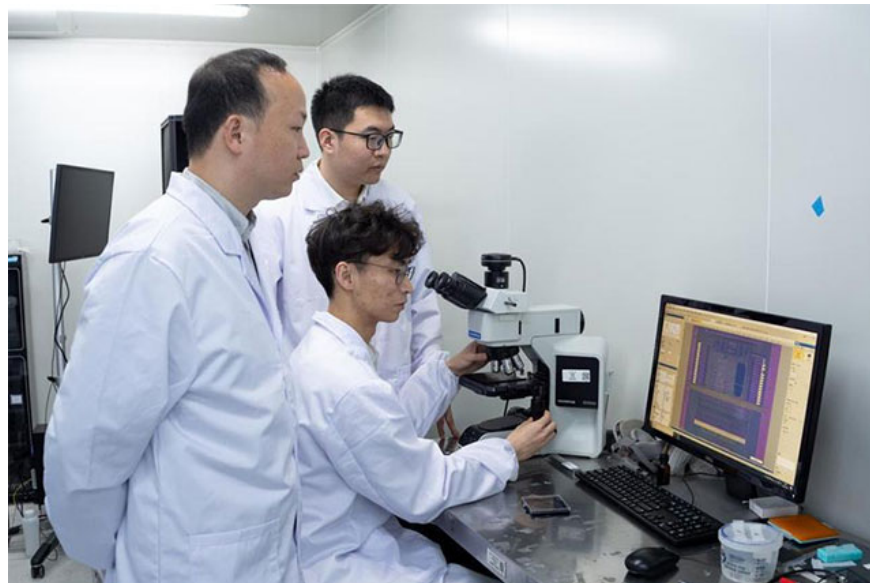


'Poxiao' - 'Superfast' Flash Memory Said to Be Millions of Times Faster Than USB

Recently, scientists from Fudan University (Shanghai) shocked the technology world when they announced the invention of super-fast flash memory called PoX.

Recently, scientists from Fudan University (Shanghai) shocked the technology world when they announced the invention of super-fast flash memory called "PoX". This device is considered a "lightning bolt" in the storage world when it reaches an access speed of 400 picoseconds - meaning it can process up to 25 billion operations per second, a million times faster than a regular USB. This is currently considered the fastest semiconductor charge storage device ever, opening a new era for the semiconductor industry.

Explaining this incredible speed, Professor Chu Bang - head of the research team - said: "In just a blink of an eye, PoX has executed 1 billion commands, while a common USB only had time to do 1,000 times. The previous world record was only 2 million times." Although it is not clear which generation of USB it is specifically comparing to, this number shows the spectacular leap forward of Chinese storage technology.



Unlike SRAM or DRAM (fast memory types that lose data when the computer is turned off), traditional flash memory retains information even when the power is off, but it slows down. PoX breaks this paradox by combining the Dirac band structure (a characteristic of 2D materials like graphene) and the ballistic transport effect (electrons moving unimpeded). By fine-tuning the 2D channel layer, the team creates a phenomenon of "supercharge injection" into the memory - a mechanism that completely eliminates the speed limit of the old method.

"Old technology is like a bicycle, and PoX is a rocket. 'Super injection' pushes non-volatile memory to the theoretical welding world, completely changing the rules of the game," Dr. Luu Tuan Sam, a member of the research team, excitedly shared.

This breakthrough promises to revolutionize many fields. From super-fast processing for large-scale AI to medical and financial systems that require instantaneous response, PoX can meet all of them. Moreover, with advantages in cost and mass production, this technology can soon appear in life.

Professor Chu Peng affirmed: "PoX not only changes the global storage industry but also serves as a springboard for China to lead the future technology race." In the context of the US tightening chip exports, this invention is like a proud declaration of Chinese science.

You finished reading the article "**'Poxiao' - 'Superfast' Flash Memory Said to Be Millions of Times Faster Than USB**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.