

Tuning layered topological materials

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Layered materials are excellent material platforms. Various exotic quantum phases including topological phases, superconductors, correlated state, and magnetism have been discovered in those materials. Owing to the structure characteristics, those materials exhibit great tunability, and the feasibility of obtaining atomically thin flakes, offering opportunities to engineering the electronic properties and phases. This talk will summarize our recent work on lattice and time-reversal symmetry engineering of the electronic states of layered topological materials and related compounds. Interesting electronic states and distinct transport phenomena arising from the coupling between lattice, spin, charge, and topology will be discussed.