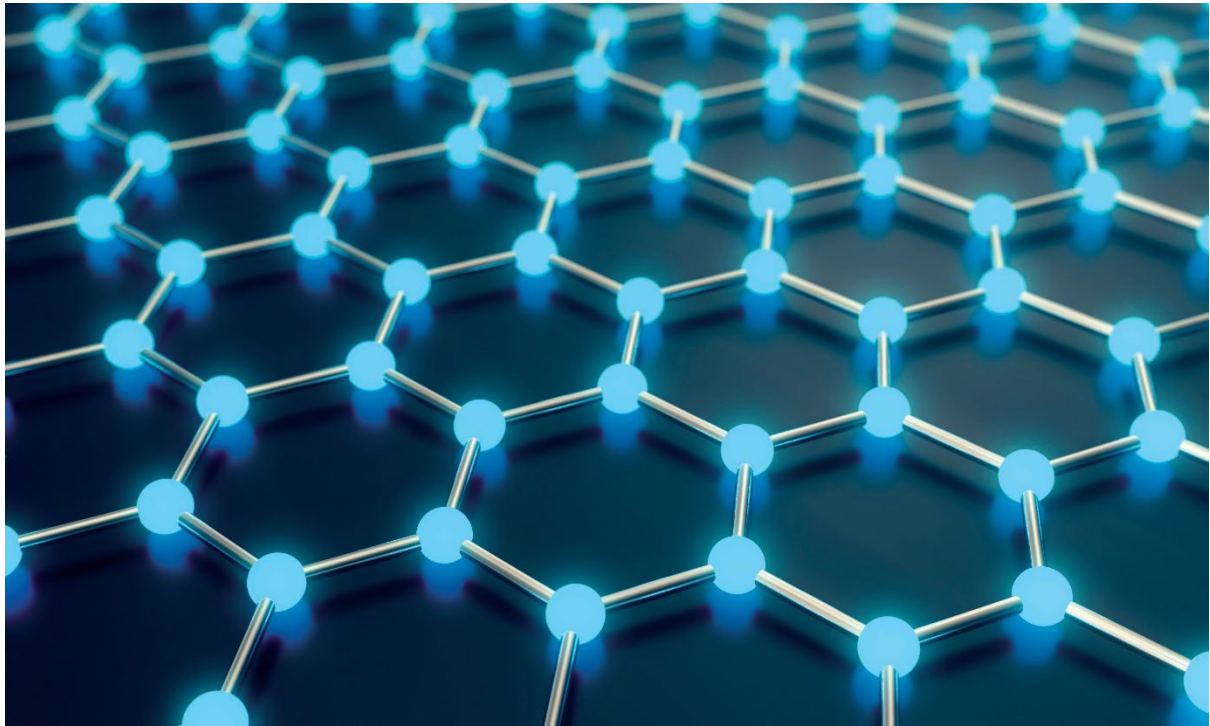


26 November 2024

Quantum Leap In Creating Exotic Materials



Strong interactions between subatomic particles like electrons occur when they are at a specific energy level known as the van Hove singularity. These interactions give rise to desirable properties in quantum materials, potentially ushering in exciting technologies of tomorrow.

Topological materials that allow electrons to flow only on their surface could be promising quantum materials. However, the quantum properties of these materials remain relatively unexplored.

Researchers co-led by Nanyang Asst Prof Chang Guoqing of NTU's School of Physical and Mathematical Sciences have discovered that they could tune the van Hove singularity energy levels of two topological materials, opening the door to engineering quantum materials with novel properties that could fuel breakthroughs in fields ranging from computation to energy.

<https://www.miragenews.com/quantum-leap-in-creating-exotic-materials-1365242/>