



## Now, a memory device that may store data for 1 billion yrs

Scientists have come up with a new computer memory device that can store thousands of times more data than conventional silicon chips and that too for more than one billion years. Packing more digital images, music, and other data onto silicon chips in USB drives and smart phones is like squeezing more strawberries into the same size supermarket carton.



The denser you pack, the quicker it spoils. The 10 to 100 gigabits of data per square inch on today's memory cards has an estimated life expectancy of only 10 to 30 years.

The electronics industry needs much greater data densities for tomorrow's iPods, smart phones, and other devices. Now, Alex Zettl and colleagues have described the development of an experimental memory device consisting of an iron nanoparticle (1/50,000 the width of a human hair) enclosed in a hollow carbon nanotube. In the presence of electricity, the nanoparticle can be shuttled back and forth with great precision.

This creates a programmable memory system that, like a silicon chip, can record digital information and play it back using conventional computer hardware. In lab and theoretical

studies, the researchers showed that the device had a storage capacity as high as 1 terabyte per square inch (a trillion bits of information) and temperature-stability in excess of one billion years. The study is scheduled for publication in the June 10 issue of ACS' Nano Letters, a monthly journal. (ANI)

**Source:** Yahoo India

## Nano-raspberries may fight foggy windows, eyeglasses

Fogged-up car windshield is a safety hazard and a nuisance that affects millions of people. Existing technology, including sprays that must be reapplied to stay effective, has many drawbacks. Now, scientists in China have come up with a new way to make raspberry-shaped nanoparticles, which can give glass a permanent antifogging coating.

Scientists have been working on anti-fog technology for years. Raspberry-shaped nanoparticles could be the ideal solution by disrupting the process in which water droplets fog glass.

However, there has been no commercially feasible way to make these particles until now. The scientists described an efficient one-step method for making nano-raspberries. In laboratory studies, the researchers coated glass slides with the particles, cooled the slide, and then exposed it to steam.

The researchers found that unlike ordinary glass, it remained crystal clear, opening the door to possible commercial applications. (ANI)

