Successfully fabricated new conductive 2D materials at the speed of light

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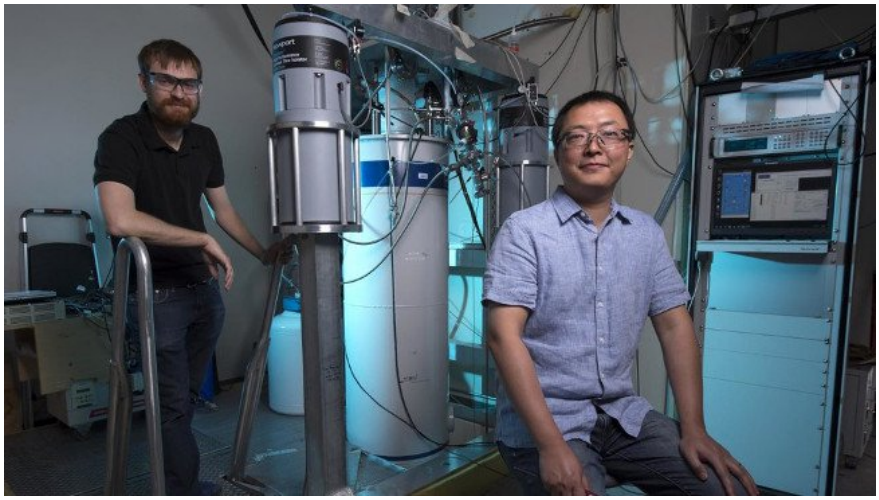
Specifically, Chinese and US researchers have collaborated to successfully develop a new 2D quantum material capable of conducting electricity at almost the speed of light. These materials promise to be used in future generation quantum computer systems.

It is known that the new material is capable of carrying **Major or Dirac data** , containing extremely small charge particles. And most of all, these particles can move close to the speed of light.



"In the end, we can discover strange, advanced theory of physics and create something useful." - Jing Xia, professor of physics and astronomy at the University of California. *"We are exploring the ability of this material to work on topological quantum computers for about 100 years,"* Irvine said in a press release.

The documents, details of this study have been presented in detail in three published scientific papers. And to successfully build this material, Xia and his colleagues had to use the most powerful electron microscope today, Sagnac optical fiber interferometer microscope.

"This microscope is the best measurement, observation, and monitoring tool for this new material," said a graduate student at UCI. *"It is the most accurate way to measure magnetism in this material . "*

The researchers used the above microscope to observe **chromium germanium telluride** , a superthin carbon atomic membrane similar to graphene at a temperature of - 387 degrees F.

Unlike graphene, this new 2D material has high electrical and magnetic properties, making it an ideal material for designing and building computer components.

The researchers also observed the morphology of bismuth and nickel in this material at temperatures of - 452 degrees Fahrenheit. At the precise point of contact of the molecular surface these two substances showed that they were a strange superconductor. breaking symmetrical structures.

"And the last problem is how to make this material work at normal temperatures," Xia said. This will be the third study that scientists must take to overcome the new barrier related to this material.