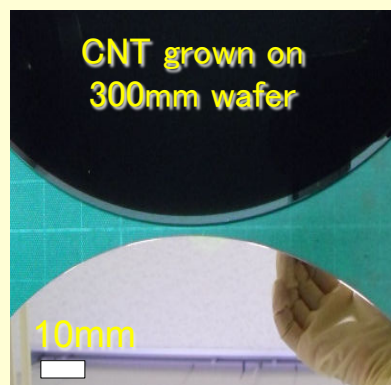
Chalcogen super-lattice phase-change memory



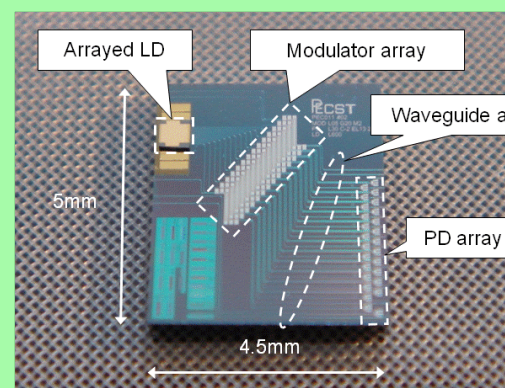
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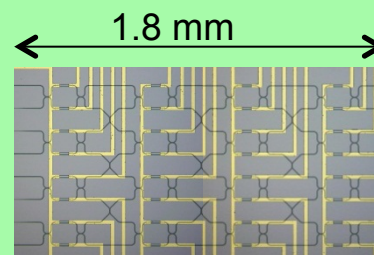
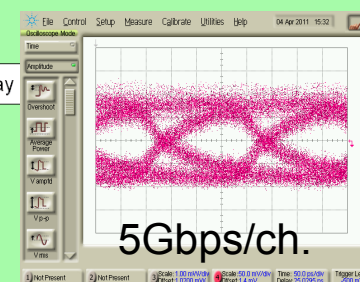
All carbon green nanoelectronic composed of CNTs and graphene



Si photonics
for low-power high-speed
interconnect



3.5 Tbps/cm² transmission
density was achieved.



4x4 Matrix switch
for dynamic optical path
network

