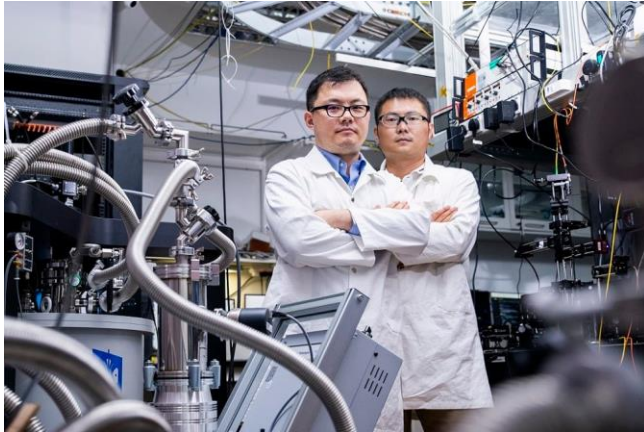




Mirage News (Australia)

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## Revolutionary Materials Enable Rapid Computer Information Access



Scientists led by NTU Singapore investigators have made a significant advance in developing alternative materials for the high-speed memory chips that let computers access information quickly and that bypass the limitations of existing materials.

They found a straightforward way that allows them to make sense of previously hard-to-read data stored in these alternative materials, known as antiferromagnets. This is done by figuring out what states the materials are configured in. In the past, there were no practical methods to do this.

The results from their experiments, led by Associate Professor Gao Weibo from NTU's School of Physical and Mathematical Sciences, were published online in the scientific journal *Nature* in June 2023.

Researchers consider antiferromagnets to be attractive materials to make chips for computer memory, or random-access memory (RAM), because they are potentially more energy efficient than traditional ones made of silicon.

Antiferromagnetic chips are also expected to store and change data more quickly than chips made from certain magnetic materials, which is useful for resource-intensive computing tasks.

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