

Recently there has been some sensational discoveries of experimental realisation of topological materials (Topological insulators/superconductors, 2D/3D Dirac-semimetals, Weyl metals etc.). 2016 physics Nobel prize has been awarded to Thouless, Haldane and Kosterlitz for theoretical prediction of topological states of matter in 1980's. One such real bulk topological material is Cd_3As_2 which is a 3D-Dirac semimetal (have bulk band gap but finite surface states; CB and VB meet at a point in the Fermi surface to form a Dirac cone). We observe, in Cd_3As_2 , a unique existence of **unconventional superconductivity** with an onset transition temperature $T_c \sim 6$ K. Cd_3As_2 was synthesized from the elements by heating in evacuated sealed tubes and was injected with electrons through point contacts between a pure metal (Ag) and Cd_3As_2 . Interestingly, neither the Ag metal nor Cd_3As_2 exhibits superconductivity. This is the first ever (**Nature Materials, vol 15, pp 32-37(2015)**) discovery of superconductivity in a Dirac semi-metal in a quantum mechanically confined region. These materials have intriguing electronic properties and can be related to other exotic states through quantum phase transitions.

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