**Topological Phase Transition in NaZnBixSb1−x**

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Using first-principles calculations, we study the topological phase transition in NaZnBixSb1−x that happens as the doping concentration x is varied. We show that NaZnBi realizes Z2 topological insulator phase in a tetragonal ABC-type lattice, while isostructural NaZnSb is a normal insulator. By employing virtual crystal approximation, we also show that a topological phase transition occurs by substituting Bi with Sb via the appearance of Dirac semimetal phase at x = 0.45, which defines a topological critical point. We elucidate the electronic structure responsible for the topological phase transition. The evolution of topological surface states is studied as a function of the doping concentration. Our results suggest that NaZnBixSb1−x should provide a new venue for the study of topological phenomena.

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