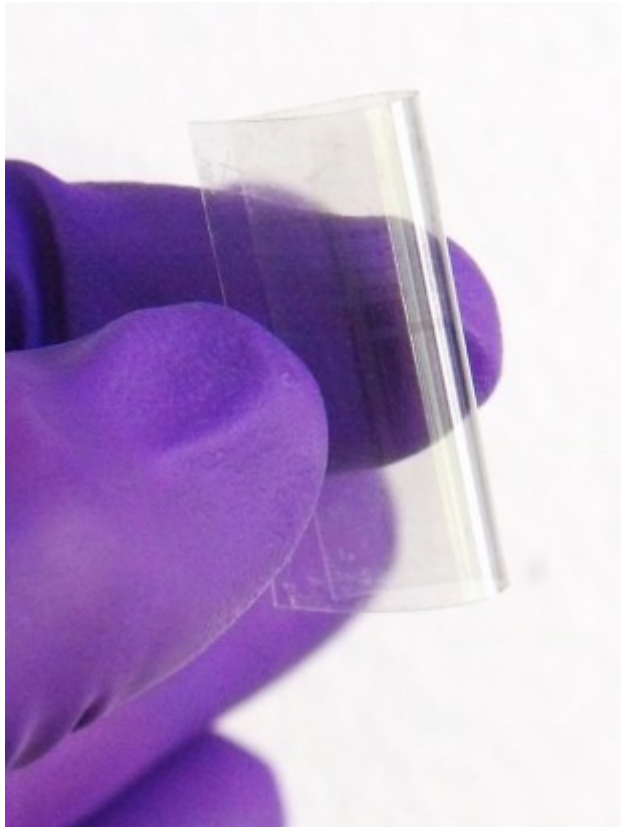


New Foldable & Crystal Clear High Capacity Memories to Replace Flash and can be embedded in touchscreens



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A flexible, transparent memory chip

A research organization has developed a new memory chip that can be incorporated in both to let devices' touchscreens double as their memory location, and to make those screens less brittle and fragile, allows more data to be stored in a given space, can also be folded like paper, withstand temperatures of up to 1,000°F, and is transparent with silicon oxide as the active material.

The chips are configured with two terminals per bit of information & can be arranged in a three-dimensional structure, allowing for more data storage. Also has a high on-off ratio of around 1,000,000:1.

The Properties are as below :

- Resistive memory, non-charge storage
- Two-terminal, therefore amendable to 3D
- CMOS-compatible
- Non-volatile for 10 years without power
- Non-destructive read
- SiO only as the active material with any electrodes
- 10⁶:1 ON/OFF ratio (10⁻⁵ Amp to 10⁻¹¹ Amp)
- No current change on scaling
- Scalable to sub-5-nm
- 50 ns switching, or faster
- Multi-states per bit (at least 3) for equivalent scaling
- Radiation-hard: proton, heavy ion, x-ray
- Lifetime is flash-like: 10,000 write/read/erase cycles (limitless read)
- Read 0.5 V; write 3 V; erase 4 V
- Stable memory to >600°C
- Transparent
- Mechanically flexible
- Metallic phase Si-nanofilament-based
- Must hermetically seal (when writing in air)

They have nonetheless already been exposed in test devices and showed no degradation for heavy ion, proton and X-ray irradiation at doses that would have easily destroyed Flash or any memory.

The research organization can demonstrate a prototype in Lab.

For Additional Information please contact info@technologyconcepts.in